THE EVALUATION OF MENTAL HEALTH BUILDINGS

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Thesis submitted in partial fulfilment of the requirements of the CNAA degree of Doctor of Philosophy.

February

1984

Collaborating establishment: Department of Health and Social Security

Sponsoring establishment: Polytechnic of North London

D239/J35/KJ

ABSTRACT

The Evaluation of Mental Health Buildings

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The aim of this thesis is to clarify the nature and role of evaluation of mental health buildings, and to make recommendations about the design of mental health buildings and about how they should be evaluated. Reference is made to examples of evaluation work, in particular to work carried out under the Mental Health Buildings Programme in the DHSS.

The thesis is presented in three sections:

Section 1 discusses the concept of evaluation in relation to mental health buildings, and critically reviews many of the ways in which evaluation has been attempted. It is argued that while the term 'evaluation' can be applied to a range of work, evaluation of mental health buildings presents special problems, and, if it is to be reliable, valid, significant and potentially useful, should follow certain criteria. It is argued that these criteria can be drawn from various branches of social science; evaluation can be strengthened by referring to environmental psychology, to the evaluation of social programmes and to service evaluation, and drawing on their approaches.

Section 2 then outlines the aims and development of the Mental Health Buildings Evaluation Programme and reports a selection of data from the evaluation of two DHSS - sponsored 'model' service developments (evaluation of residential accommodation for mentally handicapped people, and of psychiatric day and hospital provision). The programme was set up by the author to evaluate these developments in ways which would produce information of value in future planning and design of mental health facilities, and detailed recommendations are offered.

Section 3 reviews critically the Mental Health Buildings Evaluation Programme work presented in Section 2, outlines subsequent policy developments of relevance and draws conclusions concerning the evaluation of mental health buildings in future.

Participation in Seminars

During the period of preparation of this thesis, the author has attended a variety of lectures, workshops and courses on research methods and on mental health facility planning topics, of which examples are listed below:

Medical Architectural Research Unit, North London Polytechnic

Health Facility Planning Course lectures

Annual conferences of the Social Research Association 1978-1983
Topics covered have included:

Current issues in research/methodological issues/resource and management issues in research/dissemination/health services research.

Social Research Association seminars, eg:

Postal surveys, 29 June 1981
Social research and the policy process, February 1982
Definitions of key variables, 21 June 1983

Women's group of the Social Research Association:

Monthly meetings on feminist research issues since the group's inception April 1983

Association of Professionals in Mental Handicap conferences, eg:

Provision for under 5s, 7 November 1980
Use of the NDG Checklist, 13 October 1981

Centre on environment for the handicapped seminars, eg:

Day care for the handicapped and elderly, 24 February 1981
Housing for handicapped people, 4 November 1981

King's Fund workshops, eg:

Long term psychiatric care, 18 May 1982
Adult Training Centres, 3 June 1982
"An Ordinary Life", 21 November 1982

Informal seminars with other researchers, eg:

Dr Raynes, Hester Adrian Institute, Manchester University, on the development of checklist measures, 21 January 1983

Policy Studies Institute seminar:

Mental Handicap: towards collaboration in local services, 30 October 1981.

Community Projects Foundation - series of workshops on Action Research, Spring 1983

Bristol University Department of Mental Health - conference on housing for mentally handicapped people, 1 October 1982

International seminar on health facility planning, Athens, 12-14 April 1983.

Presentations at DHSS, eg:

Seminar give by Alan Tyne on ENCOR System 1981

Paper given by Wright and Haycox, York University, on costs of alternative forms of NHS care for mentally handicapped people, 8 July 1983

Paper given by Dr Dick (then) Director of the Health Advisory Service, on future trends in psychiatric facilities, 1982

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PLANS

nb: The SDP buildings are too numerous to give all plans, but some plans are included in Appendix C.

Acknowledgements and attributions of responsibility for work

The author is solely responsible for Section 1 and Section 2 of this document.

Section 2 reports work done in Mental Health Buildings Evaluation Programme, directed by Rowan Matthews. She was commissioned by DHSS to initiate and implement the Programme, and was responsible for developing its overall strategy, identifying priorities for evaluation and planning and organising the scope of the research; she co-authored some reports and edited all reports.

The scale of the Programme required contributions from a team of people; grateful acknowledgement is made to team members for their enthusiastic and professional contributions to the research, and especially to Mary Dalgleish, Paul Rooney and Susan Barnes who each took considerable responsibilty in particular parts of the research and a leading role in writing some of the reports quoted in Section 2.

The support by the DHSS Works Group, both of the Programme, and as the collaborating establishment for the present work, is also acknowledged. The DHSS does not, however, necessarily concur with the author's views expressed in this document.

1.0 THE EVALUATION OF MENTAL HEALTH BUILDINGS

Outline

The aim of this document is to clarify the nature and role of evaluation of mental health buildings, refering to particular examples, principally work carried out under the Mental Health Buildings Evaluation Programme in the DHSS. Recommendations are made about the design of mental health buildings and about how they should be evaluated.

The document is presented in three sections.

Section 1 discusses the concept of evaluation in relation to mental health buildings, and describes various ways evaluation has been attempted. It is argued that while the term 'evaluation' can be applied to a range of work, evaluation of mental health buildings presents special problems, and, if it is to be reliable, valid, significant and potentially useful must follow certain criteria. It is argued that these criteria can be found in various branches of social science; evaluation can be strengthened by referring to environmental psychology, to the evaluation of social programmes and to service evaluation.

Section 2 outlines the development and aims of the Mental Health Buildings Evaluation Programme and reports a selection of data (evaluation of residential accommodation for mentally handicapped people, and of day and hospital psychiatric facilities) from the evaluation of two government 'model' service developments. The Programme was set up by the author to evaluate these developments in ways which could guide future planning and design of mental health facilities.

Section 3 reviews critically the Mental Health Buildings Evaluation Programme work presented in Section 2, outlines the recommendations from this work concerning services and buildings, and draws conclusions concerning the evaluation of mental health buildings in future.

1.1 MENTAL HEALTH BUILDINGS AND EVALUATION

1.1.1 What is evaluation?

Discussion of the concept of evaluation, long the province of philosophy, has been undertaken by writers concerned to develop a more sophisticated understanding of the term in the social sciences and in relation to buildings. Harré and Secord (1972) have identified various stages in the process whereby human beings evaluate things: we identify qualities associated with the object; place the object on an appropriate scale; express liking or preference. Others (eg Sears and Auld 1976) have sought to analyse the concept in the more specific context of building evaluation. Klein (1976), arguing that "evaluation is both poorly defined and often improperly used" (p.15) presents various definitions used by other writers or national bodies. He concludes that the fundamental division within the various uses of the term relates to whether the investigation involved is based on scientific methods or not, although the definition he himself finally adopts is not apparently linked to this distinction:

> "Evaluation: the determination (whether based on opinions, records, subjective or objective data) of the results (whether desirable or undesirable, transient or permanent, immediate or delayed) attained by some activity designed to accomplish some valued goal or objective (whether immediate, intermediate or ultimate)" (p.2)

For Hillier and Leaman, (1972) evaluation is the investigation of what they see as the four main functions of any building: modifying the climate; containing activity; changing the use of resources; and a symbolic or cultural function. For Baynes, Langslow and Wade (1969) "design-oriented evaluation" covers two sorts of investigation: "whole building studies" and "cycle of activity studies". Bishop (1978) distinguishes what he terms "theoretical" from what he terms "practical" appraisal, discusses various approaches in terms of these two characteristics and concludes, in a frankly prescriptive statement:

> "Appraisal (ie evaluation) is surely about testing whether the designer's priorities (objectives) are reflected successfully in the building and about whether the designer's priorities were right in the first place" (p.45).

From these fleeting references we can see that writers are likely to adopt and recommend definitions and descriptions of evaluation which reflect how they feel the activity of evaluating should be conducted. Rather than list and critically compare definitions offered by a variety of writers, in the abstract, it may be more useful to refer critically to particular ideas about, and examples of, evaluation work, in our present attempt to understand the evaluation of mental health buildings. In the process of so doing, it will be noted that different terms have been used by different writers to refer to the investigation of buildings, 'research', 'monitoring', 'description', 'analysis', 'appraisal', etc, as well as 'evaluation'.

This document is concerned primarily with the different ways people have investigated buildings, rather than with which of such terms they favour. No particular significance need be attached to the use of one such term rather than another at this stage, except where attention is drawn to terminological differences to indicate difference in approach.

It should be noted that evaluation of 'technical' aspects of buildings (eg engineering, structures) is not dealt with in this discussion, which focusses on the building in relation to how it is used.

1.1.2 What are mental health buildings?

For the purposes of this document, the term 'mental health building' refers to any building (purpose-built or converted) used for people (patients, residents, clients, trainees) receiving psychiatric services or services for mentally handicapped people. Even this broad definition tends to exclude a few situations which should fall under the scope of this document. Services can be provided in environments which are not buildings at all, yet may, as physical environments, be expected to have an influence on users: in a sparsely populated area of Yorkshire for example, day services for mentally handicapped adults are run in a bus. Some 'users' of services are not receiving services directly - such as parents of mentally handicapped children - and some users are receiving services but are not, strictly, mentally ill or mentally handicapped such as the recovered psychiatric client in a day centre, for example.

The environments and services discussed are normally provided by health authorities, local authorities or voluntary groups, although authorities for facilities abroad are obviously different. The emphasis in this document is on current provision, particularly that which is relevant in planning future provision; no attempt is made to trace historical development of mental health buildings as this has been done elsewhere (eg Thompson and Goldin 1975)

1.1.3 Why evaluation of health buildings is necessary

The need for evaluation arises primarily from the fact that the physical environment does affect people; it is one of various factors which impinge on human beings and affect their behaviour. The White Paper Better Services for the Mentally Ill (DHSS, 1975b) refers to a "growing recognition of the relationship between behaviour and the environment" (p.1). There are indeed examples of such influence in the literature: to take one specific example, the effect of noise on speech discrimination. Levels and type of sound in institutions can provide an acoustic environment which makes the already impaired abilities of residents worse (Gentry and Zimring, 1979). This is not to say that manipulation of the physical environment is by itself a sufficient condition for improvement of mental health settings. There are many examples of mental health settings in which attempts to manipulate users' behaviour by control of how particular aspects of the environment are designed have either failed, or worked only if conjoined with attention to other aspects of the overall situation. Sanson-Fisher, Poole and Thompson (1979), for example, report how an attempt, by design means, to decrease territorial behaviour by nurses, excluding patients from their nurses' station, failed. They comment:

> "... changes to physical design alone will not prevent staff or patients from establishing areas in which they discourage interaction between the two groups. In this study it was found that the nurses' station, while structurally open, was nevertheless predominantly utilised by staff members. Such findings suggest that there also has to be a change in the therapeutic intent of staff members before the observed territoriality can be altered" (p.330)

In a different but related context - the design of environments which will decrease crime - Mayhew, reviewing the literature for the Home Office (Mayhew, 1979) concludes that

> "the results of the work described ... do not suggest that judicious architecture is the key to a crime-free environment" (p.156); "Social variables need to be considered alongside design" (p.157).

The physical environment may be one of several factors which have to be considered if the desired effect is to be achieved. Murphy and Zahn (1975), for example, report an attempt to improve self-help skills of severely and profoundly retarded people in an institution by improving the environment and staff ratios. Self-help skills increased significantly only if, as well as these changes, behaviour modification training was give to the residents.

So there is evidence that the environment does affect us, and also evidence that other factors come into play. The power that the environment does have is a primary spur to evaluate, to understand how it does so. Evaluation then involves a struggle to disentangle the role of the environment in the complex of factors affecting use of any given building.

In understanding the effects of buildings, common sense is not always enough. Sometimes common-sense assumptions turn out to be correct: Adams (1971), for example, evaluated the effects of decreasing space between hospital beds and showed that it did indeed lead to the anticipated difficulties. But often common-sense assumptions turn out not to be correct, and Klein (1976) has commented on the dangers of untested common sense. In a comparative study of wards at St Thomas' hospital, for example, (Noble and Dixon, 1979) researchers were surprised to find that older 'Nightingale' wards were in some ways more popular with patients then were newer, smaller wards. In another study (Seelye et al., 1981) the 'common-sense' assumption that nurse travel time is affected by the design of the ward was shown not to be the case.

Brill (1974) has suggested that every new building should be seen as a hypothesis. That is, as a prediction about how the existence of the building will change something. He views evaluation in architecture as poor, and regards "each building as a poorly planned 'experiment' whose 'hypotheses' are neither explicitly stated nor tested" (p.316). Zeisel (1981) gives various examples of designers' or planners' predictions about user response which were not confirmed; more frequently, of course, they are not even tested.

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Many of the reasons which have been put forward for the need for evaluation are to with justification and accountability, sometimes in the reactive sense of countering attack, whether direct or implicit attack. Bishop (1978), discussing the need for building appraisal, talks of failure of building performance and "glaring mismatches between intention and result, with the natural consequences of demand for more Appraisal [evaluation]" (p.6) Baynes, writing a few years ago (Baynes, 1969) claimed:"There is no doubt that all over the country mistakes in hospital design are being perpetuated", and refers to examples revealed by evaluation. The design of general hospitals may have subsequently become less hazardous, with increased central control of the planning and design process (eg DHSS 1974), the development of data banks (eg Activity Data Base information, DHSS 1982) and the development of standardisation of certain building types but in the mental health field problems are different and mistakes are perpetuated (see, for example, Section 2).

Various writers have commented that the archi tectural profession on the whole has neglected to address itself systematically to building users' needs. Klein (1976), for example, comments that in architecture:

> "Scientific research has been limited to the areas of physical structures, building materials and assembly of components, with a limited amount of work done on user needs, occupancy requirements, habitability and environmental health. This longstanding neglect of the occupant and his needs has begun to reach a level of public awareness... "(p.10).

Lee (1976) notes that although architecture is now concerned with function as well as aesthetics, architectural critiques are still dominated by criteria which are to do with form and creativity for their own sake, and "objective assessment of human behaviour" (p.45) to buildings is still rare.

The need to evaluate is related in various ways to money. Many writers have observed that the decrease in funds available for public services have been accompanied by an increasing public pressure for accountability and demonstration that money is well spent (Klein, 1976; Bishop, 1978;) and Raynes (1981) quotes from Zigler and Balla (1979) the view that governments spend large sums of taxpayers' money providing services which, though fashionable,"the future may inform us were little more than passing fads" (p.52). Money that is spent on mental health buildings is spent on <u>behalf</u> of users, rather than directly <u>by</u> users as can be the case in free-market housing; this makes evaluation all the more necessary. In a complex health care service it is often the building that is the easiest, quickest and cheapest element to improve - staff training, for example may be much more problematic - once evaluation identifies problems.

There are many reasons for evaluating which are connected with future developments. As Baynes, Langslow and Wade (1969) say, we need to show what works, so that good ideas can be re-used. Bishop (1978) talks of the need for evaluation to "influence future practice" (p.5); Wing (1972) describes how evaluation can contribute information of a strategic or tactical kind to planners.

An Oxford Regional Hospital Board (1970) document on evaluation sums up the hope that evaluation results will 'feed forward':-

> "The concept of evaluation as the last stage of the lengthy hospital planning procedures embodies the hope that the effectiveness of earlier work can be measured and the experience gained transferred to the planning of later projects. The result of evaluation should be a steady, monitored improvement in the outcome of planning" (p.1)

Friedmann et al. (1978) discuss the need for evaluation and suggest criteria for establishing which buildings should have priority for evaluation. The criteria they list point out some of the reasons why mental health buildings, in particular, require evaluation:

> "Settings which are constructed or otherwise subsidized totally or in part with public funds;
>
> Settings such as factories, work places, prisons, hospitals and psychiatric institutions, where the users normally have little input into the design process or control over their lives;
>
> Settings which affect many people and are likely to be frequently replicated ...." (p.20).

The White Paper Better Services for the Mentally Ill (DHSS, 1975b) referring to the importance of evaluation of services for policy purposes, identifies particular services about which information is lacking - residential and day care services in the community - and states:

> "As these services expand it is important that they should be systematically evaluated, and different approaches, for example units of different size, alternative patterns of staffing, compared" (p.81; present author's italics).
>
> Such evaluation clearly involves building evaluation.

It is sometimes argued that evaluation is particularly useful at any time when a degree of direct repetition is likely in planning further buildings. Baynes et al. (1969), and Klein (1976), for example, both relate evaluation to standardisation. While it is particularly regrettable if avoidable mistakes are copied for lack of evaluation, it is not the case that evaluation information is only relevant to other circumstances if they are very similar.

There is a wider role for building evaluation in contributing to what Baynes et al.(1969) calls "general principles about the relationship between a hospital building and its users" (p.18), what Bishop (1978) refers to as 'theory', what Raynes refers to as "the development of psychological and sociological theory" (p.206) and what Bishop (1978) calls adding to "a body of building - type knowledge" (p.5)

1.1.4 Who is evaluation for?

A wide range of interest groups has been identified as the potential audience for evaluation of a building, including planners, designers (particularly architects) contractors, management, users and people living nearby (eg Baynes et al. (1969), Wing (1972), Klein (1976)

Bishop (1978) and Raynes (1981). In some cases interest groups will be interested in evaluation results even where they are not personally connected with the building in question, because they can benefit from generalisable aspects of the findings.

The most likely audience of this kind is policy-makers, and building guidance writers, discussed in some detail below (Section 1.5). A further interest group is frequently overlooked: the evaluators themselves. The process of investigating the success or otherwise of a building can offer a considerable education in the "procedures and problems of planning and design" (Baynes et al., 1969) but because evaluation often requires some time and trouble from a wide range of people involved with the building, it is unlikely that an evaluation purely for the purposes of enlightening the evaluators themselves would be justifiable.

1.1.5 Comparison in evaluation

Comparison, of various sorts, is the essence of evaluation of mental health buildings. If we take a particular building, X, we may for example: compare X with other buildings of a similar building type; compare the predicted effects on users of X with what actually happened (eg whether the spaces are used as expected); compare X before and after modifications; compare X to other design solutions to the 'same' problem (eg different buildings produced under the same Building Note, although not necessarily of the same building type); compare effects of X with effects of earlier provision in the same locality provided under previous policies; compare X with what was specified in its brief; compare capital and revenue costs of X with those for other relevant buildings; and so on.

Wing (1981) argues that "evaluative research always incorporates some external criterion against which the success of the service is assessed.... Evaluation always involves comparison" (p.261) He contrasts evaluation, in this sense, with what he calls "monitoring", which, while it can "identify problems and suggest innovations" (p.273) is basically only descriptive and cannot show if the innovations work; for this evaluation is necessary, involving "outcome criteria and an appropriate research design" (p.261) Distinctions of this sort, and the question of how, and what, to evaluate, are discussed in detail below, so are not approached further here. However, comparison of one sort or another is a theme common to all evaluation.

1.2 TRADITIONAL APPROACHES AND OTHER MODELS

1.2.1 Early work in the evaluation of mental health buildings

Until comparatively recently most written evaluation of buildings, including mental health buildings, can be seen as falling into one of three categories: popular and professional journalism; 'Grand Old Man' statements; specialist investigation.

Professional journalism

Articles in the popular press tend to focus on 'shock' stories: the building which is spectacular for its novelty, expense, or, particularly, failure. A building which is both somewhat novel and produces unexpected and unpleasant effects on its inhabitants appears to have a particular chance of being evaluated for newspaper readers - witness the frequent references to problems (both structural and human) in high-rise buildings. The professional press, aimed at design professionals, is similarly intrigued by failure: as an example, consider the report of a new Canadian Broadcasting Company building (Ferguson, 1975). It was headed:

> "BLOW HOT, BLOW COLD: Maison de Radio-Canada's heat re-cycling sytems seems technically flawless, but in one day, as many as 40 people suffered from headaches, nosebleeds and vertigo."

The report goes on to give technical details about the innovations designed to recover heat from the electrical equipment and to use it to warm the building, and to report that the tightly sealed, windowless building has led to staff illness, as recorded by the centre's own health department stat istics.

This account exemplifies a tendency in the professional press to be sophisticated in relation to technical aspects of a building (engineering systems, structure, etc) while comparatively naive in relation to the building's effects on people. The article's theme is that technical innovations have led to illness, but it seems likely, (from other details given), that the staff's reaction is not simply to the physical environment per se, but also to changed styles of working and to management attitudes. The article draws unwarranted causal connections.

Professional journals tend to concentrate on considerable detail about design, engineering and costs, since these are of immediate professional relevance to designers, engineers and quantity surveyors. Such information is mainly factual and it is clear how it could be checked. The measurements of a room for example, or the colour of a door, are 'hard' data.

Some personal comment by the article writer may also be included on the aesthetics of the building, but it is usually clear that this is personal comment, to be distinguished from objective reporting on the design, engineering and costs. However, when journal articles attempt to evaluate the success of a building in relation to its users, confusion can arise. User reaction should be assessed objectively, but is often assessed by only the rapid personal impressions of the article writer; sometimes the reactions attributed

to users turn out to be pure speculation, since the building was reviewed before it came into use! There is a great danger that in the absence of real evidence about user reactions, the writers eithergive their own personal speculations, or report the planners' and designers' expectancies, as if they were realised - as, for example, a brief review of a hospital unit for severely mentally handicapped people (Williams, 1977) written very soon after it opened. Williams stresses the building's aesthetic attractions (from the viewpoint of the writer not that of the users) and what effect the design was intended to have on the users (but with no clear evidence as to whether it did in fact do so). Subsequent detailed research (referred to in Section 2) presents a very different picture.

There are many examples in the architectural press of reports on interesting design ideas aimed at meeting the specific needs of mentally ill or mentally handicapped users, but reported in a way which could only satisfy a very uncritical reader. As an example, consider a report in the Architectural Review (Green, 1978) on an assessment centre for mentally handicapped children. He lists a series of interesting assumptions about the effects of colour on such users, describing colours used to create particular atmospheres or effects on behaviour. Colour-coded WC doors are intended to reduce incontinence, and staff areas are in neutral colours in the building so that attention is not diverted from the children's environment; colour elsewhere in the building is reported as being 'exciting' and 'stimulating' (p 259). However, no research was done to establish whether these assumptions about how the physical environment (colour in this case) affects users' responses were born out. There is no information as to whether incontinence did decrease, whether attention was diverted from staff areas, or whether anyone was excited or stimulated. This is frustrating enough, but what is more worrying is the likelihood, given the manner of reporting (eg "The Day Centre is an exciting, stimulating and challenging ... environment ..." (p 259)) that readers will believe that what are interesting attempts to influence users have been shown to work.

In an American architectural journal, in an article (Liebowitz, Lawton and Waldman, 1979) dealing with a different type of user - confused elderly people - we see a similar confusion of fact, assumption and comment. In this case post-occupancy evaluation was conducted, but the effects of many of the interesting design aims were either not researched or not printed:

> "Confusion about time is counteracted by providing a view of such spaces as the dining and occupational therapy areas, where specific activities provide clues about time" (p 59)
>
> "door jambs and bedroom colours are coded to help the resident distinguish his or her own room from others" (p 59)
>
> "Ample bedroom storage space for clothes and possessions, it was hoped, would help motivation to dress and choose clothing" (p 60)

There is no indication that any of these assumptions were investigated, to establish whether they turned out to be right.

Other assumptions in the same article are followed through: it is reported that the objectives of increasing users' "participation in enriching activities" and "interest in the physical surroundings" were shown in the evaluation to have been successfully realised. However the reader is not given any details of how the evaluation was conducted, and so remains unable to assess the validity of the methods used. This lack of supporting technical data contrasts with the greater technical detail on structures, costs, etc., commonly provided in the architectural press.

It has been suggested (Kennedy, 1978) that North American journals have few articles on the architecture and design needs of the developmentally handicapped, in relation to the number of relevant buildings being built and the literature available in other countries; if this is so, it limits still further the readers' attempts to gain an understanding of the effects of the design of mental health buildings and their users from design journals.

Professional journal articles can be thoughtful and raise interesting issues - as does for example a report on two old peoples' homes (Jenks and Bacon, 1978) - but resources are rarely sufficient for a reliable look at user reaction. There are further problems in the coverage of buildings by professional journals. It usually concentrates on a single building, which limits the possibilities of comparison. Certain categories of building tend to get more exposure than others: Special Hospitals, for example, cannot be fully covered because access is restricted. Old buildings are rarely considered unless there is renewed professional input to convert or rehabilitate them. The popular press, by contrast, does at times refer to old buildings, as with the series of 'scandals' about old mental illness and mental handicap hospitals in the 1960s and 1970s. Here the popular press interest in the "human angle" leads to more coverage than in the professional journals, which are primarily concerned with what directly relates to the current work of professional designers.

Architectural and other professional journals sometimes consider important issues concerning the relationship between the physical environment in mental health buildings and the life of the users. A review, in Architects' Journal, (Anon., 1978) of a hostel of mentally handicapped people, describes how the size (20 places), and the facilities (linen store, utility room etc) specified in the brief made nonsense of the same brief's demand for 'homeliness' and 'domesticity'. The main part of the review is written by a well-known campaigner for improved services, Alan Tyne. He skillfully uses the opportunity to argue for the kind of services he supports, and to draw readers' attention to the effects of design on daily life in such a building as he sees them. He draws on his personal experience and beliefs and comments in a way which may well rouse interest among architects, but is not supported by research in this building. As an article, it is interesting, but it is not an objective evaluation of the building under consideration, and was probably not intended to be.

A certain amount of unpublished and unpublished evaluation work is carried out in local government architecture departments, but, as Bishop (1978) points out,

> "At the technical level, (water penetration, wobbly hinges etc) there are many local authority client departments which appraise and feed back results very formally, but few do this in terms of environmental, human or aesthetic performance. Comments are often made, but they remain ad hoc". (p19)

In general, as Bishop (1979) has shown, many local authorities do not even encourage architects to visit their own buildings when complete.

Health Authorities too tend to seek feedback about buildings of a technical, rather than a service-linked kind. This is understandable in that the procedures for assessing the technical performance of a building are well-established, and the professional skills needed are potentially available among existing staff. There is at present no guidance from central government as to how buildings should be evaluated, even as regards major buildings where there is central control of planning. An important document on the control of the planning process of major or health buildings, Capricode (DHSS 1974), states that evaluation should be a normal part of the planning sequence for health service buildings, but offers little advice as to how this should be conducted.

It is difficult for architectural practices to finance and organise anything but the most casual evaluation of buildings they have been concerned with. There is no tradition of including a percentage for evaluation in the design fee, and although groups exist (Financial Times, 1982) with expertise which could be made available to practices wanting research conducted to give objective feedback, such work is rare.

"Grand Old Man" statements

Some of the most frequently cited informal evaluation of buildings has been the work of a few individuals with considerable experience in particular aspects of mental health services and design. Their evaluations of mental health environments are drawn from informal observations, often over many years. The validity of such evaluations is dependent on the writer's own personal insight; they are not reporting studies on user reaction in a way that can be checked (replicated) by someone else.

Bettleheim, a psychiatrist with long experience of working with disturbed children, believes that the physical environment affects children, therapeutically or otherwise. He makes specific recommendations about details of design from which, he considers, the child will 'read' certain messages about the attitudes of those who care for him or her. He believes, for example, that money spent on repeatedly repairing broken fittings may be necessary and positive therapeutic expenditure: the child will learn that the patience of the carers is long.

Bettleheim has firm and detailed views on what the physical environment of psychiatric facilities should be like, and how the physical environment has an important place in expressing the continuing respect of the therapist, and the institution as a whole, for the psychiatric patient. He believes that psychotic patients are very sensitive to the symbolic meanings of environments and, sometimes on a subliminal level (p 91), infer from aspects of the architecture and furnishings how their own worth is seen by others. If a psychiatric facility is sited in the country, the patient may feel that he is being shunned, put away out of sight. Bathrooms should be very carefully designed so that any feelings of self-disgust patients have about bodily functions are not reinforced by an environment which looks as if it is designed more for easy cleaning than to cossett the user. Single bedrooms are a middle-class custom not meeting the needs for company of child patients; but as personal territory is necessary, dormitories are divided into areas which can be 'defended' by the patient arranging possessions in them. Overall, the environment should indicate generosity, trust and respect. It is better to risk damage and breakages than to show by an environment which is 'hard' (to use a term employed elsewhere by Sommer, 1975) that patients are expected to be careless and destructive. Very subtle information can be conveyed by the environment: Bettleheim describes the main reception room at his residential school as containing a mixture of conventional furniture (sofa, chairs etc) and exotic items (a rocking horse, a throne, a crib etc) and thereby conveying the idea that everyday life and fantasy are to be reconciled.

Bettleheim's enormous enthusiasm and thoughtfulness are well communicated by his persuasive writing. His views on what environment is appropriate are, as he says at times himself, based on personal experience:

> "our experience has shown that the nicer and more attractive the surroundings we create for patients, the less deliberate or careless destructive behaviour takes place" (p.95, my italics)

When he 'evaluates' the environment of his school he does so in the context of his own system of caring for and treating children with psychiatric illnesses, and of his enthusiasm and experience. The 'guarantee' supporting the assertions he makes about the effects of aspects of environment on users is in fact a guarantor - himself. Insofar as we trust him, we may believe what he asserts. However when we wish to evaluate generally, and to look for links between the environment and how users respond in environments beyond the particular environments which he describes, we will need some other way of going about things.

The effects of a charismatic individual, and the difficulties of replicating effects which may be due more to the charisma of that individual than to his or her system, have been succintly described by Medzey (1972). He is writing of psychiatric systems of care generally, but his point would apply also in particular to the role of the physical environment as part of a system of care:

"The effectiveness of any system of care, and particularly of a psychiatric one, is greatly influenced by factors which are difficult or impossible to quantify. These are the qualities of enthusiasm

and drive of capable leadership which are transmitted to the members of caring professions that make out the psychiatric team (Arie, 1971). A new departure in the organisation of medical care often has a built-in Hawthorne effect,* particularly when the leader of the team is also its initiator. The general applicability of the particular method depends, however, on its intrinsic characteristics without assuming more than average qualities of leadership." (p 54).

In the same way the role of the physical environment as part of a whole way of therapy which Bettleheim describes may depend on the leadership of Bettleheim himself.

Another well known worker in the mental health field is Kenneth Bayes. Like Bettleheim, he has had long involvement and shown energetic concern in his chosen field; in Bayes' case, this is the field on mental handicap and from a background of architecture. Drawing on his personal convictions and experience, Bayes has lectured and written extensively (eg Elliot and Bayes, 1972) on what the environment for people with mental handicaps should be like. The recommendations reflect enlightened thinking at the time of writing; for example, the "ideal size" for a living group is given as eight to twelve (p22), a size which would not seem large to many people as an ideal. Bayes ability to communicate in a simple and authoritative style appears to have spread practical information about what accommodation can be provided, but it has to be noted that the justification given for what he recommends is not derived from rigorous evaluation. It is by reference to what he believes to be 'good practice' in the design of the physical environment that he seeks to influence; it is not usually by reference to formal research evidence on the effects of particular aspects of design on the lives of mentally handicapped people.

In a somewhat similar way, the very influential earlier writer on mental health institutions, Erving Goffman, sought to persuade by calling attention to current practices. In his case, detailed description of bad practice was a means to encouraging better practices (Bettleheim, and Bayes, concentrate perhaps more on calling attention to good practice, either actual examples or what could be the case in ideal conditions). The enormous impact that strong accounts of personal observation can have can be measured by the great number of citations of Goffman's key book, Asylums (1961), in writings in the field of mental health over the subsequent twenty years. Goffman's book includes personal 'evaluation' of physical environments; see, for example, his 'Places , territories, privacy and control' in 'Hospital Underlife' (part two of Asylums).

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*the term "Hawthorne effect" refers to the fact that when any authority introduces a change, positive response on the part of the receipients may be due not so much to the nature of the change per se but because they feel that the change demonstrates that the authority is considering their needs.

The 'Grand old man' style in evaluation, exemplified by Goffman, Bettleheim and Bayes, depends very much on the personal intuition and charisma of the individual. It is very different from more formal research of the sort referred to later (see 1.3).

Specialist investigation

Various bodies and authorities involved with mental health mount investigations part of which could be termed building evaluation. At a national level these include the Health Advisory Service, and the Development Team for the Mentally Handicapped.

The Health Advisory Service (formerly the Hospital Advisory Service) is an NHS body, advising the Secretary of State for Social Services about conditions in hospitals and seeking to propogate good practices and new ideas (DHSS, 1971a).

The remit of the Development Team for the Mentally Handicapped, (Development Team for the Mentally Handicapped, 1982) is to "offer advice to health and social services authorities in England on the planning and operation of their services for mentally handicapped people." The team "draws on the expertise of doctors, nurses, social workers, psychologists, administrators and patients from all over the country, and is in a unique position to offer practical advice and guidance and to disseminate information about imaginative schemes and experiments". (piii)

The Health Advisory Service is an NHS body and the Development Team is an independent body but both are concerned with service standards and the implementation of government policy in health care; their interest in the buildings is secondary, although their recommendations do include reference to the standards and appropriateness of the physical environment.

Reports on individual hospitals are confidential, but in their annual reports general statements about environmental criteria are made. The Health Advisory Service for example, has stated (DHSS 1971a)

> "buildings and spaces should encourage and facilitate the development of good human relationships ..... this implies the need to have some small area for each patient ...." (p.10)
>
> "any ward of over thirty adults restricts therapeutic opportunity ..." (p.11)
>
> "Many of the psychiatric hospitals for the mentally ill which have been visited have been excessively large and sited very inconveniently to the population they serve ....." (p.21)
>
> "some smoke prevention doors in the hospitals for the handicapped have been installed in such a way that patients have lost fingers when pasing through them in their day-to-day affairs" (p.28)

The Development Team's most recent Report (DHSS 1982b) includes recommendations on size of units, siting, how space is used, and furniture and fittings.

The process of investigation with both these bodies is informal and depends on the expertise of the members of the investigating team. It is not formal research, in the sense of using standard measures and allowing replication by other investigators. Check lists may be used, but largely as an aid to individual team members in the pooling of the experts' opinions which culminates in a confidential report to the unit investigated. Unlike normal research reports, these reports are not usually made public. There are some parallels between specialist investigations and the 'Grand old man' approach to evaluation identified above: a dependence on the experience and expertise of individuals rather than on universally accessible and replicable methods, and evaluation of the physical environment as incidental to evaluation of the quality of service received by clients. An advantage common to the two bodies used above as examples of specialist teams is their access to a wide range of buildings. National bodies of this sort benefit from having the authority (albeit under certain constraints) to evaluate a wide range of buildings of different types, and a number of buildings similar in various respects. In this, evaluation possibilities are richer than they are for most individual researchers. National bodies such as the Health Advisory Service and the Development Team are likely to have more money available to them and to have better access to goverment policy-makers compared to those carrying out evaluation for journals or newspapers. On the other hand they share with the press the need to respond to pressure for 'results' in a limited time: both the Health Advisory Service and the Development Team have a largely "trouble-shooting" role, and neither are in a position to plan and mount lengthy evaluation projects. The Development Team in particular has recently been criticised for inaccuracies in its reports (eg Community Care, 1983).

A further limitation arises from the sequential nature of such team's investigations. The nature of their work, and the size of the Teams, is such that units are looked at one at a time. The information produced therefore covers a wide time-span, and this can make comparison between facilities difficult.

Both groups are regarded by policy-makers within DHSS as important in providing qualitative information about national services. Such information is seen as an adjunct to the quantitative information available from statistical returns (eg size of units, cost per inpatient day, etc). The two sorts of information are seen by DHSS policy branch as very different, and this leads to the question of whether information about quality of services (and buildings) can be evaluated with some of the comparative objectivity and reliability of the ways in which quantitative information (statistical returns) are presently recorded.

1.2.2 A scientific approach

It has been argued above (1.2.1) that many of the ways mental health buildings have been evaluated have led to information which is very limited in scope or in which it is difficult to have full confidence. For more comprehensive valid and reliable information about how

buildings affect their users and the service offered in the building, evaluation has to take the building (rather than other aspects of the situation) as its focus, and be objective and thorough, using techniques which can be made accessible to others. What is needed is an approach to evaluation which draws on the social sciences, in particular environmental psychology, and sociology, especially those branches concerned with social programme and service evaluation. A multi disciplinary approach is particularly appropriate because these disciplines are, for present purposes, complementary. Each can contribute to improved evaluation but neither is wholly appropriate in itself. The 'weaknesses' (in relation to evaluation) of the one can be corrected from the strengths of the other.

1.2.3 Environmental psychology

Environmental psychology is a relatively new branch of general (academic) psychology. Like general psychology, it looks at human behaviour and experience from a scientific viewpoint - ie not by speculating about human beings but by investigating and doing so using established procedures and objective measures to get unbiased information. But whereas general psychology has tended to ignore the physical environment and its effects on people, environmental psychology takes this as its focus. Psychology usually tries to minimise any 'intrusion' of influences from the environment - in experiments in a psychology laboratory for example, factors such as temperature, or interesting views which might affect what is being investigated, will be controlled. In environmental psychology, by contrast, the effects of factors like temperature or interesting views on how people behave and what they feel would be worthy of investigation in their own right.

Environmental psychology looks at how the physical environment affects what people think, feel and do. The range of topics included under the discipline of environmental psychology is immense: it includes not only evaluation of users' responses to buildings, but the effects of environments of many different scales, from cities to seating arrangements. The approach and methods of environmental psychology derive from psychology, but have developed some specific techniques of its own (see 1.4.4).

Environmental psychology is concerned with what people do, say and think in response to environments. This is not to assume that the physical environment totally determines human beings' actions and feelings, but rather to assert, as Lee (1976) succintly puts it:

> "that the physical environment is one of the sets of influences bearing upon behaviour judgements, receptions and emotions ..... Conversely, we have powerful forces at our command to shape the physical environment. Hence, at both individual and governmental level in so far as we learn to understand the consequences of ma. n-environment interaction we shall be more capable of shaping our own destiny. The present limitation is our own ignorance" (p. 23).

In its early days environmental psychology was known as architectural psychology. The scope of the discipline has widened but the influence on people of how buildings are designed remains one of its major topics, and building evaluation falls within the subject area of environmental psychology. Building evaluation from the standpoint of environmental psychology stresses the perceptions, attitudes and behaviour of users in relation to the building, sometimes developing procedures to gather and/or interpret data (eg Honikman, 1971; Canter, 1972; Ittelson, 1976; Sears and Auld, 1976). Some environmental psychologists have sought to develop theories or concepts by which patterns of human response to the environment can be isolated and understood; some of the main concepts which have emerged are "sociofugal and sociopetal space" (a means of categorising spaces according to whether they foster or discourage the formulation of relationships (Osmond, 1975); "the environmental docility hypothesis", according to which the environment determines behaviour to a greater degree as the physical, emotional, social and economic competence of the individual decreases (Powell Lawton, 1974); territoriality (part of a range of techniques used by the individual to produce the desired level of social interaction - (Altman, 1975); Personal Construct Theory (a technique for describing the unique way the individual perceives his or her world - Stringer 1974, 1976).

There has been and continues to be considerable debate about the theoretical foundations of environmental psychology. One main issue has been how far there is a need to develop theories: is it enough to continue with an empirical approach - simply collecting data correctly - or is it necessary to establish theories which unify existing data and direct future research - and if it is, is this possible (eg Lee 1970)?

The development of concepts such as those referred to has contributed to conceptual clarity in building evaluation (eg Ittelson, 1970, dealing with privacy, territoriality and choice) and has encouraged the development of particular techniques in building evaluation (eg the introduction by Stringer (1970) of the "repertory grid" technique); but a significant issue in the debate about the theoretical foundations of environmental psychology remains the question of whether its approach is, or should be, positivistic, particularly in relation to the evaluation of buildings. It has been argued (Harris and Lipman, 1980/1) that environmental psychologists assume that there is "a determinate relationship between form and function, that there is a relationship of direct dependence between physical environment and behaviour". This leads to seeing the evaluation of buildings as a matter of collecting value-free, neutral facts about building design which can be offered as neutral 'technical' information to those who want to engineer the lives of building users. This approach ignores two vital components in the situation: firstly, that people respond to the environment as they perceive and understand it, not as machines respond when buttons are pressed, and secondly, the critical role of power structures in influencing what happens in a building . There is also a third associated point: the need to question whether what the building is designed to 'do' to users is in fact appropriate or desirable. Harris and Lipman raise as a particular example (which exemplifies all these points) a building intended to encourage family groups in

a community house for children (also a common intention in design of mental health residential facilities). Their research showed how mistaken this attempt was: far from being "desirable, beneficial for all and self-evidently wholesome" (p.140) the intended 'family' relationships were inappropriate. Staff attitudes and practices and the childrens' needs were in conflict and the naive notion that quasi-families could be fostered by design was not supported.

This brief excursion into some of the theoretical issues in environmental psycology indicates that, as in any science (and particularly in any social science) there is more involved than simply collecting data objectively. However, for the purpose of establishing the contribution of environmental psychology to the evaluation of buildings, we can concentrate at this stage on three characteristics of environmental psychology which contribute to building evaluation: its rigour in research, its general orientation towards users, and its development of techniques. Some of the other issues referred to above will, however, recur in later sections.

We turn here to a consideration of social programmes in relation to an understanding of how buildings should be evaluated.

1.2.4 The Evaluation of Social Programmes

The evaluation of social programmes investigates the effectiveness, efficiency and/or equity of social welfare projects in fields such as education, employment, housing and health. The process is not easy: Abt (1976), writing of the difficulties, comments:

> "Evaluation research of social programmes can depend very little upon proven theories. Opportunities to stimulate, observe and test behaviours of social groups under carefully controlled conditions are limited. The nature of the data being collected usually requires a lengthy and costly survey. Political realities and decentralised decision - making processes, particularly in education, health and housing, often negate the impact of evaluation on policy decisions" (pp 13-14)

Abt is writing of the American situation, where the late 1960s and early 1970s boom in social programmes was particularly marked. Jeger (1980) has underlined how funding and accrediting agencies increased their demands for accountability over this period: by 1975, for example American legislation required federally funded mental health centres to conduct programme evaluation, with an obligatory two per cent of operating funds allocated for this.

The transatlantic scale of development of social programmes, and a pressure to demonstrate results, stimulated work on methods for evaluating programmes. Such problems involved have exercised researchers in the UK too, but as Bulmer (1982) notes, the aims and claims of programme evaluation are such that full blown examples here are not common. The research design is experimental (or at least quasi-experimental). As Bulmer (1982)writes in his useful review of the uses of social research, programme evaluation tends to be

"the type of applied social research with the most rigorous research design, based upon the logic of experiment .... the use of such designs is intended to enable precise measurements to be made of the effects of independent upon dependent variables, with the emphasis on controlling the situation in which these effects are observed... the research is designed to observe and report on changes actually occurring in the world, either as a result of policy intervention (whose effects it is the task of the research to study) or as a result of changes built into the design of the research (that is, the research itself actually involves social intervention on a small scale in order to study its effects" (p 159).

Typically, this involves five stages, which resemble the classic experiment:

"a. find out the goals of the programme being evaluated

b. translate the goals into measurable indicators ...

c. collect data on these indicators for ... those ... who have been exposed to the programme

d. collect similar data on an equivalent group that have not been exposed to the programme

e. compare the result for the experimental group and the control groups ..." (p.159)

It is scarcely surprising, given the difficulties of following these very stringent requirements in real world conditions and on a large-scale, that such work is rare: the main examples are American, and not in the field of mental health (eg the "Head Start" project (Zigler 1979), an experiment to test the effects of positive discrimination in education for disadvantaged children; New Jersey negative income tax research (Kershaw and Fair, 1976) in which tax conditions were manipulated experimentally). In the field of mental health there has been as yet no work of equivalent scale and rigour.

There are various problems of research methods, which while not exclusive to programme evaluation, are particularly apparent in this field of work. One is conflicts of aims, interests and language between various groups, particularly between those responsible for planning the programme, those responsible for operating it, and those responsible for evaluating it. Aspects of this problem have been well described by Patton (1977), Weiss (1972; 1980) and Wing and Hailey (1972).

A second is the difficulty of establishing acceptable criteria by which to evaluate. In evalution of all kinds deciding what 'counts' as 'good', 'successful', 'effective' etc., and how to measure it is often a central problem, but because of the scale of operations in programme evaluation, and the need to account to a wide audience, problems can be particularly acute.

Raynes (1975) refers to the fact that the compensatory education programme "Headstart" takes as a main criteria IQ and language ability. On these criteria the Headstart programme produced results (albeit temporary, since children later regressed to the level of the control children) but the criteria themselves are far from value free. By valuing IQ and a particular linguistic system, the childrens' own culture is implicity devalued. The criteria on which this programme evaluation is based may therefore be unacceptable to some.

A third problem arises because of the fact that, in a truly experimental research design, some people who are potentially users of what the programme offers are deliberately not offered it; they form the control group. This raises moral problems as to whether, even for such a laudable purpose as research, it is acceptable to contrive a situation whereby of two people both with similar needs, one receives a service and the other does not.

Scale and an experimental approach characterise programme evaluation, and these aspects are of importance in considering how buildings should be evaluated. Where social programme evaluation work is achieved in spite of the difficulties, we see how an experimental model can be fitted to real world events. Where compromises are made and the approach is only quasi-experimental, we can consider the ways in which the real world refused to 'lie down' under experimental manipulation, the consequences of this and how justifiable the final research approach was. From a consideration of the social programme research notion that the large-scale experiment is the ideal approach to understanding cause and effect we can begin to see the difficulties, and the conditions under which it is not feasible.

There are further characteristics of social programme research which are of significance in developing ideas about evaluation of buildings: social programme research is concerned to demonstrate degrees of sucess (or failure) of a policy or policies and to convince officials with authority to take decisions on the validity and relevance of the research findings. The evaluation may provide information enabling those responsible to correct or improve details of the programme immediately under scrutiny, but if that was all that was at stake, elaborate research designs would not be fully justified. The main objective is to establish whether a programme could work elsewhere. It follows that the "audience" for evaluation results is wider than those immediately involved, and is potentially very varied: some of the potential audience may not know of the existence of the programme until they are informed of the results of the evaluation. It cannot be assumed that because a programme is large in scale, and has been evaluated following a stringently experimental design, everyone to whom the results are relevant will, when presented with the results, be interested, will understand the results, will interpret them in the same way and will make appropriate decisions in accord with the new knowledge available. There is an important lesson here for mental health building evaluation and the issue is discussed further below (see 1.5).

In parentheses, reference should be made to the work known as impact assessment. The American enthusiasm, referred to above, for establishing the ramifications of innovations has in one way been taken to extremes with the concept of "impact assessment". While a project is still in its planning stage, antici patory research attempts to answer questions about the future impact on the population involved (Bell et al., 1978).

This work has often been concerned with environmental impact - with 'measuring' as clearly as possible what the effect of particular changes in the environment (such as new roads or other changed land use) is likely to be on various social subgroups in the population which would be affected. From one point of view, such evaluation propter hoc makes sense - the concentration of research effort before any change is introduced should save money by preventing mistakes, and this general principle is equally applicable to programmes of all sorts. However the evaluation of anything before it exists presents great difficulties; in the end, the conclusions remain speculative - a guess, if an educated one. The conceptual and technical difficulties of impact assessment have been considered in detail by a Department of the Environment Report Department (Clark et al., 1978). In relation to evaluation of mental health buildings we can note the concept as an interesting extention of the belief in the need to evaluate interventions.

It is curious also to note similarities with some evaluations or appraisals in architectural journals, where a building's impact is "evaluated" before it is in operation; although the procedures of impact assessment are more sophisticated, they too rest finally on speculations about the future.

From a consideration of social programme evaluation and its relevance to the evaluation of mental health buildings we turn next to a consideration of service evaluation.

1.2.5 Service Evaluation

Service evaluation can be seen as an assessment of the quality or effectiveness of the resources offered in relation to achieving particular service goals. Where services are provided for groups of people who may be particularly vulnerable, as is the case with mental health services, there is clearly an especial need to ensure that the services are appropriate and effective. Some of the recipients of services for mentally ill or mentally handicapped people are not articulate - people with senile dementia, for example, are frequently too confused to express their needs and views coherently; many severely mentally handicapped people have little or no speech. The series of scandals over the past few years (eg Ely Hospital: HMSO, 1969; Normansfield Hospital: HMSO, 1978; Rampton Hospital: HMSO, 1980) has underlined the need for scrutiny of conditions to ensure quality of care in situations in which it is difficult or impossible for service recipients to react as service consumers can do when the service in question is available on free market terms. Few users of mental health services have much choice of services, so the services are not evaluated by users "voting with their feet".

Service evaluation is also necessary for purposes of accountability. Public money is expended in enormous sums and what service this money buys needs to be demonstrable. As Porterfield (1982) has argued, there is evidence that in practice there are serious problems with the claim of accountability and what accountability does exist is often not firmly related to quality of service. However, the only logical way to justify expenditure is through some form of service evaluation.

Mental health is a field characterised by continuing shifts in policy as ideas about treatment, and about the very nature of handicap and illness, change; service evaluation is therefore necessary not only to justify expenditure but in order to check whether practice is in fact reflecting policy: does it really make any difference, for example, if government policy is in favour of a particular new development in services offered, or do the services run on basically unchanged? Central government has to monitor the effect of policy shifts and policy initiatives to see how viable they are in practice, and in relation to future policy development and to planning future services. Authorities locally also need to understand, for their own purposes, how their services are working.

The service evaluated may be new, but service evaluation is often also carried out on established services, particularly where comparison between various situations is thought to be useful.

The term 'service evaluation' covers a vast range of investigations, from the evaluation of large-scale service changes, which could on occasion be described as social programmes, to research on comparatively circumscribed service issues.

The sheer volume of work in this field makes it possible to concentrate in the examples given below on evaluations conducted in the mental health field. Given this range, there is a corresponding variety in the reasons for doing the evaluation, the audience for whom it is intended, and the approach and methods. The examples below demonstrate this.

As a first category, we may identify broad survey work, in which a particular type of service is described. Such work may not be labelled as evaluation by its authors, but where much of the description is, inevitably, in value terms, such work in effect evaluates. Recent surveys of Adult Training Centres (Whelan and Speake 1977), of Day Care (Carter, 1981) and of hostels for mentally ill people and mentally handicapped people (Ritchie, 1983) are all examples of surveys in which the question of the nature of the service and care offered forms an important part, and the comparisons made between the service offered in various cases included suggests a degree of evaluation, in some cases quite explicit.

Surveys of this kind can obviously be helpful at the stages when a new service has developed and there is a lack of information as to how it is working. Often in the mental health field developments, even if within the general framework of central policy development, tend to be ad hoc; the development of Adult Training Centres, day care and hostels for example has been locally organised and varies

greatly from place to place. Development of these services has been in the context of national policy statements both official (DHSS 1971b; DHSS 1975b) and unofficial eg (National Development Group, 1977) but without central control. The variety of provision that can ensue in such conditions leads to a need to gather information. (By contrast in a social programme there is some overall control, whatever the conflicts amongst those responsible).

The Adult Training Centre survey (Whelan and Speake 1977) for example, was done at a time when "little was known about the operation of ATCs, how they [staff] perceived their purposes, facilities available to them, or support received" (p.10).

Whelan and Speake managed to include 305 ATCs, a 78% sample, and covered a wide range of issues.

In the national day care survey done by the National Institute for Social Work (Carter, 1981) about 2,600 day units were identified in England and Wales, and a picture was built up of what they were offering to which catergories of clients, and with what aims.

The survey by Ritchie and Keegan (1983) on housing for the mentally ill and mentally handicapped is a further example of an attempt to track down all examples of a particular type of service about which comparatively little was known. Identification of all such provision was difficult because of difficulties of definition and large numbers of controlling authorities, and of premises, involved. Again, basic questions about the role and facilities were asked. A small sample of schemes were selected as case studies for close investigation.

As a second cateogory of service evaluation, we will consider work in which two or more cases are compared in detail to show how particular variables affect the service. The general aim here is to look for associations ie to find out what affects services in general, rather than to assess and give 'marks' to a particular service or services. However such work is not neutral - it is usually hoping to demonstrate how services can be improved. It follows that the questions which such work addresses include value questions. There has been an enormous amount of such work.

Sainsbury and Grad de Alarcon (1974) for example, were among the first researchers to tackle seriously the question of how families are affected if a relative who might otherwise have been in hospital continues to live at home, under the 'care in the community' principle whereby treatment in an institution is seen as a last resort. Sainsbury compared the burden on families with a psychiatrically ill member, in an area which had a hospital-centred psychiatric service, and in an area which had a community-based psychiatric service, using a semi-structured interview with the "responsible relative" of a sample of patients.

Work by King, Raynes and Tizard (1971) and Raynes, Pratt and Roses (1979) shows other important examples of evaluation which is based on comparison and aimed at revealing general facts about services.

In some cases the comparisons made between different services are sufficiently structured to be considered as very like real experiments. That is, the situations, although they are 'real-world' situations (hospitals, childrens' homes etc.) can be controlled in relevant ways so that the influence of the one factor which is of special interest stands out clearly. (See 1.4.2).

The work of Tizard (1964) is particularly well known in this respect. The 'Brooklands' experiment was designed to show whether a more stimulating environment would be beneficial: children who had previously lived in hospital went to live in a small residential unit, with better staffing. Tizard reported that, compared to 'control' children still in hospital, these children did show improvements, such as greater verbal development.

More recent work known as the ELEMR project (Knight et al., 1978) provides another example of work in which services are evaluated with a view to improving future provision - in this case there was a very direct effect on design guidance. The evaluation of the Project was supported by a grant from the American government and involved a longitudinal study of one institution for "developmentally disabled" (ie mentally handicapped) people. The authors believe that the research helps "elucidate some of the underlying relationships between environments and behaviour that affect the normalization process" (p.ix) and draw from it recommendations for designers, such as that design should be such as to offer an appropriate level of "opportunity for control" (although they are wary of recommending widespread adoption of the particular floor plan which was most successful in their evaluation, possibly because it appears subjectively to be at odds with their anti-institution philosophy). The recommendations had an influence on design guidance.

The use of standard measures

The development of standard ways of 'measuring' a service has been a major feature of service evaluation in the mental health field. The use of standardised measures has obvious advantages: it allows comparisons between different situations and reduces subjective bias in judging situations. Measures, (variously called checklists, schedules, scales, assessments, indices etc) have been produced to measure or assess the quality of the service either as such, or via various factors which are seen as contributing to quality of service. Such measures are discussed later (see 1.4.4) but at this stage some categorisation of measures is necessary as part of our attempt to clarify the relationship between evaluation of mental health services and evaluation of mental health buildings.

We can distinguish three catergories of measure: measures which assess the individual user of the service; measures which assess various aspects of the service itself; measures of the environment. Examples mentioned here are for the most part drawn from work on mental handicap services. The general distinctions made apply also to services for people with mental illness, but the issues are in some ways easier to disentangle in relation to mental handicap. For a mentally handicapped person, progress is a question of gradually building up physical, social and intellectual skills. With mental

illness, there may be more dramatic changes - a sudden worsening of the illness or rapid improvement related to treatment or spontaneous remission. The pattern may be more erratic than the typical pattern of development of a mentally handicapped person, and this complicates any attempt to look at how services and buildings have been evaluated by use of measures, and the relationship between these two categories of measure. The first category, measures of the individual user of services, includes procedures for assessing physical, social, 'self-help' and intellectual abilities.

It could be argued that since the ultimate objective of any intervention in mental handicap services is to influence the condition (health, capacities etc) of individual users of the service, it is measures of individuals which, paradoxically, are the most logical way of assessing the effectiveness of a service and/or a building. If we want to show that building X is more appropriate than building Y, for example, the most convincing justification may be to move one group to building X and a second matched group to building Y and compare the capacities of the two groups. However, there are complexities here. Some measures of individuals are relatively independent of the immediate physical environment in which they are taken: measures of I.Q, for example. This is not the case with other measures, such as social competence or self help. The abilities of individuals in social situations, and their abilities to help themselves in matters such as washing, telephoning etc, depend in part on the situation they find themselves in. If there are no telephones they cannot be measured as able to telephone. (Further difficulties are mentioned in 1.4.4).

On a more subtle level, it is likely that the ratings made of some abilities, particularly relating to social competence, will be influenced by the demands of the setting: a given individual may seem less able in a setting which offers more opportunities. In the bleak and institutional setting of an old hospital, for example, the individual may appear more competent than when in the more normal environment of, say, a smaller group living in an ordinary house, where the expectancy is for a higher level of abilities in social interaction (CUSS, 1976) In considering the second and third categories (measures of the service and measures of the environment) we find still more complex links between the physical environment and other considerations.

The category of measurement of the service covers a wide range: it includes how the service is organised; daily practice; "life style"; quality of care; quality of life. It is notable that some such measures include, in their list of questions, questions specifically about the physical environment. Two well known North American systems for assessing the quality of service, PASS (Wolfensberger and Glenn 1975) and ACRMDD (Joint Commission on the Accreditation of Hospitals, 1978) both include items asking about the physical environment.

Details of the physical environment are therefore used as one sort of indicator of the nature of the service, or of the quality of care users of the service receive.

The third category is the environment itself. Some writers have produced procedures for assessing "the environment" but have meant by this not so much the physical environment but the social environment. The scale produced by Moos (1974) to measure "treatment environments" - the "Ward Atmosphere Scale" - in fact deals with the social "climate" of the ward: how far it is supportive, how far controlling, etc and is more appropriately seen as a form of service measurement. Other measures, such as Gunzburg's "39 Steps" (Gunzburg, 1973) measure in part the physical environment, but in part operational practice as well. The work of Gunzburg and the later and more sophisticated work of Raynes et al. (1979) are among the best known measures of the physical environment used in Britain. This type of work shows clearly that such measures are not 'neutral' descriptions of what the physical environment includes; they are vehicles for evaluating, against a particular criterion: that of "normality". Many service and environment measures take as their overall criterion the objective of "normalisation". This concept has been extensively debated in its subtleties (eg Harre and Secord, 1972; Ward and Comery, 1978) but is broadly accepted in the mental handicap field. However, in relation to evaluation of the physical environment it raises a major dilemma, which will be to returned to later: is the intention that the environment itself should be normal (in the sense of 'like that of non-mentally handicapped people') or is the intention that the environment should be such as to increase the 'normality' of its users - ie should it be a prosthetic, if abnormal, environment?

Environmental psychology, programme evaluation and service evaluation

Service evaluation shades into programme evaluation, on the one hand, and on the other it shades into work which evaluates the environment in relation to the service; work described in Section 2 is evaluation of environments in relation to the service. Such work in turn has overlaps with a further type of work: research on specific issues concerning the effects of the environment on people. In this type of work the intention is not to evaluate a service, or an overall environment in relation to the service, but to look at limited questions of how the environment affects people. Moos (1976), for example, researched the effects on interaction of partitioning large wards into smaller units. Glenn, Nerbonne and Tolhurst (1978) looked at the effect of noise on the language ability of residents in a residence for mentally handicapped children. Each of these examples could be seen as falling within the orbit of environmental psychology.

Thus we have considered various social science disciplines or approaches (environmental psychology; social programme evaluation and service evaluation) and find overlaps and relationships amongst them and between each one and the evaluation of environments or buildings.

At this stage, we can résumé the potential usefulness of the various approaches discussed.

Environmental psychology inherited from psychology a tradition of rigour and objectivity in research. It focusses specifically on the physical environment, and has developed techniques, additional to those in general psychology, specifically appropriate to the study of the physical environment.

Social programme research can particularly contribute to the development of mental health building evaluation approaches in its comparative sophistication on matters such as conflicts between programme planners, operators and evaluators, on criteria for evaluation and on ethical problems where an experimental design of research is used, and on the need to consider what the research is for - ie how to contribute to related future decisions.

Social programme evaluations however, typically, ignore the role of the physical environment; it is as if the researchers believed that people live their lives in a vacuum. Service evaluation of mental health services includes work which does consider the environment and such work has produced measures of relevance to mental health building evaluation.

In different ways, environmental psychology, social programme evaluation and service evaluation each contribute to an understanding of how the evaluation of buildings can be conducted. All three contrast with the informal evaluation, conducted by the architectural press, in 'grand old man' statements and the specialist team investigations referred to earlier as dependent on personal views (albeit sometimes expert views) rather than formal research. Helpful though such informal work can be, if often lacks objectivity, depth and/or a focus on the role of physical environment per se. However the disciplines of environmental psychology, social programme evaluation and service evaluation are capable of providing a useful corrective to these inadequacies.

1.3 Criteria for the evaluation of mental health buildings

In Section 1 reference has been made to some of the limitations and strengths of particular ways of evaluation. From this it is now possible to draw to-gether what the main characteristics of evaluations of mental health buildings should be - to suggest general criteria.

Firstly, mental health building evaluation should focus on the physical environment, yet it should take as the point of concern the role of the environment in the delivery of mental health services. Some of the work mentioned above has taken only a secondary interest in the contribution of the physical environment, being more concerned with the service as its focus of interest (eg the specialist teams referred to). In other of the work mentioned above the physical environment has been the focus of interest but its role in the delivery of services is not adequately treated (eg some building appraisals in architectural journals).

Secondly, there is a need for a rigorous approach: the investigation should be done in an objective way, using methods which are available to others. Impressionistic comments can be interesting, particularly when their source is an individual with considerable experience (eg the 'Grand Old Men' referred to) but, in general, reliable, bias-free evaluation has to depend on a less personal and more structured approach. (Environmental psychology, social programme evaluation and service evaluation are relevant here).

Thirdly, appropriate selection from the range of possible research approaches and techniques, in relation to their strengths and weaknesses; environmental psychology is relevant here. This is discussed in more detail in section 1.4 below.

A fourth requirement has been referred to so far only fleetingly: the need to evaluate in a way that is responsive to the needs of decision-makers; this is discussed in section 1.5 below.

1.4 METHODS AND MEASUREMENT

In 1.4 we shall consider four parts of the evaluation process: the approach to the evaluation (1.4.1), the design of the evaluation (1.4.2), the quality of the evaluation (1.4.3), and the techniques used (1.4.4). These questions are distinguished for purposes of clarity in discussion but in practice are closely interwoven.

1.4.1 Evaluation approaches

By reference to two writers on the subject, Zeisel and by Zimring, we can see that the approach to evaluation can be informed by an interest in establishing links between variables for either theoretical or applied purposes, can be informal or more precise, can be 'neutral' or action research and can be situation specific or aimed to give generalisable information.

Zeisel (1981) distinguishes four types of approach to evaluation: theoretical, diagnostic, descriptive, and action research. We can consider these in the light of examples drawn specifically from evaluation of mental health buildings. Firstly, evaluations may use a "theoretical" approach and look at the relationship between people and a particular building or buildings in order to test or refine a certain theory: an example relating to mental health buildings would be work by Raynes et al. (1979,) testing whether there is a relationship between size of a certain type of residential facility and the way residents are cared for. Secondly, evaluators may look at a building in a more global, non focussed way, simply to increase their general understanding of it: this is what Zeisel describes as a 'diagnostic' approach. Many evaluations begin by such an informal stage. He distinguishes a "diagnostic" approach from a "descriptive" approach in which one or more characteristics of the environment and their relation to a defined group are described and measured more precisely; using clear concepts. Zeisel's final category of approach is action research, in which the aim is to make lasting changes on the situation studied and to monitor and analyse them (see 1.4.2)

Zimring et al. (1980) categorise approaches to evaluation into three dimensions, according to the "intended generality" of the research, its "breadth of focus" and its "intended timing of applicability". The evaluation may aim for different degrees of "intended generality" ie for results which are either situation specific (for example how to re-arrange a particular ward) or of more general relevance (what the spacing between beds in all wards should be). "Breadth of focus" in the approach can vary from considering a single issue - for example the question of which sorts of houses lend themselves more readily to conversion for use as hostels for psychiatric patients, as did Seelye (1976) - or they may "cast a wider net and attempt to characterise more completely the complex social and physical workings of a setting" Zimring (1980 p.433). Zimring's final category, "intended timing of applicability" refers to whether the evaluator is seeking findings of immediate or long-term use.

1.4.2 Design of the evaluation

The general approach which the evaluator takes (1.4.1) will affect the design of evaluation. In considering design, the first major distinction to be made is that between the experiment and other designs.

The Experiment

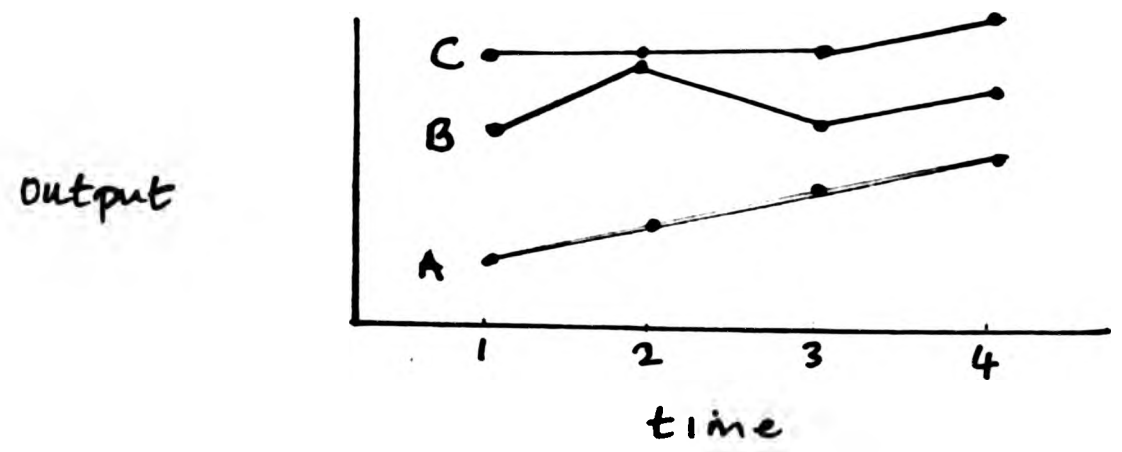
The experiment is viewed by many researchers as the only way in which to be sure that what we think causes changes we observe really is the cause. In an experiment, there is a hypothesis that two things are linked causally. In order to set up a true experiment, certain very demanding requirements have to be met. In its simplest form, there have to be (at least) two groups of people only one of which is exposed to the environment being evaluated. The other group acts as the 'control' group. People are randomly allocated to the experimental or to the control group, so that by comparing the results between the experimental group and the control group, we can be sure that any effects on the people in the experimental group really are caused by the environment being evaluated (rather than due to pre-existing differences between people in the two groups or to random changes not related to the experiment). For example, to investigate "experimentally" whether the design of a particular new psychiatric unit encourages greater activity levels of patients as compared to an old psychiatric hospital, it would be necessary to allocate all referrals randomly between the two buildings over a certain period of time. This presents ethical problems. Moreover a true experiment requires that all influences other than the one under investigation (the building design) are identical in the experimental and the control group (for example staffing, operational policy, community links, etc).

In the real world (as against the laboratory) it is usually impracticable and/or unethical to seek an experimental design. However there are various "quasi-experimental" designs in which many of the advantages are maintained (such as the possibility of drawing causal inferences, or at least of generalising: see 1.4.3) and this is discussed in detail by Campbell (1979). Probably the most used type of quasi-experimental design is that using a control group (sometimes called a comparison group), selected so that the people in it 'match' those in the experimental group in all relevant ways, but this assumes that it is possible to guess what are all the relevant ways! For example, suppose we were assessing community reaction to a new mental health building built in the community. We could select an "experimental" group from the area in which the building was to be sited, and ask them about their satisfaction with their surroundings, before and after the building was built. We could select a comparison group elsewhere in the area, matched for age, sex, and socioeconomic status, expecting thereby to be able to show what difference (if any) to community satisfaction with the surroundings the new building made. However, there could be influences at work which we had not suspected - for example, it may transpire that a high proportion of one group were professionally involved with architecture, or with mental health, which may affect their views. If so, the apparently 'matched' group would not adequately match the experimental group.

Nevertheless, the use of matched groups can be successful. Tizard (1960), for example, evaluated the effect of the environment on mentally handicapped children using a matched comparison group. Acker et al. (1978) evaluated a psychiatric hostel by comparing its residents' life with that of a control group of hospital patients. Kushlick (1968) compared children randomly allocated to hospital and to small homes, with similar operational polices in each case.

The second main quasi-experimental design is by time series, that is by taking measure of what we are interested in at several points in time, in order to spot and discount irrelevant effects. Suppose we measure "output" (see 1.4.4) of the mental handicap services before and after the opening of a new hostel for mentally handicapped adults, and find that it has apparently increased; time series measures enable us to see whether the increase is really due to the new unit. Fig 1 below show three possible patterns produced by measuring output at several points in time. The change between time 3 and time 4 can be attributed to the opening of the unit only for C. In A, there is a gradual overall increase, in B an up and down pattern. The time-series design prevents us assuming that the change between time 3 and time 4 in itself means anything.

Fig 1 Time series design: measures of output before and after opening of a hostel (hypothetical example)



An alternative quasi-experimental design is to compensate for naturally occurring changes in the environment not only by measuring at several points in time but also by manipulating the situation. For example to test the hypothesis that distance to the WCs affects incontinence rates in a psychogeriatric ward, the distance could be varied and the incontinence rate measured at (say) four different distances. If the distances to the WCs were set successively at the following: 15 metres, 25 metres, 25 metres, and 15 metres, the measured pattern of incontinence resulting would indicate whether the hypothesis appeared correct.

The overall problem with which all these designs attempt to cope is the interference of factors beyond the researcher's control, which may confuse interpretation of the measures made. It is sometimes possible to find or create situations in which such interference is minimised.

Sometimes events in the real world lend themselves to quasi-experimental design. An American evaluation of the renovation programme of a school for the developmentally disabled (the ELEMR Project), took advantage of a staggered building schedule to allow unrenovated buildings to serve as 'natural' comparison groups for renovated buildings, and to control for general changes in the school (reported in Friedmann et al., 1978).

Sometimes a particularly prestigious evaluator can successfully use a current situation and make suggestions which result in a quasi-experiment. Kushlick (1968) worked with the Wessex Regional Hospital Board at a point when expanded services were needed. The Board agreed to try experimentally a different pattern of service in different parts of the Region. Two alternative types of provision could therefore be compared: the traditional all-age hospital, and 20 bed residential homes taking all severley handicapped children in a particular area who required residential care. Kushlick persuaded the hospital authorities to implement the same operational policy as had been drawn up for the homes. Thus the two environments were made as similar as possible. Matched groups of children were compared to see what effect the two types of service (hospital or residential home) had on the children.

Researchers vary in the degree of which they are committed to an experimental/quasi-experimental approach in evaluation work. Riecken (1976) for example, discussing the evaluation of social programmes, feels experimentation is preferable because it enables us to eliminate plausible alternative explanations and to examine effects in detail. Jeger (1980) sees the utility of experimental designs as the "key controversy" (p.229) in research design in the field of community mental health. However while the 'true' experimental design of a control group and pre and post measurement is ideal, the many problems and limitations of this approach have, he points out, led to considerable acceptance of a more flexible approach. Tizard (1974) identifies difficulties in an experimental approach to evaluation of services for mentally handicapped people: the difficulty of achieving adequate numbers of replications, and the limited time scale over which evaluation is normally possible. Wing (1972) presents the experimental design as the ideal in relation to evaluation of mental health services, but adds:

"...useful comparisons can sometimes be made by taking advantage of the fact that two or more services have developed along different lines in some specifiable respect. The difficulty is that it is impossible to be sure that the same processes are at work in selecting individuals for treatment in the services being compared even with retrospective or prospective matching. Short of controlled experiment, however, this design is often the best available....." (pp 34-5)

Wing goes on to describe some of his own research in which three mental hospitals, each providing a different social environment, were compared to see if the patients' clinical condition was affected. He concludes:

> "In every case change in the social environment was accompanied by the hypothesised changes in clinical condition (even when those changes were in different directions in different hospitals). Thus a strong case was built up for a causal connection between social and clinical events" (p 35)

Raynes (1981) believes that an experimental approach is currently necessary as regards residential services for the mentally handicapped. She writes:

"It seems to me that we have arrived at a point in the development of knowledge about residential services for the mentally handicapped, and their effects, which calls for two kinds of studies, neither of which corresponds to the comparative, descriptive and correlational studies which have been the source of knowledge to date; namely, experimental and longitudinal studies ... to ascertain the feasibility of effecting change to improve services ... and ... to assess the effect of various types of care on client growth and development" (p.209)

McKnight (1980), reviewing research on residential units for mentally handicapped people, complains that

> "Few studies have bothered with a control group, many have not even looked at more than one sample.... (p.1)

Zeisel (1981) makes a similar observation about applied behaviour research in general:

> "Experimental design in applied behaviour research seeks to approximate the control of a laboratory experiment but does not because of real world restrictions" (p.70)

However, many researchers find merit in both experimental and non experimental designs. Bynner (1980) for example, writing about evaluation studies, argues:

> "The power of the randomised experiment to eliminate rival hypotheses to the one under test has to be balanced against the narrowness of its focus" (p. 316)

He distinguishes three major approaches: the experiment, the survey and the investigation (or case study). He suggests that:

> "the survey makes up for some of the deficiences of the experiment with respect both to the range of measurements that can be encompassed by it and the scope of its generalisations....." p 316

and argues that moreover psychologists preference for an experimental style may be at odds with the kind of information decision-makers seek (see Section 1.5).

Sinclair and Clarke (1981) discussing evalution in the context of penal research believe that "cross institutional" research is often more appropriate than experiments. Cross-institutional research involves a detailed description of a number of cases and comparison between them, measuring aspects of interest in a quantified way and correlating these measures with outcome. They argue that random allocating in experiments imposes dangerous artificialities on the situation studied and often cannot explain any correlations it does show.

Weiss (1972) describes two non experimental approaches: a before and after study of a single case, and an ex post facto approach (ie simply studying the situation once) with or without a non-random comparison group. Clearly a design which measures the situation before the change as well as afterwards and which has even a non-random comparison group is relatively stronger, since any effects of unrelated external changes will show up as such.

In the health field, we can find an example of adopting both these strategies in Carp (1966) who investigated the effects of housing on the elderly's need for medical services. She tested all applicants applying to Austin Housing Authority and found those accepted were similar in all respects measured (age, health etc) to those rejected except in their degree of housing need. 'Post' testing showed that those accepted (on the basis of housing need) had, after moving in, a decreased desire for medical services, whereas the amount of medical services required by those not accepted increased.

This constitutes a non-experimental design, since the comparison group was not random - or fully matched - but nevertheless presents reasonable grounds for believing that the new housing affected either health or morale of the residents.

Weiss (1972) proposes a further possibility: cross programme research. In this, a number of different programmes are applied to a number of different communities - for our purposes, an equivalent example might be a range of different buildings providing a particular mental health service, set up across a range of communities.

Fig 2 Cross programme design

		type of building				
		1	2	3	4	5
type of community	1					
	2					
	3					

Weiss admits that this is an expensive design, and since people are not assigned randomly, or 'matched', it is not experimental or quasi-experimental. However she argues that where major decisions among alternatives are to be taken it is advisable, and certainly where there is a large-scale committment to developing a number of buildings, the additional cost of organising development as above may be comparatively low.

The Survey

Given limited research resources, a trade-off is needed between the number and the depth of the investigations made. At one extreme there lies the very detailed study of say, a small number of buildings or parts of buildings, whether in a quasi-experimental design or otherwise. At the other extreme there lies the broad survey of a large number of situations, giving more data but of a more limited nature. The survey has been defined (Rossi et al., 1979) as:

> "Systematic collection of information from large study groups, usually by means of interviews or questionnaires administered to a sample of units in the population" (p.82)

The survey as a method of getting information can provide wide coverage relatively cheaply and presents less complex and subtle problems than those of many other approaches, but it also has limitations and weaknesses. There are many points at which lack of expertise can lead to expensive mistakes: it is very easy for example, to formulate questions which appear sensible but are misunderstood (Belson, 1981) or to fail to administer proceedings efectively (Hoinville, Jowell and associates, 1978), and a low response rate can lead to unreliable data.

A survey of requirements for hostel accommodation for mentally handicapped people (Reed, 1975), conducted in good faith but without expertise, exemplifies some such problems. In particular, the response rate was very low - 48% (possibly because parents misunderstood the purpose of the survey, and thought their child might be put in a hostel without their consent), and some questions were ambiguous eg. "Is your son or daughter in need of a wheelchair?".

The survey (full or sample) is the only appropriate method where a main question is how extensive a particular phenomenon is. The survey is the only practicable way of discovering how widespread certain mental health facilities have became. In the 1970s day care facilities, previously rare for many types of client, greatly expanded. Carter (1981) did a sample survey of such provision which gave useful, if necessarily limited, information about the type of clients and services involved in the units included in the survey, and could be assumed to represent the national picture in general terms.

More recently ordinary housing for mentally ill or mentally handicapped people has become an expanding form of provision. The Department of the Environment mounted a full national survey - that is, attempted to trace <u>all</u> provision falling in this category (Ritchie, 1983). There were invevitably difficulties in definition of the category, and some uncertainty as to how many examples may have remained undiscovered. Surveys on the scale of these two are comparatively rare because of the demands they make, but they can be especially useful where services are developing and there is a lack of information about the extent and nature of the development. Paradoxically, at such a time of change survey information can also easily become out of date - it may 'date' even during the time required to handle the mass of data and present it in published form.

<u>Action research</u>

The team "action research" has been interpreted variously. For some workers, the term indicates simply that findings from evaluation are fed back to those responsible for related future design decisions. Zeisel (1981), for example, describes as action research a number of projects in which researchers "made visible for designers both positive and negative consequences" (p.63) of design decisions.

For some workers, action research involves more than this - it involves the deliberate participation of the researchers, seeking to provoke changes which they believe are desirable, and it is often social problems which are the focus. In discussing action research in Britain, Town (1973) refers to it in several ways:

> "the knowledge and research techniques of social science ... combined in a practical application to plan and achieve change" (p.573)
>
> "systematic attempts to use the interplay of action and research as the basis for promoting planned change designed to deal with social problems" (p.573)
>
> "a challenging application of social science to the solution of social problems, by combining the knowledge and research techniques of social science both to discover solutions and to provide scientific evidence of their efficacity" (p.574)
>
> "an action research project becomes a demonstration of what is possible .... findings of the projects then become a means of advocacy for this measure as part of national policy" (p.576).

The 'campaigning' element of the work can be in conflict with the normal requirements for objectivity and detachment in research. In the mental health field perhaps particularly, researchers often have personal views about what services are desirable, and sometimes put considerable energy into improving services. If the same group of researchers seek both to stimulate change and to log the consequences, they may face a clash of responsibilities. If, for example, the implementation of the service improvements appear to run into difficulties, are they to remain on the sidelines, objectively logging the events as they occur, in order to describe the failure of the new service in a way that may help in future situations? Or are they to get involved personally and seek to ensure that the new service gets started, thereby abandoning the neutral research role? Informal discussions with research workers often show how serious this dilemma can be, but the problem does not always get reported in the literature.

Action research lacks the neatness and predictability of many other forms of research. Town describes a major action research programme in which the pattern of research intended at the onset was largely abandoned because the researchers, during the course of the project, came to see the problems differently. New practices seemed desirable and yet could not, because they emerged ad hoc, be assessed as planned.

The conflict between research and action roles has been well described by Ward (1982) in relation to developing services based on ordinary housing for mentally handicapped people. This kind of conflict was anticipated in the case of a recent service development project for mentally handicapped people - NIMROD - a programme developing community-based services in Cardiff. In this major programme, (Mental Handicap in Wales Applied Research Unit 1981) the

decision was taken to separate the role of those developing services from the role of those researching the effects of the services, but the extent to which this is practicable, an efficient use of resources or even desirable, continues to be a matter of debate. Town (1973) describes examples in which the separation of action and research led to serious difficulties because of conflicts as to roles, responsiblities and functions.

It has often been suggested that one of the major limitations of action research is that it fails to provide findings of general relevance. Town (1973) for example, notes that if action research is flexible and responds to local needs, then

> "the research reporting is concerned to a large extent with the interplay of a series of locally generated influences, the particular mix of which cannot be replicated: what is appropriate in one particular situation cannot be transposed to another ..... practical experience remains largely tied to the contexts in which it was gained." (p.587)

Generalisation as a requirement of evaluation research is briefly mentioned below (1.4.3) but at this stage we can note that some workers have argued that what is important is not so much the consequences of an action in itself but more the process at work, ie why these consequences rather than others came about (Town 1973); the process will be unique to each situation, but illuminating none the less. Herson and Barlow (1978) argue that it is better to look at a single situation intensively than to 'average' over a number of situations, thereby blurring differences. They even argue that it is just as possible to generalise from one situation closely understood as it is from several dubiously averaged. Bynner (1980) has suggested that what he calls "illuminative" research is very valuable - here the research process is a kind of "dialogue between researcher and participants to expose the reality of the innovation from the different perpectives through which it has been experienced" (p.37).

In this manner of case-study detailed and intimate information is seen as more valuable than broader based but less "in depth" data.

If these arguments are accepted, the accusation that action research is weak because it deals with "one-off" situations becomes less important.

It has to be recognised that action research often seeks to stimulate a degree of participation and involvement in particular groups in the community (Fleetwood, 1982) and in its most extreme form is difficult to distinguish from political activism. The term covers a range of research from research where the 'action' refers only to some attempt to interest someone in the results, to research at the other end of the spectrum, aimed mostly at provoking change, with little concern about research in the accepted sense. Kingsley (1982) has described this range, with at one extreme the 'structuralist' action researcher, who aligns with the community and defines the research in terms of those who are researched, seeing research as agitation and propoganda. There can be difficulties in the very 'activist' interventions when the effects turn out to be unpredictable and

outstrip the researchers' ability to cope (Otto, 1982) but in view of the well-documented difficulties of effecting change through 'normal' research procedures (ie by disseminating research findings to policy-makers, see Section 1.5) a more direct involvement understandably appeals to some of those who are committed to development of mental health services.

Action research can be extremely difficult to write up in the standard 'research journal' style, and techniques are often passed on among researchers verbally and relatively informally.

Moreover the 'one' situation studied may contain a variety of examples. Williams and Olsen (1983) used action research to improve patient/doctor communciation working in one practice but with various of the doctors in the practice, each with a different approach to relations with patients.

1.4.3 Quality of evaluation

Discussing information collected in environmental design research Friedmann et al. (1978) write that to be useful, information must be

> "appropriate ..... it must answer the critical questions ..... and be of "good quality": it should show some consensus between observers; it should describe the conditions, time, setting, etc, well enough to understand where generalisation is possible, ..." (Ch.1, p.25)

This points to three main aspects of quality: reliability, validity, and generalisability.

A 'reliable' measure gives consistent results where events are consistent; - the results are not affected by who is using the measure, the time of day or other genuinely extraneous factors. For example, if two different observers, using a particular observation method, log the behaviour of the same individual differently, the method is not reliable. If two interviewees interpret the same question on an interview schedule differently, the question is not reliable. Information collected must be trustworthy to be worth having.

A 'valid' measure is one which genuinely measures what it sets out to measure. For example, in research on whether where a mental health building is sited affects integration of residents in the building with the surrounding community, one measure may involve counts of how many people visit the building and how many residents make visits out from the building. But if many visitors are professional workers coming from some distance, and if many of the residents' excursions are in coaches and do not involve any interaction with local people, such counts may be invalid as measures of integration.

By 'generalisability' is meant the possibility of generalising beyond the information collected in the research. Take, for example, research reported later (see Section 2) which shows that the way mentally handicapped residents are dealt with by staff is no better in new, purpose built provision than in older, less attractive facilities.

Is it possible to generalise beyond the 19 buildings studied and say that <u>new buildings in general</u> will not demonstrate better management by the staff of the residents? The answer is that generalisation is only possible where it can be established that the situations are similar, ie if the buildings can be seen as a representative sample of national provision. However, generalisation beyond the cases researched is not always a research goal.

Quantification is another criterion which may or may not be appropriate in a particular evaluation project. It is useful, in establishing research procedures, to consider what questions may appropriately be quantified (ie assessed on the basis of numbers), if only because quantified data is more precise, and, in many ways, easier to handle. If various environments, for example, are compared using quantified measures, statistical tests can be used to check

whether any differences are statistically speaking "significant" or merely due to chance (although, as Bartram (1980) has argued, there is a difference between what is statistically significant, and what is significant). However there are dangers in excessive reliance on quantified information. As McLaughlin (1975) has commented, people have often (for example)

> "... attempted to develop simple quantitative matrices to describe the nature of the relationship between various functions in a hospital. Most have learned that although certain aspects of such relationships can be quantified, relationship matrices greatly over-simplify the subtle issues involved" (p.30).

Reliable and valid methods are essential; methods allowing generalisability and quantified measures, may contribute to quality.

Many workers have noted a further important key to quality: since any single instrument measure is subject to some sources of invalidity, various measures should be used so that the one 'corrects' any error in another.

Zimring and Reizentein (1981), for example, refer to the use of a combination of quantitative and qualitative methods in post occupancy evaluation of buildings.

Consideration of what makes for 'quality' in evaluation research involves the question of how scientific method in such research differs from 'unscientific' assessments - what Lee (1976) has called "the casual observations of the laymen" (p 49). For Lee:

> "The answer is that there are no clear boundaries. The scientific method differs in degree only - on a number of dimensions. For example, the observations measures must be unobtrusive, free of bias, accurately recorded and representative. The achievement of these objectives at even a reasonable level is beyond the layman unless the behaviour is very simple indeed." (p49).

1.4.4 Techniques

The techniques available in the evaluation of buildings are numerous and varied. The choice the evaluator makes amongst them, and the way any reviewer catalogues them, will inevitably be affected by their personal view of what research work should be like. Lee (1976), for example, lists a "compendium" of measurement techniques used in environmental psychology, (most of which are applicable in building evaluation) and categorises them in a way which reflects the traditional divisions of subject matter in academic psychology (behaviour; attention; attitudes, etc). By contrast Zeisel (1981) catalogues techniques in a way which is directed towards the needs of researchers from both the social sciences (psychology, sociology, anthropology etc) and environmental design field (architecture, planning etc). He groups together techniques which are similar from the researcher's point of view (eg various ways of observing behaviour) rather than from the point of view of theoretical psychology. Lee's compendium and Zeisel's discursive catalogue together include most techniques available; for our purposes here in understanding the evaluation of mental health buildings in particular we will not construct a further list of techniques per se, but will consider various issues relating to the selection of techniques.

Behaviour-based versus verbal techniques

There is one issue above all which constantly recurs in considering what techniques are appropriate: the question of whether to depend on techniques dealing with what people do (behaviour measurement techniques) or what people say (verbal techniques). Behaviour-based techniques can be used to measure, for example, how much a particular room is used, levels of social interaction, or the amount of incontinence. If, on the other hand, we ask building users to rate or rank rooms on various criteria, or to comment on how far the design of rooms is appropriate for its function, verbal (oral or written) techniques are involved.

At first sight, it may appear that techniques which are addressed to behaviour are more 'objective'. We can see behaviour directly, and it can be very straight forward to quantify (eg how many people use a room in a certain period). It is sometimes assumed that behaviour-based data are the only rigorous sort. For example, Alevizos et al have described how in America, pressure from authorities funding mental health services for evaluation demonstrating cost-effectiveness is likely to lead to demands for 'hard' data, and suggests a particular behaviour-based technique - the Behavior Observation Instrument - to provide such data efficiently; it includes data on where behaviour occurs in the building.

In contrast to behaviour-based techniques, it is sometimes argued that users' views and preferences are 'subjective' - personal, idiosyncratic, possibly unjustifiable - and are likely to be influenced by extraneous factors. In health buildings, for example, the views of individual members of staff may reflect their professional role, or previous place of work, and views of individual staff and patients may be affected by ignorance, misunderstanding or fear of the consequences of being too candid.

While there is evidence that some of these 'extraneous' factors may affect the results where verbal techniques are used in research (eg Raphael, 1965; Sears, 1977) this by no means invalidates this category of technique. Views, preferences and attitudes are by definition subjective (to do with the individual) but are not anarchic. When night staff views on the environment differ from those of day staff, for example, as reported in the acute hospital context by Kenney (1978), what is significant is the consensus within each of the two groups of staff. It leads the researcher not to conclude that, because verbal techniques gave conflicting views they are therefore invalid, but to realise that the design of the ward worked differently for what were in fact two different sets of functions - the functions of day staff and the functions of night staff. Research by Lipman and Harris (1982), on an entirely different building type, underlines the fact that where different user groups evaluate the 'same' building differently, there are likely to be reasons for the divergence of opinion. Reasons are usually better investigated by verbal means.

The fear that verbal techniques allow users to lie appears to have more to do with the anxieties of the researcher than any real evidence. It is part of the researcher's job to ensure that people who co-operate in answering questions - almost always without payment - understand what they are being asked and, at the very least, do not stand to lose by answering them. Under these conditions, there is no reason to assume that verbal techniques will be invalidated by ignorance, fear or guile on the part of the respondent.

There are reasons for not relying only on behaviour-based techniques. Data on behaviour alone can, in itself, be very limited: it cannot tell us about the meaning or significance of situations. People are not robots, and their behaviour is governed by (among other things) the physical environment not directly but via their understanding of the significance of the environment.

This can be seen in the question of the 'rational' use of space, for example. Rawlinson (1979) describes how in order to improve space use, so that expensively provided facilities are not under-used, it is necessary to do more than establish what the behaviour patterns are. The significance of particular areas - how they are interpreted in terms of ownership, territory, control, power etc - is critical. Peoples' behaviour relates to their interpretation of what surrounds them; behaviour-based techniques alone cannot deal with this. Verbal techniques are the direct line to the "expert witness" - the user.

Often behaviour-based techniques which appear to give 'hard' data, by-passing the difficulties of verbal techniques, in fact contain a large element of interpretation by the researcher. In the mental health field, the view that certain sorts of behaviour - often active, socially participative behaviour - are desirable, has led several researchers to create techniques and measures which log such behaviour (eg Proshanksy et al., 1970; Durward and Whatmore, 1975; see later in this section for further discussion). The criteria by which the researcher categorises the behaviour may be very explicit, but the fundamental problem remains: such techniques infer from behaviour something about the personal and/or social situation of the individual which, in normal conditions we would tend to ask the individual directly.

There is an extensive literature in philosophy and psychology dealing with the relationship between what people do and what they say (eg Wisdom, 1971; Warren and Jahoda 1973). The 'behaviour versus verbal' debate in relation to techniques for evaluating health buildings is complicated by the fact that users can be asked to give verbal accounts of their own (or others') behaviour, and can also show their own attitudes, preferences etc., by their behaviour (eg they can "vote with their feet", say by not using a particular facility). Techniques for the evaluation of mental health buildings are moreover often restricted by the nature of some users' handicaps or illness (see later in this section).

In this complex situation, the point to remember is that behaviour-based and verbal techniques both have strengths and limitations and the most effective choice of techniques is likely to include both. Where evidence from the two appears to conflict - if, say, users say a particular room is needed and yet behavioural evidence shows it is rarely used - then the answer is not to give priority arbitrarily to one of the two types of data but rather look for further evidence which will illuminate the apparent paradox.

An interesting technique which combines an element of 'behaviour' and an element of 'verbal' approaches is what is known as 'trade-off' games (Robinson et al., 1975). This is a technique whereby users can indicate preferences in a way which is constrained, in an attempt to make their choices reflect their likely behaviour. In a 'game' participants use some form of tokens to 'buy' qualities of the environment, up to the limit of their allocated tokens. Robinson et al. suggest that for planning purposes this sort of exercise - which we can see as evaluation of hypothetical buildings - compares favourably with "the inadequacies of questionnaires that probe unconstrained choices on the one hand, and behaviour studies that monitor past or present-day choices on the other" (p.101).

Unobtrus ive or naturalistic techniques

There is one particular group of techniques which not only concentrate exclusively on behaviour, but also aim to avoid the possibility that the people whose behaviour is being researched are in any way aware that research is being conducted. There are the so-called "naturalistic" techniques, described for example by Webb et al. (1966). Such techniques work not from behaviour directly, but from 'traces' of behaviour. In relation to the evaluation of mental health buildings they might include, for example, measuring damage or wear and tear on parts of the building; investigating comments about the building made in the local paper; checking if certain facilities (eg for tea-making by patients) have been used by inspection of the rubbish bins - any 'trace' left from which behaviour or attitudes can be inferred may be relevant as an indication of how a building is being used and/or how appropriate it is. The attraction for some researchers of such indirect techicques is that they do not 'pollute' the situation in which research is carried out. The users are completely unaware that their response is being monitored - less aware than they may be if their behaviour was directly observed, and certainly less aware than users are who are asked about their

behaviour (or views). Such techniques may therefore appear less subject to error than any others, but it has to be remembered that because they rule out any possibility of the user interpreting and explaining, misinterpretation on the part of the researcher is always a possibility. If, for example it is found that the accretion of sweet papers, magazines and cigarette ends is greater in one day room than another, does this mean that the less used room is too dark? too noisy? badly placed? reserved for non-smokers? .....

In spite of problems of understanding the significance of 'traces', naturalistic techniques have a use in certain situations, in conjunction with other more traditional techniques. For example, wear and tear, damage, and indication of preferred routes may all be very appropriate matters in building evaluation.

Techniques for mental health settings

The further major issue concerning techniques is the influence on technique selection of the particular characteristics of users of mental health buildings. Main user groups include doctors, nurses and care staff and patients/clients, and the role of each group has to be considered. Doctors, for example, are unlikely to welcome any technique which requires them to commit much time; nurses are usually practiced at form completion but may find questions of a sort which requires opinions rather than facts less easy. Staff at any level may hesitate to co-operate if a proposed research technique appears to threaten their professional competence - Kemp and Matthews (1979) for example were probably unusually fortunate in the co-operation they obtained from staff in a psychogeriatric ward when they asked to see ward accident records.

Many of the considerations as regards staff are to do with the significance and influence of the power hierarchy of a professional group, and as such may reflect considerations reported in other work situations (eg Harris and Lipman, discussing use of space in offices, and in children's homes, 1980/81). When we consider patients and clients of mental health buildings - mentally ill or mentally handicapped people - we find characteristics that are specific to such groups, some of which set definite restrictions to which techniques are practicable and acceptable.

As regards mental illness the White Paper "Better Services for the Mentally Ill" (DHSS, 1975c), in response to its own question "How then do we define mental illness". (p.1) goes on to give not a definition but a discussion of the range of conditions and problems to which the term may refer. It does, however, refer to various diagnostic categories: neuroses, psychoses, psychopathic disorder, alcoholism and drug addiction and to indicate that mental illness should be distinguished from mental handicap, which is usually determined before, at, or soon after, birth and is characterised by intellectual retardation. The term 'mental handicap' subsumes a similarly large range of conditions. But in the case of either people with psychiatric illness, or people who are mentally handicapped, it is possible to identify certain characteristics which may be common to many of one or other group, or which may be specific to a certain number of one or other group, and which will therefore need to be considered when selecting techniques for evaluation services for the respective groups.

Mentally handicapped people have intellectual limitations (DHSS 1980a) which may reduce their ability to deal with any technique involving fairly complex and abstract use of language, for example complex repertory grid and semantic differential techniques. They may have limited ability to respond to scales which require the building user to give a 'score' to aspects of the environment. Speech and hearing difficulties or illiteracy may compound problems with all techniques based on the spoken or written word. Attention span may be less than average and it may be difficult to explain what the evaluation research is about. Problems such as these have led some researchers to use techniques which deal only with behaviour. Tognoli et al. (1978) for example, compared the effects of 'enriched' and 'deprived' ward settings by behavioural tracking observations recording what activities occured and where. They comment on their choice of technique:

> "By concentrating on observable behaviour, we have hoped to surmount some difficulties in describing the "inarticulate" retarded person in relation to her/his living environment" (p 143)

However, physical handicaps are more prevalent among the mentally handicapped population than among the population as a whole (DHSS 1980a) and some physical handicaps, particularly non-ambulance, preclude certain behaviour based techniques. The hodometer, for example, is a simple device for measuring the number of people who use a particular route or area (Bechtel, 1967); the use of such a technique often assumes that the building users are physically able to move around the building, yet disability, operational policy or staff practice may restrict the mobility of users of mental health buildings.

However, it is noticeable that evaluation of buildings for mentally handicapped people has very often taken as its central technique some form of logging of behaviour, at least where the user group concerned is the patient or client (as against the staff). There have been rare attempts to break new ground in finding techniques which reflect the experience of mentally handicapped people, such as an attempt by Williams (1978) to present a first-person account of the world as he thinks a mentally handicapped person might see it, including some general evaluation of accommodation (p.7). There are techniques used in other disciplines, particularly education, geography and anthropology, which may be capable of adaptation and development for use with severely mentally handicapped people. Barker (1979), for example describes how a simple yet locally significant and familiar cultural African pastime can be adapted and refined as a research tool. Concerned about the "cross cultural limitations of many conventional geographical methods for collecting perceptual and behavioural data", he stresses that the onus is on the researcher to "ensure his techniques are appropriate to the cultural context in which they are to be used" (p.37). He does so by adapating a traditional national game, played with counters on a board, into a kind of attitude scale, on which his respondents could give 'scores' to whatever topic the researcher was interested in. This kind of ingenuity is needed in research on patient or client response to accommodation and facilities for severely mentally handicapped people.

Another technique which has not, to be author's knowledge, been exploited to overcome difficulties of communication in interviewing users of mental health facilities is the use of 'like' interviewers. Harré and Secord (1972) have argued that the most effective way to interview certain groups of the population, particularly those who may not be prepared to speak frankly to 'orthodox' interviewers whom they may perceive as hostile, maybe to use as interviewers people who share the interviewees background. Harré and Secord report for example research done with prisoners, using as interviewers ex-prisoners. In a similar way, it maybe possible to use as interviewers mildly mentally handicapped people perhaps with experience of the setting involved and perhaps known to the interviewee, to interview more severely mentally handicapped people. The same technique might be also worth trying with psychogeriatric or psychiatrically ill people.

People who are mentally ill are by no means free of physical problems but in general have less such problems than mentally handicapped people. Their skills such as reading and writing are probably not significantly different from those of the general population, but the social skills of some mentally ill people may be impaired, and their judgement may be affected at times by symptoms such as paranoia. Psychogeriatric patients, particularly those who are suffering from senile dementia (Jolley 1981) are often very confused and find difficulty in conducting a normal conversation. Peace (1979) has detailed problems experienced in conducting interviews with the elderly, includingthe confused. Ward and Comery (1978) refer to a graphic example given by Slater (1966) of how dependent interviewees can be fearful of expressing their real views.

Ethical problems

In addition to the specific problems above, which must limit the range of appropriate techniques, there are various general problems generic to evaluation in mental health settings. They are often not only of practical importance but also of ethical significance.

The characteristics of institutional life have been memorably described by Goffman, (1961) and many researchers since then have been concerned to assess more rigorously features of the sort he identified (eg Raynes' Management Practices Index, 1979), and to compare newer provision with older more "institutional" provision. McKnight's review of some research on mental handicap residential accommodation (1980) shows that we cannot assume that newer provision is always better on all counts, but it has been observed by Thomas (1982) that where two settings (one more domestic in scale and the other more institutional) are being compared, problems of techniques can arise. Techniques which are acceptable and appropriate in one setting may be less so in the other. For example, it may be acceptable, and not disruptive, to observe behaviour in the living area of a hospital ward, but when the residents later move and are then living in 'normal' housing, comparable observations may be inappropriate. In a hospital, someone sitting in a corner with a notebook, not talking to people around, may seem quite unremarkable, but in a domestic living room such activities would appear strange and would be likely to affect the behaviour of the residents.

There are many other ways, in addition to such intrusion, that mentally handicapped and mentally ill people may need protecting from inappropriate techniques. They are more dependent than most of the rest of the population, and many researchers will have shared the author's embarassment in being expected by staff to share a depersonalising approach to patients and clients, for example staff readiness to throw open all doors for the researcher, even doors of lavatories which are in use by residents. The researcher has to consider many ways in which a degree of 'protection' of patients and clients may be required. For example interview schedules can appear to the respondent to be 'tests' - perhaps memory tests, even tests of fitness for release. Open-ended questions can feel taxing to those who have trouble communicating. Asking the patient or client to describe an 'ideal' environment could be construed as offering the possibility of a move to a more congenial setting. Sociometric techniques, whereby patterns of friendship are set out (and the links between groups and the environment can be investigated) can be experienced as worrying (who doesn't like me? why not?).

The responsibility of researchers towards any category of person researched is frequently discussed; the Social Research Association (1982) has recently produced a draft Code of Ethics including a section called 'Obligations to subjects' (ie to people being interviwed, assessed, observed etc). When such people are disadvantaged in the ways described above additional special care is needed.

It is not only the patients and clients whose personal needs have to be considered in selecting techniques. Researchers are human too. Bettleheim (1974) has described (chapter 23) how people attracted to work in mental health settings are motivated in part by their own personal needs to develop. Bettleheim's therapists are under an exceptional degree of pressure which arises from the constant availability and high level of committment required of them, but anyone involved over long periods of time in mental health settings may experience strain. Various writers (eg Orlando, 1973) have shown how the technique of participant observation (whereby the researcher in order to get close to what is being researched, takes a full part in the life of the setting in question) can lead to serious problems. If the researchers act the role of someone who is in some way disadvantaged, they may empathise so fully that they find difficulty in leaving the role at all. Rosenhan (1973) reports how eight psychologists had themselves admitted to a mental hospital; the strain of this way of investigation is considerable. At the other end of the spectrum, even researchers during brief observations in, say, a unit for severely mentally handicapped adults, are at some risk: a small number of such patients may be unpredictably violent. The two main fieldworkers conducting evaluation of the Sheffield Development Project (reported in Section 2), for example, have each, on separate occasions, been slightly injured by mentally handicapped patients - in one case by an enthusiastic but excessive hug.

Technique development

Some techniques have been through a period of being extensively used in evaluating environments (eg repetory grid, behaviour mapping); in selecting techniques this can be helpful, in that the strengths and weaknesses of the technique are more fully explored and there may be data in a form which makes comparison possible. However, it is important to consider the needs of each evaluation problem on its own

merits and to avoid the use of techniques simply because they are familiar or fashionable. Where a building evaluation is conducted in order to contribute to the improvement of buildings as directly as possible - ie for applied purposes - appropriate techniques may be different from evaluation done for academic purposes - ie to increase theoretical understanding. The use of, for example, repertory grid techniques or of factor analytic techniques for analysing data, (very common, for example, in articles in Environment and Behaviour) may contribute to academic development in techniques, to the theory of environmental psychology in general and to the theory of evaluation in particular, but the very sophistication of such approaches presents great problems when it comes to interpreting the data in terms which non-psychologists can feel comfortable with. There can be a conflict, in selecting techniques, between the needs of researchers to show their peer group that they can successfully handle and develop sophisticated techniques, and the need to be able to show both the people who are being researched, and the decision-makers eventually receiving the findings of the evaluation, that the techniques are within their grasp (see Section 1.5 for further discussion).

Case Registers

There is one particular class of techniques which is particularly significant in the evaluation of mental health buildings: the use of existing mental health records, especially Case Registers.

Various types of records which are already available from health or local authorities, or central government, may have some relevance in the evaluation of mental health buildings. Some very specific records for example, such as suicide statistics may be viewed as an index of service failure or 'negative outcome', as may drug dependency in certain forms. However morbidity rates of this sort need great care in use - for example true suicide rates may be very different from official ones (Adelstein et al: 1975), many people are drug dependent but have no contact with the psychiatric services, and rates can vary for extraneous reasons: the fall in the rates in 1960s and 1970s was in part due to the reduced toxicity of domestic gas (MIND, 1981). Such records clearly give very limited information for evaluation purposes.

Statistics at a national level may have a use. A national system, known as the Mental Health Enquiry (MHE), provides a statistical base for this purpose in the United Kingdom. Limitations in the validity of the information provided by this system are discussed by Forster and Mahadevan (1981), p.163-4. It is likely that some changes will be made in the way information is collected in the near future (DHSS Press Release, 1982) but even then the system will still be of much less use for mental health building evaluation purpose than are local Case Registers, which provide more extensive and detailed information in relation to individual components of a local service and a more comprehensive inclusion of users - the MHE, for example is related to admissions and discharges, and therefore is not very illuminating in those facilities where many patients are neither admitted nor discharged in the given year.

Case Registers, where they exist, provide detailed statics on use of local services, including for example the number of contacts made with day hospitals and day centres, hostels and other forms of residential accommodation, out-patient departments and consultations made by doctors on ward (Wing, 1972). Forster et al. (1981) have described the setting up of a Case Register as follows (they are referring to psychiatric Registers but the principles apply equally to mental handicap Registers):

"A register begins with a census of all residents in a specified area who were in contact with psychiatric services on that day, ie it has the potential to include contacts with agencies outside the NHS. Following the initial census, all contacts with psychiatric services by residents of the area are noted. For each contact, demographic data and clinical diagnosis are usually recorded. Because data are collected for a defined population, rates may be calculated, and, over a number of years, trends in disease and patterns of contact with psychiatric services, eg changes following the introduction of a new service." (p164)

The are psychiatric Case Registers in Aberdeen, Camberwell, Cardiff, Nottingham, Oxford, Salford, Southampton and Worcester (Wing, 1972). There are mental handicap Case Registers in Wessex, Lambeth, Camberwell, Salford, Sheffield and Bristol (DHSS, 1980a; Hall, 1982). Most have been created over the last 20 years and they still cover only a fraction of the whole country.

The value of Case Registers in relation to evaluating mental health buildings is considerable. A Case Register can be seen as providing a series of 'patterns of use'; for the service as a whole, within any particular set of buildings, or within any one building. It can tell us, for example, where, across the service, the most dependent people are receiving services; or which day facilities attract younger users; or the intensity of use and type of use of a certain building. The usefulness of such background information in the evaluation of mental health buildings is demonstrated in more detail, for particular services and building, in Section 2.

Nevertheless, Case Register information presents some problems when used for mental health building evaluation. As Forster and Mahadevon (1981) have noted, high geographical mobility into or out of an area creates disadvantages. Only contact with services is registered; 'unmet demand' (whatever the cause, discussed by Alderson and Dowie, 1979) will not appear and may therefore tend to be overlooked. Full Case Registers are elaborate affairs to mount, and their value lies largely in the fact that they make data available of a comparable sort over a period of years; there is therefore a great disinclination to modify the category systems initially chosen. This can lead to difficulties when there are changes elsewhere. For example, international classification systems may change, limiting comparability of data from the Case Register system with data from elsewhere. Changes within the system may be difficult to catch up with. For example the move to community care in the provision of mental health services can include the use of hospital-based staff in the community, in an attempt to decrease bed use; there may be no machinery with a Case Register for registering novel forms of service eg "baby-sitting" services for mentally handicapped children in their

own homes. (Not only Case Registers but many official statistics are still based on an assumption that 'bed use' is the statistic of most importance, although this is not in key with 'more recent shifts in services aimed at minimising bed use.) Measures of client dependency, particularly in the field of mental handicap, have developed considerably over the past few years. Case Registers begun some years ago (eg that at Sheffield) used a measure of dependency available at the time, which now appears less appropriate for some research purposes that various later measures. However, researchers may decide to use the earlier measure in order to be able to compare data. In this way a Case Register can 'dictate' the use of techniques which have been superceded.

It has been argued (in Wing and Hailey 1972) that even the more detailed and comprehensive records of Case Registers can only contribute to a comparatively limited form of evaluation.

Standard Measures

The use of standard measures has been referred to briefly above (section 1.2.5). The focus here is the relevance of such measures in the evaluation of buildings. Measures currently available include measures for assessing the physical environment (environment measures); of links with the local community (community access measures); of how the service is run (organisation measures); of the capacities of individuals using services (client assessments); and of clients' behaviour (assessments of behaviour).

Measures of the physical environment and of community access

It is not difficult to understand the relevance to building evaluation of measures which allow a standard way of evaluating the physical environment. Among such measures there is that of Gunzburg (1973), for example, who established a checklist known as the '39 steps' to assess how many of a series of "desirable environmental features" (p93) were present in hospital units of a particular type. The items are selected with reference to his belief in the importance of 'socialization' 'normalization' and 'personalisation' in such units. He explains, for example, that the Checklist asks about mirrors because mirrors "are not luxuries, but an essential requisite for self-help training." (p.94). In a similar spirit, items are included about doors and locks on toilets (in relation to privacy) about colour schemes (whether varied), light fittings (whether domestic), bedroom layout (whether permitting 'territory') and so on. Despite various problems, this Checklist has became well-known and has been used by other researchers (eg May, 1976; and work reprinted in Section 2 of this document). Another established measure is Raynes' Index of the Physical Environment (Raynes, Pratt and Roses 1979). Items on this Index include ratio of bathrooms to residents; ration of mirrors to residents; percentage of toilets with paper; ratio of dormitories to residents; percentage of residents with lockers; and ratio of occasional tables.

Less widely used the '39 steps' and the Index of the Physical Environment, but briefer, a measure of the environment produced by Mazis and Canter (1979), for use in residential units for mentally handicapped children, includes ten items such as relationship to the community; size of living units, proximity of kitchen; and interior quality, to give a score of between zero and ten.

From the examples of items given, it can be seen that measures such as these have direct relevance to evaluation of the physical environment. There is another category of measure - community access measures - which also have a clear link to the physical environment, although here the consideration is not the internal environment of a building but rather the siting of the building in relation to the surrounding community. The "Accessibility Index" for example (Jones, 1981), can be used to assess how accessible various community elements such as shops, pubs, post office, part and town centre are from the building in question. The Index of Community Involvement (Raynes, Pratt and Roses, 1979) works rather differently: all the items on it are couched in terms of the number of residents who have had community involvement of a particular sort (eg How many residents went shopping last month? to the cinema? on a public bus? to a doctor or dentist off the grounds?). From the answers, ratios are calculated and a score is eventually determined. The Accessibility Index and the Index of Community Involvement are thus both concerned with the availability of resources in the immediate vicinity, and both specify, to a limited degree, the same particular resources (shops, buses) but whereas the Accessibility Index identifies what is potentially available, the Index of Community Involvement establishes the extent to which any resources which may be available are actually used - it is therefore a measure which relates to practice in the building as well as to strictly physical matters such as distance.

When we turn to the measures of other factors (eg of the organisation; family burden; quality of service, quality of life) the relevance to building evaluation is less direct and needs some discussion.

Measures of the organisation

Measures of the organisation, describe and evaluate something about what goes on in the building in question. It has been argued (section 1.1) that (except for evaluation of purely technical matters such as weather resistance, engineering efficiency etc) evaluation of a mental health building can only be carried out in relation to how far the building facilitates delivery of mental health services. This entails some description of current organisation and operational policies. To take an example: if furnishings and fittings are costing much more to maintain in building A than in building B, it may be that the design of furnishings, and fittings was more appropriate in building B. Alternatively, it may be that operational policy is to put more destructive patients in building A; or it may be that patients are not thus separated, and patients are similar in the two buildings, but operational policy or management practices are different, with more freedom extended to patients in building A. Without an understanding of such matters, the significance of the facts about degree of wear and tear cannot be clear, and hence the usefulness of "feed forward" of information to future designs is limited.

There are many measures which assess in different ways how a service is run. Moos (1975) for example, developed an environmental scale which he used in various settings, including with people with psychiatric illness. Ward and Comery's review of measures of

quality of life (and environment) in residential accommodation for the elderly (1978) includes many measures which are applicable to other groups such as the mentally ill and the mentally handicapped, and discusses the concept of measurement of quality generally. They discuss in particular the concept of 'normalisation'. They define this as: "making available to ..... people in institutions the conditions of everyday life as close as possible to those enjoyed by their age peers in the mainstream society" (p.26) and point out that it is a concept which is the philosophy behind many measures of quality of life. There are however, as they suggest, conceptual difficulties with the notion of normal isation. For example the appropriate reference group by which to compare what is 'normal' may be difficult to ascertain, and the reference group itself may be disadvantaged: it may be 'normal', statistically speaking, to be unemployed if in a particular city, or poor if elderly without a pension, but this would not make it acceptable to make unemployment and poverty objectives in the provision of mental health services. Ward and Comery suggest that normal isation in practice is not used to mean that services should be aligned with what is typical but that "Instead it is interpreted as provision of opportunities of an acceptable standard, to exclude negative aspects found in the wider society " (p.27)

From items in some well-known measures of quality of life and service, grounded in a philosophy of normalisation, we can see that this is by and large true. The Joint Commission on Accreditation (1978), for example, sets service standards which are defined in relation to the concept of normalisation, such as:-

> "Units should be small enough to ensure the development of meaningful interpersonal relationships among residents and between residents and staff" and there should be "at least three meals daily meals .... comparable to those normally obtained in the community." (p.53)

There is a scoring system with these standards, which are designed to evaluate services for purposes of accreditation - for which 80% of certain of the items have to be fulfilled. Probably better known in this country is another transatlantic system the 'PASS' system (Programme Analysis of Service Systems) (Wolfensberger and Glenn, 1975) again derived from a belief in normalisation, and beginning to be used in this country. It asks, among other things, about whether the building is appropriately situated geographically, about whether clients can readily get to it and from it, and whether it fits in the neighourhood. Various questions have been asked about 'PASS' methods of judging and scoring (Ward and Comery, 1978) but other workers have used it, often in its short form 'A Walk Through PASS', and attempts have been made to show that certain high scores on PASS are associated with positive behaviour changes in residents (Eyman, Demaine and Lei, 1979). Recently the National Development Group for the Mentally Handicapped (a body which advised the Secretary of State on provision of mental handicap services, until its demise in 1981) has drawn on PASS in formulating its own measure of quality of services: the NDG checklist of Standards (National Development Group, 1980). This is a collection of guidlines intended to help authorities, staff, parents and the Development Team (see Section 1.2.1) to judge the quality of services. It was intended as an aid

to identifying where improvement was needed, where progress has been made and for planning and educational purposes. It is not structured in a way which facilitates comparison of one whole service with another whole service, and although it was centrally developed and sponsored, it does not - and was not intended to - provide a means for central authorities and bodies to collate qualitative information about services and to compare services in different regions or districts. It has been used in a limited way be some local authorities and groups, but not, as it stands, by the Development Team.

Assessment of Individuals

An important group of measures remains to be discussed: those which assess the abilities of individuals using the services. There are two general reasons for using assessments of individuals in the process of mental health building evaluation. First, so that the nature of the buildings' clients is clear: it would be unreasonable, for example, to compare two buildings, or parts of buildings, without knowing whether the type of user was similar in terms of their likely activities, ability to cope with the environment, etc. Such assessment also makes it possible to compare the abilities of given individuals on first starting to use a particular building and at a later date, or in two different buildings or rooms. Since the overall aim of mental health services is to increase the capacities of people who are mentally ill or mentally handicapped, it is tempting to assume that comparisons of these sorts should form the core of any building evaluation, with a view to ascertaining the contribution of the building to any improvement (or drop) in abilities. However, there are great difficulties in successfully comparing given individuals' abilities in this way. Martindale and Kilby (1982) used various sorts of assessment of a group of individuals before and after they moved from an old hospital to various (mostly newer) other units. They point out that this does not constitute a comparison of the "effectiveness of different types of units in helping residents to develop since no control groups were available and because different types of units accepted residents with different levels of dependency" (p.3) Many of the problems are related to the difficulties in conducting controlled experiments in the real world with real people, especially vulnerable people; these problems (control groups, etc) have been referred to in section 1.4.1. In addition, some types of assessment can be affected by the setting in which the individual is assessed. The person assessed as reasonably able in an institutional setting, for example, may appear to have less ability judged in the richer and more demanding setting of a group home. This appeared to be the explanation for lower scores made by some hospital residents who moved to a group home in Cardiff (Cardiff Universities Social Services, 1976). Martindale and Kilby point out that assessment questions involve staff judgement, and staff 'norms' about what is expected of residents, particularly as far as self-help skills are concerned, can vary between units:

> "For example, just because a person is 'clean' in one unit does not mean he will remain ie be judged to be so on transfer to another when judged by the 'hygiene' standards in that unit." (p.10)

However, there are rare examples of the use of individual assessments in this way ie in an experimental framework, with control groups (eg Felce, Smith and Kushlick, 1981). All mentally handicapped children in the catchment area of either of two new units were admitted, with children in nearby areas continuing to live in the 'old' provision, and thereby providing a control group. Assessment at intervals showed the effects of the new provision.

The second use of assessments of individual users' abilities is rather different - it is the assessment of behaviour, in particular settings, particularly behaviour which is positively valued (eg 'active' 'social' 'engaged' or 'appropriate' behaviour). This can be useful in looking at whether certain parts of a building, for example, are conducive to certain sorts of behaviour.

Assessments of individuals, then, can be useful in indicating what sort of users the building is coping with and assessments of behaviour can indicate which parts of a building appear conducive to particular sorts of behaviour. These main uses of assessment of individuals' abilities will be considered in turn.

Neither diagnostic categories used in mental illness, nor the general terms used in mental handicap, are very useful for evaluation purposes.

On the mental illness side, a patient is likely to have been assessed as having a particular illness, such as schizophrenia. On the mental handicap side a general term such as 'mildly mentally handicapped' may have been assigned. Terms such as this are themselves the subject of considerable debate and periodic revision and are of limited use in relation to the planning of services, so many attempts have therefore been made to find more detailed levels of assessment which give more description of individual's abilities and problems particularly on the mental handicap side, from which the following examples are drawn.

It is important to select an assessment system which will pick up sufficient detail on topics which are important. Systems exist to measure IQ, abilities and problems. Tests of purely intellectual ability, such as IQ tests, have considerable limitations, overviewed by Gould (1981), and have lost favour to assessment of social development (eg the Vineland Social Maturity Scale, Doll, 1953), self-help skills (eg Balthazar's Scales of Functional Independence, Balthazar, 1971), adaptive behaviour (eg the Adaptive Behaviour Scale, Nihira, Foster, Shellhaas and Leland 1974) general skills and abilities (eg the Progress Assessment Charts, Gunzburg, 1972) dependency (eg the Social and Physical Incapacity Scale and the Speech, Self-help and Literacy scale the 'Wessex', Kushlick, Blunden and Cox, 1973) or a mixture of factors (eg the Handicaps, Behaviour and Skills Schedule, Wing and Gould, 1978). There is a good deal of overlap in topics covered amongst such assessments, but no one system alone covers all topics. In evaluation of mental handicap buildings it can be important to know about behaviour problems: for example individuals with certain behaviour problems may be destructive, or may need segregating from other vulnerable residents: in either case this affects building use. Some systems which assess behaviour give

more attention to the question of behaviour problems (eg Wing and Gould, 1978) than do others (eg McConkey and Walsh 1982). It may also be very important to know about associated physical handicaps. In selecting a general measure of dependency, it may be useful to use an assessment system which has been widely used previously, such as the 'Wessex' system, so that from the appropriateness of the building being evaluated, extrapolations can be made to other groups of mentally handicapped people.

Assessments of behaviour

It has been suggested that measures of behaviour can be useful in evaluation of buildings because they can be used to indicate whether particular parts of a building (or particular buildings) are conducive to certain sorts of behaviour. The influential early work of Sommer (1969) showed the striking effects of the physical environment on social interaction, and many of the systems for categorising of behaviour which have been developed subsequently have accepted that social behaviour is in itself desirable.

Ittelson, Proshansky and Rivlin (1970), and Rivlin and Wolfe (1972), have created influential category systems in their "behaviour mapping work", whereby the location and behaviour of all uses of a particular area is logged at fixed time intervals. These systems lay emphasis on whether behaviour is social or isolated, and whether it is active or passive. Workers in Wessex, such as Durward and Whatmore (1975), have used a system in which behaviour is categorised as appropriate, neutral, inappropriate or disruptive. Similar work at Cardiff (eg Porterfield et al., 1980) has focussed on whether behaviour is 'engaged' or not.

There are undoubtedly difficulties in using any systems for categorising behaviour. Some behaviour is very difficult to categorise, including certain behaviour which is very prevalent in some institutions, such as sitting in front of a television: in the familiar situation of the resident sitting before the television set but showing no indications of comprehension or enjoyment, is such behaviour 'engaged' or 'appropriate'? Yet under other circumstances, such as laughing in unison with others while watching a comedy programme, is it 'social'?

Some more idiosyncratic behaviour can also be difficult to categorise. Durwood and Whatmore (1975) give an example of a client who

> "unwound the whole of a toilet roll and placedit in the toilet" (p.23)

On the system by which they were categorising behaviour, this was deemed 'appropriate'! Durward and Whatmore explain:

> "Although this behaviour seems inappropriate and is certainly so in the eyes of a mother or member of staff, looking after the client, by our strict classification system it is an active and adaptive behaviour, and was thus recorded as appropriate" (p.23)

Problems can to some extent be overcome by the fact that there are tight definitions of what is included and excluded for each category, so that even if categories raise questions their content is clear. Problems of reliability across observers can be dealt with by training and the percentage agreement between observers can be checked preferably at various points during the study. Other problems are less easy to deal with; in particular, there is inevitably an assumption that certain sorts of behaviour are 'good'. Many systems use categories concerned with being 'active' and 'social'. The withdrawn and passive behaviour often associated with people who have been institutionalised, may, understandably, lead to this emphasis. It is not always necessary or desirable to be active and social, yet category systems can implicity suggest that high 'scores' on such behaviour are automatically 'good'.

In spite of such problems, these measures do go some way to giving a more precise and objective account of behaviour and can be appropriate for use with residents and others with whom discussion is difficult. When, as is usually the case, the precise location of the behaviour is noted along with the category, such measures are especially appropriate in building evaluation, because they immediately tie user response (albeit only behavioural, not any other sort of response) to a part of the physical environment.

1.5 AFFECTING POLICY AND DESIGN GUIDANCE

A particular health building evaluation may have various useful outcomes: it may, for example, be personally enlightening to those conducting it, or it may have value at an academic level, contributing to theoretical knowledge. But the major function of any evaluation of buildings has often been seen as having impact on the 'real world'. This means affecting in some way the decisions of those responsible for the operation or management of facilities; for planning or designing facilities or for developing policy (at both local and national level); or for developing central building guidance documents.

It is self-evident that the results of building evaluation are potentially relevant to the development of building guidance, and to the management and planning of buildings at a local level. From the direction of discussion through Section 1 of this document, it should be clear that the results of mental health building evaluation (of the sort under discussion - see Section 1.1.1) are potentially relevant not only to management, planning and guidance considerations but also the policy considerations (at both national and local level) and to capital and revenue (running costs) implications. Evaluation of a mental health building is research on how that building is contributing to (or impe ding) the delivery of services, and this inevitably involves description, and a degree of evaluation, of the service offered in the building. Many of the issues which are central in the evaluation of mental health buildings - (eg size of the building; location; size of groups of users; relation between operational practices and the design of the building) - are as relevant to policy development as they are to strictly planning and design matters. It could almost be said that mental health building evaluation is a special kind of service evaluation: one with a particular bias of interest to the role of the design of the physical environment.

Many of the questions currently of interest in policy circles as regards mental health services have a very strong 'building' component and could be cor tributed to by appropriate building evaluation; such questions include:

the feasibility of particular aspects of community care;

problems associated with 'running down' old hospitals and transferring residents;

the relative merits of upgrading, conversion and 'purpose' building;

which 'model' of facilities to recommend for services for particular groups (eg residential care for mentally handicapped adults);

the size of groups;

the integration or segregation of particular groups in particular settings (eg the elderly severely mentally infirm in homes for elderly people);

how to provide for very disturbed residents;

the comparative costs (capital, revenue and 'community burden') of different forms of care.

The remainder of this section will concentrate firstly on how mental health building evaluation may affect policy and planning at a national level, and, secondly, on how it may affect the development of building guidance.

1.5.1 The impact of evaluation on policy

A considerable amount has been written within the evaluation field on the difficulties of influencing policy and planning debate and decision-making by the results of evaluation (NB here and for the remainder of this discussion on 'Policy and Planning' reference is made not only to building evaluation but also to service and programme evaluation). Some successes have been noted. Patton et al. (1977), for example report that their research on the impact of various national (US) health program evaluations on officials in the Office of Health Evaluation, HEW, showed that most evaluations did have some useful ness. Wertheimer (1980), discussing influence on British mental handicap services, refers to Tizard's 'Brooklands Experiment', (in which he transferred a group of severely mentally handicapped children from a hospital ward to a small residential unit and showed that their abilities increased - see Section 1.2.5) as an example of evaluation work which has had a lasting influence. Together with his later work (with others) comparing hospitals, hostels and voluntary homes (King, Raynes and Tizard 1971) his evaluation has, aruges Wertheimer, been one of the "major influences in shaping the development of services over the last three decades" (p.17). Other work which, Wertheimer suggests, has been "another significant influence on policy and practice, specifically in the field of residential care" (p.17) is that of Kushlick, Director of the Wessex Health Care Evaluation Research Team. Wertheimer comments:

> "Like Tizard, whose attitudes and methods are strongly echoed in much of Kushlick's work, the Wessex team have been able to point to the failures of traditional hospital-based services to provide a satisfactory environment for handicapped people. The strength of their arguments is based on the very detailed evaluation and monitoring of services which they have been carrying out since the 1960's" (p.17; present author's italics).

A third source of influence on mental handicap services is that of a high status academic who becomes a known 'expert'. Mitter is given as an example of this by Wertheimer . In his role of Director of the Hester Adrian Centre for Learning Processes, Manchester University, he has been able to disseminate the results of research to practioners, and in his (former) role as Chairman of the National Development Group for the Mentally Handicapped (see Section 1) he was able to develop links between research and policy-making.

Patton's work, referred to above, gives research evidence that evaluation can influence policy-makers in the field of mental health services in general, in the USA. Wertheimer's comments refer to the British scene as regards recent mental handicap service developments; they are comments rather than research evidence, but most informed opinion would probably concur with her views. However, when we look for any support for the view that evaluation is generally influential with those responsible for policy development and planning services, whether in this country or the USA, we find that evidence and views as encouraging as those of Patton and Werheimer are rare. The consensus among writers on this topic is that evaluation fails to happen at all, or is neglected by decision-makers, or ends in client dissatisfaction.

Many writers have referred to such problems. Edwards et al. (1975) discuss the "gap between evaluation data and decisions of policy-makers" (p.140) Patton et al. (1977) give several examples of similar views in the literature and conclude:

> "There seems to be a consensus that the impact of evaluation research on program decision making has been less than substantial" (p.141).

Weiss, (1980)who worked and wrote extensively in the field of evaluation writes of the

> "general contention that social science research is largely ignored by government officials as a basis for decisions. Observers in government and out find few instances in which research conclusions visibly affect the course of policy. In fact, there is a sizable literature that, with minor differences in shading of emotional overtone, echoes the words of a disillusioned participant in the enterprise of conveying social science research to government decision-makers:
>
> "The first and the most important observation I derive from these experience is that only rarely have I witnessed serious governmental attention being given to serious social science research" (Wilson, 1978; p.82)."

Certain examples have been noted of major evaluation research, set up and funded with a view to informing policy decisions, which have nevertheless failed. The American 'Head Start' programme has been much commented on in this respect. Bynner (1980) describes the evaluation of this large scale "critical experimental test"(p.136) of a new educational programme as having produced "completely ambiguous results". Campbell (Salasin, 1973) points out that the enthusiasm of the parents of the children involved apparently counted more with decision-makers than did the statistical analysis of the effects of the scheme, according to which the results were not impressive.

Earlier, evaluation exercises looking at a major educational programme - the Educational Priority Areas (1968) - and broad community development - the Community Development Project (1969), both in Britain, were also less than successful in providing information which clearly influenced policy thinking (Town, 1973; Hasley, 1978; Smith, 1978).

On a smaller scale, but more specifically concerned with mental health facilities, the ELEMR Project is a further example of governmental failure - whether rightly or wrongly - to respond to the results of evaluative research. The ELEMR Project ("effects of the Living Environment on the Mentally Retarded") was funded by the Development Disabilities Office of the Department of Health, Education and Welfare to address the issue of whether (and, if so, how) physical settings affect people with poor cognitive and functional skills (ie mentally handicapped people). This four year longitudinal research programme evaluated the effects of interior design changes in a large state institution and reported with recommendations (Zimring et al., 1982). It has emerged subsequently that although the researchers understood that this work was to be made use of, by the government department which sponsored it, in the development of guidelines relating to such services, the research has in fact had no such influence (Zimring, 1982; Department of Health and Human Services 1982).

However, if policy-makers are not often visibly influenced by evaluation they nevertheless look for information of some sort. There is always a risk that they will lean too heavily on other sorts of information which may appear to offer evaluation of services and/or buildings. In monitoring development of services (including the building component of services) it is the statistics which are routinely available which may be taken as the prime indicators of degree of achievement. In recent years in mental health policy circles, for example, what has often been seen as the most significant indicators have been the White Paper targets set for health and local authorities to achieve, by 1991, (DHSS 1971b; DHSS 1975b, with some subsequent modifications). Routinely collected figures (eg on the number and costs of beds, places and staff) make it possible to see whether, broadly, services are moving in the right direction - for example if the member of people in older hospitals is falling. However, there are great limitations to this type of data when the basic question of <u>quality</u> (as against quantity and category) of care is raised. "Indicators" rarely give indisputable evidence. For example, it may appear that since the overriding aim of recent and current mental health services policy has been and is to provide more 'community-based' care, as against care in hospital, the number of hospital admissions should decrease: statistics showing a decreasing number of admissions would therefore be reliable indicators of the successful implementation of this policy. There are many reasons why the picture is more complicated, including the following:

A doctor favouring community care may keep a patient at home even though he or she knows that relapses may necessitate a hospital admission two or three times a year; the patient may be admitted 15 times in 5 years, where in the past a single admission would have lasted 5 years;

better treatments and a better environment may make admissions more often justified and acceptable to the patient.

For reasons such as these, progress to community care cannot be measured only by the trend of admissions. Other indicators have similar complications. The statistics relating to provision for discharged mental illness and mentally handicapped patients, for example, can be distorted by the fact that some local authority housing provision for such clients is not 'labelled' as such. This is in keeping with the policy of seeking integration of clients into the community where possible, but makes even figures of what provision exists inadequate. There are further complexities in day care. Some managers of day care facilities find they are under pressure to 'prove' the need for their service by keeping day facilities fully occupied; if they 'fail', (even though this may indicate rapid and successful throughput) empty places may be filled with clients of a different sort. This can be economical from the local authority's point of view, but is one further reason why the most basic of routine statistics must be viewed with great caution. Similar problems apply in relation to the use of Case Register Statistics as evalution of facilities. Moreover, even if what appears to be a trend can be trusted, there is always the danger, as Wing et al. (1970) have pointed out,

> "that the mere statement of a trend will be taken to mean that this trend is worthwhile. Stated in this way the proposition seems ridiculous ..... We would all agree, presumably, that to show no patient from a particular area stays in hospital for as long as one year is not the same as showing that no patient ought to become long-stay. Similarly, to show a reduction in average length of stay is not to show a reduction in morbidity. These are elementary points but it is remarkable how often one finds administrative indices used as measures of illness or handicap.... One needs more than Case Register statistics, or any other kind of figures, to decide what is best value for one's money" (p.5).

Against the apparently limited impact of evaluation research on policy-makers we have to set the seductions of the more circumscribed information available from routine national statistics and what local Case Register information reaches them, and the information available through the two Specialist Visiting teams, the Health Advisory Service and the Development Team for the Mentally Handicapped, with its limitations (see Section 1).

There are, therefore, problems and limitations in the information which is attended to by policy-makers, and yet there is evidence that evaluation research is neglected by them. This situation has prompted much interest in the question of how to reduce the gap between policy-makers' information needs and research: interest in:

> "the conditions that foster or inhibit attention to social science research by occupants of decision-making positions" (Weiss, 1980, p.1).

Weiss suggests that

> "Because the norms that govern research institutions are different from those that are operative in government agencies, the research that social scientists do may seem irrelevant or unstrustwhorthy to decision-makers" (p.16)

and identifies particular aspects of this discontinuity. Firstly, there are difficulties which arise from the researchers' particular viewpoint. Researchers may be uninterested in the issues which are important to policy-makers: they may be "remote from concerns in councils of action" (p.17). They may formulate problems for study, and make recommendations, which ignore the decision-makers' definitions and needs. They may over-simplify problems to make them more amenable to research; they may try to make problems "fit the methodologies in which they are expert rather than fit the nature of the questions or the needs of decision-makers" (p.17). The social science concepts underlying the research, or the use of sophisticated statistical analysis, may make it hard for others to comprehend. The researchers' conclusions may be inconclusive and offer little direction for action, or be repetitious. The 'leap' from data to recommendations may not be made, or may be guided by the researchers' ideological predelictions, (often left wing or reformist), which may be at odds with the perspectives of government officials. Separate studies in the same area may not give convergent conclusions; decision-makers may feel they are left with more questions, rather than with answers. As well as all these problems, there are further reasons for the researcher - decision-maker gap, related to the nature of the decision-making system.

> "The decision-making system imposes its own constraints on research use. Even when a research study passes muster, officials are often unwilling or unable to use its insights as a basis for action ..... they must function not only within the procedural, structural and ideological framework of the organisation but also within the parameters set by the larger political system." (pp. 19-20)

Decision-making is often fragmented between many individuals, and there may be a high turnover of personnel. Policy concerns can shift rapidly - many writers have noted examples of how concerns that give rise to evaluation may no longer be of interest by the time the results are available.

The problem of timing has been very widely identified (eg Sharpe 1978; Wertheimer 1980). Sharpe quotes the cry attributed to sociologists: 'Give us the job and we'll spend the next seven years sharpening the tools'!: the need for rapid information for policy purposes is often at odds with the need to ensure that research is formulated appropriately.

Many of the problems referred to above limit the effectiveness of evaluators not only in relation to policy-makers but also in relation to other categories of decision-makers, particularly designers.

Friedmann et al. (1978) have described a gap between evalutors and designers and "the difficulty of relating the inherently different approaches they employ ..." Altman (1973) has extensively studied these differences, in particular the following researcher - designer differences: the researcher typically studies a phenomenon (use of space) whereas the designer studies a particular building; the researcher seeks information and has an analytic approach whereas the designer's aim is a final product, reached by a synthetic approach, and, most importantly, the researcher wants to understand whereas the designer wants to act. Such fundemental differences in approach can make it difficult to communicate the outcome of evaluation to architects and others involved from a design orientation in policy development and planning.

Various writers have concluded that problems particularly arise when the researchers' findings do not agree with the results anticipated by the client, or are unfavourable from the clients' point of view. Carter (1971) analyses various cases of negative reaction to evaluation work and suggests that clients' resistance to negative findings relates to how threatening the clients perceive the findings to be to their concept of themselves and of social reality. Carter's examples concern management levels, but it seems likely that they would apply higher up the decision-making scale. Policy officials, for example, may be reluctant to accept findings which suggest that concepts to which they are personally committed are not working as hoped. It is also possible that this pessimistic observation:

> "Another result of client's resistance to change is that social science evaluation studies may become a ritualistic ceremony to reinforce the image that top management actively supports scientific evaluations." (p.22)

could also equally be applied to policy-making circles.

There have been many attempts to deal with the difficulties by suggesting approaches to research, procedures, etc., which would reduce the 'gap', by improving the appropriateness of research and maximising the chances of its being used (eg Weiss 1973; Raven 1975; Twain 1975; Weiss 1975; Newman 1976; Weiss 1977; Wertheimer 1980; Williams 1980; Keys and Wener 1980; Bynner 1980; Weiss 1980; Social Research Association 1982).

The suggestions can be grouped into four general categories, concerning respectively; organisation and procedures; how to attend to the client; how to formulate the presentation of results and dissemination of results.

Organisational and procedural suggestions are to do with such matters as contractual arrangements between client and researcher - for example Raven (1975) makes recommendations about research career structures and research back-up facilities, and the Social Research Association (1982) reports recommendations whereby researchers would

> "require an assurance at the start of their research on the framework within which their conclusions will in due course be considered for implementation". (p.13)

Recommendations about how the clients and their needs should be attended to include the following. Researchers should seek to involve clients early in the development of the evaluation, should get them to define the problem in their own terms and should seek a common language with them (Lourie, (1976); they should get them to specify their own goals (Twain 1975) and should seek to minimise any feeling they may have of being threatened or 'ambushed' (Keys and Wener 1980). Lourie (1976) sees such attention as a necessary condition:

> "the involvement of decision-makers at the earliest stages of any research program is almost an unconditional prerequisite for reasonably efficient action". (p.84)

Researchers should avoid the temptation to exaggerate their claims about what they can achieve in evaluation; they should specify constraints and above all, according to Twain (1975).

> "It must be clearly understood by clients that no solution to a problem can be promised in advance..." (p.33)

In return for these efforts at comprehension and candour from the side of the researchers, many writers feel clients should be prepared to communicate freely with evaluators and to demonstrate trust. Raven (1975), for example, writes:

> "Some sort of team work between policy-makers and researchers would be most appropriate. The policy-maker would share his acute problems with the researcher ..... Such a relationship implies a considerable degree of security, trust, tolerance of conflicting viewpoints and confidence in the other's abilities. It also implies putting an end to the current craze for preserving secrecy in the Civil Service ....." (pp.258-259).

In the British context, Donnison (eg 1972; 1982) has repeatedly stressed the value of a more interactive type of relationship between policy-makers and researchers, and has pointed to successful examples of this.

Many suggestions for reducing the gap are to do with the way research is formulated. This has been discussed earlier (Section 1.4) and will not be developed further here, but the recommendations include, for example, the avoidance of over-dependence on the experiment as the research paradigm (Bynner, 1980) and avoidance of over-elaborate statistical analyses (Weiss 1980).

The question of how evalution results are presented and disseminated is frequently referred to; Shirley Williams (1980), for example, stresses research evidence showing that many policy-makers, if they do use research, get their knowledge of it entirely from newspapers. She even comments, provoctively,

> "If it were not for journals like the New Scientist, New Society and The Economist I doubt if research would be made known to policy-makers at all." (p.5)

Weiss (1977) refers to attempts to introduce "middlemen, research utilization agents, knowledge brokers, into the process to link the decision-makers with relevant social science findings." (p.6), but doubts their efficiency from the policy-makers' point of view. Both Weiss (writing of the American situation) and Williams (in the British situation), however, refer to examples of the effectiveness of particular individuals working as advocates between researcher and research result user (Weiss 1977; Williams 1980).

Moss (1983) has pointed out that the role of the research and development project can be a means by which the 'thinkers' can communicate with the 'doers'. If recommendations from research are put into built form, they may be easier for some policy-makers to understand.

In this very brief review of suggestions for reducing the gap and getting evaluation results used, we have so far been considering various pragmatic 'tips' that have been offered. There have also been attempts to analyse the various ways the link may work, and generally to understand the problem from a more philosophical point of view, and it may be that this sort of analysis is at least as helpful in reducing confusion and frustration.

Weiss (1977) has referred to the "sogginess" and "conceptual ambiguities" (p.11) of the whole discussion of policy uses of social research, and identifies six different meanings of the term 'research utilisation'. She points out that our expectancies about how research could be used tend to be simplistic:

> "The imagery of research use that undergirds the disillusionment of observers appears to be the direct and immediate application of the results of a social science research study to a particular decision. The expectation is that specific findings point to a specific answer and that responsible policy makers proceed to implement that answer in policy and practice. Research makes a difference, in this formulation, only if it changes a decision from what it would have been had there been no research to one fully in accord with what the research results imply should be done. The "use of research" is thus discernable, clear to the naked eye.....
>
> But the switching of a specific decision from one track to another because of the cogency of one research study (or a handful of related studies) is a very restrictive definition of research use." (p.10)

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>
> But the switching of a specific decision from one track to another because of the cogency of one research study (or a handful of related studies) is a very restrictive definition of research use." (p.10)

She goes on to give examples of other legitimate kinds of research use:

> "to reinforce officials' commitment to a decision, reduce their uncertainties, persuade or neutralise critics, bolster supporters ... legitimate decisions already made on other grounds" (p.11)

It is the unreasonable restriction of what 'counts' as research utilization that has led to the widespread disappointment:

> "Observers who look only for quick, direct, instrumental applications of research results to concrete decisions become disillusioned and cynical when they fail to find them". (p.12)

> "We must recognise that government decision-making is a process of advocacy and bargining". (1977, p.4)

There is evidence to support this view. When Patton et al. (1977) looked at utilisation of federal health program research by asking officials about what influence, if any, they had had; they concluded:

> "What we found in response to these questions on impact was considerably more complex and less dismal than our original thinking had led us to expect. We found that evaluation research <u>is used</u> by decision-makers but not in the clear cut and organisation-shaking way social scientists sometimes believe research should be used. The problem ..... may well lie more in many social scientists' overly grand expectations .... and a definition of utilization that is too narrow and fails to take into consideration the nature of actual decision-making processes ....." (p.144).

Underlying this argument is a recognition that decision-making is not a simple 'rational' process. Shirley Williams writes (1980), of "the presumption that policy-making is rational":

> "clearly to a great extent this is not so, in the strict sense that policy-makers look at the facts, draw conclusions from them and devise policies to deal with those facts."

She argues that personal strong views, principles, prejudices, pressures and influence are also involved. A related point is made by Weiss (1980):

> "Social science cannot fully depoliticise problem-solving since choices among values are necessarily involved." (p.15)

Knowledge alone will not lead to answers to the problems policy-makers face. Knight and Campbell (1980) have argued that evaluators themselves are always acting politically. Whether they adopt the role of technician, contracted to get information, or a more challenging role in which they overtly develop values and perspectives themselves, they cannot be truly objective:

> "the evaluator implicitly or explicitly endorses and supports some ideological position concerning social relationships and social justice" (p.520).

This is a particular case of the more general argument whereby simply by choosing - or rejecting - an area to research any researcher is displaying values, and therefore can never hope to act impartially. However, Knight and Campbell go on to suggest that recognition of the inevitably political role of the evaluation is linked to the type of relationship the evaluator choses to have with decision-makers. It may be that of 'technician', gathering information to meet the decision makers' contract; "facilitator, negotiating goals and criteria within existing social power relationships" (p.521) or "instigator, articulating and treating seriously perspectives, social relationships and goals not represented by decision-makers ..." (p.521). The objective of the 'investigator' is to generate and examine other perspectives, primarily those of relatively powerless groups and individuals involved in the situation to be evaluated. Knight and Campbell argue that the political role of evaluators and their relation to decision-makers raises serious strategic, technical and ethical issues and has been neglected by comparison with the question of methods in evaluation.

Work referred to earlier (Harris and Lipman, 1980/81; section 1.2.3) links to this view; the evaluator cannot expect to be a neutral purveyor of value-free 'information'. However, if the evaluator uses this fact as an excuse to abandon any attempt to research honestly, the decision-maker cannot be blamed for being unimpressed by the results.

It has been suggested so far in this section (section 1.5) that the limited degree of influence which the results of evaluation have appeared to have on decision-makers can be rectified in part by attention to the many suggestions in the literature for reducing the researcher - decision maker gap, but that it is probably even more important to redefine our expectancies about utilisation of evaluation findings. Decision-making is a political activity, influenced by many considerations other than 'pure' information - and evalaution can itself be seen as a political activity rather than as neutral.

In developing this argument, it has been assumed throughout that in fluencing policy making is desirable, and that it is the major goal of evaluation (in this discussion the impact of more local feedback is excluded). This is to assume, as Jeger (1980) does, that

> "There is nothing more frustrating to evaluators than their data not being used to influence policy." (p.232)

It should be said, before concluding this discussion of the impact of evaluation on policy, that there are other views on this.

> "Many social scientists consciously reject the role of "technician for the state" and choose to be social critics, "unattached intellectuals" without commitments to any group or social stratum, or advocates for under-represented groups in the society. They do not look upon government as their natural audience but choose to stand outside ...." (Weiss, 1980, p.2)

Other writers hold that, while some real world effect is desirable, it need not be via decision makers:

> "An evaluation project is incompletely performed if the evaluator does not succeed in stimulating some action as a consequence of the research. The action might be anything, from the common goal of affecting decision-makers to helping some low-power group articulate their shared interests and aspirations ..." (Knight and Campbell, 1980; p.531)

Beyond this there is even the view that far from being desirable, the use of evaluation findings by decision-makers can be dangerous. Davis and Salasin (1975) point out that conservative cutbacks can be the result of a 'progressive' evaluator's work. Campbell (Salasin 1977) warns of the dangers of evaluation being used as a "sabotage of action" (p.7) by being used, like the setting up of a committee, as a device to stall rather than take necessary action. Research can increase the centralisation of power (Straussman 1978); and may distort the role and work of social scientists in various ways (Weiss 1977).

Hazards such as these need to be set in the context of the preceding discussion (section 1.5.1) but do not in themselves cancel the need to undertand the research-policy link sufficiently to maximise the possibility of achieving realistic utilisation of any given piece of evaluation.

1.5.2 The impact of evaluation on guidance documents

"Building guidance" is a term which covers various communications from central government departments to responsible authorities (such as the NHS regional and district health authorities, and social services departments) giving recommendations and requirements relating to the design of new buildings. Some of this guidance is effectively mandatory, since conformity is necessary to obtain the cost limit requirements. The form of guidance which is most relevant in the present discussion is the Building Notes produced by the DHSS, one for each main building type; for example: Adult training centres (DHSS 1972); old peoples' homes (DHSS 1973). Such guidance typically begins with a brief statement of policy and objectives for the client group concerned, and continues with a detailed schedule of accommodation (list of rooms required) and observations on particular features. References may be included to other documents for detailed information on, for example, the space required to perform certain activities, and on costs.

These documents can be seen as a major means whereby government policy is promulgated, and it is therefore surprising that there has been little discussion of their role. As Moss observes:

> "... until recently public discussion has centred on the planning procedures, norms and cost limits.... Comparatively little public discussion has addressed itself to the content and format of design guidance." (p.2)

When new guidance is drafted, there is an extensive process of consultation with "the field" (authorities such as district health authorities) but it is not conducted in a way which facilitates constructive debate about the fundamental role, value and effectiveness of guidance in general: bodies such as compaigning groups, who may be expected to have an independent (and possibly critical) stance are not always involved. The lack of justification for the various statements (see later in this section) coupled with the mass of detail and current financial crisis probably explains why comment back to the department about guidance tends to be at a level of detail, does not challenge or suggest at a radical level, and concentrates on expressing anxieties about the financial feasibility of implementation.

It is interesting to note that there are, however, occasional examples of critical analysis of guidance. Cooper (1981), for example, has argued that the Department of Education and Science has used its guidance (the "Building Bulletin" series) in an attempt at social engineering - as "vehicles for propoganda" (p.134; see later in this section for further discussion). However, as regards the DHSS, Moss' observation above stands; it is also true that the DHSS has not mounted formal research into the way the field understands, and uses and evaluates guidance, which suggests a certain lack of concern about the general question of the role of guidance. At the same time, considerable time, expertise and internal discussion is devoted by the DHSS to the drafting of new building notes and their subsequent updating.

As background and as a basis for developing discussion, Moss' (1977) thesis is helpful. It should be remembered that he is discussing guidance specifically in relation to <u>hospital</u> design; (some significant differences between general hospital facilities and mental health facilities are considered below).

Moss deals with the DHSS official guidance from its beginning in 1948 to the development of 'standard' designs in the mid 1970s and concludes from his critical review that guidance has contributed to hospital design which has been relatively good value for money, but that various recent developments have made it important to re-think. The development of standardised design for hospitals meant that any planning and design mistakes would be multiplied; this was a spur to reconsider the briefing and design process information needs, and certain gaps became more apparent. There have been various changes in NHS planning to which the format of guidance is not totally suited. There is a greater emphasis on conversions and recycling of existing

stock, rather than on automatically building 'new'; guidance is based on a 'cost per area' approach and is not well-matched to this - overall conversion costs in relation to output are more relevant; facility planning is now seen not so much on the basis of individual buildings but as a wider planning strategy of a complex whole service; economy is vital and research is showing that increased space utilisation is often feasible, which again suggests that a 'cost per output' approach is more appropriate than the 'cost per area' approach traditional in guidance. Above all, Moss stresses, it has become clear that a vital component required by designers is missing from guidance: information on how the organisation of the building is likely to work, in relation to the design and layout.

Guidance has traditionally stressed the schedule of accommodation (backed by activity data saying what area is needed for particular activities), but this is not enough. What is needed is a description of the "organisation to be housed" (p.16) ie

> "a clearer understanding of medical and nursing organisations in relation to layout, together with the development of measures of space use and building performance or output". (p.53)

I.e. there is a need to know how the building as a facility would be organised and run - how it would work*.

There is also a need to understand not just what activities are to be housed, but how far space use can be more intensive: the potential 'output' of any given area is very significant for planning and design.

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* There is a parallel here with the way building regulations seek (with particular stringency in the case of health facilities) to ensure the safety of building occupants in the case of fire. As Appleton (1980) has pointed out, regulations are based on requirements about the standards of certain components of the building. This ignores how people behave in fires, which, as various authors have shown (eg (Canter, et al., 1980), can be a critical component in fire safety. The ultimate objectives of fire safety regulations are not to do with the construction of the building, but are the preservation of human life. Because not enough is known about what people do in fires (Canter, et al., op. cit.) regulations can only be a partial - and probably inefficient and therefore expensive - way of dealing with the problem of how to design buildings for maximum occupant safety from fire.

The parallel with the observations made by Moss (1977) arises from the common lack of information about the way buildings are used - whether under normal conditions or in the event of fire. There is a tendancy to tell the designer what building components are required rather than what human objectives to design for.

Moss suggests that a better understanding of how organisations work in buildings, of how the various departments would relate toeach other organisationally, and of rational space utilisation, are important. He suggests key factors where research is needed and can contribute to guidance. A major part of his argument is that guidance would be more acceptable to those designing buildings if it offered not ready-made authoritarian 'solutions' but general information on how the organisation works and how this relates to layout, and on levels of space utilisation. This would

> "help restore the professional to the role of problem solver [rather than] ..... "solution shuffler"". (p.30)

Associated with this is the need to clarify in guidance the status of the various statements it contains. At present, empirical, conjectural and policy-based statements are not distinguished. This is a very important point which deserves further development. Guidance documents at present do tend to interweave exhortatory, descriptive and speculative statements. It should be clear where, for example, the topic is a description of policy, where it is a report of relevant research findings, where it is a recommendation and what the justification for this is.

The architect understandably may feel impatient or manipulated by documents with these ambiguities. He or she would reasonably expect to have a clear statement of policy - and of its objectives - and that explanations would be included explaining why it is believed by guidance writers that the schedule of accommodation and other design recommendations made would help achieve the objectives of policy; this would include statements about how the building may be run (operational policy).

The work by Cooper 1981) referred to above provides an interesting sidelight on this matter. He analyses certain of the Department of Education and Science "Building Bulletin" series, which gave design guidance from the DES to school designers. He suggests that this guidance was used illegitimately: that recommendations favouring open plan design were used to promulgate 'open' teaching. DES preference for a new style in teaching was expounded not by directly recommending the teaching style itself but by trying to ensure that school design would encourage this teaching style; Cooper writes:

> "The new architerctural style was a statement to the teachers who moved into the schools, that progressive liberal education had arrived. Not only was form expected to follow function, but function, it was hoped, would follow form. It was quicker to put up buildings and hope they would educate the educators, rather than wait 20 years for personal attitudes to evolve." (p.134)

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*This blurring of categories of statement is, incidentally, the very problem identified in many professional journal reviews evaluating buildings - see Section 1.

The new teaching style "was not pursued by the publication by the Department [DES] of an explicitly formulated policy specifying what it held to be acceptable practice.... Rather designs for buildings were approved ..... which were seen as encouraging its preferred patterns of behaviour." (pp. 133.4).

In the event, success in using "buildings as vehicles for propoganda" (p.134) has proved to be limited (eg Matthews, 1976), but Cooper's arugment is interesting. However, the problem does not lie, as he believes, in the fact that guidance is used to promulgate certain policies: this is what all guidance is about. Guidance is issued by government because it is believed that buildings are one factor influencing, for good or ill, what people do, how services are run, etc. What is illegitimate is not the attempt to influence but how, often, the attempt is made. As Moss (1977) suggests, guidance should be improved by offering the reader clear, substantiated, and more complete information on the basis of which decisions can be better-founded.

Moss points to the important contribution of British research to the development of hospital design, and to the need for research to fill the gaps in guidance, and observes that research has subsequently become concentrated within the control of DHSS, thereby reducing the amount of independent and fundamental research.

At this point we will move from a consideration of the role of DHSS hospital design guidance in general to a look at the field of mental health building guidance (see Section 1.1.2 for a description of what the term 'mental health building' is taken to cover). Many of the observations made by Moss in relation to hospital building guidance and to the need for research to clarify organisational patterns and the feasibility of increasing intensity of space use, apply in relation to mental health building guidance too. But there are various differences in the nature of many mental health facilities, as compared to hospitals, which need to be noted when we extend the points made above, and Moss' observations in this section (1.5.2), to mental health building guidance. In general, mental health patients and clients differ from patients using facilities for 'acute' medicine: they differ in, for example, the following ways: policy stresses the need to avoid stigmatisation and institutionalisation, and to re-integrate the person into the community; the relevance of a strictly 'medical' role is less - the patient may not be ill at all (eg most mentally handicapped people); many will be long-stay or long-term patients, sometimes needing continuing support, including somewhere to live; many of the facilities involved are small and 'domestic' in scale compared to general hospitals; care often involves not so much a 'tech-fix' solution as support and education of the whole person; a very few patients will sometimes behave in ways dangerous to themselves and others. Because of such differences, operational policies, space utilisation, inter-departmental relationships etc, concern some different sorts of issues once we turn to consider mental health buildings.

Guidance for buildings used for mentally handicapped people typically includes (among other things): references to policies in favour of community care; 'norms' (ie the number of beds/places to be provided for a given catchment area) and statements about the size of the facility and about the integration or segregation of certain groups. There will also be a schedule of accommodation.

These are only a few of the components of 'typical' guidance for mental health facilities, but even these elements throw up a great number of questions: What evidence is there that the norms are appropriate? Will they vary in accordance with what other facilities are available locally? How will the size of the building interrelate with the degree of specialisation in certain categories of patients, and how will this, in turn, relate to integration/segregation within the building? How will the norms relate to the policy of community care - for example, if staff spend much time out of the building working in the community will this affect the numbers of patients who can be coped with <u>in</u> the building? These sorts of issues are to do with operational policy, space use and inter-relationships of the building in question with other parts of the overall local service. They are very complex. Research so far has clarified a few such issues but many remain murky. For example, Bays (1967) reviewed the recommendations on the size of groups in residential accommodation for children some years ago; the ideal size recommended by various experts varied greatly: 4, 6, 7, 8, 9 ..... Since that time, there has been no conclusive evidence to support any particular size of group. McKnight (1980) concludes her review on this topic:

> "It is not clear what an 'deal' group size would be but opinions tend towards groups of 5-8". (p.4).

The overall size of the residential unit itself is another issue on which no definitive recommendation can be justified. Various commentators on the research literature (eg Balla, 1976; McKnight, 1980) have noted that there is little evidence to support the intuitively attractive notion that size affects quality of care. Balla, for example, writes:

> "It has been assumed that, almost by definition, quality of care for retarded individuals is superior in small institutions. Unfortunately, there seems to be little empirical basis for this assumption". (p.117)

McKnight's review four years later indicates that, while there is evidence that the overall size of the institution may affect staffing, and community attitudes, it still does not appear to influence quality of care, although size of the <u>living unit</u> (sub group size) does seem to be of some importance.

If research has not always been able to give simple answers it has certainly shown many important relationships between design of facilities and what happens in them; for example:

> the kitchen and its location in residential facilities significantly can affect quality of life (Mazies and Canter, 1979);
>
> single bedrooms in psychiatric units do not encourage withdrawn behaviour (Ittleson et al. 1970);
>
> open plan design leads to difficulties in day facilities for severely mentally handicapped adults (Dalgleish and Matthews, 1981);

problems arise from the provision of gardens in housing for mentally handicapped and mentally ill people (Ritchie and Keegan 1983);

under certain conditions there is no economy arising from increased size of residential economy, or from centralisation of facilities on a single site (Felce, 1981).

Building guidance could provide a very appropriate vehicle for an overview - necessarily very brief - of some of the most relevant research findings. This could be associated with some attempt to provide what is (as has been argued above) a serious gap in the internal logic of guidance: the reasons for believing that the design recommendations made are likely to contribute to the achievement of the policy and objectives as described in guidance.

There remains the question of how, in practice, research data can come to be influential on guidance. Building Note Guidance is written in the part of DHSS which is primarily concerned with buildings - the Works Group - in liaison with the part of DHSS which is concerned with policy - the policy group. When a need to write and disseminate guidance (or a re-draft of guidance which has become out of date) is identified, the policy group contributes a statement of the policy for the relevant facility, and Works Group writes detailed recommendations about the sort of design which should be produced.

The potential relevance of building evaluation research to the development of policy has already been discussed above (Section 1.5.1). The relevance of building evaluation research data should lie in its contribution to clarifying the link between policy and building recommendations as referred to in the previous paragraph. This question is referred to again in Section 2 and Section 3.

2. THE MENTAL HEALTH BUILDINGS EVALUATION PROGRAMME (MHBEP)

2.1 THE NEW DATA IN THIS SECTION

This thesis has three parts: a theoretical part, an applied part and a discussion with recommendations. Section I is a theoretical investigation of evaluation, particularly mental health building evaluation; Section 2 is a report of parts of a major mental health building evaluation programme directed by the author. Section 3 is a discussion of the theory and application together, to develop recommendations about mental health buildings and how they should be evaluated.

The present section (Section 2) is a report of parts of the Mental Health Buildings Evaluation Programme directed by the author at the DHSS between 1978 and 1983 (and includes edited extracts from reports S1, S2, S8, W1, W2 and W3, produced during that programme - see section 2.2.6 for complete list). Section 2 'reads' very differently from the other two sections; it is a very condensed account of an extended piece of 'real world' evaluation, described in sufficient detail to reflect faithfully the kind of methods used and data produced. It offers new data about mental health buildings, and, as a practical attempt at evaluation, provides examples of strengths and weaknesses of evaluation work in practice. In Section 2 the methods and data are simply reported; in Section 3 they are critically discussed and this discussion contributes to the development of recommendations about mental health buildings and evaluation.

2.2 DEVELOPMENT OF THE MENTAL HEALTH BUILDINGS EVALUATION PROGRAMME (MHBEP)

2.2.1 Building evaluation in the DHSS

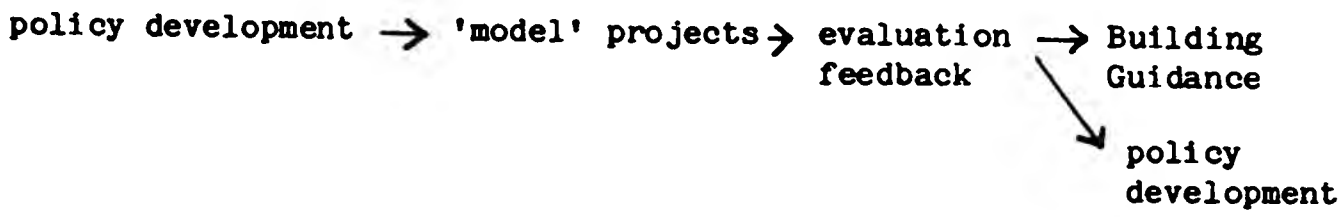
General policy regarding mental health provision during the 1970s was to avoid admission to hospital except where essential, and to provide more community-based facilities. It was hoped that the older hospital provision could eventually be replaced by smaller residential units, and by greater use of day facilities and support services in the community, to enable people to remain living at home where possible.

These general principles applied to both mental handicap provision (White Paper, DHSS 1971b) and to psychiatric provision (White Paper, DHSS 1975b) and remain broadly the same today. Two major 'model' services were set up in the 1970s to 'test' these ideas: the Sheffield Development Project for mentally handicapped people (SDP) and the Worcester Development Project for mentally ill people (WDP). For each of these Projects a Feasibility Study (DHSS 1971c; DHSS 1975a) was produced, outlining the philosophy and policies, the buildings required, and the way the service should be provided. (In the case of Sheffield the Feasibility Study (FS) slightly preceeded the White Paper, but nevertheless reflects its policies). Both FSs indicated that evaluation would be required of the completed Projects.

Thus the DHSS was following a sequence which could be described schematically as follows:-

policy development (White Papers) → 'model' projects (SDP; WDP) → feedback (evaluation)

Since there was an assumption that feedback would be useful, we can extend the sequence thus:-



'Building Guidance' is the term describing Building Notes and other documents produced by the Works Group of the DHSS (in liaison with the DHSS Policy Groups) to advise all those involved in planning health buildings as to how they should be designed in order to meet current policy requirements (and current cost limits). Since a major objective of such Building Guidance is to ensure that government mental health policy is realised, we can further extend the sequence thus:

This schematic description of events suggests that the DHSS believed that policy can be translated into action, can be made to happen, largely via changes in the physical environment. New ideas in mental health were not expected to happen in the old bricks and mortar; it was hoped that the replacing of old buildings with new ones would help change people and events. The belief that the physical environment is a major influence on people and events is of course what underlies environmental psychology. The evaluation of the model Projects represents an application of that basic idea, and a detailed examination of some examples of it.

However, simple, (even obvious), as the above sequence appears, it should not be thought that its elements are linked in such a logical way in DHSS practice. The DHSS is responsible for formulating policy changes in response to government decisions, for model Projects, for Building Guidance, and for various types of evaluation, and is a major funding body for mental health research generally. Some of these functions are developed in a very sophisticated way: policy documents are very carefully written; the resources for models vary from small-scale mock-ups to full model services such as the SDP or WDP; any Building Guidance document is likely to take some years to produce; evaluation of all major building schemes is officially recommended in Capricode (DHSS 1974); individuals and groups of DHSS staff make very many visits informally to evaluate buildings; the Research Liaison Group of the DHSS provides substantial funding for a variety of research projects in the mental health sphere.

These functions are extensive, and intensive in terms of person hours and therefore costs. But there is no machinery for relating the various functions.

A major task in the MHBEP was, therefore, to ensure that the evaluation took cognisance of the other elements in the sequence above. This problem of making evaluation results useful is one which other researchers have experienced in different contexts (see Section 1.5 above); it has often been suggested that lack of liaison between the funding group and the researchers can be the core of the problem, but it was clear from the start of the research reported here that lack of appropriate liaison links within the funding body (DHSS) was likely to be a problem.

2.2.2 General background

The Mental Health Building Evaluation Programme (MHBEP) began in 1978 in the Works Group of the DHSS with a remit (later extended) to evaluate two major DHSS 'model' projects, which together involved some 40 buildings.

The evaluation was to deal with the way a building affects the service offered in it; it was not, primarily, to be concerned with evaluating the technical side of buildings such as the structure and engineering. The aim, strategy and tactics of the evaluation were developed in the light of many of the points raised in Section 1 above. The overall aim was to produce information on buildings which would be of practical use to those planning and running services (at both national and local level) to policy makers and for the development of building guidance. Recommendations would relate to three areas:

1. possible modifications in the particular situations evaluated (of interest to local service managers)

2. improved and/or cheaper future design (of interest to planners and to those writing building guidance)

3. policy-related feedback (of interest to policy-makers).

The general strategy was to evaluate in a structured, systematic, way, using, where possible, standard measures to achieve quantified information. Techniques used were to be selected as relevant for particular parts of the work. The research team included principally psychologists and architects but other support (eg quantity surveyors), was to be used as necessary. The relationship of the work as it developed to developments in policy was seen as important.

Service evaluation and building evaluation

The relationship between evaluation of a building (or set of buildings) and evaluation of the service of which it is part, is complex. Within the DHSS, building evaluation, guidance and most things directly to do with buildings are the responsibility of the Works Group; mental health services including service evaluation, on the other hand, are the responsibility of the Policy Group. However, it is unrealistic to evaluate a service as if it did not occur in any physical environment, and difficult to evaluate buildings without understanding the service to which they are contributing. The MHBEP was Works Group financed, and one of the early hurdles that had to be cleared was establishing, within the DHSS and to those working within the SDP and WDP services, that significant building evaluation must relate to policy. The buildings in the MHBEP were not intended to be innovatory in technical 'building' terms; from an architectural and engineering point of view they were (with a very few exceptions) unremarkable. The innovation that was intended lay in the service, and the evaluation of the buildings was to understand their role in the service.

There is considerable 'building' expertise which Works Group; elsewhere in the DHSS there are very experienced bodies checking service standards (the Health Advisory Service; the Development Group) and sponsoring (non-building) research (Research Liaison Group). But there was no equivalent sophistication and experience in relating the evaluation of buildings to developments in policy, despite the fact that control on the planning of buildings has been a major tool for the DHSS in its task of overseeing the realisation of government policy.

2.2.3 The funding

The research was funded through the research and development budget of the DHSS Works Group. It was clear at the start that this presented both advantages and disadvantages. Being DHSS-based would, it was hoped, give access to DHSS documentation, to policy developments, and to developments in Building Guidance, and facilitate access to NHS and LA buildings and staff. Being Works Group based would, it was hoped, have further particular advantages. The Works Group of the DHSS is responsible for matters to do with buildings; policy considerations are the responsibility of the DHSS Policy Group. Thus, for example, the Policy Group is responsible for writing any White Paper concerned with mental health, and the Works Group (seperately, although in liaison) writes any Building Guidance which may subsequently be necessary for the implementation of recommendations in the White Paper. By being Works Group funded rather than Policy Group funded the MHBEP team hoped to be under somewhat less constraint in discussing mental health issues in its reports. (It was also hoped that people in the buildings visited would view the evaluators, because they were Works Group sponsored, in a less 'inspectorial' role than that which is sometimes attached to civil servants.)

The fact that the DHSS was sponsoring research on its own Projects presented the possibility of research bias. On the face of things, the decision that the DHSS would assess its own performance (in evaluating its own two major mental health Projects) could have made impartial research very difficult. However, various other factors were relevant. Firstly, few other bodies are likely to want to provide funding for research for which the most immediate beneficee is likely to be the DHSS, which is assumed to have its own funds. Moreover, Projects of the scale of the SDP and the WDP require a scale of funding beyond the resources of most other funding bodies. So it would have been likely that the lessons to be learned from investigation of these Projects would never have been drawn at all unless research was DHSS funded. There were also reasons for believing that in practice any temptation to 'justify' by research (rather than investigate objectively) was unlikely. Firstly, changed economic and policy circumstances made it out of the question to repeat either the SDP or the WDP 'Grand Plan' in toto elsewhere in the country; any temptation to 'justify' the Project was thereby reduced. Secondly, the background and interests of the MHBEP team helped guarantee disinterestedness, both through the ratio of civil servants to non civil servants (variable, but always a small proportion) and by the variety of personal beliefs amongst the team which contributed to the development of the research. A disadvantage with no such mitigations was the one-year-at-a-time basis of the funding. Staff had to be found who would accept uncertainty about the future, and every piece of work had to be organised on the assumption that it may have to be completed in a year, yet should also be timed to develop over a longer period if funds appeared.

A final point should be made in connection with funding: the MHBEP was set up purely as an information-seeking programme. It was free from commercial pressures, in that producing results which were of definite economic advantage was seen as desirable but not as the central justification for the research. It was free from pressures which can arise in research funded in academic settings: it did not have to take as a major objective the testing of a theory or the extension of the use of a technique. This gave the freedom to consider what the real questions and best procedures were, unhampered by a need to demonstrate novelty in theory or technique for the purpose of academic prestige.

2.2.4 The Team

The management of the Team was located in DHSS Works Group; it included the liaison officer (the 'bridge' between the research and the Civil Service), the director (the author), an administrator and some graphics support. The director was appointed as a consultant to DHSS; the other members were civil servants who made the MHBEP a large part of their workload.

The field workers were located 'on-site', ie living in the area of research. In appointing these research workers, the assets looked for, in addition to relevant training and experience, were knowledge of the local mental health scene, and ability to do a potentially politically sensitive job in the researcher's own area of residence. In spite of turnover due largely to insecure funding, the brunt of the work was done by very capable people working full-time: two people in each of the two Project areas, all with a social science background. Various other workers, with a social work or architectural background, were appoinetd for limited periods for limited roles within the work. Commercial graphics support was brought in where DHSS graphics time was not available.

2.2.5 The general remit of the MHBEP

The remit of the MHBEP was originally to evaluate the two DHSS model Projects, the SDP and the WDP. Because developments in policy and building do not stand still, this remit grew, to include a variety of building types, widely located. Such subsequent evaluation is not detailed in this document, but some reference is made to particular aspects of the methods used. This document focuses on the SDP and WDP evaluations - to be more precise, on selected parts of these. Which parts were selected, and why, is described in 2.2.6 below.

In evaluating the buildings it was necessary to refer to the White Paper policies, and to the specific requirements of the Feasibility Studies (FSs). But government policy has developed since the early 1970s, and evaluation therefore refers to these developments, and also to developments amongst spearhead groups outside DHSS whose ideas are often an influence on future official policy.

It will therefore be clear that it would not have been appropriate in evaluation to take the original intentions for a building as the sole criteria against which to assess the service and the role of the building. Let us take as an example a particular question: that of how many children there should be living as a group in residential accommodation for mentally handicapped people. The SDP FS suggested numbers which subsequent DHSS Guidance (DHSS 1980b) has reduced and which some writers would like to see further reduced (eg Shearer 1981). For the purposes of evaluation, therefore, the point of interest is not so much whether original intentions about the group size, as suggested in the SDP FS, have been put into practice, but more the broader question of the implications (of all sorts) of different group sizes. It is important to know whether the original intentions in planning a building, as expressed by the FS, were achieved, but we need to go much further in evaluation. As well as simply checking whether the blue-print was applied, we need to look at the many questions about the relationships between people and buildings in a service, in relation to policy and practices.

2.2.6 The Programme as a whole

The scheme of work (for both the SDP and the WDP) was to begin by collecting basic facts about the components of the service and to produce a document which was to act as a reference document and would also, by new assembly, analysis and presentation of the material, in itself raise questions about the service. The buildings were then evaluated by 'types' of building (eg residential accommodation for mentally handicapped children; psychiatric day centres). The sequence in which types of buildings were evaluated was, in the case of the SDP, children's facilities first (because of the governmental priority to children at the time) followed for adults' facilities; and in the case of the WDP, day provision first followed by inpatient provision (because of the governmental priority to community care at the time, and because it seemed reasonable to begin with the smaller and less complex facilities). The following list shows reports produced at Sheffield (and also Peterborough and Hereford, where related work was done) and at Worcester. These reports were produced during the Programme and some are no longer available but they are listed to show the scope of the Programme as a whole.

REPORTS

Sheffield Development Project for mentally handicapped people

*S1	Basic facts and figures	1979
*S2	Children's residential accommodation: Policy and user reaction	1979
S3	Community reaction to local buildings	1979
S4	Children's residential accommodation: an architects' view	1980
S6	Hospital day care for adults	1980
*S8	Adult residential accommodation	1981
S9	ATCs and Day Care for Adults	1983

Hereford Development Project for mentally handicapped children

H1	Parents' views on services for mentally handicapped children	1983

Peterborough Development Project for mentally handicapped people

P1	Children's and adults' units at the Gloucester Centre	1980

Worcester Development Project for mentally ill people

*W1	Basic facts and figures	1980
*W2	Day centres: Policy and user reaction	1980
*W3	Peripheral day hospitals and day care: Policy and user reaction	1981
W5	Psychiatric depts: Policy and user reaction	1982
W5(a)	Psychiatric Departments: Review of space standards (technical document for internal circulation only)	1982

PAMPHLETS

Phamphlet 1	Residential facilities for Mentally Handicapped Children	1981
Phamphlet 2	Health Service Residential Accommodation for Severely Mentally Handicapped People: how to make the most of current design guidance	1981
Phamphlet 3	Worcester Development Project Psychiatric Provision - where do we go from here?	1982

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* Edited extracts are included in this section (Section 2)

The parts of the evaluation work which are outlined in some detail in this document have been selected to demonstrate the development over time of parts of the work: residential accommodation for mentally handicapped children, and day and hospital provision for adult psychiatric services. This selection makes it possible to follow the work through from the initial documents laying out basic facts about services, through evaluation of particular buildings, to the overviews and recommendations produced in Pamphlets. However, because more than half the MHBEP work in the SDP and WDP is not included, and neither is MHBEP work elsewhere (in order to keep this document to readable proportions), the reader cannot be aware of various techniques which were used in the parts of the MHBEP which are not included. It should therefore be noted that, in the Programme as a whole, the ways in which information was collected can be summarised as follows:

records (including policy documents, briefs, Case Register information and records kept specifically for the MHBEP)

interviews (with staff at various levels, with 'consumers' and with planners)

observation (varying from informal 24 'presence' in a unit to highly structured behaviour-mapping of particular rooms)

scales (established measures used by other workers eg 'Wessex' assessment forms of severity of mentally handicap; Gunzburg '39 Steps' measure of the environment)

technical measurements of buildings (architectural, engineering or quantity surveying measures; eg area per person, capital costs).

When considering any category of building, techniques were selected as appropriate. By a 'mix' of methods it was hoped to guard against distortions which a single technique can produce and to balance the 'rigour' of quantified information with the different advantages of quantitative information.

There were four main sources in deciding which matters should be investigated:

reference to the White Paper and Feasibility Study requirements;

subsequent, and likely, policy developments;

the issues which were seen as salient by 'key' people associated with either the SDP or the WDP. Before evaluation work could begin, these areas of concern were investigated as follows.

Raising areas of concern

At an early stage, members of the MHBEP team sought to convey their overall aims to policy-makers, Building Guidance developers, and people involved in running the buildings to be evaluated, and to understand from them what topics they felt building evaluation should consider. Group discussions were held between team members and groups of people in the Policy Groups, Works Group and in management in the SDP and WDP. During these, the difficulties of communication became clear. The MHBEP team had only limited success in conveying its overall aims, and in particular in

explaining the relationship between buildings and the service in the buildings. It seemed difficult to explain that the 'performance' of building has to be assessed in the light of what people in it are trying to achieve. 'Building' evaluation was often seen as to do with bricks and mortar rather than people and activities. Nevertheless, issues were produced in these discussions by policy and planning people and each one was later transcribed onto a card; the cards were sorted into groups. While of no statistical validity, because of the necessarily informal nature of these introductory meetings, this procedure gave the Team an idea of what was salient in the minds of those met.

The wide range of areas of concern raised and the range of 'languages' in which these were expressed, underlined the importance of finding evaluation techniques, and styles of reporting, that would make the results accessible and relevant to a wide audience: a potential audience which included not only those referred to above but also academic research workers (given the backdrop to the MHBEP described in Section 1).

In order to guide the reader through the remainder of this section (Section 2) it may be helpful to note the overall strategy in the work reported was as follows:

Evaluation of Sheffield Development Project:

presentation of basic information about the Project (2.3.2.2)
a survey of accommodation for children (2.3.2.3)
a survey of accommodation for adults (2.3.2.4)

Evaluation of the Worcester Development Project:

presentation of basic information about the Project (2.3.3.2)
a survey of day centres (2.3.3.3)
a survey of peripheral day hospitals (2.3.3.4)
a survey of hospitals (2.3.3.5)

2.3 THE DATA

2.3.1 The Sheffield Development Project (SDP) and the Worcester Development (WDP) evaluation data

Section 2.2 outlined the development of the MHBEP as a whole. Section 2.3 presents selected parts of the data this Programme produced. Section 2.3.2 deals with buildings for mentally handicapped people, and section 2.3.3 deals with buildings for mentally ill people.

2.3.2 Facilities for mentally handicapped people: evaluation of the Sheffield Development Project (SDP)

This section (Section 2.3.2) reports the work done in the MHBEP on residential accommodation for mentally handicapped people (see 2.2.6 for the Programme as a whole).

2.3.2.1 Background

Until 1971, any mentally handicapped person needing residential care was faced with little alternative but hospital. During the 1960's official sources such as the Hospital Advisory Service, campaigning groups such as MIND and independent investigators such as Tizard were all pointing out that many of the old hospitals (providing most of the beds) were unsatisfactory.

Large, overcrowded hospitals remote from the communities they served, and finding staff recruitment difficult, could not offer adequate opportunities to patients. Moreover surveys in Wessex, Birmingham and Sheffield (DHSS 1971b) showed that many hospital patients did not even need to be in hospital, although they still needed residential care and home support.

1971 saw two developments in the mental handicap world: the White Paper ("Better Services for the Mentally Handicapped" DHSS 1971b) encouraging a shift away from hospital care and into small residential units in the community, and the setting up of the Sheffield Development Project (SDP), a major experiment trying to do what the White Paper was recommending.

The White Paper suggested that services should be developed in such a way that no mentally handicapped person should have to go into a large hospital. A very severely handicapped person would be cared for in a small homely hospital unit built near a general hospital (not a mental handicap hospital). A moderately handicapped person would live in a small unit in the community. Both these sorts of units would be provided by the Health Service; the Local Authority was to provide residential care for the very mildly handicapped. This White Paper proposal of three levels of provision, none of which was to be in hospital, was very different from the earlier options which were, roughly, to be either 'in hospital' or 'at home'. The SDP set out to bring into being the three types of provision which the White Paper proposed. Such accommodation was relatively novel, and the designs were carefully considered in relation to the groups involved.

The 10 years since the first stages of the SDP have seen many other experiments in providing accommodation for mentally handicapped people, and the work of groups such as the National Development Group for the Mentally handicapped, (set up in 1975) the Development Team for the mentally handicapped (set up in 1976) the Report of the Jay Committee (1979) and the

work of campaigning bodies such as the Campaign for Mentally Handicapped People have contributed to developments in ideas and practice. There have been various experiments in providing accommodation, although none so far completed on the scale of the SDP. In spite of these later developments and experiments, the accommodation in the SDP offers a unique opportunity to evaluate, across a range of situations, the relationships between severity of mental handicap, building design and the users' life and activities within the buildings. It also offers the chance to 'test' some of the assumptions of the White Paper, which as the subsequent Review of the White Paper (DHSS 1980a) confirmed, still represents, broadly, current government policy.

2.3.2.2 Basic information

The MHBEP team were fortunate in that Sheffield was one of the very few areas in the country to have a Case Register at the time - a complete list of service users and basic information about them, for the Sheffield County Borough (population 500,000 approximately). Selected information from the Case Register, together with facts about the location of buildings and take-up of places, was put together to provide basic 'facts and figures' for the evaluation. Although much of this information was previously available, selection, juxtaposition and presentation in the light of the FS intentions not only provided basic information relevant specifically to building evaluation, but also raised various questions. Examples of this kind of presentation follow; it is noteworthy that, as far as could be ascertained, information in this 'mapped' form was not previously available.

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BASIC FACTS AND FIGURES: SHEFFIELD DEVELOPMENT PROJECT FOR MENTALLY HANDICAPPED PEOPLE

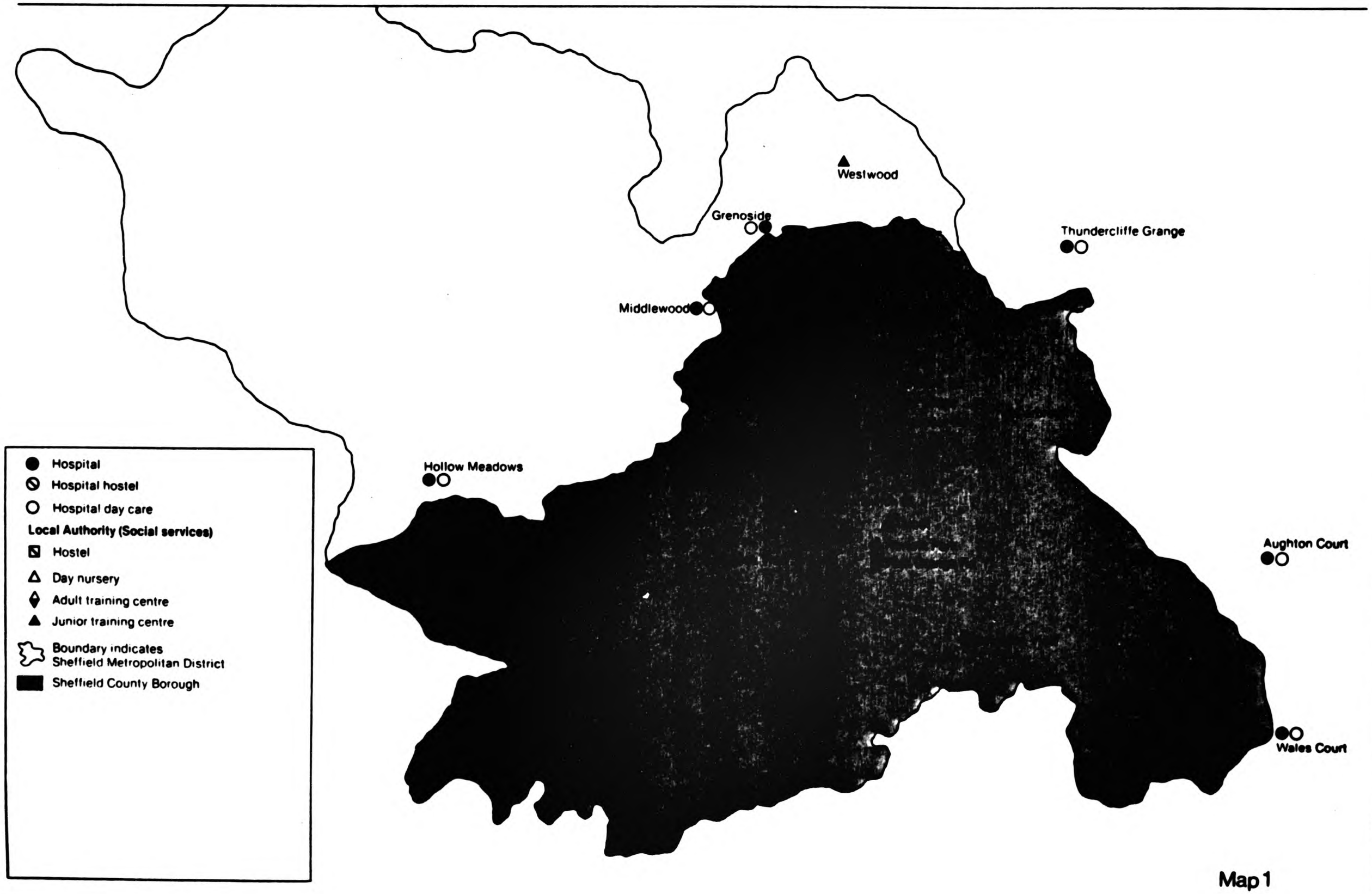
INTRODUCTION

The Sheffield Feasibility Study (1971c) proposed a comprehensive service for mentally handicapped people in Sheffield. The Sheffield Development Project, implemented this study, providing the range of residential and day care facilities thought to be required for mentally handicapped people from a catchment area (the County Borough) with a population expected to rise to above 500,000 by 1981.

The basic facts and figures of the Project, displayed in map and table form, follow.

Map 1 shows the range of buildings used for mentally handicapped people before the Feasibility Study (FS) recommendations were implemented. Much of the residential accommodation was in hospitals located away from the city centre, or even outside the County Borough.

Facilities existing or planned before the project



Map 1

Map 2 shows the location of assessment, educational, training and residential accommodation provided under the SDP.

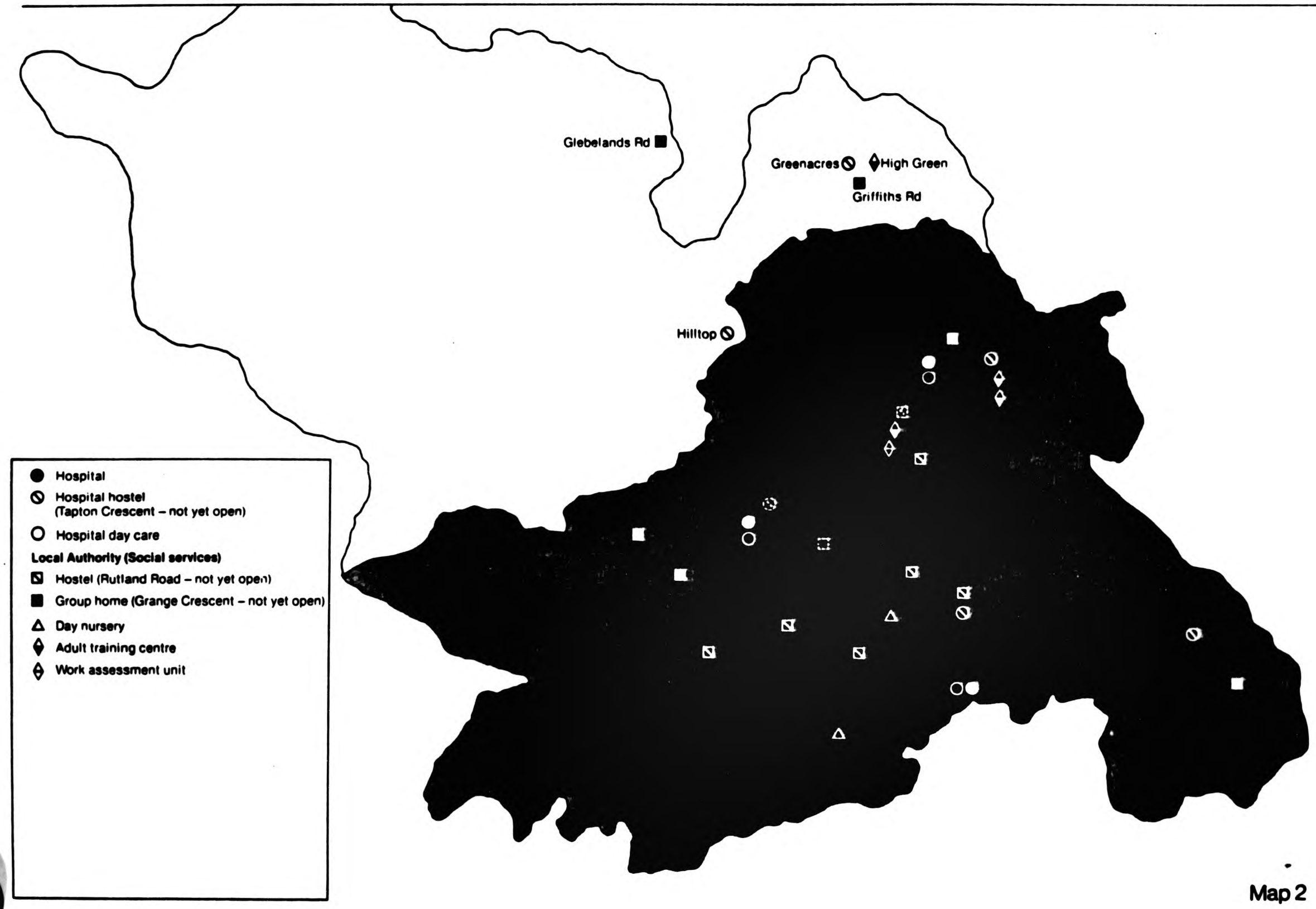
Map 2 should be compared with Map 1. It was predicted in the FS that the older existing hospitals outside the County Borough boundary (see Map 1) would close and be replaced by accommodation in smaller buildings, more evenly distributed in relation to more densly populated areas within the boundary.

The residential accommodation includes Health Authority hospital units* (for the most severely handicapped) and hostels (for the moderately handicapped) and Local Authority hostels for the mildly handicapped. Both types of hostel were to be located in the community.

* These are labelled 'hospitals' on the maps

The Sheffield Development Project

Schematic location of services provided by the project for adults and children



Map 2

MAP 3

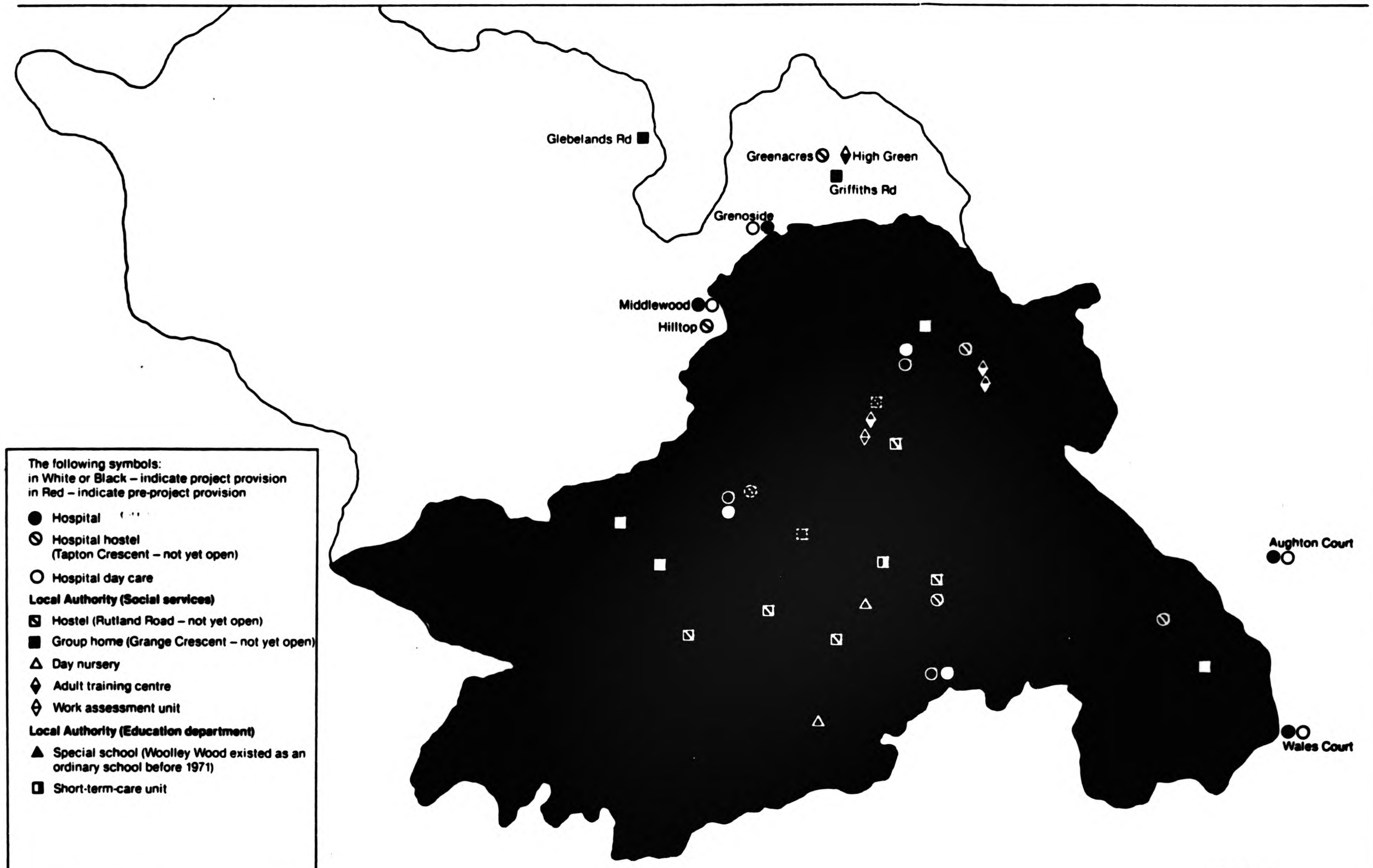
If Map 3 is compared to Map 1 the pattern of closure of some of the older existing buildings can be seen. Only Hollow Meadows, for adult men, and Thundercliffe Grange for children have so far closed.

The special schools (formerly Junior Training Centres) are shown on this map as they are considered to be an important component in a comprehensive service.

Map 3 emphasises the continuing use made of the majority of buildings existing before the Project, even though most of the new small residential units of the Project provision have now been opened.

The Sheffield Development Project

Schematic location of services now in use for adults and children



The following symbols:
in White or Black – indicate project provision
in Red – indicate pre-project provision

- Hospital
- Hospital hostel (Tapton Crescent – not yet open)
- Hospital day care

Local Authority (Social services)

- Hostel (Rutland Road – not yet open)
- Group home (Grange Crescent – not yet open)
- Day nursery
- Adult training centre
- Work assessment unit

Local Authority (Education department)

- Special school (Woolley Wood existed as an ordinary school before 1971)
- Short-term-care unit

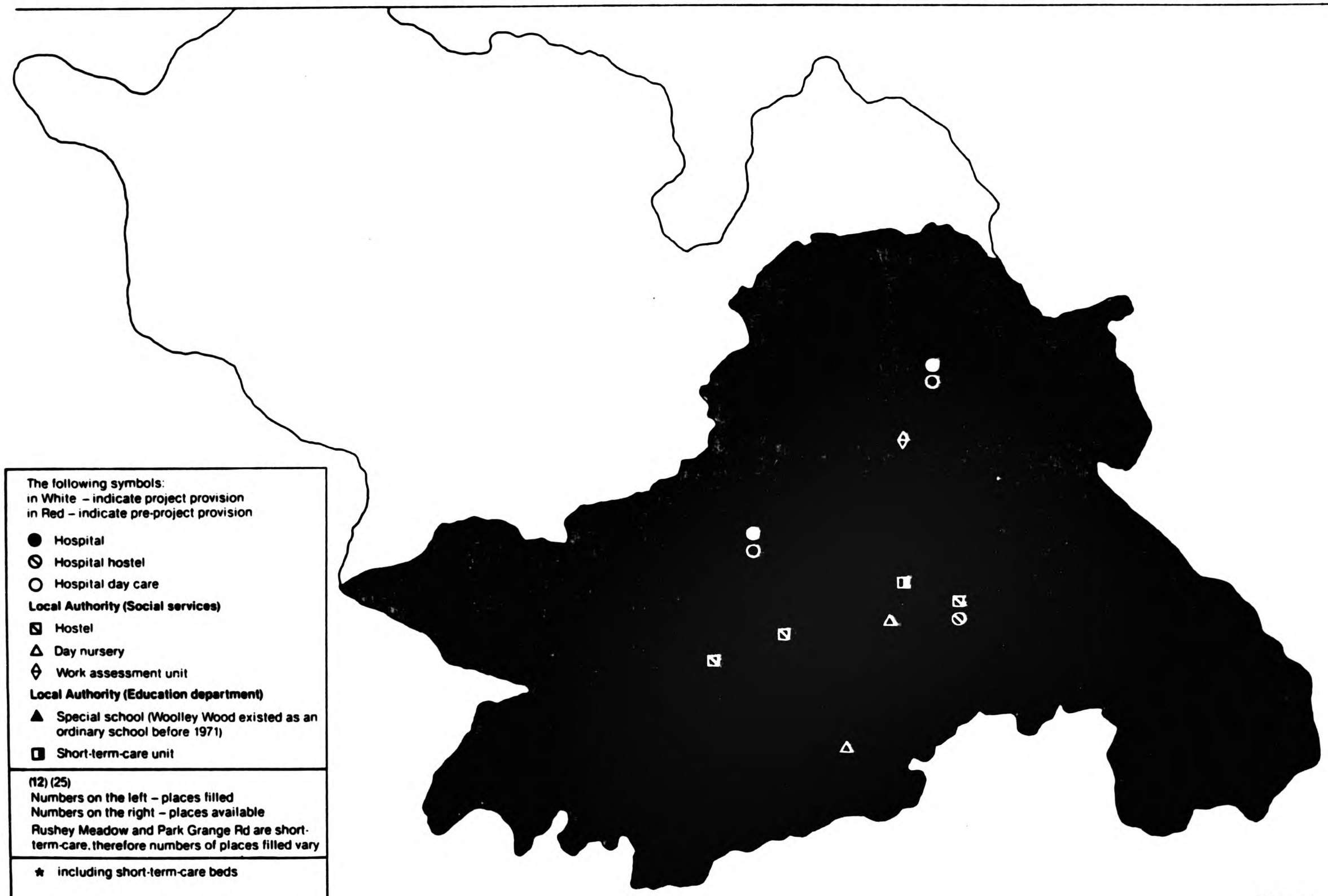
Map 3

MAP 4

A look at the children's facilities separately shows that distribution is less even than it is for adults - compare Map 3. The town centre is just north of Talbot School and Map 4 shows that LA hostals are all south of the centre, as are the two day nurseries.

The Sheffield Development Project

Number of places occupied and total number of places currently available for children at February 1979*



The following symbols:
in White – indicate project provision
in Red – indicate pre-project provision

- Hospital
- Hospital hostel
- Hospital day care

Local Authority (Social services)

- Hostel
- Day nursery
- Work assessment unit

Local Authority (Education department)

- Special school (Woolley Wood existed as an ordinary school before 1971)
- Short-term-care unit

(12) (25)
Numbers on the left – places filled
Numbers on the right – places available
Rushey Meadow and Park Grange Rd are short-term-care, therefore numbers of places filled vary

* including short-term-care beds

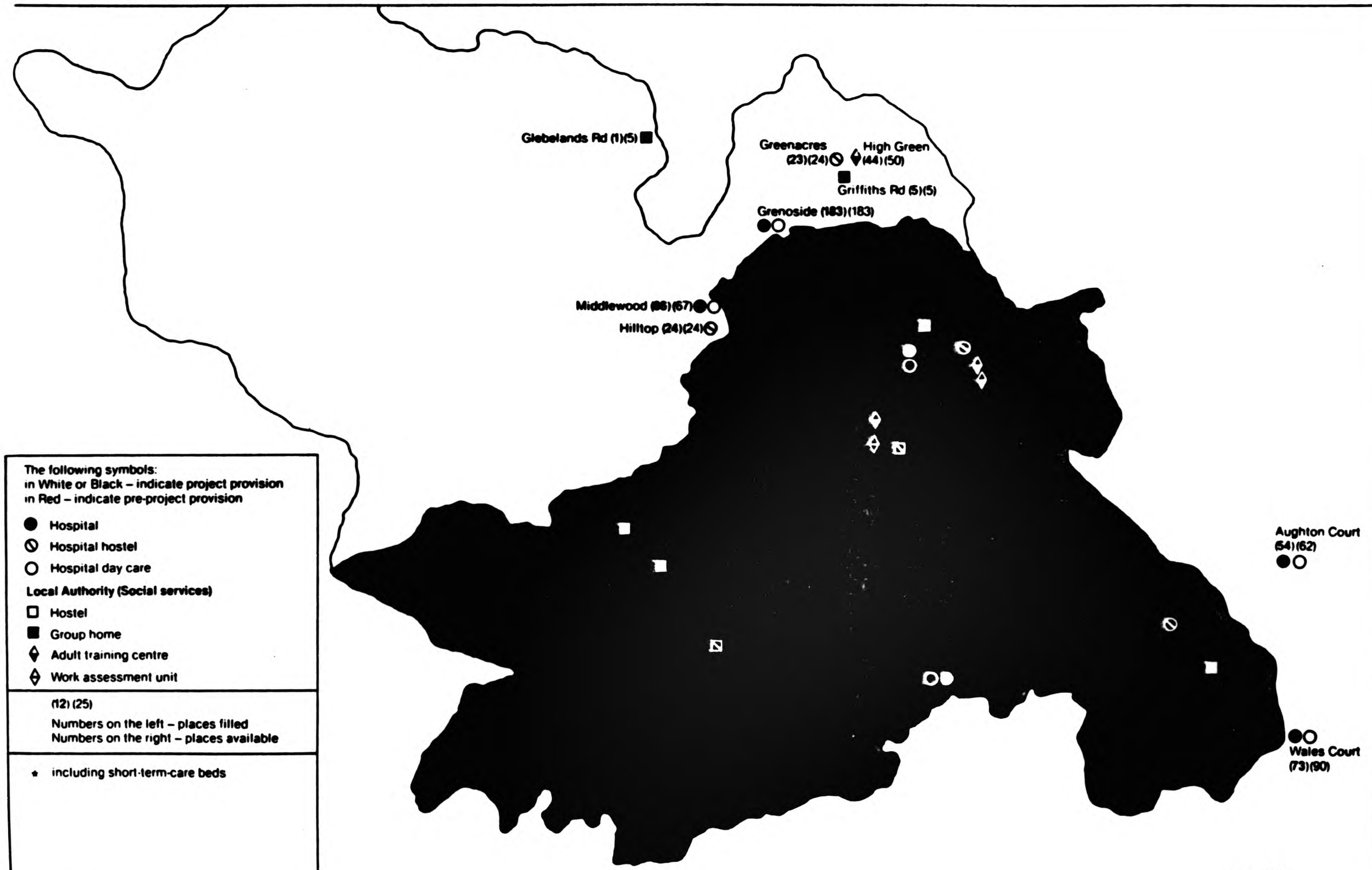
Map 4

MAP 5

The Feasibility Study recommended 96 places at Lightwood and 96 at Rivermead. Both have been commissioned for some time but each building is still not full. The expected closure of all the older buildings has not occured.

The Sheffield Development Project

Number of places occupied and total number of places* currently available for adults at February 1979



The following symbols:
in White or Black – indicate project provision
in Red – indicate pre-project provision

- Hospital
- Hospital hostel
- Hospital day care

Local Authority (Social services)

- Hostel
- Group home
- Adult training centre
- Work assessment unit

(12) (25)
Numbers on the left – places filled
Numbers on the right – places available

* including short-term-care beds

Map 5

Mentally handicapped children from Sheffield MD resident in Hospital Authority and Local Authority provision, 1978*

	Sex			Age in years								Severe social & physical incapacities				Mild social & physical incapacities		No. SPI but problems with self-help and literacy	None of these problems
St. Joseph's (Old hospital)																			0
Ryegate (New hospital)																			0
Rivermead (New hospital)																			0
Arbourthorne (New hospital hostel)																			2
Total Hospital Authority	45	13	32	2	7	23	13	6	11	3	16	2	0	1	0	2	0		2
Ringinglow Road (L A Hostel for Mentally Handicapped Children)																			0
Rushey Meadow (L A Hostel for Mentally Handicapped Children)																			0
Strafford House (L A Hostel for Mentally Handicapped Children)																			1
Total Local Authority	34	18	16	0	11	15	8	0	10	9	5	0	1	3	3	2	0		1
Ordinary children's homes																			
Fostered/boarded out																			
Total	103	41	62	4	25	52	22												

* August 1978 for Local Authority – October 1978 for Hospital Authority
A few additional children from outside Sheffield MD were resident in some of the units and have not been included in the figures

† These children, both 2 years of age, are not included in the dependency data

†† Regular attenders

For details about the dependency ratings see
Kushlick, A, Blunden, R & Cox, G A Method of Rating Behaviour Characteristics for use in Large Scale Surveys of Mental Handicap **Psychological Medicine** 3 466-478 1973

Table 1

Mentally handicapped children from Sheffield MD resident in Hospital Authority and Local Authority provision, 1978*

	Sex			Age in years								Severe social & physical incapacities				Mild social & physical incapacities				No SPI but problems with self help and literacy		None of above problems
				0	1	2	3	4	5	6	7											
St. Joseph's (Old hospital)																						0
Ryegate (New hospital)																						0
Rivermead (New hospital)																						0
Arbourthorne (New hospital hostel)																						2
Total Hospital Authority	45	13	32	2	7	23	13	6	11	3	16	2	0	1	0	2	0					2
Ringinglow Road (L A Hostel for Mentally Handicapped Children)																						0
Rushey Meadow (L A Hostel for Mentally Handicapped Children)																						0
Strafford House (L A Hostel for Mentally Handicapped Children)																						1
Total Local Authority	34	18	16	0	11	15	8	0	10	9	5	0	1	3	3	2	0					1
Ordinary children's homes																						
Fostered/boarded out																						
Total	103	41	62	4	25	52	22															

* August 1978 for Local Authority - October 1978 for Hospital Authority
A few additional children from outside Sheffield MD were resident in some of the units and have not been included in the figures

† These children both 2 years of age are not included in the dependency data

†† Regular attenders

For details about the dependency ratings see
Kushlick A Blunden R & Cox G A Method of Rating Behaviour Characteristics for use in Large Scale Surveys of Mental Handicap **Psychological Medicine** 3 466-478 1973

Table 1

Residential accommodation for mentally handicapped people before the SDP began almost always meant living in a hospital, usually a mental handicap hospital, often remote from the city centre: there were few hospital hostels or local authority hostels (Map 1).

With the advent of the SDP buildings, accommodation was much more evenly spread, (Map 3 compared to Map 1) but this was less true for children's accommodation (Map 5). A large number of pre-Project buildings, all of which the FS expected to close, remained open <u>after</u> the Project buildings opened (Map 3). In many of the buildings places provided were not filled (Maps 4 and 5).

The FS expected that the Hospital Authority would deal with the most severely handicapped in hospital units ("new hospitals") and the Local Authority would accommodate the mildly handicapped: in practice the distribution was very different (TABLE 1).

2.3.2.3 <u>Evaluation of the children's residential accommodation</u>

The evaluation of the residential accommodation for children took place in the light of various aspects referred to above (2.3.2.1 and 2.3.2.2), ie the White Paper and the Feasibility Study, issues of concern to Sheffield service providers, issue relevant to policy and to guidance development and the basic facts and figures already assembled.

Firstly, the original intention for the service and the buildings, as given in the FS, and reflecting ideas in the White Paper; the most important of these, for the purposes of building evaluation, were to do with:

> <u>the places</u> - how many should be provided and <u>groups</u> - how residents of different degrees of handicap should be allocated to units of different types
>
> and
>
> <u>the units</u> - the nature of the new units, particularly in helping to provide a 'family' environment.

A brief resumé of FS intentions follows:

Based on prevalence rates shown in recent surveys, the FS expected that, given the Sheffield County Borough population of 50,000, approximately 150 residential places for children would be needed.

The FS identified three groups of users: 'A' (the most handicapped); 'B' (moderately handicapped); and 'C' (mildly handicapped), and proposed hospital units for group A (50 places), hospital hostels (away from hospital grounds) for group B (50 places) and local authority accommodation for Group C (50 places). Apart from these groupings, it was not intended that units should specialise further (eg in taking different ages, or different types of handicap). All three groups were to be cared for in 'family' groups in homely, domestic environments. In proposing the 'A' 'B' 'C' groupings, the FS comments

> "as the new service develops the lines between groups may be found to have been drawn in the wrong places. This will be one of the items to be evaluated ....." (DHSS 1971c p7)

To provide places on the scale proposed by the FS, seven new units for children were built. The philosophy behind this provision was to enable each mentally handicapped person to be "as much a part of the community as his disability will allow". The hospital units were to be much smaller than traditional hospitals: 24 bed hospital units for children, living in groups of eight. The FS talks of 'family' groups and the importance for resident development of "warm secure relationships within the ... substitute family" (p4); "whatever the setting - hospital, hostel ... and whatever the age, the caring relationship should be modelled as closely as possible on the small family unit" (p4). Particularly for children, the provision should have a "homelike, domestic environment". (p30).

The overall FS aim was to recognise "a demand from society as a whole for a higher standard of life for this group of handicapped people" and to see "what alternative to the traditional service might be feasible" (p3).

A second consideration in evaluating the children's accommodation was issues shown to be of interest to those involved in the Sheffield service, particularly concerning siting, size and space levels of the units; the size and degree of integration of groups with any unit; who was allocated to which unit and why; quality of life in the units. (For fuller list see Appendix A.)

A third consideration was policy developments, especially the intention to review the 1971 White Paper (DHSS 1980a) and the priority being given to getting children out of hospital.

A final influence on the evaluation of the childrens' accommodation was the selective assembly already made of facts and figures about the SDP which pointed to various areas needing investigation, particularly the following questions:

> Why are some new units not full? Why are many children living in accommodation of a sort not designed for their particular degree of handicap, and what are the implications of this?

Method of the main evaluation of residential unit for children

In view of the above, the evaluation needed to investigate what places were actually provided, demand for places, how children were grouped and the question of "home-like" environment as well as the use of the units and any deficiences. These (among other) topics were included in a structured interview with the head of each of the seven units (see Appendix B).

A quantified assessment of 'domesticity' of homes was made using Gunzburg's '39 steps' (see Appendix B).

The Sheffield Case Register gave information for all children in the units on age, sex and degree and type of handicap, and place of residence.

Findings of the main evaluation of the residential units for children

The Units

In accordance with the Project proposals, the Health Authority provided 44 places for Group A children and 48 for Group B children. The Local Authority provided 51 places for Group C children.

Two hospital units were provided: by the Health Authority, for the Group A children, A1 and A2, intended for 24 and 20 children respectively. A1 was situated on the site of a District General Hospital and consisted of three linked single-storey 8-bed cottages. The siting of the unit in the grounds of a District General Hospital rather than in ordinary housing within the community suggests that mentally handicapped people need a full hospital service, although there is evidence (eg Leck, Gordon and McKeown, 1967) that such a view is unfounded. A2, a converted old house sited in an established residential district, was split into two 10-bed flats. Both units had 4-bedded and double bedroms; A1 had single bedrooms in additon. Both units also had a small, domestic kitchen for each group although meals were delivered to each of these kitchens in trolleys from a separate central kitchen, rather than being actually cooked "at home".

Two hostels for the Group B children, B1 and B2, were constructed, also by the Health Authority. Each was designed as three 8-bedded houses, each house having single and double bedrooms (no 4-bedded rooms), each with some provision downstairs to accommodate children with additional physical handicaps but having the majority of bedrooms upstairs. Each house had a functional "family" kitchen in which meals were cooked. At the time of the study, B2 was not yet completed.

The Local Authority provided three hostels, for Group C children: C1 and C2, intended for 20 and 16 children respectively, and C3, intended originally for 15 children who were expected to attend regularly on a five-day-week basis, with the hostel closing at weekends. In C2, two 8-bed houses were provided each with a mix of single and double bedrooms. Each house had its own "family" kitchen in which meals were prepared, but no downstairs facilities for children with additional physical handicaps.

There were thus definite differences between the nature of the physical environment in the hospital as compared with the hospital hostels. The hospital hostels provided more bedroom privacy; residents never having to share with more than one other child; and had the advantage of a functioning "family" kitchen in which children could watch, smell and even participate in the pre-preparation of meals. C2 had the same facilities but excluded accommodation for children who could not manage stairs. The hospital units offered less bedroom privacy and a group kitchen which was more or less redundant, since meals arrived by trolley from a kitchen outside the "home". The children in the hospital units were not provided with the opportunity to experience the sounds, smells and sights of daily meals being prepared, which is such an integral part of the lives of many children living at home. Local Authorities hostels C1 and C3 do not fit into this continuum and this may be because they were planned first, and before the Feasibility Study proposals were generally accepted. The kitchens in these units (units intended for the least handicapped children) are both of an institutional character with catering type equipment, so that even if children were to participate in the preparation of meals, they would be using equipment they would never be likely to meet in an ordinary home. They were, however, less out of touch with meal preparation than were the children accommodated in the hospital units.

At the time of the study, all units except B2 were operational. In addition, 8 children under 16 years were still resident at one of the remaining pre-Project units, E, a 71-bed hospital converted from a large house and consisting of 4 wards, each containing approximately 20 beds. The 8 children lived in two of these wards with other residents aged under 30 years of age. Of institutional character, the wards were long dormitory-type rooms with an associated day room, meals being brought by trolley from a central kitchen.

Occupancy

Table 2 shows the provision, and the location of the children.

TABLE 2

Number of places provided

At the end of March 1979, the situation regarding the new provision for children was as follows:

	HOSPITAL AUTHORITY	PLACES PLANNED	PLACES PROVIDED*	PLACES OCCUPIED
	GROUP A			
A2	Residential unit at Ryegate	24	20	11
A1	Unit on Northern General site: RIVERMEAD	24	24	16
	GROUP B			
B1	Arbourthorne hostel	24	24	9**
B2	Tapton Crescent Road Hostel	24	24***	0
	TOTAL	96	92	36
	LOCAL AUTHORITY			
	GROUP C			
C3 13+	Five day week hostel: RUSHEY MEADOW	15	16	
C1	Full time care hostel: STRAFFORD HOUSE	20	20	12
C2	Additional hostel: RINGINGLOW ROAD++	15	16	12
	TOTAL	50	52	37+

One of the most significant facts to emerge from the evaluation was that, (in March 1979), the new units were greatly under-used. Of the 100 health authority places suggested by the Feasibility Study, 92 were planned and 68 currently built and available, yet only 36 were occupied. Of the 50 Local Authority places suggested, 51 were built but only 37 occupied. Overall, therefore, only half the available places were in use. This under-usage was generally agreed by those interviewed to be through lack of demand for places, despite the fact that children originating from outside the city, and "children" aged over 16 years, (none of whom who were planned for in the Feasibility Study), were included in the occupancy figures.

* But not necessarily available. This point is discussed later in the report
** Only one of the three houses is open at Arbourthorne
*** Tapton Crescent Road hostel has not yet been commissioned.

\+ Very approximately; there are 13 regular attenders at Rushey Meadow
++ Although proposed as a five-day week hostel it has never been used as such and is now considered a full time care hostel.

Mentally handicapped children from Sheffield MD resident in Hospital Authority and Local Authority provision, 1978*

	Sex			Age in years				Severe social & physical incapacities				Mild social & physical incapacities						No SPI but problems with self-help and literacy	None of above problems
St. Joseph's (Old hospital)	[illegible]			[illegible]															0
Ryegate (New hospital)	[illegible]			[illegible]															0
Rivermead (New hospital)	[illegible]			[illegible]															0
Arbourthorne (New hospital hostel)	[illegible]			[illegible]								[illegible]							2
Total Hospital Authority	45	13	32	2	7	23	13	6	11	3	16	2	0	1	0	2	0	2	
Ringinglow Road (L A Hostel for Mentally Handicapped Children)	[illegible]			[illegible]															0
Rushey Meadow (L A Hostel for Mentally Handicapped Children)	[illegible]			[illegible]															0
Strafford House (L A Hostel for Mentally Handicapped Children)	[illegible]			[illegible]															1
Total Local Authority	34	18	16	0	11	15	8	0	10	9	5	0	1	3	3	2	0	1	
Ordinary children's homes	[illegible]			[illegible]															
Fostered/boarded out	[illegible]			[illegible]															
Total	103	41	62	4	25	52	22												

* August 1978 for Local Authority – October 1978 for Hospital Authority
A few additional children from outside Sheffield MD were resident in some of the units and have not been included in the figures

† These children, both 2 years of age, are not included in the dependency data

†† Regular attenders

For details about the dependency ratings see
Kushlick, A., Blunden, R. & Cox, G. A Method of Rating Behaviour Characteristics for use in Large Scale Surveys of Mental Handicap. **Psychological Medicine** 3 466-478 1973

Table 1

Mentally handicapped children from Sheffield MD resident in Hospital Authority and Local Authority provision, 1978*

	Sex			Age in years				Severe social & physical incapacities				Mild social & physical incapacities				No SPI but problems with self help and literacy		None of above problems
		M	F	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
St. Joseph's (Old hospital)	8	5	3	1†	1	4	2											0
Ryegate (New hospital)	10	1	9	1†	2	7	0											0
Rivermead (New hospital)	20	6	14	0	4	9	7											0
Arbourthorne (New hospital hostel)	7	1	6	0	0	3	4											2
Total Hospital Authority	45	13	32	2	7	23	13	6	11	3	16	2	0	1	0	2	0	2
Ringinglow Road (L A Hostel for Mentally Handicapped Children)	5		5	0	0	3	6											0
Rushey Meadow (L A Hostel for Mentally Handicapped Children)	16	8	8	0	6	7	2											0
Strafford House (L A Hostel for Mentally Handicapped Children)	10	6	4	0	6	5	0											1
Total Local Authority	34	18	16	0	11	15	8	0	10	9	5	0	1	3	3	2	0	1
Ordinary children's homes	11	3	8	0	2	5	0											
Fostered/boarded out	17	8	9	2	5	9	1											
Total	103	41	62	4	25	52	22											

* August 1978 for Local Authority – October 1978 for Hospital Authority
A few additional children from outside Sheffield MD were resident in some of the units and have not been included in the figures

† These children, both 2 years of age, are not included in the dependency data

†† Regular attenders

For details about the dependency ratings see
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Table 1

The low demand for long-term care compared to the Feasibility Study's estimate reflected a drop in demand over the country as a whole. The evaluation did not investigate what the reasons for this were, but tentative speculations can be made. The factors which may be influential include the fall in the birth rate over the past 10 years, the extension of education facilities due to the 1971 Education Act and the introduction of improved financial conditions for parents via the 1971 attendance allowance. Specifically in Sheffield, short-term care facilities improved and their use increased. The Sheffield Development Project also offered improved assessment and treatment facilities for the city's mentally handicapped children and this too may have contributed to the trend of reduced demand for residential places.

There was a widespread feeling among staff that units were too small for the number of children they were planned to take. Even though they are newly built, units suffered from such space shortages that one (A1) hoped to reduce official numbers form 24 to 18 children and another (C1) has already reduced numbers from 20 to 16 children. In addition, staff at A2 felt the space in each flat was sufficient for only 6 long-stay children plus 2 short-term places (a preferred maximum of 16 rather than 20). Only the staff of the two hostels designed as separate houses, B1 and C2, believed they had sufficient room for the full number of 8 children planned for each house.

The number of places required was over-estimated, but within most of the buildings the space needed per child was under-estimated. It is a fortunate coincidence that in this case these inaccuracies in prediction partially correct one another, but in relation to future planning, such mis-estimates should be noted.

Table 1 shows number of Sheffield children resident in each unit in autumn 1978, split by age, sex and dependency.

Specialisation between units.

Specialisation in theory.

The original intention was that three different sorts of provision would be made, one for mildly mentally handicapped children, one for the more handicapped and one for the most handicapped. Table 1 above shows that no such clear specialisation between units actually happened in practice.

The figures in Table 1 show that there is no real difference between the children in local authority and health authority units in terms of degree of handicap; both Authorities get a range of severity of handicap. The non-ambulant children are all in the hospital units (Group A provision) but C1 had a non-ambulant 'out-of-area' girl and C3 had a child with a severe walking problem who attended irregularly.

Table 3 below shows the number of childen under the care of each Authority who could be classified as Group A, compared with children with other incapacities.

TABLE 3

Group A Children: which sort of provision they are in (Health Authority or Local Authority); and compared to less handicapped children(ie to Groups B and C).

	Group A Children	Group B and C Children
Hospital Authority provision	36	7
Local Authority provision	24	10

The handicaps of the children in the two Authorities are not significantly different. (Chi^2 = 1.91, df = 2).

The dependency data indicate that of the 77 children in mental handicap care (excluding those who were only 2 years of age to whom dependency ratings cannot be meaningfully applied), 60 had social and physical incapacities severe enough to be classified as Group A, 10 as Group B, and 7 as Group C. The original prediction of a split into equal thirds was not fulfilled: children tend to be more handicapped than most predicted in the Feasibility Study. Less severely handicapped children may be easier for parents to care for at home and thus less likely than the more severely handicapped to end up early in residential care. The lower-than-expected numbers of these less severely handicapped children may also reflect the improved support services available to parents; the improvement in support may have decreased overall demand, and may have done so particularly as regards the less severally handicapped.

It seems then, that the A/B/C classification may not be a useful one for children, the majority of children in care having severe social and physical incapacities. The FS study concern that the "lines between groups may be found to have been drawn in the wrong places" (DHSS 1971 p7) turned out to be the case.

Vision, hearing, speech

TABLE 3a

Vision, hearing and speech

		% severe speech problem	No of children in unit
ST JOSEPH'S	E	72%	7 (and one 2 year old)
RIVERMEAD	A1	70%	20
RYEGATE	A2	67%	9 (and one 2 year old)
ARBOURTHORNE	B1	14%	7
RINGINGLOW ROAD	C2	0%	9
STRAFFORD HOUSE	C1	20%	10
RUSHEY MEADOW	C3	27%	15 (regular users)

The number of children in hospital (Group A accommodation) or hostel (Group B and C accommodation) having severe speech problems, may be summarised as follows:

	Severe speech problem	Mild speech problem or no problem
hospital	25	11
hostel	7	34

The distribution of children is highly significantly different between the two types of provision with a Chi-squared of 21.5 (df = 2, $p < .001$).

There was no difference between units or Authorities in the number of children having severe problems with vision or hearing. The one factor which did distinguish hostels (Local Authority and Health Authority (Groups B and C) from hospital units (Group A), was speech (Table 3: $Chi^2 = 21.5$, df = 2, $p < 0.01$).

More than three-quarters of the children with severe speech problems were in Group A (and old E) hospital accommodation. When asked about admission criteria, the staff of all three long-stay hostels (B1, C1 and C2) said they selected children who could be seen to have some "potential for development", but said that they did not actively select children on the basis of speech ability. However, TABLE 3a suggests that speech ability could well be related to whatever factors were being used as a basis for selection. This requires further investigation.

Specialisation in practice

Specialisation across units by degree of handicap did not happen as planned - but other forms of specialisation spontaneously developed. Certain units felt a particular interest in a particular category of child and developed a tendency to admit such children. Two units, for example, decided to specialise by age, and admitted only younger children - under 12 years (A2 and C1). Two other units (B1 and C2) specialised in young adolescents; at one of these unit, (C2), children with behaviour problems were a particular specialty - a category which was generally avoided by other units. There are of course many other bases on which allocation of children could, in principle, be made, such as by length of stay, or geographically (by which part of Sheffield the child came from). Whatever system is adopted may either be on a planned or on a 'spontaneous' basis; in the later case there is a risk of duplication of services or total exclusion of certain categories. However, from the point of view providing appropriately designed buildings, the Sheffield experience is interesting. Overall, the pattern of inter-unit specialisation which was intended did not occur, and other ways of specialising developed, some in a unilateral rather than a corporately planned way; in the case of apparent selection by speech ability the selectivity may never have been articulated or analysed within the service. The result was that, over the service as a whole, many children found themselves 'misplaced' in the sense that they were not occupying a unit that was designed with them in mind. Hospital units were intended for the most severely handicapped children; they tended to have more multi-bedded rooms, and did not have fully-functioning kitchens in each 'house' (meals came by trolley from a central kitchen). By contrast, the design of Health Service hostels was more like that of ordinary homes: bedrooms were for one or two children only, and all meals were prepared within each 'house'. Such design differentations were quite marked, yet the fact that some very handicapped children, in the event, were living in accommodation designed for the least handicapped raises the question of whether what was specially designed and provided for them was really necessary. The more 'ordinary' provision originally intended for the less handicapped may be adequate, and indeed more appropriate in relation to the objective of providing as near 'normal' living conditions as possible.

The hospital units offered residential care on a short-term basis or permanently until the child was old enough to move to adult provision. Other functions were available from associated buildings sited nearby: one unit was on a District General Hospital site, and the other was near an associated assessment unit and day centre for children. One of the units used only two beds for short-term case; the other aimed to offer only short-term care eventually.

The local authority hostels provided a small amount of short-term care but their main function was long-term care. One hostel had a particular, experimental, role: it offered '5 day' care: children could use it between Sunday evening and Friday morning but not at weekends. The intention was

that the 15 places would be used regularly by the same children, but in practice the places were used flexibly and provided some service to 35 different families, with children using places for one, or several nights a week, or one week in four, for example. Some came for very short periods eg tea after school. However the low overall average take up of the 15 beds suggested that even with such flexibility, the weekend closure seriously limited the usefulness of this unit. Parents told staff that their main need was at weekends, and weekend opening would enable families to go on holiday without their child. (The function of this unit was under view by the Social Services Department).

The number of places in each unit and size and specialisation of groups within the units.

The number of children for which the unit was designed ranged from 16 to 24 (See TABLE 1 above). Some of the staff considered that more than 16 children was too many in one unit.

The Feasibility Study suggested that each unit should be for groups of eight children, to be regarded as 'families'. This proposal was not based on definite evidence that this group size was appropriate from the point of view of the development of the children, but as there was no definite information available, eight was put forward largely because it seemed viable for revenue and staffing purposes. In the event, two units were designed for two groups of ten children - C1 because it was already planned, A2 because it was a conversion and the building lent itself better to groups of ten than to groups of eight. The other units all were designed for two, or three, groups of eight children. However the head at every unit believed that eight children was too large a group and could not be considered as a normal family-size group. Eight children plus staff round a meal table make an abnormally large group. Unit heads felt group size should be smaller, preferably five or six, but with the same number of staff.

The Feasibility Study expected that each group within a unit would be mixed in terms of type of handicaps - ie that there would be no specialisation within units. In practice, largely for safety reasons, staff do group children by type of handicap or type of behaviour. At Ryegate, for example, overactive and behaviour problem children are upstairs and less aggressive, more physically handicapped children are downstairs. Other units, too, segregate these two groups, with the aim of protecting the smaller and weaker children. Specialised functions are therefore occuring in environments not specially designed for them.

The degree to which subgroups could operate independently of each other was closely related to the type of design. At all new health authority units and at one local authority hostel, the design made it possible, if desired, to run the groups autonomously. At the other end of the scale, another local authority had no separate provision at all except two living rooms, one for each group; kitchen and washing facilities were not differentiated. Where completely independent provision for cooking dining and washing was provided, it was recognised as very valuable by staff. Where it did not, it was recognised as a deficiency by staff.

If each group has its own physically autonomous (if not physically separate) 'home', it becomes easier to have completely separate staff for each group. C2 did adopt a policy of assigning specific staff to particular groups, and staff believed this helped to make for a family homelike atmosphere. Complete independence also allows for greater flexibility of use in that, as demands change, individual buildings could be taken over by different client groups. Where a service is in any way experimental, this is a commonsense precaution.

Domesticity

It had been intended in the Feasibility Study that the "families" of eight children should be accommodated in a "homelike, domestic environment". The emphasis was to be on mothering and the provision of a homelike environment.

This is one of the more difficult aspects to evaluate (see Sections 1.2.5 and 1.4.4 above). Probably the most comprehensive system of evaluation at present is the Programme Analysis of Service Systems (Wolfensberger and Glenn, 1973), a complex procedure developed in the USA and Canada and not yet piloted for use in this country. The system of the Accreditation Council for Services for Mentally Retarded and other Developmentally Disabled Persons has similar aims and problems. Furthermore, both are designed for adults, not children. However, after this study was completed the National Development Group in this country developed a checklist of standards for service for mentally handicapped adults and children which covers such areas (National Development Group, 1980), but it too has limitations (see 'Measures of the Organisation', Section 1.4.4 above).

A simple measure for certain adult units was suggested by Gunzburg (1973). His '39 Steps' classified environmental features and staff practices as "normal" (could be found in many homes) or "traditional ward practices". No claims were held out by Gunzburg for the adequacy of the checklist. However, the achievement of a full score on the list shows that some basic requirements of "normal" living have been met. Clearly, certain items which are "normal" practice for adults, such as those relating to freedom of choice and independence, may be less appropriate for young children, who may require supervision or to have things done for them. That children of different ages vary in their needs, and that these differ from those of adults, suggests that a series of checklists could be required relating to some standard of "normal" practice for children of different ages.

Bearing in mind the problems with the use of the '39 Steps', but given the lack of any more suitable measure at the time and the fact that many of Gunzburg's measurements were relevant, it was applied to the six long-stay units.

TABLE 4

Score on '39 Steps' compared to total size of units

		Total Capacity	Score on 39 Steps
A1	Rivermead	120	19
E	St Josephs	71	21
A2	Ryegate	20	23½
B1	Arbourthorne	16	27½
C2	Ringinglow Road	16	33½
C1	Strafford House	16	28½

Spearman's rank correlation coefficient $r_s = 0.943$

See Appendix B for more detailed discussion of use of '39 Steps'

Half-scores were obtained on the checklist when an item was scored in some cases but not in others, within a unit.

These scores correlated with the total administrative size of each unit as measured by the total number of beds: 71, 120, 20, 24, 16 and 16 respectively (Spearman's rank correlation = 0.9, $p < 0.05$; Siegel, 1956). In addition, the scores could be split into those dependent on staff practices and those dependent on environmental factors; these two sets of subscores correlated (Spearman's rank correlation coefficient = 0.9 $p < 0.05$), indicating that fewer institutional staff practices took place in the more "domestic" environments. Similar findings in units for mentaly handicapped children were reported by Mazis and Canter (1979) using different measure of environment and staff management practices. These workers also stressed the importance of the location of the kitchen in creating a "homelike" atmosphere. In the present research, the units where meals were cooked outside the "home" (E, A1 and A2) scored lowest by the 39 Steps.

In addition, a sample of staff from each unit were asked to rate the overall physical atmosphere of their own building on a 7-point scale between domestic and institutional. For the hospital units, the order of decreasing domesticity was B1, A2, E and A1 - the same as their order on the '39 Steps'. Local authority staff rated their buildings as less domestic than did staff in the hospital units, despite the fact that these buildings compared favourably on the '39 Steps'.

It is possible that this reflects differing expectations of staff of different background and training - perhaps the fact that hospital staff typically work in more institutional environments led them to over-rate relatively less domestic buildings, or the hopes of the Local Authority staff in awaiting the "homelike" environments to be provided by the Project might have led them to under-rate comparatively domestic buildings. That staff with different backgrounds may rate aspects in a clearly different way has implications for the interpretation of data obtained from such staff - eg in the use of the National Development Group's Checklist.

Design problems in the unit

Several design-relevant points have been made in the description of how the buildings are used and in relation to 'domesticity' of units. In interviews with staff, various further design points were made, which fall into the following general categories.

Lack of space; inappropriate design; fittings and furnishings inappropriate for the users; bathroom and sluices; fire regulations; engineering services and building fabric.

Lack of space

Space shortages were reported frequently, particularly in living areas, and regarding storage space.

Inappropriate design

Reference has already been made to the need to provide an environment in which groups can be organised autonomously, and to the question of how many children share a bedroom. In addition to these general problems, there were various points which were specific to a more limited number of the units. At A1, for example, living and dining areas lacked sufficient light; Rivermead was provided with a secure room for each group, never used and entirely inappropriate; stairways had fair-faced brickwork with very sharp corners, and in one room, a very high ceiling hard to maintain and incurring heat loss.

Furnishings and fittings

There were many problems to do with provision which was not sufficiently robust to stand the wear and tear caused by mentally handicapped child residents; kitchens and bedroom were particularly problematic. Lack of quality in light fittings, blinds, kitchen units, windows, etc means endless maintenance and replacement costs. It also means that children sometimes break things simply because of faults in the fittings etc nevertheless making it harder for staff to teach them to take care of things.

Bathrooms and sluices

There were several design problems for children with additional handicaps using the bathrooms. At C3 and A1 wheelchair users had inadequate space. Supports to help children onto the toilet, or into the bath were sometimes absent (A1 baths), wrongly sited (C3 bath) inadequate (A1 toilets) inaccessible (C3 toilet) or even positively dangerous - the bath pole at C1 becomes slippery when wet. Washbasins specifically provided for children with physical handicap at C3 are very difficult to reach from a wheelchair because they are set in a laminate surround which blocks wheelchair access. 'Special' small washbasins at A2 and A1 made washing without making a mess difficult.

Showers were not provided at two units (c3 and C1) and staff would like them; they are very useful in washing incontinent children. Sluices were not provided in any of the units. Health Authority units used disposable pads and did not want a sluice, but all three Local Authority units wanted them and they are being fitted - at some expense - in two.

Bedroom sizes

The units for Group A children wre provided with some 4-bedded rooms, which were presumably easier for staff to supervise but afforded the children less privacy. At both A1 and A2 staff siad they would have preferred two double rooms instead of each four-bedded room, although in A2 the provision of one four-bedded room for babies was considered reasonable. In A1 not more than two children occupied any bedroom, even the four-bedded rooms. At B1 and C2 single rooms would have been prefered throughout. This suggests that unit staff are more concerned with privacy and personal space for their children, particularly for the older children, than with the ease with which they could supervise the bedrooms.

Opinion was mixed as to whether single or double rooms are preferable. The greater the proportion of single rooms the greater, in many ways, the flexibility but some children may prefer company.

Outdoor play space

Outdoor play space appeared to have been neglected in most units, presumably because it is one of the last considerations and often runs into lack of funds. Either the outside play area had problems requiring expensive alterations (such as treacherous slopes at C1 or boggy terrain at C3), the amount of space was inadequate (B1) or there had been long delays in erecting perimeter fences (A1, A2). Although there are arguments against fencing, lack of such facility places high demands on staff if children are to play outside, forcing them to adopt a vigilant role to ensure that no child wanders off instead of being able to engage in more constructive activities with the children. In view of the hyperactivity of some of the children, adequate use of external space is particularly desirable, but access to some sort of safe garden can be seen as part of what is meant by 'homelike' environment for any child.

Fire regulations

Fire regulation requirements limited what soft furnishings were allowed, and staff felt this affected how 'domestic' units will look.

At A1 pine ceilings had to be painted with fire resistant chemicals every six months. This reported to be disruptive and it was suggested that the ceiling as a design 'feature' was inappropriate.

Engineering services and building fabric

Heating systems caused staff problems in every new unit, either because they were inadequate, uncontrollable or mechanically unreliable.

Various problems could be related to insufficient design recognition of the special requirements of mentally handicapped children:

> Unsuitable materials (chip board floor at A1 damaged by wet) inferior building work (plaster coming away from many door frames at C2; insufficiently robust door frames at Arbouthorne).

Conclusions

The fact that fewer children were in residential care than predicted in 1971 (even including out-of-area children and those aged over 16 years who were not planned for), may testify to the success of aspects of the Project, although it is difficult to separate these from co-incidental changes. Improvedassessment and back-up facilities for parents may have helped more of them to cope with their child at home. The majority of children in care could be classified as Group A, ie the most severely handicapped, and this may be responsible for the lack of differentiation between Health and Local Authority services - ie the available children have spread over the available provision. In terms of the logic of the Project, this may indicate that the Local Authority hostels should be redeployed (as has almost happened with C2), moving their present population to the hospitals and hospital hostels which would have sufficient places. This does not fit, however, with current moves to keep mentally handicapped children out of hospital. Differences between units on the basis of speech ability and day care services were found, and this highlights problems with the Social and Physical Incapacities scale.

In future units, the ideal group sizes should be reduced to a maximum of 6 children, groups being clearly differentiated and single or double bedrooms being provided. The finding that less institutional staff practices occurred in more domestic environments requires further investigation, having important implications for future design.

Within units, staff group children on the basis of handicap, apparently to protect certain children from others with severe behaviour disorders who appeared to present the major placement difficulties. The lack of take-up of the places in the "five-day" unit should be noted in future planning.

Architectural evaluation of residential units for children

The complete report of the main evaluation of the units for children was inevitably long. The Team felt that there was a need, drawing on the work done, to investigate further some of the findings of direct architectural importance and that this work should be presented in a way designed to appeal specifically to an architectural or planning audience. This stage took the form of a brief 'architectural' account of the seven units made by an architect, giving area analyses, photos and his personal and professional views. This approach was very different from the earlier work, but was rooted in an understanding of the service and buildings gained from the much more thorough and objective earlier work, outlined above.

How the additional 'architectural' evaluation of children's residential units was conducted. Two architects conducted an unstructured interview of the head of each of the 7 units, made informal observations and illustrated their professional and personal reactions with photographs. The description of one of the seven units is given in Appendix C, to show this approach.

The coverage of the architectural evaluation

This evaluation concentrated on the suitability of the various units in providing a 'domestic' environment for mentally handicapped children. It took as the starting point what the main evaluation had shown and took further many points of particular interest to planners and designers: location, construction, space levels, aesthetics and quality of the environment.

The location is described in relation to the character of the surrounding area and access to facilities, for example with reference to whether it facilitates a 'normal' lifestyle. Construction is briefly described again with reference to providing 'normal' environments - for example whether the brickwall etc blends with the local housing. Space levels are described in relation to professional judgement (rather than from staff opinion; possibly as a consequence this evaluation suggests that in a few cases, areas are over generous in size: staff are presumably more likely to be aware of and report under provision). Outdoor space is described with reference to the need to provide an independant environment for each sub-group of children. The architects note that although some buildings make such provision internally, external space is never designed to 'belong' to particular groups - an observation that may not occur to those untrained in design. Similarly, the absence of hard surfaced play areas outside some units is reported by the architects - another example of something which staff may not have articulated precisely although the lack will probably have affected life in the units.

Many of the architects' observations reflect a professional interest in aesthetics: they refer to 'form' and 'character' of the buildings, scale, detailing views, atmosphere, the sense of transition from inside to outside, the definition of 'front' and 'back' of units, colour and so on. Often such comments are made in relation to the particular requirement for a domestic and normal style of environment.

On many questions concerning the quality of the environment they can point to significant relationships: hard finishes lead to a noisy environment; a glazed pyramid roof makes for extremes of heat and cold; the difficulty of balancing the need for robustness and domesticity in fittings and furnishings.

The technical background adds to the value of their observations on certain matters: maintenance problems, heating systems, fire regulations, the feasibility of dividing particular rooms; whether plaster coming away from the wall is due to poor construction or suggests the need for special attention at the design stage, and so on.

Some matters receive particular attention because as architects they recognise their importance: laundry facilities, for example, briefly referred to in the main evaluation, are described in detail in the architectural evaluation. Details of functioning of equipment are very significant in a setting in which dealing with incontinence is a major aspect of life.

2.3.2.4 Evaluation of the residential accommodation for adults

Like the evaluation of the residential accommodation for children, the evaluation of the adults' residential accommodation was conducted in the light of the White Paper, the Feasibility Study, issues of concern to policy and to guidance, policy developments and the basic facts and figures assembled. The general themes from these were similar for both adults and children (see section 2.3) but with some additional topics of interest, particularly what constitutes suitable accommodation for adults with behaviour problems, and the possibility for all residents of using community resources. The greater number of adult units (19) as compared to those for children (7) also meant that there was more scope for cross-comparison between units, eg on costs, and (because some of the units were built before the SDP began) comparison between 'old' and 'new' units was possible.

Method of the evaluation of the residential accommodation for adults

Structured interviews with the head of each of the 19 units covered questions such as what places were actually provided, demand for places, the organisation of groups within the unit, 'home-like' environment, use of community resources, the use of the units and any problems they presented. (See Appendix D)

The Case Register gave information for all the units on age and sex of residents and whether various checklists were used which had already been developed and used elsewhere by other researchers. More such scales were used than in the evaluation of the children's accommodation: as well as the "39 Steps", the Index of Community Involvement, the Index of the Physical Environment, and the Management Practices Scale (Raynes, Pratt & Roses 1979) Checklists were completed.

Information on capital costs was obtained from internal DHSS records, on traffic flow from the local authority, and by observation at the unit.

Three interviewers covered the 19 interviews between them, each including all three types of unit as far as possible. Inter-interviewer reliability (see Section 1.4.3) was sought by discussion of the interview schedule and of tape recordings of the first of the interviews. On the checklist items each interviewer cross scored the tapes of the other two interviewers; the overall inter-interviewer agreement was 88%. Factual accuracy of interview data was checked by feeding a summary to the interviewee to check.

The finding of the evaluation of the residential units for adults

Provision and Occupancy

The feasibility study suggested that 662 places in residential accommodation should be provided; roughly half each to be contributed by the Health Authority and by the Local Authority.

The Health Authority was to provide three sorts of accommodation: For Group A residents, two 96 bed hospital units, either on or off the site of a District General Hospital; for Group B residents, four Health Authority hostels, on sites in the community; and for disturbed adolescents and adults, a 24 bed unit. (Group A are the most handicapped, Group C the least - see 2.3.2.1 above).

The Local Authority was to provide 350 (of the 662) places. 70 of these already existed or were being planned already; the remaining 280 places were to be provided by new hostels, group homes and lodgings.

All these places were to be full residential places; there was no policy about providing short term care, relief, assessment beds etc.

Table 5: Residential provision for mentally handicapped adults in Sheffield MD planned and as at June 1980

Provision planned under the Sheffield Development Project	Pre-Project provision (PP) or additional provision currently used by adults	Places planned (FSR)	Places existing	June 1980 Places Occupied	Sheffield MD Residents
GROUP A					
NH1 Lightwood[1]		96	96	63	49
NH2 Rivermead[1]		96	96	48	28
Unit for Disturbed Adults		24	-	-	-
	OH 1 St Jospehs (PP)[4]	-	75	75	22
	OH 2 Middlewood (PP)[4]	-	67	58	42
	OH 3 Grenoside (PP)[4]	-	183	165	99
	OH 4 Aughton Court (PP)[4]	-	62	57	31
GROUP B					
NHH 1 Millbrook		24	24	24	18
NHH 3 Hilltop		24	24	22	17
NHH 4 Woodcliffe A		24	24	23	16
NHH 5 Woodcliffe B		24	24	23	13
	NHH 2 Greenacres[2]	-	24	24	12
	NHH 3 Arbourthorne[1, 3]	-	24	16	14
	OHH 1 Commonside (PP)	-	22 (7)	21 (3)	22
	OHH 2 Scott Road (PP)	-	14 (11)	14 (5)	12
Total Health Authority Provision		312	777	648	395
GROUP C					
LAH 4 Warminster Road		24	24	22	22
LAH 5 Grimesthorpe		24	24	19	17
Rutland Road		24	24	-	-
Group Homes		25	25	25	20
Group Homes, Lodgings and additional Hostel places		183	-	-	-
	LAH 1 Oakbrook F (PP)	17	15	13	12
	LAH 2 Oakbrook M (PP)	17	16	15	13
	LAH 3 Leighton View (PP)	36	36	32	31
	Part III Accommodation	-	66	66	63
Total Local Authority Provision		350	230	192	178
TOTAL PROVISION		662	1007	840	573

1 Not fully opened in June 1980
2 Included in Sheffield MD after reorganistion in 1973
3 Originally planned for children under the SDP
4 "Places existing" are number of places said to be available by the unit head
Figures in brackets indicate additional residents in satellite houses

Table 5 shows that the 24 bed unit for disturbed people was not provided, but all other proposed health authority accommodation was provided. The Local Authority, on the other hand, had only provided 100 of the 280 additional places intended in the FS, and provided for only about 200 residents, not 350 as intended. Overall, the Health Authority was providing for far more people than intended; old hospital and old hospital hostels, which should have closed according to the FS, were still open.

There were many 'extra' people in the SDP - people resident in Sheffield units at the time of planning the SDP, but ignored in the FS because they originated outside Sheffield. This was one source of pressure on places throughout the system.

The lack of Local Authority places is another factor which has had ramifications through the whole system. The FS intended that the overall SDP service should be seen as a hierarchy of resources. As at least some of the individuals living in Group A units became more independent, the FS expected that they would move to Group B provision. Some Group B people, similarly, would move to Group C provision. The 'block' which developed at Group C level (Local Authority) was therefore a cause of lack of movement between health authority and local authority provision, and one reason why old health authority places (hospital and hostel) had to remain open. Many comparatively able people were still left living in old hospitals - thus defeating a main aim of the FS. Tables 6 shows this in detail.

Table 6

Percentage of individuals who would be classified as Group A, B and C resident in provision for mentally handicapped adults in Sheffield (June 1980).

Actual numbers of residents are shown in brackets.

		GROUP A	GROUP B	GROUP C
Hospitals	OLD	51% (163)	18% (59)	31% (99)
	NEW	63% (63)	14% (14)	22% (22)
Hospital Hostels	OLD	8% (3)	8% (3)	85% (34)
	NEW	9% (10)	16% (19)	77% (90)
LA Hostels	OLD	2% (1)	10% (5)	88% (45)
	NEW	15% (5)	15% (5)	70% (23)

Table 6a:

Number of moves between types of mental handicap provision between March 1975 and June 1980

To:	From: Hospital (Group A)	HA Hostel (Group B)	LA Hostel (Group C)
Hospital (Group A)	39	7	1
HA Hostel (Group B)	56	13	2
LA Hostel (Group C)	6	2	1

Specialisation between units

Dependency.
The FS intended that the hospitals would accommodate the most severely handicapped people (Group A), with Group B people living in hospital hostels and Group C people in Local Authority hostels. Table 6 above shows what actually happened.

The hospitals did have most of the Group A people, but they also had most of the Group B people - and even many (121) Group C people. The hospital hostels take mainly Group C people. As described above, the lack of local authority provision has meant a block in the system; it is as if a proportion of each 'band' of resident has thereby been shifted one tier further up the system than was intended. It can also be seen that a few people are living at one or more levels further 'down' the hierarchy than was intended: for example, a few Group A people are in hostel accommodation, including 6 who are in local authority hostels. The overall result of this in terms of the buildings is that a considerable number of people are living their lives, and being cared for, in buildings which were designed for someone else's needs, not their own.

If we compare the old and new provision we see that at each level in the hierarchy the new provision takes a greater proportion of more dependent people than does the old - there is a greater proportion of Group A people in new hospitals than in old, for example. New provision, overall, is significantly different from old in this respect, and thereby reflects FS intentions more closely.

Table 7 below shows that (of those for whom records were available) all non-ambulant residents were living in hospitals.

D80/J03/JL

Table 7

Nubmers of adult residents in accommodation for mentally handicapped adults in Sheffield MD who have walking problems (June 1980)

		Severe	Mild
Hospitals	Old	60	33
	New	6	6
Hospital Hostels	Old	0	0
	New	0	5
LA Hostels	Old	0	3
	New	0	1
Total		66	48

Table 8

Numbers of adult residents in accommodation for mentally handicapped adults in Sheffield MD who have severe behaviour problems (June 1980)

Hospitals	Old	30
	New	19
Hospital Hostels	Old	2
	New	6
LA Hostels	Old	0
	New	2
Total		59

Although a few people with severe behaviour problems are to be found in almost every type of provision, they are mostly in hospitals, especially in old hospitals.

Table 9 below shows that new hospitals were dealing with younger people (as well as with more dependent people - Table 6).

Table 9 PERCENTAGE OF RESIDENTS AGED MORE OR LESS THAN 44 YEARS RESIDENT IN THE DIFFERENT TYPES OF PROVISION IN JUNE 1980

		44 Years or under %	Over 44 years %
HOSPITALS	OLD	42	58
	NEW	71	29
HOSPITAL HOSTELS	OLD	58	42
	NEW	53	47
LOCAL AUTHORITY HOSTELS	OLD	59	42
	NEW	75	24

From Table 10 (below) it can be seen that hospitals (especially new ones) have more residents with speech problems, and with epilepsy. Hospital hostels and local authority hostels have less problems overall with vision, hearing speech and epilepsy than do hospitals, and there is little difference between the two sorts of hostel. Taken globally, we can say that Table 10 roughly reflects Table 4 ie the pattern of specific handicaps across the types of accommodation is similar to that for most specific handicaps.

Table 10: PERCENTAGE OF RESIDENTS HAVING SEVERE OR MILD PROBLEMS WITH VISION, HEARING, SPEECH OR EPILEPSY AT JUNE 1980

		Vision	Hearing	Speech	Epilepsy
HOSPITAL	Old	16	8	46	29
	New	5	8	59	31
HOSPITAL HOSTELS	Old	3	0	0	15
	New	9	8	13	18
LOCAL AUTHORITY HOSTELS	Old	0	4	2	8
	New	3	3	12	15

From these tables (7-10) it is clear that although there are differences between the what the FS proposed about placement in relation to dependency and handicap, and what actually happended,there is still a pattern - the different sorts of unit are specialising but, sometimes in unpredicted ways. The statistical data above show this was the case but could not say why.

One of the topics in the interviews with unit heads was therefore whether specialisation had occurred in their unit (as compared to others), whether this was something they were in favour of, whether the building precluded accepting certain categories of resident, what sort of resident gained most benefit from the unit and what type would be better living elsewhere.

Most (13) of the 19 heads of unit believed that what type of resident they could accept was affected by the phsycial environment. Physical handicap was the factor most often mentioned (10 heads), and it was mentioned equally often by heads of new units and by heads of old units. It is not surprising that the old units, (because of, for example, stairs or lack of downstairs bedrooms) should be seen as unsuitable for residents with physical handicaps, but several (5) heads of new hospital hostels also felt that their environment was unsuitable for large numbers of people with severe physical handicaps. The most usual reasons were to do with wheelchair access, but one new hospital hostel had a special reason. Downstairs bedrooms were the only single bedrooms and were used as 'rewards' for good behaviour; this meant they were not available, as intended, for semi-ambulant residents.

Heads at both new hospitals were worried about residents with behaviour problems of a disruptive kind, and believed that the physical design of their unit was not suitable for this type of resident, although it was these two units which were designed specifically for Group A residents, the group which includes people with severe behaviour problems. Two old hospitals heads also had problems with disturbed people or people who should have been in a more secure unit (which was planned but never built).

There was thus a degree of 'specialisation' by dint of exclusion or limitation of certain types of resident. There was also 'positive' specialisation of certain sorts. One old hospital preferred to take older people, three of the new hospital hostels preferred adolescents and young adults. Another new hospital made a point of accepting ex patients from a Special Hospital. One local authority hostel preferred more independent individuals, because it has facilities for habilitation. Two other local authority hostels preferred a mix of residents; two others again, felt that their limited number of staff and unsuitable physical provision meant that they fell between stools. They had facilities neither for habilitation nor facilities for more dependent people. In general, the notion of a hierarchy of accommodation, enabling residents to move 'up' through the tiers was not one that unit heads had adopted. They felt that in practice the hospital hostel and the local authority hostels were similar; this may be why health authority hostels were reluctant to pass their residents on to local authority hostels - they could see no advantage. Several health authority hostel heads believed that their residents were more handicapped that was planned in the FS; this contrasts with the facts (see Table 6 above).

Specialisation within units

The FS made frequent references to the need for modelling provision on the "small family unit", and the need for a consistent 'family' setting (DHSS 1971, p4). It states

> "Mentally handicapped adults need this kind of emotional support as well as children ...." (p4)

The FS placed great value on small units as the most beneficial way to live, referring to "the value of the smaller unit in preserving personal contact and individuality" and observed that where unit size had to be greater because of financial, site and staffing constraints "the principle of smaller groupings within the total could be preserved" (p8). The FS viewed the decisions that it made about unit size as experimental, in that once the units of various sizes were provided, it was proposed to "evaluate the services provided by these varying scales of provision." (p8). The FS did not specify the need for any segregation of particular categories of residents within the units (except segregation by sex in bed areas).

In fact it specifies, regarding hospital units:

> "The sexes should be mixed in each unit and the concentration into separate groups of the more severe degrees of disability avoided" (p32).

The message in the FS as regards the formation of internal groups within units is therefore in favour of sub-grouping, but in favour of doing this on the basis of subgroups which are "mixed", as family groups may be. The physical provision made varied not only in terms of the overall size of the unit but also in terms of the size of expected subgroups and how far they were provided with enough facilities to run autonomously in relation to other groups.

The new hospital units were designed as 24 bed houses, split to form two groups of 12, sharing a kitchen but otherwise independent. It was expected that they would be run as separate identifiable groups, but not that these groups would be specialised. In practice, all the hospitals (both new and old), segregated the physically frail residents from physically stronger and more aggressive residents. This was done for the protection of the weaker people and in order to deploy staff where the need was greater. New hospital hostels, provided with completely separate 'houses' each for eight residents, grouped residents by various criteria: keeping the most able together, or friends together, or behaviour problem people together, or the most dependent together, or segregating the sexes. One new hospital did not group at all. Of the old hospitals, one grouped by handicap.

The pattern of groupings in the local authority hostels appeared to show the influence of the physical environment. Of all the local authority hostels, old and new, none separate groups except the new hostels where there was specifically designed provision for a separate group. This was used for habilitation groups. There thus arose a form of movement in the system which was not between units, as planned, but within certain units. Moreover because these local authority hostels had facilities which could be used for a small habilitation group to learn skills of independent living and how to get on with each other as a group, they were seen as best geared for the least dependent. The design of the buildings thus appears to influence specialisation both within these buildings and also between these buildings and others.

The degree to which groups could live in a fully independent way in relation to the other groups was very much associated with the design of the unit. Both new hospital heads said that it was difficult to maintain independence of their two 12-person groups which were not only in the same building, but also shared a kitchen. The separateness of the 24 bed houses, by contrast, was easy to preserve, because they were fully separate physically. In the local authority hostels, too, groups of the sizes planned for were being run, but were mostly not independent, apart from two new hostels, and even here only one of the subgroups was living independently, (the subgroups which have their own kitchens). The greatest degree of independent living in the Sheffield units was to be found in the new hospital hostels, in which there was complete physical separation.

At those local authority hostels where independent lounges but not kitchens are provided (LAH 3 and LAH 5) this proved insufficient to promote independent living. Heads at these units believed independent groups were desirable but in practice the groups were not run as independent of each other. The general conclusion which suggests itself is that if groups are to be run independently, a minimum requirement is a 'private' kitchen, and completely separate physical identity is advisable.

Every unit head wanted smaller groups, preferring either six or (less frequently) four. They also found little scope in the buildings for achieving flexibility in group sizes, except at NHH 6, where unused staff bedsits are used on occasion for residents, and at LAH 4, which found scope for flexibility, and at LAH 5 where a lounge had been altered to provide a 'bedsit' arrangement for a comparatively independent resident.

The influence of the individual on the quality of life of others can be a significant factor. Freedom of movement and access to facilities in the unit was on occasion restricted for all residents because of the needs of one: nine of the 19 unit heads reported that this was the case and the units involved were of all categories. The behaviour of the individual in question was usually managed by keeping doors locked, either keeping the doors to the unit locked, to prevent the individual leaving without staff knowledge, or locking the kitchen to prevent particular individuals constantly drinking tea or coffee, "stealing" food, and to safeguard a diabetic resident who would eat anything given the opportunity.

It emerges therefore that there are complex relationships between the design of the building and how it is used in relation to the type of groups and the peculiarities of individuals. In general, smaller sub-groups and greater provision of independent facilities for groups appear helpful.

Siting and appearance of the buildings in relation to the community

Reference back to MAP 1 and MAP 2 (Section 2.3.2.2) shows that the new provision made under the project was more evenly distributed over the catchment area than previous units had been. The Feasibility Study considered that it was not feasible to find sites and staff for "very small groups of [heavily and multiply handicapped adults] scattered in an accepting community" (DHSS 1971 p8) and was tentative about identifying sites for units generally. However, from the FS stress on creating an 'alternative' service (p3), 'domestic' provision (eg p8) and access to Adult Training Centres (p33), and from its belief in "disperal of the beds into smaller units and making use of the appropriate local services" (DHSS 1971cp8), we can assume that the wider geographical distribution (which was in fact achieved) is a necessary condition of improved services. The FS did suggested sites for some of the units, but only tentatively, and therefore could not specify particular catchment areas, but the possibility of catchment areas would seem to be a main reason for having a better geographical distribution of services.

Table 11 PERCENTAGE OF RESIDENTS WITH NEXT-OF-KIN LIVING WITHIN 2 MILES, BETWEEN 2-4 MILES, 4-8 MILES OR OVER 8 MILES FROM THE HOSPITAL, HA HOSTEL OR LA HOSTEL

	Crow distance (miles). % distribution			
	Under 2 miles	2-4 miles	4-8 miles	over 8 miles
OH	10	17	33	40
NH	22	21	30	27
OHH	27	33	8	30
NHH	8	33	37	22
OLAH	30	33	30	8
NLAH	30	25	39	4

30% of the inhabitants of the LA hostels have their next of kin within 2 miles. For the new HA hostels, only 8% of residents have nearby families, suggesting that less attention is paid to placing individuals close to their families by the HA than the LA. However, the HA have been left with the difficult legacy of out-of-area residents and there is little evidence to suggest these are discriminated against in favour of Sheffield people as far as moves to new units are concerned.

If a policy of accepting as residents only or mainly people who were living locally had evolved, Table 11 (above) would look very different. The FS did not set catchment areas, but such a system can have advantages, such as precise predication of clients and their needs, 'visibility' of local services and easy access for clients and families. If a service is based entirely on such 'zoned' provision, concentration of problem clients is avoided.

However, while a catchment area policy is clearly in the spirit of the FS, its adoption raises further questions to do with the distribution of mental handicap across the whole service. Sub-parts of a city, for example, can have a greater prevalence of mental handicap (of particular degrees of severity), thus requiring a higher number of places than would be predicted from looking at the prevalence rate of the city as a whole. The Sheffield Case Register (Martindale 1979) has shown (well after the FS was written) that prevalence does vary across the city in Sheffield.

The selection of sites was largely governed by constraints, particularly the FS requirement that the hospital units should be sited near hospitals, the availability of land, and the likelihood of adverse reaction from local communities, & the two hospital sites (although the hospital with which Lightwood was thus associated was never built). Almost all health authority and local authority hostels where put on land already belonging to the Authorities, and this sometimes resulted in a site which was near to other 'Cinderella' provision (eg an old peoples' home; a large psychiatric hospital).

The accommodation for the most severely handicapped adults was to be on hospital sites - albeit general hospital rather than mental handicap hospital sites - and this must preclude any real hope of making the accommodation look domestic. However, for hospital hospitals, the FS specified that the accommodation should be "essentially domestic in character" (DHSS 1971 p33) and comments on the need for all accommodation to be a "home" (p33). Since the White Paper, the FS and the SDP, there has been increasing emphasis on the need to reduce the stigma of mental handicap by a variety of means, including making accommodation look as far as possible like 'ordinary' accommodation or even using ordinary houses (eg Shearer 1981). Certainly the new hospitals did not look at all like ordinary housing: they had signs indicating what they were, were close to (or even, in the case of Rivermead, linked with) other provision, and their external appearance was architecturally novel (eg unusual roof angles and windows; rounded corners to the building).

The hospital hostels varied. One had a sign and a single gateway to its three grouped houses, but others (NHH 4, 5, 6) each had a frontage on the street and could be taken for ordinary houses.

With the local authority hostels it was the scale of the unit which mitigated against any possibility that they were ordinary houses. Unlike the health authority hostels, each was one large building, (rather than a group of sub units). They could however have been taken as blocks of flats, and as in some cases they were sited in an area where there were other flats (Council or student flats) and this could be seen as appropriate design (as far as external appearance is concerned - limitations on the functioning of groups etc has been discussed above).

One reason for siting units close to local facilities is to help the residents learn to use such amenities. However most (11) of the (19) unit heads reported that at least some of their residents needed escorting by staff. All but one hospital felt that very few of their residents, or even more, could manage without such help. Heads at four units (OH 4, O2, N1 and LAH 3) reported that their residents' movements outside the accommodation were affected by traffic (roads with fast or frequent traffic); this was the only way in which heads felt residents' movements were affected by where the unit was sited. Even for the many residents who have to be accompanied, the impediment of such traffic may, presumably, reduce the chances of getting out and about, since it makes life harder for accompanying staff.

Traffic flow figures for the roads closest to the unit confirm the reports of unit heads. Units reporting a high degree of hazard all have a high traffic flow (except OH 4 where the problem is more a bend in the road, and speed of traffic). It is notable that hospitals, which were intended for less capable people, are in general sited where the hazard (traffic flow) is greatest. Is this part of the 'price' inevitably entailed by choosing such a site, or is there an assumption (perhaps realistic) that residents will never be in a position to use local facilities independently?

Heads had varied views about the advantages, disadvantages and effects of the size of the overall complex in which their unit was sited. Some favoured large complexes which had amenities 'built-in' for residents, others believed that the complex should be small to increase integration. It did not appear that there was any association between the unit's particular setting and the head's preferences in this respect, and some heads felt there were both advantages and disadvantages to their own particular setting. The head at NHH 3, for example, which was sited on the edge of a psychiatric hospital, felt it was convenient to have support services readily available but that residents should be dissuaded from making use of the grounds of the hospital because this was a 'retrograde' step for them.

The above issues have been concerned with a variety of planning decisions many of which are made with a view to increasing the likelihood of residents making use of local facilities and services;this raises the question: Do residents get out and make use of 'normal' community facilities, particularly in view of the heads' report that many residents are dependent on staff help for such activities?

An existing scale was used to measure how far residents were getting out of the unit to use public facilities and services, visit people or go on holiday: (the Index of Community Involvement - see Appendix D for further details). Table 12 and Figure 3 (below) show how residents in the different types of unit have different lives in this respect.

Table 12 Mean scores on the Index of Community Involvement (ICI) for each type of unit.

UNITS		ICI SCORE
HOSPITALS	OLD	44.8
	NEW	45.0
HOSPITAL HOSTELS	OLD	31.5
	NEW	32.4
LOCAL AUTHORITY HOSTELS	OLD	34.3
	NEW	33.0

The worst score obtainable was 52, and the best 0.

On this measure, the only significant difference between unit types was that hospitals had less community contact than hospital hostels (Mann Whitney $U = 0$, $p < .05$). There were no differences between HA and LA hostels.
The Index correlated significantly with the average dependency of units' residents (Spearman's $r = -0.521$ $p < .01$) such that units which had more dependent people also had less contact with the community.

Figure 3: Percentage of residents involved on each item of the Index of Community Involvement (ICI)

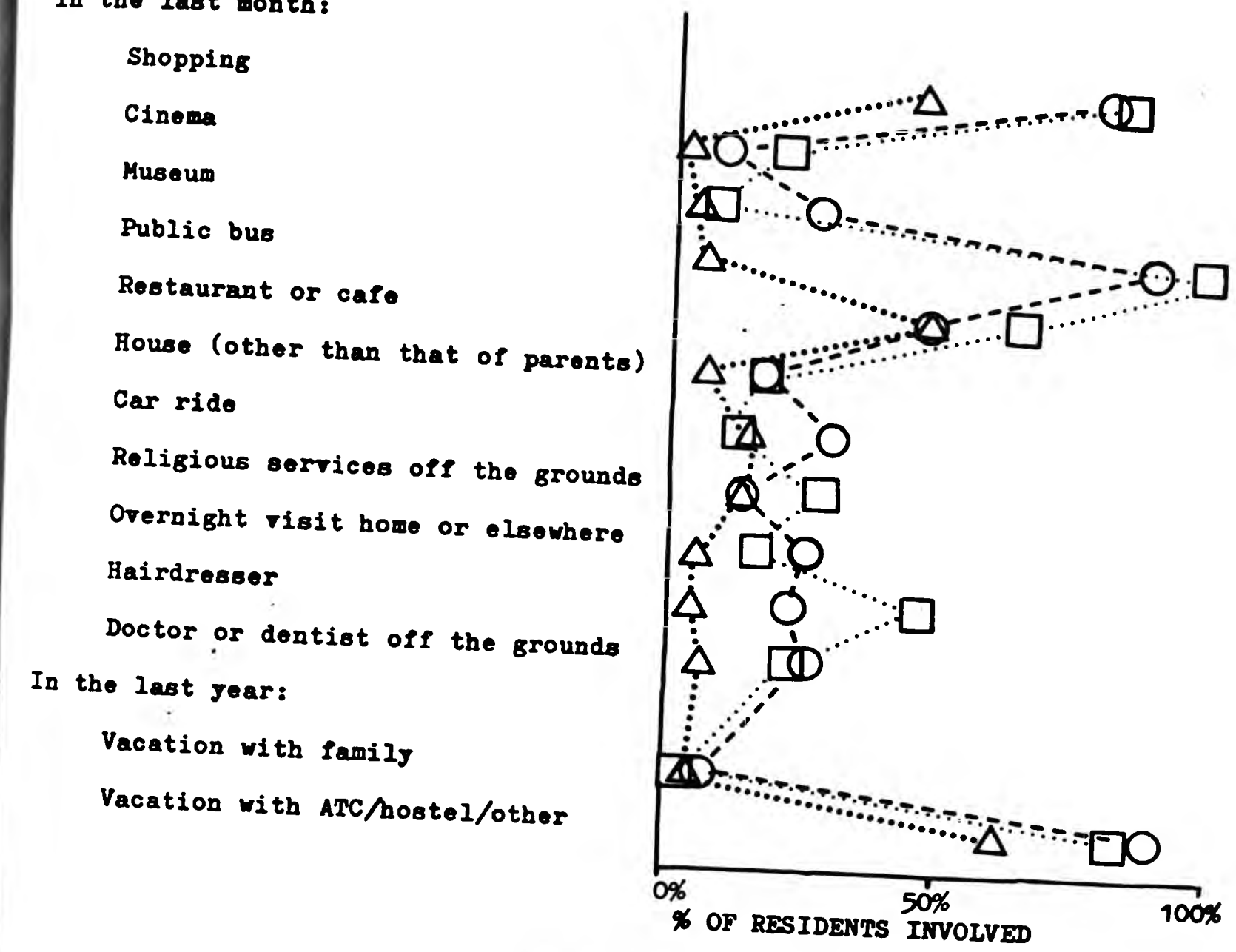


Table 12 shows that there was rather little difference between the three types of unit. The difference between health authority hostels and local authorities was not significant. The difference between hospital units and hospital hostels, however, was significant (Mann Whitney U = 0, $p < 0.5$). It might be expected that a resident's degree of community involvement is related to how dependent he or she is, and there was indeed a significant correlation (Spearman's $r = -0.521$ $p < 0.01$) between dependency and involvement (units where average dependency is greater have less involvement).

Figure 3 shows that many residents had not, in the previous month, participated in many of the ordinary activities listed - few, (of any degree of dependency) for example, had been in a car or to anyone's house (apart from their parents); most hospital unit residents had not participated in any of the activities listed. Differences of transport are apparent between hospital units, who rarely use public buses, and both sorts of hostel, whose residents frequently do.

Domesticity and quality of life

The FS recommended that units should be domestic - referring to the "need for the accommodation provided to be a 'home'" (DHSS 1971 p33). It states that although hospital units would be hospital-based, hospital hostels (and, presumably, local authority hostels) should be "essentially domestic in character" (p33) and that "wherever the setting - hospital, hostel..... and whatever the age, the caring relationship should be modelled as closely as possible on the small family unit...."(p4). The recommendation is thus for non-institutional environment, and non-institutional practices. While the former is not a sufficient - or even necessary - condition for the latter, common sense suggests that appropriate physical environment makes it easier to avoid institutional practices - if there is a locker for each resident, it is easier for residents to learn responsibility for their own clothes, for example.

Three checklists were used to give comparable information in the 19 units about the physical environment and how the units were run. The first was the "39 Steps", already used in the evaluation of the children's accommodation (see Appendix B). In addition the Management Practices Index and the Index of the Physical Environment were used (see Appendix D for details).

Measures such as these attempt, by asking a number of particular questions on the general theme of "normalisation" (see section 1.4.4) to arrive at a 'score' for a given unit. There are many problems with this approach to describing 'quality' in an objective way (discussed in section 1.4.4) but the basis for the scoring is overt, and it brings a degree of objectivity and comparability into an investigation of a number of different units.

The content of the three checklists reported here varies, but there are overlaps. All are concerned with how far the unit is 'normal' ie like a domestic setting as against an institution. The Index of the Physical Environment is specifically about physical facilities - bathrooms, mirrors, wastebins. The Management Practices Index is about how the unit is run - whether aspects of daily life such as meals and bed times are happening in a ridgid institutional style or in a way they would in many families. The '39 Steps' has a mixture of items; some are about details of the physical environment and some are about how the unit is run.

Using these checklists makes it possible to make a series of comparisons and thereby answer some very important questions. Firstly, we can compare the units provided under the Sheffield Development Project with the units they were intended to replace (since many old units remained open). This gives us an answer to the question: "Did the SDP provide units which were better than what was there before?" ('better' 'good' etc are used here in the sense of 'less institutional and more normal'). Secondly, we can compared different types of unit. The FS proposed three different levels of provision, with the implicit expectancy that they would vary in how normal an environment they provided. The checklists can provide an answer to questions such as "Is the environment in local authority hostels better than that in hospital hostels, or that in hospitals?" Thirdly, comparisons can be made which show whether certain categories of user get better provision - we can answer questions such as "Do the most dependent people live in the worst environment?"

In addition, two further very important comparisons can be made: quality of life and of environment can be compared with (a) cost and (b) size. Thus we can answer questions such as "Are bigger units worse? Do good units cost more?".

Comparison of pre Project and Project Units

The average scores by type of unit are shown in Tables 14 and 15.

Table 14: Mean scores for different types of unit (and old and new units) on the Management Practices Index and the 39 Steps (high score = institutional)

	MPI	39 Steps
OLD HOSPITALS	16.8	44.5
NEW HOSPITALS	17.5	41.0
OLD HOSPITAL HOSTELS	6.0	15.5
NEW HOSPITAL HOSTELS	5.8	20.0
OLD LOCAL AUTHORITY HOSTELS	4.0	23.3
NEW LOCAL AUTHORITY HOSTELS	4.0	14.5

There were no significant differences between old and new facilities of the same type. For both measures, there was a significant difference between hospital and hospital hostel accommodation (Mann Whitney U = 0, p .05 for 39 Steps; U = 0, p .05 for RRMP) but no significant differences between hospital hostels and local authority hostels.

Table 15: Mean scores for the different types of unit (and old and new units) on the Index of Physical Environment (high score = institutional)

	Mean IPE scores
Old Hospitals	30.3
New Hospitals	23.0
Old Hospital Hostels	17.5
New Hospital Hostels	6.7
Old Local Authority hostels	8.3
New Local Authority hostels	5.5

The hospitals significantly are more institutional than the hostels (Mann Whitney U = 1, $p<.05$), and the old provision was significantly more institutional physically than the new (Mann Whitney u = 18, $p<.05$).

Looking at Tables 14 and 15 together, and considering whether the Project has created better units than those which preceded it, it seems that the new units do offer a better physical environment, but the quality of life (as measured by the MPI and the 39 Steps) is not better.

To understand how the global scores in Tables 14 and 15 are made up, it is necessary to look at lists of the items for each checklist (Figures 4, 5 and 6 below). From these three figures we can see the average score for each type of unit item by item.

Figure 4: Average scores for each type of unit on the Management Practices Index

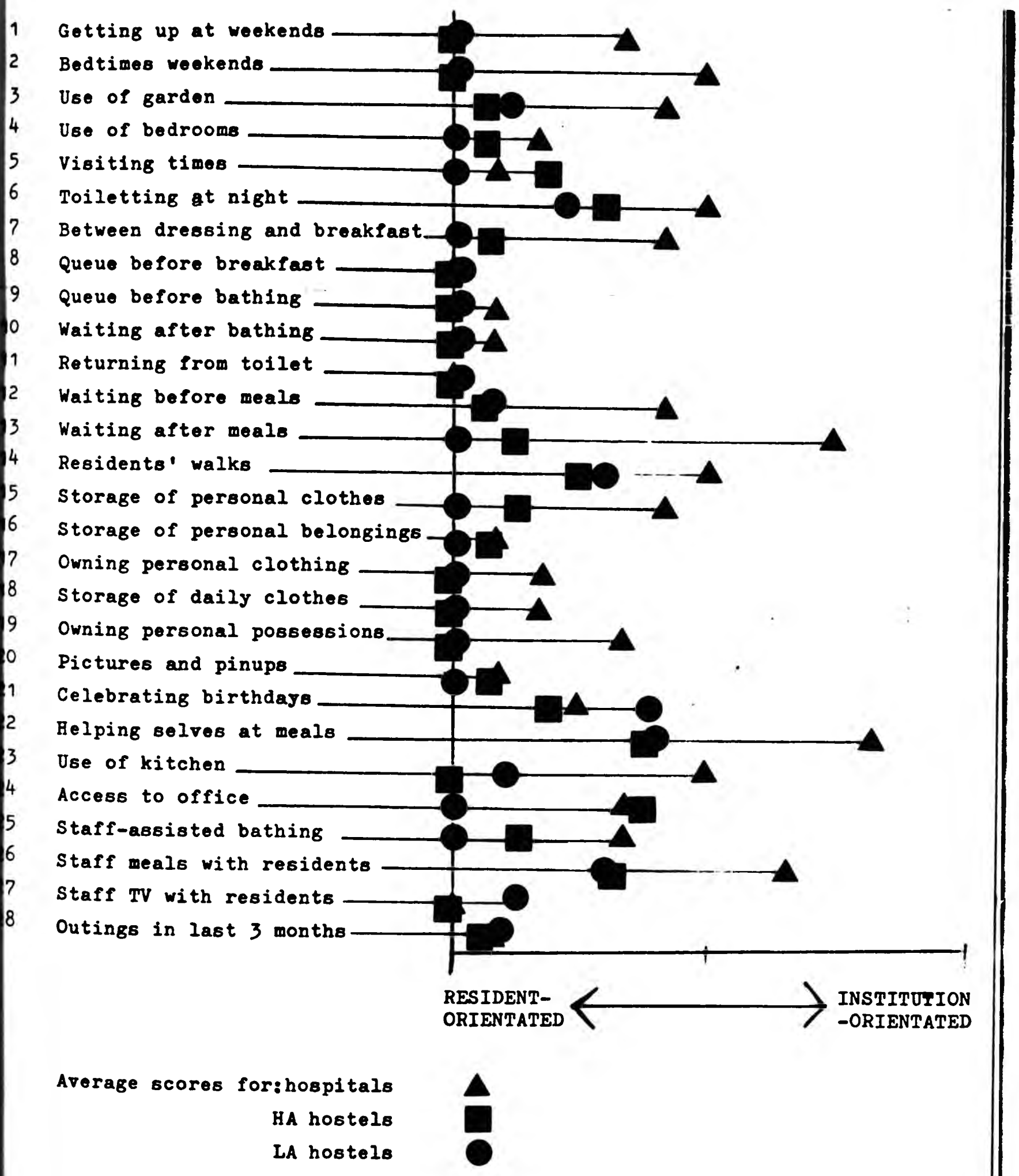


Figure 4: Average scores for each type of unit on the Management Practices Index

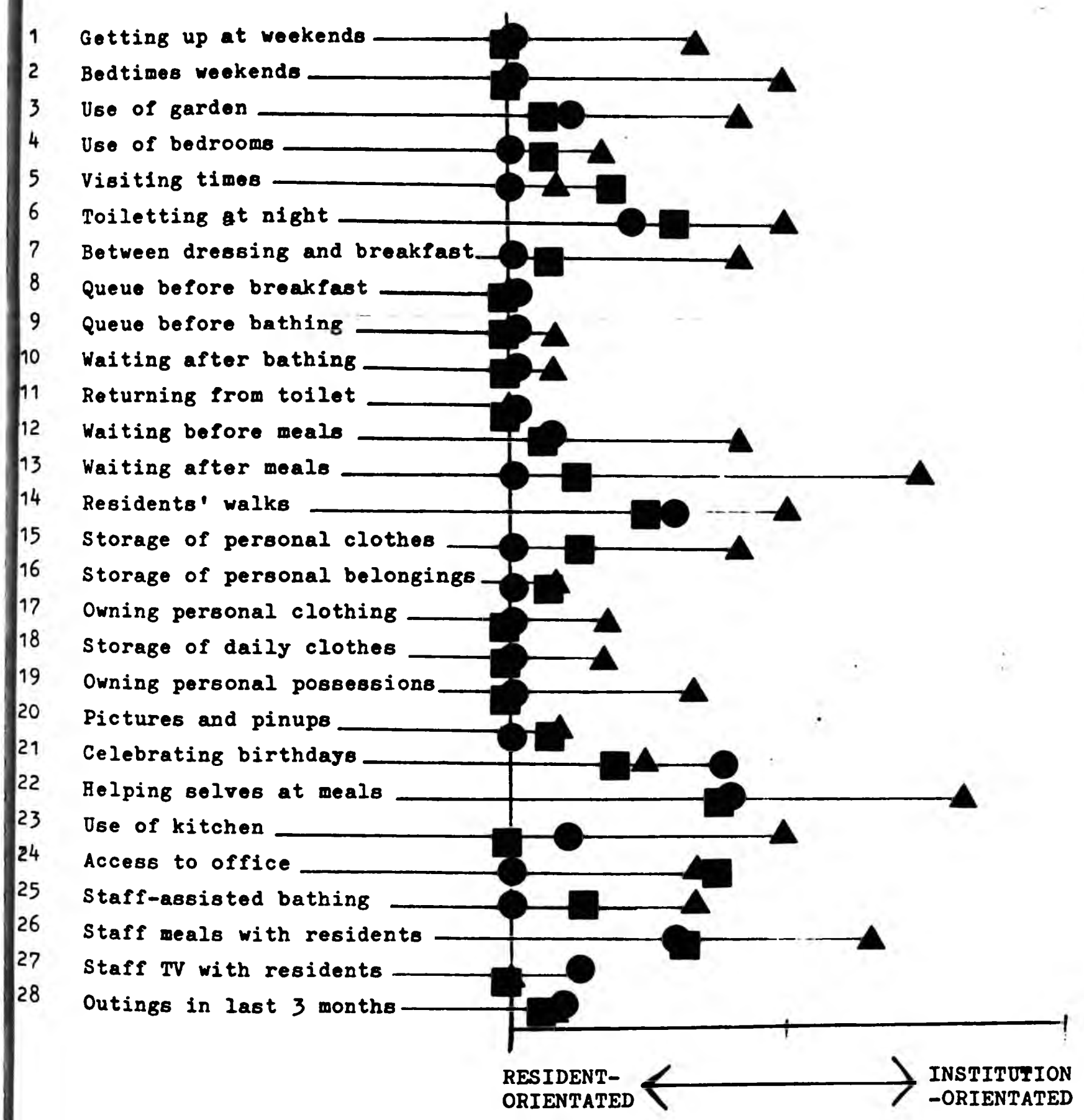


Figure 5: Average scores for each type of unit on the "39 Steps"

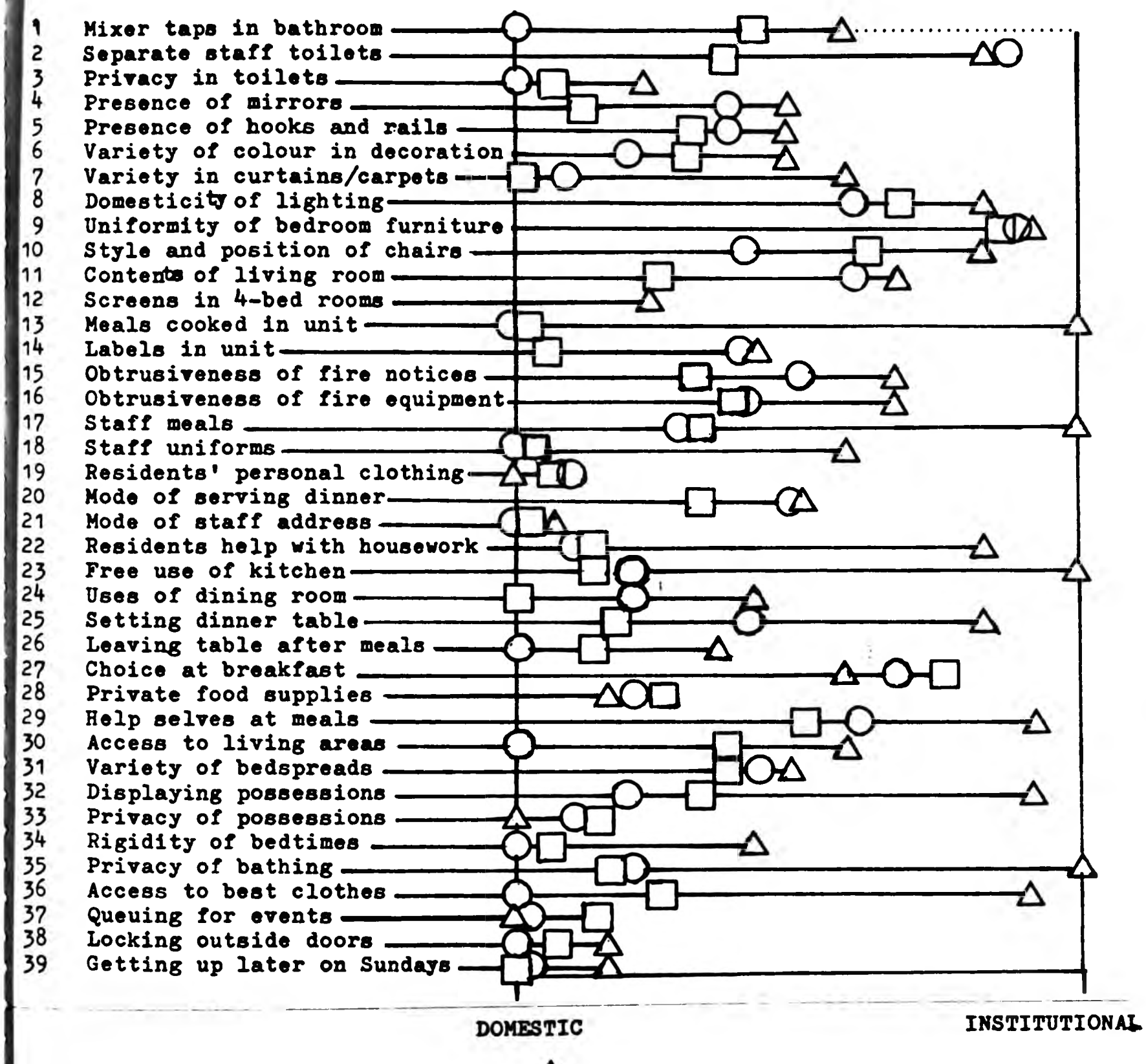
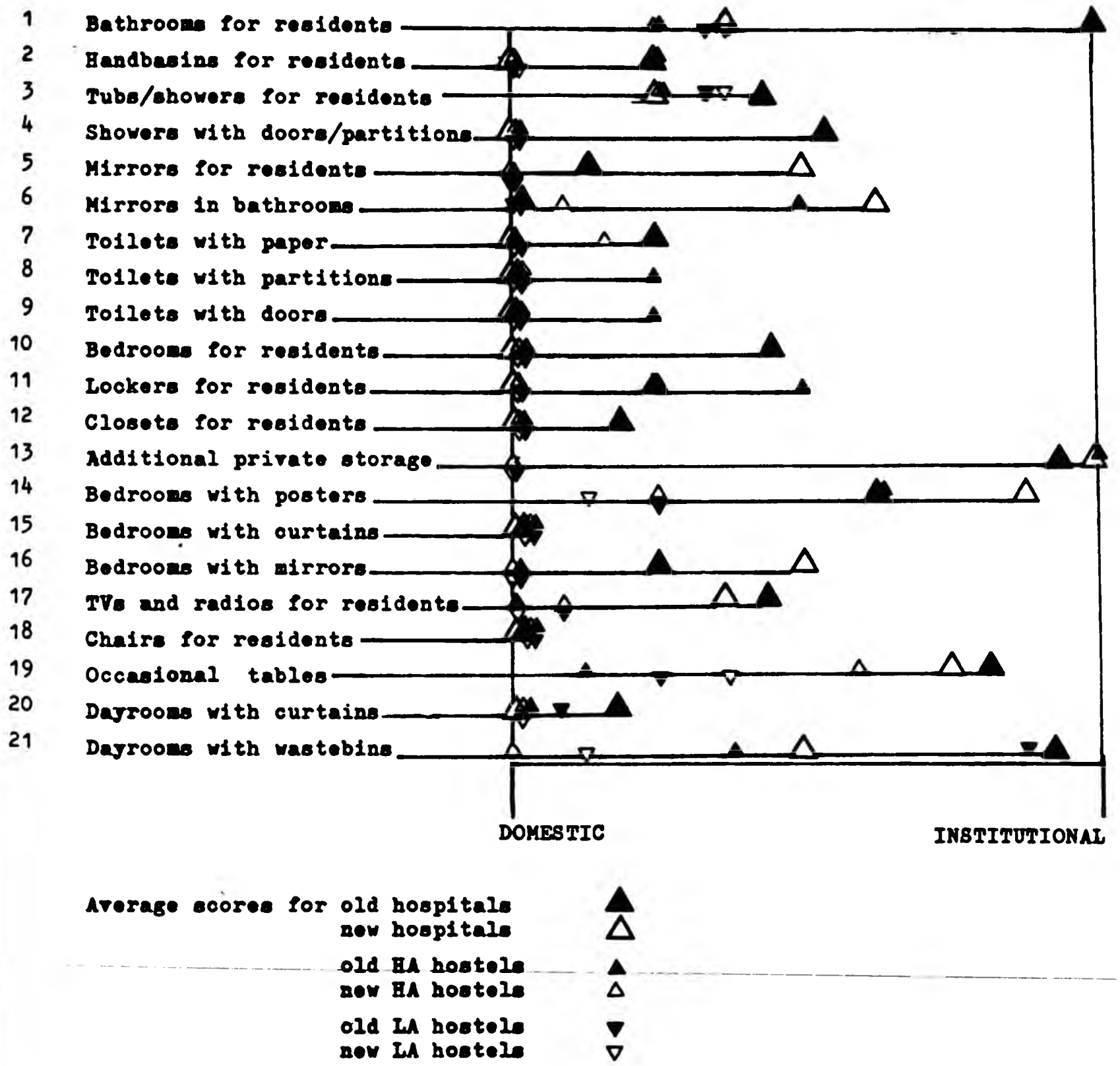


Figure 6: Average scores for each type of unit on the Index of the Physical Environment (IPE)



On all three checklists, much of the 'range' of possible scores was used for almost every item. In other words, the questions were realistic and discriminated among the various units: there was some spread of the individual units between domestic and institutional on each separate item. This is not shown in detail here, but Figures 4, 5 and 6 above show the average scores for each type of unit, which shows a similar pattern. The range is much higher on some items than on others - the use of curtains in dayrooms, for example, is reasonably domestic in all units, but the use of wastebins varies from very domestic to very institutional. Where unit types do 'bunch' at one extreme, it is usually because they are all scoring as domestic, and in general extremely institutional scores are rare, and restricted to hospitals. These points suggest that the checklists are asking relevant questions. It may however be that in future, further checklists will be needed which are more discriminating among units which have already achieved a degree of domesticity, making them different from the older, more institutional settings in which these checklists were largely developed. Meanwhile, such checklists draw attention to factors which in some cases may appear trivial (eg toilet paper) but which can be what contributes significantly to quality of life, especially for people who in various ways have limited resources.

Although hospitals scored overall as more institutional than hostels (Tables 14 and 15) there are a few specific items on which they are more 'domestic' such as items 19, 33, 37 on the 39 steps and items 11 and 27 on the MPI and (for new hospitals only) on some items of the Index of the Physical Environment. This suggests two things. Firstly, that if some of the physical and operational provision available to the most dependent people (who are mostly in hospital units - see Table 6 above), is already domestic possibly the 'domesticity' of accommodation for this group could be increased. Secondly, it suggests ways in which practices and the environment could be improved, particularly wherever new provision falls to the right of equivalent old provision (eg item 7 on the IPE), or hostel provision falls to the left of hospital provision (eg item 3 on the IPE; 19, 33, 37 on the 39 Steps).

The poor scores of the old hospitals arise partly from their bathroom and bedroom provision - eg multibedded wards, and lack of handbasins. Where the new hospitals score badly it is largely on mirrors and posters. As with any checklist, it is important to inspect the items in detail not only to establish whether the items appear subjectively reasonable ("face validity" - see section 1.4.4) but also to investigate what changes would be entailed to reach a higher score. In the example just given, it would obviously be much easier to increase the score of the new hospitals, since mirrors and posters are cheap, compared to the costs of the structural changes and plumbing work needed to produce smaller bedrooms with handbasins. When considering what improvements could be made either in the present situation or in planning future services it can also be useful to look beyond the aggregated data (such as that in FIGURES 4, 5 and 6) to individual cases. Item 9 in FIGURE 5 for example, shows that bedroom furniture tended to be uniform, but data on individual units (not shown here) show that there was at least one hostel which had managed to achieve some variety.

In examining the scores shown by such checklists there is one consideration which is of major importance: the possibility that there is a "confounding variable" - a 'secret' influence at work which distorts the picture and may make nonsesne of any action taken as a result. In the present context, the degree of depdendence of residents may be very influential. We know that dependency level differs across the three types of unit (Table 6). It could be that the more institutional scores of the hospitals, for example, arise simply because they deal with more dependent people. Management practies, and daily life, may be adapted to a greater degree of dependency, and the design of the environment may have reflected it. Even where the physical environment provided originally was not institutional, it may have become so where the dependency of the residents was high.

In order to be able to take the checklist scores at their face value we need therefore to look at dependency. This was done in two ways: by comparing the checklist scores of the most and the least dependent subgroups living in each of the various hospitals, and by statistically removing the effects of dependence before relating the checklist scores to unit size, and to unit cost.

The checklist scores for the most and least dependent groups in hospital are shown in Table 16 below.

Table 16: Dependency and checklist results from most and least dependent sub groups organised by staff

	DEPENDENCY		ICI		IPE		RRMP		39 Steps	
	most	least	most	least	most	least	most	least	most	least
OH 1	1.4	7.1	42	21	26	22	18	15	42	32
OH 3	3.6	7.9	46	40	29	23	13	9	46	40
OH 4	4.1	6.2	48	46	32	34	19	16	46	40
NH 1	5.4	8.6	45	34	17	12	14	9	40	36
NH 2	3.3	7.5	45	41	29	23	21	9	42	33

The dependency of the groups which staff had grouped together as less dependent subgroups is, predictably, less as rated by the Case Register. The checklist scores for the more dependent group are lower (more institutional) than those of the less dependent group in the secure unit (the only exception is the IPE score of OH 4). The more dependent residents in any unit thereby have a generally less homely quality of life - less contact with people and places outside the unit, a less domestic envrionment around them and daily life run in a more institutional way.

It is especially noteworthy that this applies to the two new hospitals, where the physical provision originally made was identical for the two groups. Wear and tear on the physical envrionment has reduced amenities for the more dependent group, and this probably accounts for at least part of the difference between the groups on the IPE and the 39 steps. Both these checklists have many items dealing with furnishings and fittings, which can be damaged by residents or removed by staff, (as against, for example, structural aspects of design, which are less vulnerable).

Having established that dependency levels can have clear effects within a unit, we now turn to the second way of examining dependency effects on the quality of life. Table 17 below shows that size of unit, and cost of unit, relates in certain ways to type of unit (hospital or hostel).

Table 17 Administrative size of unit and unit cost (for year ending March 1979) with the results of the four checklist measures.

	Total administrative size of unit	Mean dependency score	Cost per resident day (£)	Index of community involvement ICI	Index of physical environment IPE	Revised Resident Management Practices Scale RRMP	39 Steps
OH 1	82	1.4	18.3	42	26	18	42
OH 2	60	7.8	11.7	43	34	17	44
OH 3	71	3.6	(16.8)*	46	29	13	46
OH 4	183	4.1	12.9	48	32	19	46
NH 1	96	5.4	33.4	45	17	14	40
NH 2	120	3.3	(36.0)*	45	29	21	42
OHH 1	29	9.3	8.4	31	23	6	17
OHH 2	25	10.5	11.1	32	12	6	14
NHH 1	24	9.3	13.1	36	4	5	12
NHH 2	24	9.3	12.7	22	2	5	12
NHH 3	24	9.4	13.6	38	10	9	27
NHH 4	24	10.4	11.4	24	5	5	20
NHH 5	24	10.4	11.4	31	7	3	25
NHH 6	24	8.5	( )*	(9)*	12	8	24
LAH 1	15	10.4	10.0	36	7	4	20
LAH 2	14	10.0	10.6	35	9	5	28
LAH 3	36	10.0	8.6	32	9	3	22
LAH 4	24	9.2	10.8	31	4	5	20
LAH 5	24	8.7	11.0	35	7	3	9

* data not included in calculations: costs for NH 2 and OH 3 are those of their associated hospital; for NHH 6 cost assessment was problematic due to the unit opening during the year; for NHH 6, ICI scores included residents' holidays.

We have already seen that dependency, too, relates to type of unit (Table 6 above). What we now need to know is whether quality of life, as measured by the four checklists, is related to either size of unit or cost of unit, setting the effects of dependency on one side. Table 18 below removes the effects of dependency using Kendall's partial rank correlation coefficient (Siegel, 1956).

Table 18: The checklist measures in relation to unit size and to capital costs, (using Kendall's partial rank correlation coefficients partialling out the effects of dependency)

	IPE	ICI	RRMP	39 Steps	Unit Size
ICI	0.393				
RRMP	0.479	0.348			
39 Steps	0.571	0.370	0.376		
Unit Size	0.645	0.540	0.697	0.448	
Cost	-0.091	0.306	0.326	0.112	0.325

This table supports the view that "small is beautiful - and can be cheap", in that it shows that

> Unit size correlates highly with three checklists measures, IPE, ICI and RRMP. Thus, smaller units are associated with a more domestic environment, contact with the community and resident-oriented management practices;
>
> and that
>
> although unit size is not strongly correlated with cost, smaller units are associated with the positive ends of the checklists ie do tend to be less expensive to run.

Design of residential accommodation for mentally handicapped adults: summary of recommendations

Drawing together points from the above details on adult residential, supplemented by further information on specific design problems and requirements from staff interviews, various observations about future adult residential accommodation can be made.

Even though siting was based largely on where land was available because owned by the Health Authority or Local Authority, the units were reasonably spread throughout the city. No catchment zones were set in Sheffield; in any other situation in which the advantages of zoning were thought to be important, it may not be possible to rely on land already held by one of the Authorities. In this case, external appearance may be even more critical in contributing to local acceptance.

The buildings were for the most part easily distinguishable from ordinary housing; the Feasibility Study did not specify that they should appear ordinary, but did suggest the need for more domestic type of accommodation, and the trend over recent years has been in favour of normalisation regarding external appearance. Some of the accommodation could pass as flats, 'normal' in its location; in other cases the houses themselves were not identifiable but their linkages with other houses made them stand out. The most successful provision in this respect was the hostels (old and new).

For fit, able adults, most roads do not present a serious hazard. For many mentally handicapped people they do, and at many units the speed or volume of traffic restricted the movements of those residents who could go out unaccompanied, thereby militating against integration with the local community.

Staff views varied as to whether it was advantageous to be associated with other facilities such as a hospital. Some preferred such a link for the amenities it offered to residents, others preferred to stress links with the community by being sited in the community. Most felt good transport for visitors, residents and staff was important. Units where average dependency is higher have least involvement with the community; in planning terms, this could suggest the need to pay more attention to every means for maximising accessibility (in and out) of units where high dependency residents are expected.

Few residents came from the area of the unit, and heads reported that few had local friends. This could be related to the fact that in spite of reasonable geographical spread of provision, there was no policy of allocation people to their local unit, and to the fact that there was no clear policy on short-term care - an active short-term care policy would probably make it essential to organise services on a more local basis. Short-term care is now seen (eg DHSS 1982b) as a normal part of the function of residential accommodation, and a building designed for it has to deal with questions of separation of this function from others within the unit.

A degree of 'unofficial' specialisation between the units had developed, and was not altogether in line with the specialisation system proposed by the FS, based on degree of dependency. Specialisation in practice was influenced by various factors, some of which may recurr in other services (eg difficulty of returning 'out of area' residents to their original area) and some of which are linked to the design of the units, and as such could be re-thought in future services.

Heads wanted the same, or a smaller, overall unit size, and smaller subgroups within the unit - ideally, 4-6. The design of the units was a strong influence on how far the groups could be run independently of each other. In some units, some facilities were provided (eg group lounges in the local authority lounges) but kitchen and dining facilities were still centralised; in such situations subgroups did not form. In the hospital units, kitchens were provided, but they were not fully-functioning and they remained unused, with meals still being cooked in the central kitchen. It seems that tentative attempts to move from institutional patterns by limited concessions in design can still fail to achieve the objective. Complete physical segregation of groups, and full facilities for groups to operate autonomously, on the other hand, did lead to the separate group identity which the FS hoped for and which has subsequently come to be widely seen as desirable.

Most heads would have preferred to have mainly single bedrooms, which give privacy and flexibility, and individual storage space was reported to be inadequate. However, very few residents have keys; in any building in which this is the case it limits the resident's ability to control his or her environment and possessions.

At both new hospitals, and at two old hospitals, difficulties were reported because of disturbed residents or residents who needed semi-secure provision. The separate unit for such people which was planned was not built (Table 5 above) and there have been various results relating to the physical design of the building. In the new hospitals, rooms or area have been taken over for use by people who are disturbed or have behaviour problems. For future planning purposes, it is probably unrealistic to dismiss this response as only necessitated by the fact that this group is misplaced. Even if the planned semi-secure facility were available, there could be brief periods when an otherwise tranquil individual becomes disturbed. Moreover the slow pace at which regional secure units have developed nationally, and the relative lack of attention to the need for places for severely mentally handicapped people suggest that flexible provision in future units is desirable.

Even given the reallocation of spaces (designed for other uses) for the use of disturbed residents, the new hospitals still found it difficult to maintain a domestic environment for such groups, and wear and tear and damage on furnishings and fittings was considerable in some cases. Even for the use of non-disturbed residents, many comments were made about the lack of robustness of furnishings and fittings. The institutional nature of furnishings and fittings was also viewed adversely. The design challenge of meeting the requirement to look 'domestic' while being more robust than the equipment in a normal home is one which has not been fully met in the Sheffield buildings, and one which has great impact on the quality of life of residents, especially some of the most dependent. The IPE scores for the new hospitals (NH1 and NH2), shown above in Table 16, underline how dramatic degradation of the internal envrionment can be the most and least dependent groups began with the same physical environment.

Various problems were experienced with bathrooms, reflecting in a different way the same conflict between the wish to provide 'normal' conditions and the need to meet the practical needs of people with handicaps.

There were different views on the need for a large communal room. Hospital unit heads, and heads of half the hospital hostels, were in favour, but heads elsewhere thought they acted as a disincentive to using community facilities. Office space for staff was universally reported to be necessary, but a staff room was wanted only at the hospitals. Staff residential accommodation was not widely wanted but where it had been provided it had sometimes proved useful in converting to use as, for example, extra rooms for residents.

2.3.3 Facilities for mentally ill people: evaluation of the Worcester Development Project (WDP)

This section (Section 2.3.3) reports work done in the MHBEP on psychiatric day centres, day hospitals and hospitals (see 2.2.8 for the Programme as a whole). The sequence of evaluation was: first an assembly of basic information (2.3.3.2), then evaluation of the day centres (2.3.3.3), then the peripheral day hospitals (2.3.3.4) and finally the psychiatric departments (2.3.3.5). The evaluation began with day provision because of the current interest (nationally and in relation to policy and building guidance), in community orientated services and because it seemed sensible to start with the smallest and simplest of the buildings.

2.3.3.1 Background

Against a background of increasing unease about large old psychiatric hospitals as the main provider of services, the 1975 White Paper (DHSS 1975b) proposed that by making day services available patients should not become resident unless absolutely necessary, and that inpatient services should be in small units associated with general hospitals (not psychiatric hospitals). Day care was to be of two sorts: in day centres (where therapy has a 'social' orientation) and in day hospitals (for those in need of more 'medical' care). The variety of provision would offer a service more responsive to patients' needs.

New buildings were needed for such a service: the inpatient buildings envisaged were not only much smaller than most traditional hospital provision, but were to incorporate separate 'ward' and day provision. Day centres were a form of provision of which there was at the time little experience, and a degree of experimentation was encouraged.

The Worcester Development Project was an attempt at 'model' provision to meet new concepts, and considerable attention was paid to the design of the buildings.

In the the years since the Feasibility Study which set the framework for the WDP, the trend to community care has continued, with comparatively more people receiving day services, rather than being admitted to large old hospitals, and mental illness services continue to be a governmental priority. However financial and other difficulties have emerged, and the anticipated closure of numbers of old hospitals has not taken place. The policies which the WDP attempted to implement are still, broadly, current. Today there is particular interest in problems such as the role of day centres viz-a-viz day hospitals, difficulties in shifting the responsibility for such care from health authorities to local authorities, provision for patients who show disturbed behaviour, and how to achieve services economically. As a pioneering model attempt at moving from an institution based service to a more flexible and possibly cheaper service, Worcester was evaluated for the light it could throw on such issues.

Evaluation of the Worcester Development Project buildings

The evaluation took place in the light of the White Paper (DHSS 1975b)*, the Feasibility Study, issues of concern to service providers, issues relating to policy and guidance development and the basic facts and figures already assembled.

Firstly, the original intention for the service and the buildings, as given in the FS, and anticipating ideas in the White Paper; the most important of these, for the purposes of building evaluation, were to do with providing a more community-based, flexible and, possibly, more economical service. The following brief resume is derived from the Worcester Development Project Feasibility Study.

The general policy behind the WDP was to replace an isolated old mental illness hospital by a comprehensive psychiatric service based on departments in District General Hospitals together with out-patient facilities, day hospitals and close links with community services. The Feasibility Study (FS) quotes the then Minister of Health:

> "Not only should this provide a better service, but also in so far as it arrests the building up of a population of long-stay patients - a more economical one".

The WDP was intended to reorganise the structure of the existing services on the basis outlined in Hospital Building Note No 5 in order to provide a modern and comprehensive mental illness service, and was to be a demonstration of how problems of transition from an old to a modern service can be solved.

Methods of evaluation of the psychiatric buildings

The buildings evaluation included informal interviews with the consultant psychiatrists and, in each unit, a structured interview with the head of each unit. The principal representative of particular disciplines (medical, nursing, occupational therapy) in health authority provision was also interviewed, and a questionnaire was also used with staff in the psychiatric units. (Appendix E gives examples of schedules). Observations were made within each unit.

The Worcester Case Register gave information for all psychiatric patients and clients on age, sex,diagnosis and services currently received. Relevant planning and policy documents were consulted, as were unit records; photographs were taken of particular aspects of the buildings.

The findings are reported separately for day centres, peripheral day hospitals and psychiatric units.

2.3.3.2 Basic information

As with Sheffield, the fact that there was a Case Register made it possible to put selected information from it together with information on the location of buildings and the take-up of places, to give basic "facts and figures" as a preliminary to the evaluation. Again as with Sheffield, selection and juxtaposition of such information in the light of the intentions of the Feasibility Study . itself raised various questions relevant to building evaluation. Examples of this kind of presentation follow.

D351/J03/JL

BASIC FACTS AND FIGURES: WORCESTER DEVELOPMENT PROJECT FOR MENTALLY ILL PEOPLE

INTRODUCTION

The Worcester Feasibility Study (1975a) proposed a comprehensive service for mentally ill people in Worcester. The Worcester Development Project implemented this study, providing a range of residential and day care facilities thought to be required for mentally ill people from a catchment area covering part of Worcester, Kidderminster Health Districts and Hereford and Worcester County.

The basic facts and figures of the Project, displayed in map and table form, follow.

NOTES ON POPULATION FIGURES AND PROJECTION (FIG 7)

The Feasibility Study appears to have greatly over-estimated the extent of population growth between 1967 and 1981.

The above figure shows* that there is a difference of 77,000** between the Feasibility Study projection for 1981 and the more recent and detailed projection by the County of Hereford and Worcestershire*** for the same area.

To take the figures for one particular town as a more detailed example, the Feasibility Study predicted that Worcester City Borough would expand from 70,000 in 1967 to 108,000 in 1981. Yet by 1978 the population was still only 74,000. Moreover the County Planning Department now predicts that the population was still 75,000 by 1981. This means that the Feasibility Study prediction for this part of the WDP for 1981 is likely to be inaccurate by 33,000.

Yet the Feasibility Study states

> "This pattern of population .... governs the planning of the new mental illness services .." (p 4)

As well as this over-estimate of future population the then DHSS "guideline" of 0.5 beds per 1,000 population was also an over-estimation; the beds actually used have proved to be below this figure.

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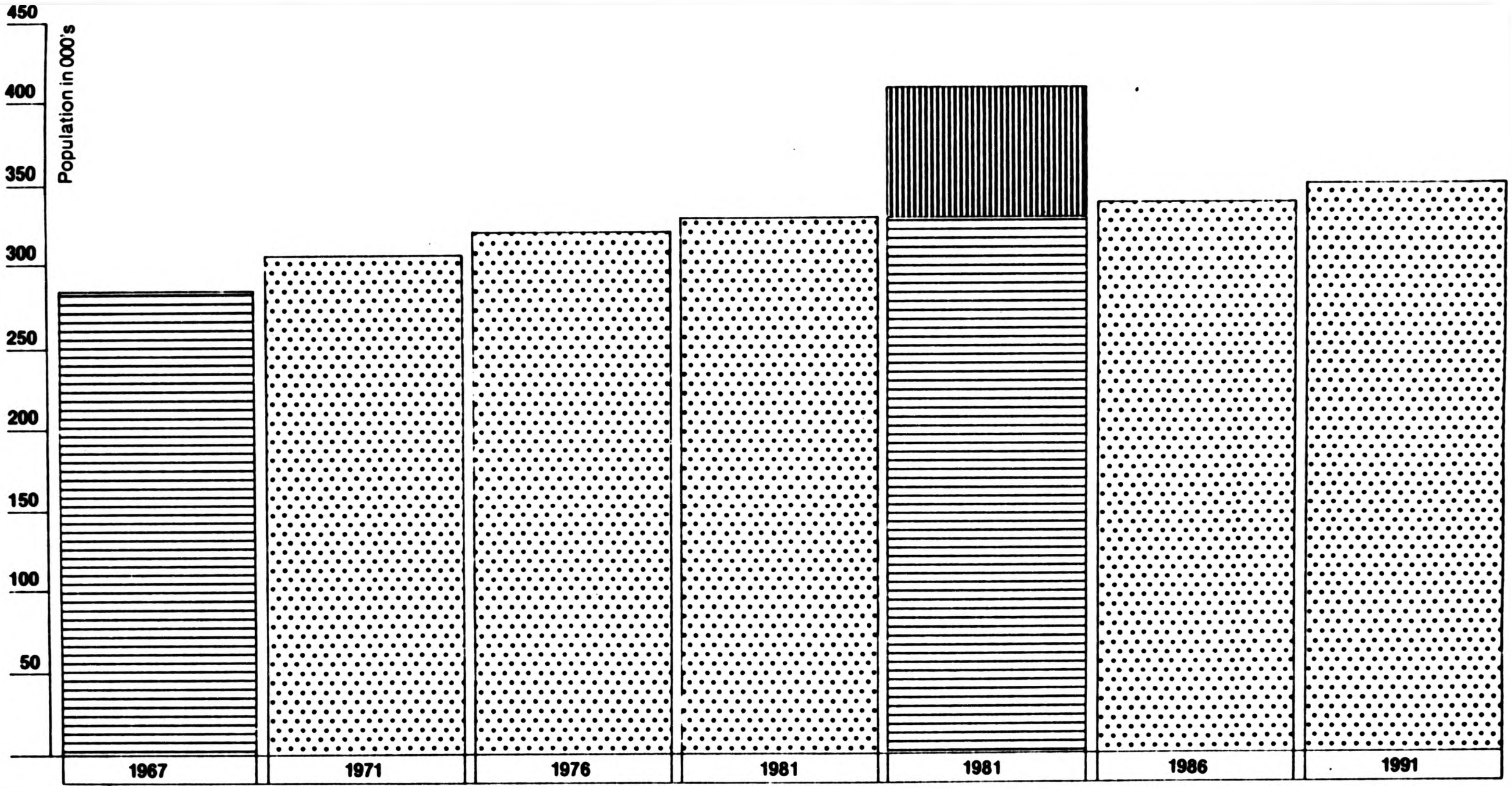
* 1979
** all figures to nearest thousand.
*** "County of Hereford and Worcester Population Projections", April 1978.

Worcester Development Area population figures and projections



Feasibility study figures and projections

County of Hereford and Worcester figures and projections

These 77,000 people represent the difference between feasibility study projection for 1981 and the county of Hereford and Worcester projection

NOTES ON LOCATION OF PATIENTS AND CLIENTS (TABLE 19)

This table shows which patients are in which buildings. (Note that only WDP provision is included - for other provision see also Map 11).

It is interesting to compare the number of places with the average number of places in use per day. Even bearing in mind that some of the buildings have opened only recently, there are considerable discrepancies. This may be due in part to population increases being smaller than predicted and to the incidence rate being lower than that planned for (see previous figure above).

In some buildings the number of users from one time to another varies considerably.

The location of those over 65 can be seen from this table; it is clear that some buildings have a far higher proportion in this age group than was originally intended. (See Map 12 for the location of those over 65).

Table 19
Location of patients and clients in Worcester Development Project Buildings June 1–30 1979

Sources: Case Register and unit records

		Unit opened	Number of beds/ day places planned	Average number of patients/clients per day	Greatest number of patients/clients per day	Least number of patients/clients per day	Sex: Male	Sex: Female	Age: Under 25	Age: 25–45	Age: 45–65	Age: 65 + over	Diagnosis: Senile & pre-senile dementia	Diagnosis: Schizophrenia, paranoid states & other psychoses	Diagnosis: Depression not otherwise specified	Diagnosis: Neurosis, personality disorders & additions	Diagnosis: All others
Health Service Buildings																	
Newtown Psychiatric Unit	In-patients beds *	Dec 78	150	92	102	87											
Newtown Psychiatric Unit	In-patients annexe *	Dec 78	10	8	9	5											
Newtown Psychiatric Unit	Day hospital in-patients *	Dec 78	120	•••	60	47											
Newtown Psychiatric Unit	Day hospital day patients *	Dec 78	40	20	27	15											
Kidderminster Psychiatric Unit	In-patients beds *	Jul 78	60	37	41	34											
Kidderminster Psychiatric Unit	Day hospital in-patients *	Jul 78	80	20	24	16											
Kidderminster Psychiatric Unit	Day hospital day patients *	Jul 78		19	23	12											
Malvern Peripheral Day Hospital		Feb 79	20	10	13	6											
Evesham Peripheral Day Hospital		Mar 79	20	11	19	7											
Local Authority Buildings																	
Covercroft Day Centre, Droitwich		Mar 79	40	8	14	2											
'Edward Parry' Day Centre, Kidderminster **		Jun 79	60	7	13	6											
Malvern Day Centre		Jan 77	70	22	36	3											
'Studdart Kennedy' Day Centre, Worcester		Jan 77	40	24	38	15											
Franche Road Hostel, Kidderminster		1976	12	10	10	10											
Perryfields Hostel, Worcester		1964	25	14	14	14											

* The psychiatric units at Newtown and Kidderminster contain day hospitals which provide day facilities for in-patients from the wards and for day patients living in the community

** The Edward Parry day centre opened on 25 June 1979 so the figures given are for July 1979

*** Use of the day hospital by in-patients at Newtown is recorded by occupational therapists on half days. Use of the day hospital by patients from the 10 bed annexe is not recorded. For these reasons it is not possible to calculate an accurate average

**** Case Register does not keep records of attendances by [illegible] at day hospitals [illegible] available

Table 19
Location of patients and clients in Worcester Development Project Buildings June 1–30 1979

Sources Case Register and unit records

		Unit opened	Number of beds/ day places planned	Average number of patients/clients per day	Greatest number of patients/clients per day	Least number of patients/clients per day	Sex: Male	Sex: Female	Age: Under 25	Age: 25–45	Age: 45–65	Age: 65 + over	Diagnosis: Senile & pre-senile dementia	Diagnosis: Schizophrenia, paranoid states & other psychoses	Diagnosis: Depression not otherwise specified	Diagnosis: Neurosis, personality disorders & additions	Diagnosis: All others
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Kidderminster Psychiatric Unit	In patients beds *	Jul 78	60	37	41	34											
Kidderminster Psychiatric Unit	Day hospital in patients *	Jul 78	80	20	24	16											
Kidderminster Psychiatric Unit	Day hospital day patients *	Jul 78		19	23	12											
Malvern Peripheral Day Hospital		Feb 79	20	10	13	6											
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* The psychiatric units at Newtown and Kidderminster contain day hospitals which provide [illegible] for patients from the wards and for day patients living in the community.

** The Edward Parry day centre opened on 25 June 1979, so the figures given are for July 1979.

*** Use of the day hospital by in patients at Newtown is recorded by occupational therapists [illegible] use of the day hospital by patients from the village annexe is not recorded. For these reasons it is not possible to calculate an accurate average.

**** Case Register does not keep records of after [illegible]

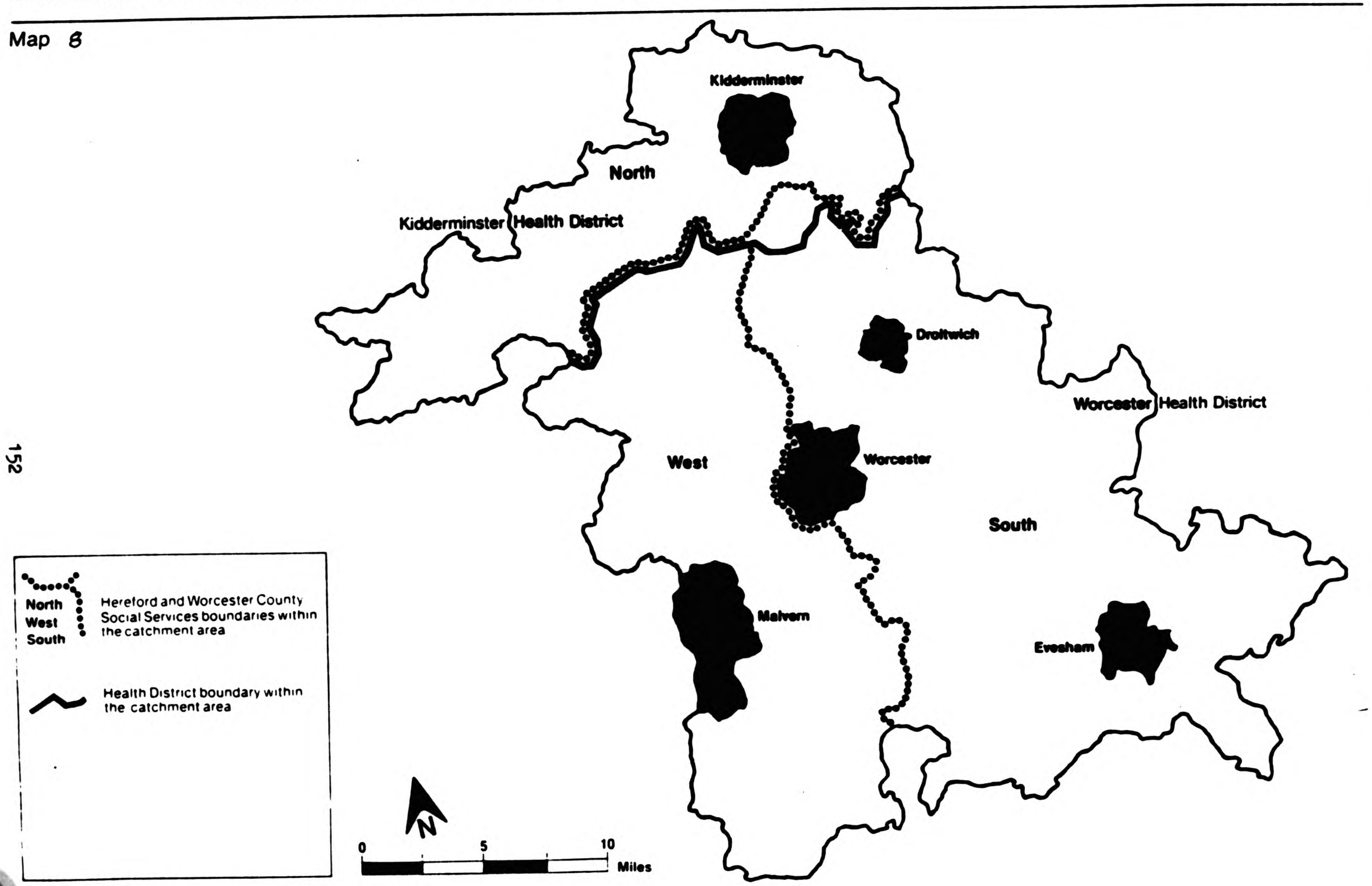
NOTES ON BOUNDARIES OF HEALTH DISTRICTS AND SOCIAL SERVICES DIVISIONS (MAP 8)

This map shows the main urban areas covered by the Worcester Development Project, which is otherwise a largely rural area.

Two Area Health Districts and three Social Services Divisions are involved. The map does not show the whole of the North, South and West Social Services Divisions since these extend beyond the WDP area.

Boundaries of Health Districts and Social Services divisions within the WDP catchment area

Map 8

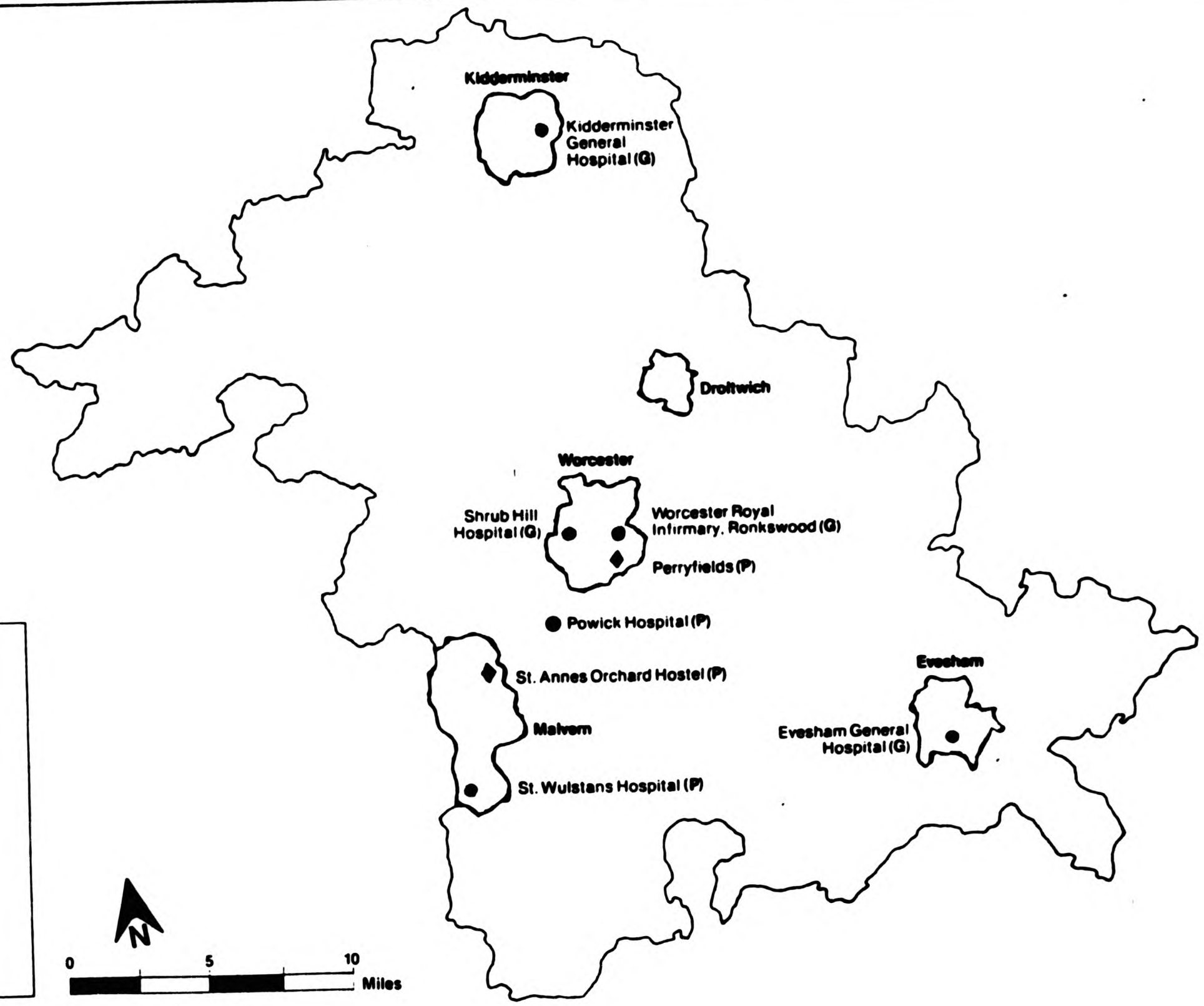


NOTES ON PRE-PROJECT PROVISION (MAP 9)

This map shows the provision of buildings used for the mentally ill in 1968, ie prior to the WDP. It also shows the location of the supporting hospital geriatric provision.

In 1968, Powick, a large isolated mental illness hospital, provided 949 beds and its associated hostel at St Annes Orchard, Malvern, provided 30 beds. Perryfields hostel in Worcester provided 12 residential hostel places and two rehabilitation flats. These buildings accounted for almost all the psychiatric provision in the area. St Wulstans hospital, a psychiatric rehabilitation unit, catered for the Birmingham Region as a whole and played little part in the provision of services for the WDP area.

Map. 9


Kidderminster
Kidderminster General Hospital (G)
Droitwich
Worcester
Shrub Hill Hospital (G)
Worcester Royal Infirmary, Ronkswood (G)
Perryfields (P)
Powick Hospital (P)
St. Annes Orchard Hostel (P)
Malvern
St. Wulstans Hospital (P)
Evesham
Evesham General Hospital (G)
Hospital
Hostel
P Psychiatric provision
G Geriatric provision
N
0
5
10
Miles

NOTES ON WDP PROJECT PROVISION (MAP 10)

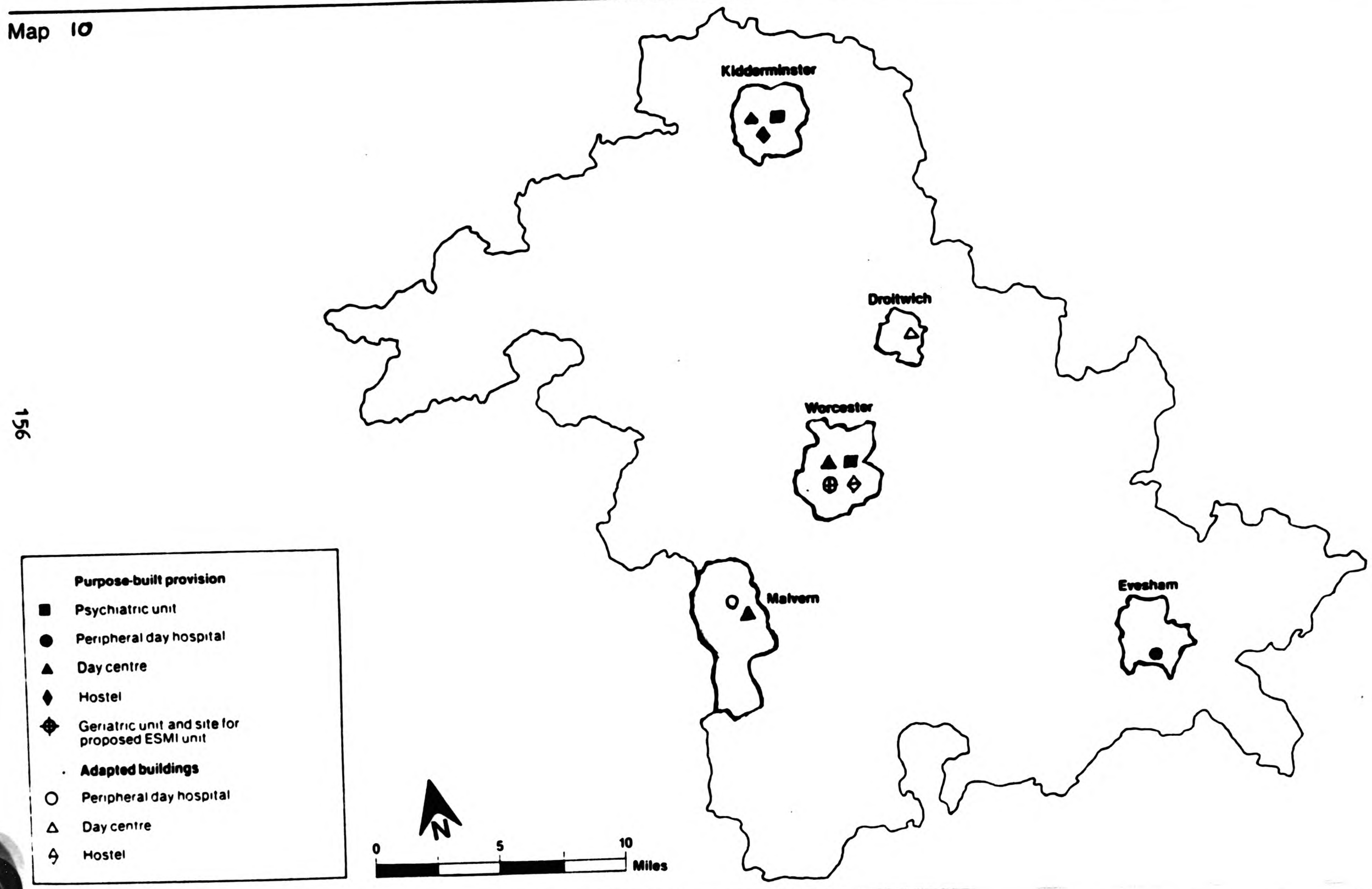
This map shows how the WDP has attempted to replace Powick and its associated services with a more comprehensive service. The map shows the location of the buildings provided under the WDP.

The main development has been at Newtown on the outskirts of the city of Worcester, with a psychiatric unit and a geriatric unit, both of which provide in-patient and day-patient facilities. These have been designed to be Phase 1 of a new District General Hospital to replace Worcester Royal Infirmary. An extension of this first phase will be a unit for the elderly severely mentally infirm. Peripheral day hospitals are also provided at Malvern and Evesham.

The other psychiatric unit is at Kidderminster, attached to the local developing District General Hospital. There are also local authority day centres provided in Worcester, Malvern, Kidderminster and Droitwicj and hostels in Worcester and Kidderminster.

Comparison with the immediately preceding map shows how the new facilities are more varied in kind, and widely distributed geographically.

Map 10


Kidderminster
Droitwich
Worcester
Malvern
Evesham
Purpose-built provision
Psychiatric unit
Peripheral day hospital
Day centre
Hostel
Geriatric unit and site for proposed ESMI unit
Adapted buildings
Peripheral day hospital
Day centre
Hostel
N
0
5
10
Miles

NOTES ON WDP PROVISION PLUS OTHER PSYCHIATRIC PROVISION CURRENTLY IN USE (MAP 11)

This map shows the full range of psychiatric buildings currently in use in the WDP area. Note that this includes not only those buildings provided by the WDP but also the following:

Powick hospital: this had 292 patients on 1 6 79 and it is unlikely to close by September 1980 as assumed* by the Feasibility Study.

A day centre in Droitwich provided by the local MIND group: in operation sinc 1974.

The adult training centre in Evesham: this provides facilities for the mentally ill although they are not the centre's main client group.

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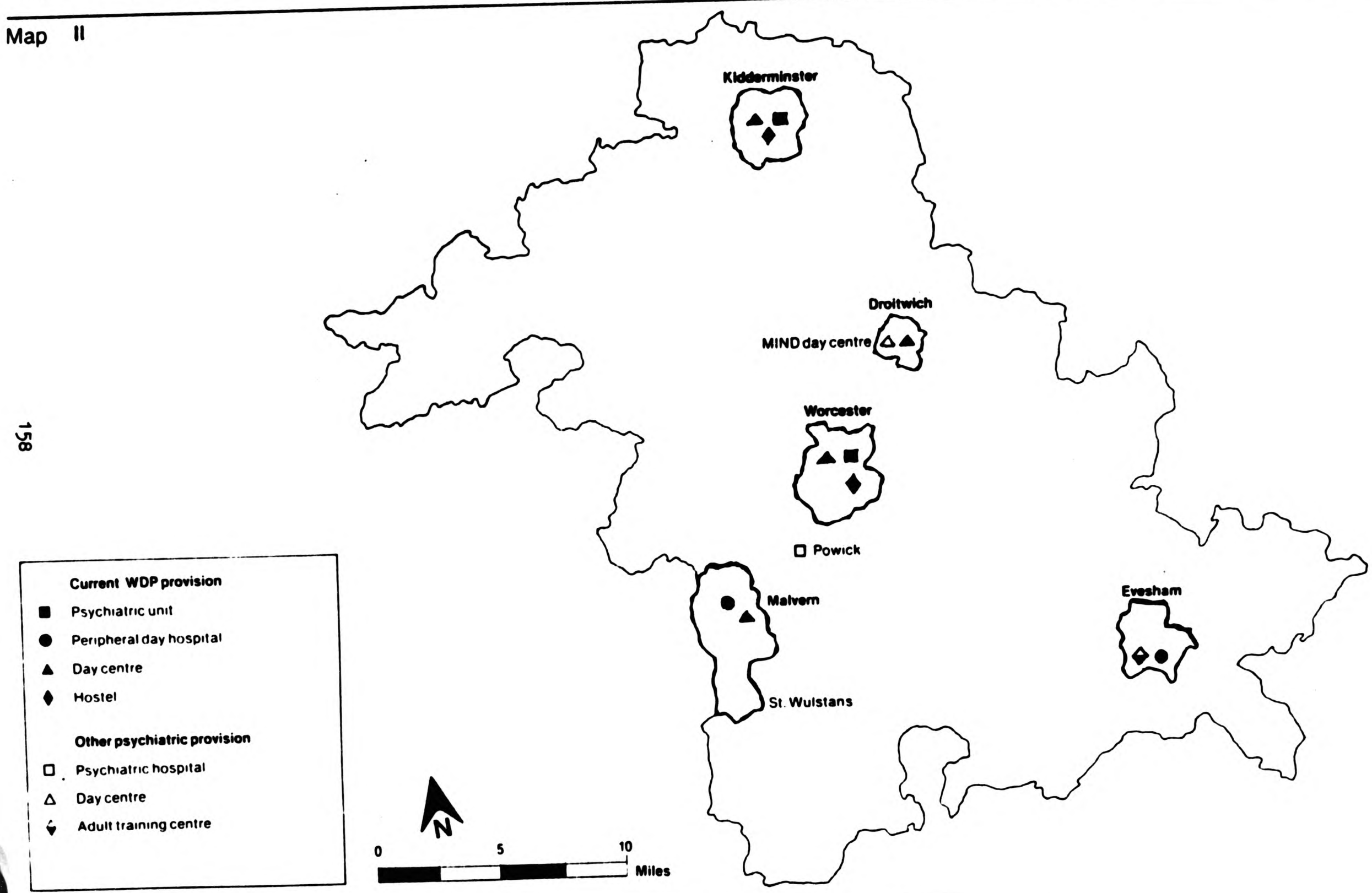
* in 1983 it was still open

The Worcester Development Project
Current WDP provision plus other psychiatric provision currently in use

Map II



NOTES ON LOCATION OF OVER 65s IN PSYCHIATRIC PROVISION, JUNE 1979 (MAP 12)

This map shows the percentage of users over 65 in psychiatric provision (June 1979).

There are particularly high percentages in the following buildings:

1. Powick hospital, and the new psychiatric units at Worcester and Kidderminster.

   This may be in part due to the high proportion of elderly long-stay patients in Powick hospital, a number of whom have been transferred to these new units.

2. Buildings in Malvern and Evesham areas.

   This may in part reflect the high proportion of the local population in these areas who are over 65.

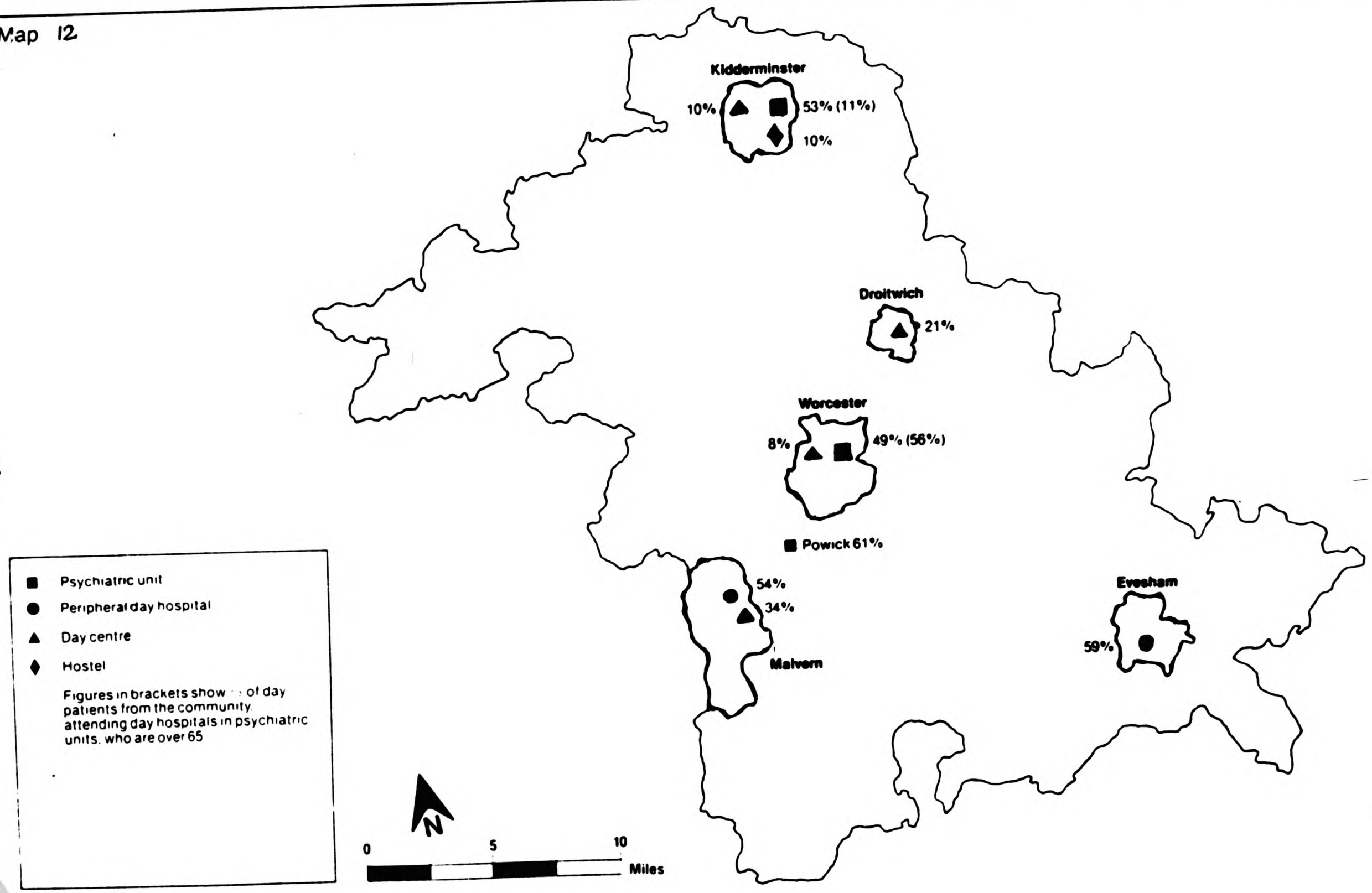
   The high proportion of over 65s in these buildings may also indicate a lack of other community facilities for the elderly.

The local trend, like the national trend, is for the proportion of over 65s to increase. Moreover, the proportion of over 75s is increasing still more#. This suggests that the proportion of over 65s using the service (including some very old people) is likely to remain high.

County of Hereford and Worcester, Population Projections April 1978

Location of over 65 s in psychiatric provision, June 1979

Map 12



QUESTIONS RAISED BY THE 'BASIC FACTS AND FIGURES'

The quantatitive and geographic information above gives rise to many questions; for example:

1. Powick Hospital remains open and yet there appears to be a surplus of beds in the WDP buildings. In what ways does this mean that WDP provision does not meet local demands, especially for the elderly?

2. Newtown and Kidderminster psychiatric units, not designed for use by the elderly severely mentally infirm, are being so used: what are the implications for the buildings now and how will all the buildings be used when the planned provision for the elderly severely mentally infirm is open?

3. There appears (Table 19) to be an overprovision of day centre places and possibly of day hospital places. This leads to the question of their relative functions and roles.

4. The MIND Day Centre at Droitwich remains open and (although no figures are presented in this report) well attended. How does this relate to point 3 above?

5. Map 12 shows some buildings have a high proportion of elderly users: how far does this reflect the nature of the population in the area, and how far does it indicate a lack of other appropriate facilities? What problems arise from this unplanned use of buildings?

6. The maps show a more evenly-distributed service (compare Maps 9 and 11), but one which still means comparatively long journeys for people in some areas. Is transport effective? Does distance affect the role of certain buildings? Do catchment areas block "out of area" demand for places currently not taken up, leaving places unused?

7. Some provision anticipated by the Feasibility Study has not in fact been provided: there are no plans to provide, for example children's units. On the other hand, although there was to be no special hospital provision for patients with alcoholism, such provision has been established (see Table 19). How are such adjustments working out?

8. The Feasibility Study aimed at a flexible service which would make the patient as independent as possible and integrate him with the community. Do the links between different buildings in the service, and between each of these and the community, suggest that this is happening?

9. This report contains no information as to where patients considered to represent a security problem are to be found: this is because our sources have no such figures. Indeed the Feasibility Study specified that there were to be no special secure facilities: what effects if any has this had on the service and on use of buildings?

2.3.3.3 Evaluation of day centres

Background

The four day centres which make up the WDP day centre provision are as follows; (they are referred to by their place names, for simplicity):

Studdert Kennedy Day Centre, Worcester City, a purpose built, 40 place, day centre for the mentally ill, opened in January 1977 ('Worcester');

Malvern Day Centre, built as a 70 place multi-purpose day centre but opened exclusively for the mentally ill in January 1977 ('Malvern');

'Covercroft' Day Centre, Droitwich, a former office building specially converted for use as a 40 place mental illness day centre, opened in April 1979 ('Droitwich');

'Edward Parry' Day Centre, Kidderminster, a purpose built 60 place day centre for the mentally ill, opened in June 1979 ('Kidderminster').

Their location can be seen on Map 10 above.

The Feasibility Study thought one day centre would suffice. The 1975 White Paper suggested more (60 day centre places per 100,000 population) and 210 places were eventually provided as above.

The Purpose of Day Care

The extensive provision of day hospital places was expected "to help many patients in the process of rehabilitation and enable them to take their place in the community without further day time support"; but some day centre provision was required "particularly for patients no longer needing treatment who have not settled occupation. Some will in time be ready for open or sheltered employment but the personality or character disorders of others will mean that they may never be able to leave the sheltered conditions of the day centre" (Feasibility Study: DHSS 1975a, p.17)

In 1975 when the White Paper was issued a more therapeutic role for the day centres was envisaged than indicated in the Feasibility Study. The focus of attention changed from one of occupation and support as foreseen in the Feasibility Study to one with a more therapeutic accent with a greater emphasis on rehabilitation.

The policies, practices and design of each of the four day centres were evaluated under seven headings:

referral sources and admission criteria
client involvement
community involvement
staffing
location and transport
aims and objectives
design

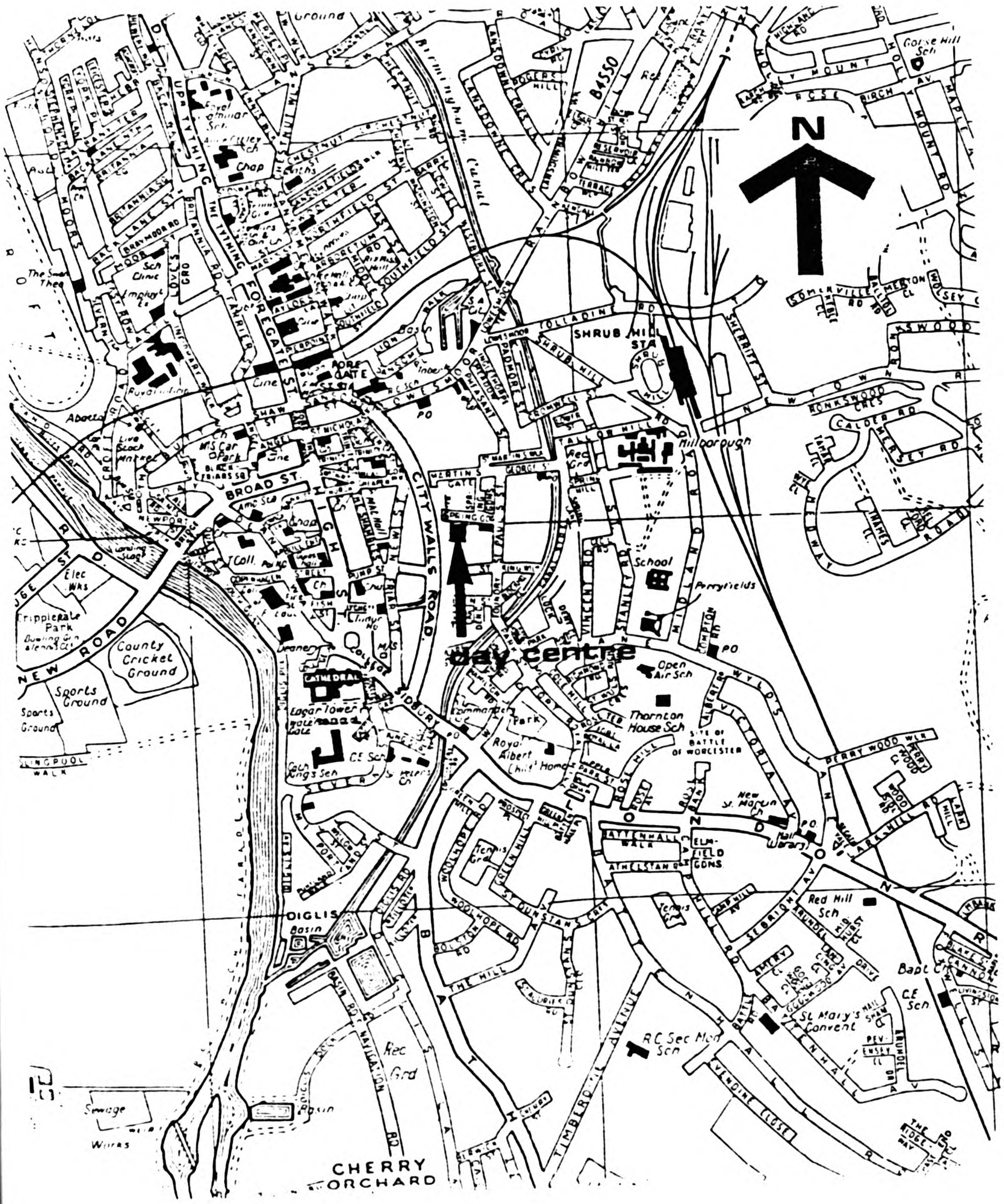
For brevity, this description will be given in full for only one of the buildings; the remaining three day centres will however be referred to on particular details in a subsequent discussion of the findings, across all four centres, which are of most significance for policy development and future planning and design, and all day centre plans are given in Appendix G.

WORCESTER DAY CENTRE (The Studdert Kennedy)

Introduction

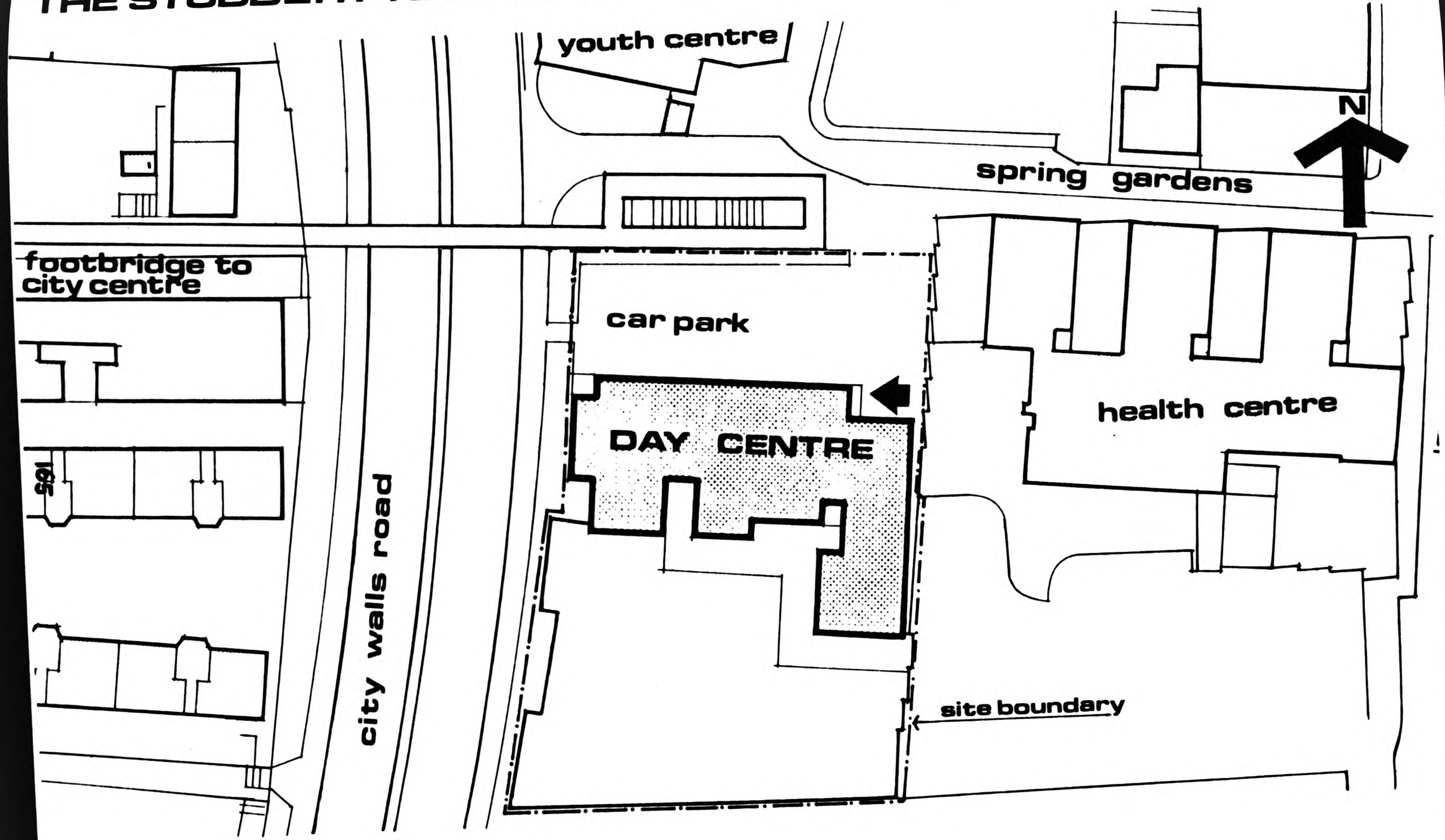
Worcester day centre, a purpose built day centre for the mentally ill, opened in January 1977. Almost all clients came from the city of Worcester or its suburbs. The population of this area was 75,000 approximately, so the 40 places planned were roughly in line with the DHSS guideline of 60 places per 100,000 population.

The Centre was situated next door to the new Health Centre. Other Worcester Development Project buildings in or near the city were the new psychiatric unit at Newtown (150 beds and 160 day places which opened in December 1978) and Perryfields Mental Illness Hostel (25 places, open since 1964). There was also a new sheltered workshop in the city - 'County Enterprises' (40 places) administered by the Manpower Services Commission.



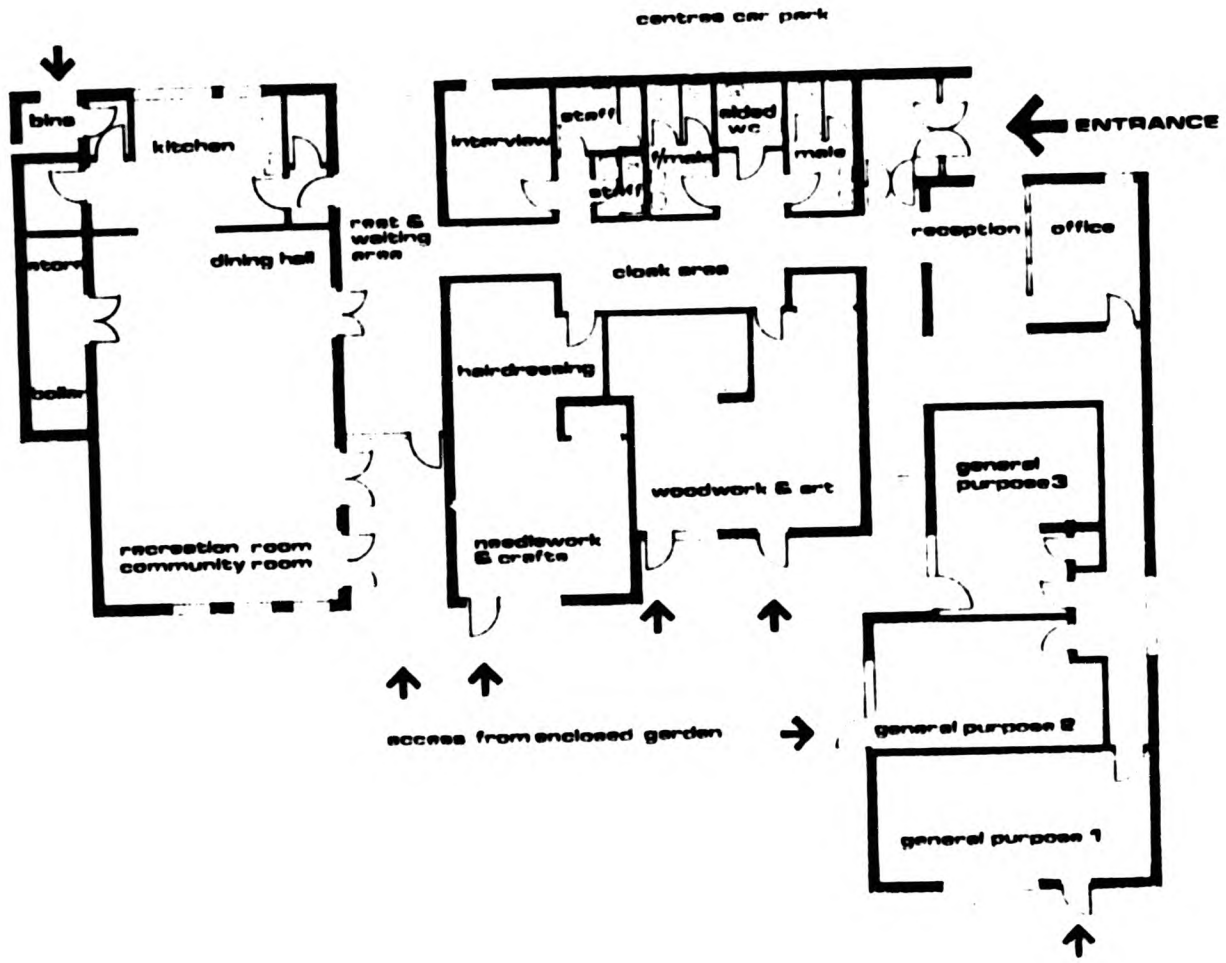
SITE LOCATION PLAN THE STUDDERT KENNEDY DAY CENTRE WORCESTER.

THE STUDDERT KENNEDY DAY CENTRE WORCESTER



SITE PLAN

THE STUDDERT KENNEDY DAY CENTRE WORCESTER



PLAN

FIGURE 8

CLIENT PROFILE

Worcester (Studdert Kennedy) Day Centre

Clients using the Centre in December 1979 (Total = 63)

		No.	%*
1.	SEX - Male	22	35
	Female	41	65
2.	AGE - Under 25	4	6
	25 - 45	29	46
	46 - 65	25	40
	65+	5	8

3. Intensity of Use by Clients (July - December 1979)

	Total number of clients attending during the month	Average number of clients per day
JULY	61	24
AUGUST	62	24
SEPTEMBER	66	27
OCTOBER	69	28
NOVEMBER	65	29
DECEMBER	63	**

4. Attendances for Week 18-22 February 1980 (week before interviews)

Monday	Tuesday	Wednesday	Thursday	Friday
29	27	25	40	17

5. Duration of Stay as at December 1979

	No.	%
Up to 3 months	13	21
4 to 6 months	12	19
7 to 12 months	13	21
1 year to 2 years	11	17
2 years and over	14	22

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* All percentages have been rounded to the nearest full number.

** It is not possible to calculate an average number of clients per day in December because seasonal factors affected attendance.

ADMISSION CRITERIA AND REFERRAL SOURCES

The staff at Worcester did not feel there was sufficient space in the building or sufficient staff to cope with the planned number of 40 and were trying to restrict the number to 35.

While the centre catered for a wide range of mental health problems, it did not accept those who would require a high degree of staff supervision or observation. The main reasons for rejecting a referral were that the client was:

on constant medication changes (requiring medical/nursing supervision)
confused or demented
incontinent
not reasonably ambulant (eg uses a wheelchair) or
acutely disturbed, physically agressive or actively suicidal.

There had, on occasions, been a small waiting list for places, mainly for long-stay clients (ie those clients who have had fairly regular attendance at the day centre for over two years). Worcester day centre operated a policy of limiting the long-stay to a maximum of 30% of current numbers, as a means of ensuring that the centre does not 'clog-up' with long-stay clients to the detriment of other client groups, but the quota was exceeded on occasions.

The two main sources of referrals were the wards of the psychiatric unit at Newtown, Worcester (where the centre's organiser attends a weekly ward meeting) and the field social workers (mental health specialists). Other important sources were the hostel in Worcester for the mentally ill (Perryfields), GPs, the probation day centre and self-referrals.

The centre also took referrals from a wide variety of other sources. The centre had as many referrals as it could cope with and very few of those referred were turned down. The organiser believed that the main reasons for the high number of appropriate referrals were the initiative taken by the centre staff in educating the referring agencies about the services at the centre and the attempt by the centre to respond to local needs rather than follow a rigid formula.

CLIENT INVOLVEMENT

Worcester day centre's policy included the notion that clients should play an active part in all the daily activities of the centre and that they should be encouraged to participate as much as possible in decision making processes. Clients participated in a large number of groups and activities, principally the twice daily community meeting attended by all clients and staff, and also

large group therapy
small group therapy
formal art therapy
discussion groups
group games
relaxation classes
music appreciation
play and poetry reading

woodwork
pottery
basic cooking and budgeting
art
gardening
yoga
photography
sewing and knitting
rug making
basketry
jewellery making
bottle cutting
folk dancing

Meals were provided on the premises by clients. There was a rota and three clients a day cooked the food under the minimal supervision of a domestic. Clients also grew some of the food used in meals in the centre's vegetable garden.

Clients used most facilities unsupervised except where instruction was needed, for example on the sewing machines. A number of activities were client- rather than staff-supervised; for example, the initiative to convert a walk-in cupboard into a photographic dark room came from clients (at a community meeting) who subsequently carried out the conversion and now organise the photographic activities. Clients were allowed free access to all parts of the building except the office and the store cupboards. Recreational and social activities were held in the community/dining room. Social events, dances and discos were held about every two months. When social events were held ex-clients and other local people attend. The centre sends invitations to the other Project units but it was reported these were usually met with apathy. (See Appendix F for a sample week's programme).

COMMUNITY INVOLVEMENT

The centre made its facilities available for use by other groups and organisations besides its own clients. These included:

the film society
the arts workshop
local colleges
the Inner Wheel
the Townswomens' Guild

The groups used the centre in the evenings and at weekends. It was seen as an important part of the centre's role to combine the centre's activities with those of the local community in order to

provide a much needed community resource where there is a shortage of recreational and social facilities;

help integrate the centre's clients into the local community. Clients are encouraged to get involved with local groups using the centre; a number of them attended pottery and clay modelling classes run by the Arts Workshop. The film society allowed clients to attend their films for half-price;

help educate the public about mental health, dispelling myths and prejudice.

The Centre stressed this function of the centre and made continuing attempts to encourage and increase community involvement. The organiser felt that: "It is important to put tentacles out in the community to make the centre as much a community resource as is possible".

Clients were encouraged to participate in the local community and to use community resources in preference to the centre's resources where possible. However, the centre did have hairdressing facilities and a sessional hairdresser. This was seen as an exception and as a special perk by the organiser. Most clients came by public transport rather than by centre-provided transport.

STAFFING

Staff Profile	Qualification/Hours
1 Organiser	RMN/SRN
2 Centre Assistants	1. CQSW 2. No formal qualifications (attending in-service study course)
1 full-time volunteer	

Ancillary Staff	
2 domestics	20 hours a week
1 receptionist/clerical worker	25 hours a week (diploma in catering)

Sessional Workers
1 hairdresser
4 craft workers

The centre also used a number of volunteers and took students on placement. The centre would have liked to make more use of volunteers but found it difficult to get volunteers who are not over-protective towards the clients.

Back-up services were available from psychiatrists, community nurses, social workers and psychologist, who visited the centre when required. The centre had a good working relationship with the ward staff at the local psychiatric unit and with the staff at Perryfields Hostel for the mentally ill. The centre was also developing increasingly strong links with local GPs. At first this liaison had been difficult to establish but it had grown through the centre staff's efforts especially since the centre provided a service to GPs for patients who were recently bereaved.

The organiser felt that the present number of staff was inadequate. He felt that one more centre assistant and another part-time domestic were needed. If more staff were available it would be possible to develop the centre's self-referral approach more effectively. Other staff would also be needed if Worcester Day Centre were to be able to develop as a therapeutic resource in the evenings - for example, running a group for people with drink problems, doing home visits, working with families.

The organiser believed that the experience and personalities of staff were even more important that formal qualifications but he felt it was important that the organiser should possess some form of formal qualification for his own confidence and for the confidence of the staff and clients. Friday afternoons were kept free for staff training. All the staff shared the office/staff room meeting there each evening from 4.0-5.0 pm to discuss the day's events and to plan ahead. The staff preferred to use this room as a staff room and did not feel the need for a separate staff room or organiser's office. The organiser too liked this arrangement.

LOCATION AND TRANSPORT

Being purpose built, the centre was fortunate to have found such a central inner city site, close to other community resources such as pubs, parks, shops, library, baths and the bus and railway stations. Getting to and from the centre was fairly easy with good public transport facilities available. Most clients came by bus, on foot or by their own transport (bicycle, car). A taxi service was provided for a small number. Those who came by bus had their fares reimbursed.

AIMS AND OBJECTIVES

While the organiser subscribed to the offical aims/objectives of the WDP day centres as described by the county social services (education, prevention, rehabilitation and long-term support)*, he felt that some of those functions were better catered for than others. The day centre saw itself as providing a viable alternative to more expensive forms of hospital care for the mentally ill, but would have liked to be able to concentrate more resources on developing the preventive and educative roles, for example by:

> developing the centre's capacity to be a centre for advice and help with mental health problems where people who may have no previous association with the psychiatric services may call;
>
> increasing the use of the centre outside office hours both as a social and as a therapeutic resource for the local community.

The organiser felt a small number of the present clients would be better placed at a sheltered workshop than at the day centre but because the waiting list for the workshop was so long (190+) there seemed little prospect of this facility being available.

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* Draft policy statement on WDP day centres

DESIGN COMMENT

Advantages

In general the building was very well liked by all who use the centre. It had a warm, friendly, domestic atmosphere and was proving to be a very effective design for the type of service the centre wished to provide. It had been in operation for three yars and had shown a good capacity to sustain wear and tear without damage.

Specific Advantages

1. The size and scale of the building and the size of the rooms (apart from the woodwork/art room): the organiser felt that the building was "not at all institutional or even day centrish"; that it was a "bit like a large house".

2. The layout: there was a good fit between the kind of interaction wanted and the kind the building allows. The three carpeted general purpose rooms for quietier activities were separated from other areas of the building where more noisy activities take place.

3. The large garden area; "a gem, an oasis in the middle of the city". The garden had adequate space for gardening activities, for outdoor games and for clients who just wished to sit outside. All the activity rooms and the general purpose rooms looked out onto the garden.

4. The centre preferred to be without such facilities as a special toilet for the disabled, a special room for distressed persons, a sluice, a bath - because such provision could open the centre to what they would consider to be inappropriate referrals.

Disadvantages

1. Space limitations:

   it was felt that the building was not large enough to accommodate, on a regular basis, the 40 it was planned for and so staff triend and limit the number of clients to 35 a day. This limit was not rigidly applied, but 35 places was considered the optimum number for the building;

   the woodwork/art room was not big enough to cater for the demand from clients for those activities; ideally it was felt that an extra activity room should have been provided.

2. The front of the building was seen as dull and uninviting and as a serious drawback especially as it probably mitigated against developing the centre as a preventive resource and thereby discouraged futher improvement of links with the general public.

3. Although there was an adequate amount of storage space it was badly distributed within the centre. In some rooms the actual design of the storage space was inappropriate. For example, the art room storage space was unsuitable for storing large sheets of paper.

4. Lack of natural light in the corridors.

5. There were not enough sinks provided in the activity areas and the water pressure was often inadequate.

6. The electric underfloor heating was difficult to regulate. Some areas of the building got too warm while other areas got too cold. The woodwork/art room had been unheated for four months due to difficulty in obtaining a replacement part for the central heating.

7. The staff office/reception was badly ventilated and became too stuffy and warm. None of the windows in this room were openable and the plastic vent fitted was inadequate.

8. The lighting in the sewing room was too dim.

9. The stops fitted to the back of some of the doors tore the carpets.

Changes which had occurred in the use of rooms or areas

1. The staff room was being used as an interview room.

2. A large walk-in cupboard, in the middle general purpose room, had been coverted by the clients into a photographic dark-room.

3. The store room off the dining area had had a window installed and a bed put in so that it could be used as a sick room if necessary.

Significant findings across all four centres are now discussed under the following headings:

The take up of places and what it means for future policy and planning.

The Centre as a community resource

Participation of clients

Design of day centres.

TABLE 20

TAKE UP:PLACES AT THE DAY CENTRES

Attendance for week ended 22 February 1980

	Mon.	Tues.	Wed.	Thur.	Fri.	Av.	No. of places built	No. of places available
WORCESTER	29	27	25	40	17	28	40	35
MALVERN	26	21	31	20	12	22	70	50
DROITWICH	21	4	8	8	15	11	40	40
KIDDERMINSTER	14	16	19	15	15	16	60	60
TOTAL	90	68	83	83	59	77	210	185

Monthly attendances for last 6 months of 1979

Number of individual clients attending during month.

	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
WORCESTER	61	62	66	69	65	63
MALVERN	77	69	68	71	70	69
DROITWICH	20	22	19	23	26	26
KIDDERMINSTER	20	27	32	35	33	34
TOTAl	78	180	185	198	194	192

Average number of clients attending per day

	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
WORCESTER	24	24	27	28	29	*
MALVERN	21	18	23	22	21	*
DROITWICH	6	8	8	8	9	*
KIDDERMINSTER	7	11	14	14	15	*
TOTAL	58	61	72	72	74	*

The actual number of places taken up at the day centres is considerably less than the numbers of places built. Although the number of places taken up is almost double the number the Feasibility Study planned for (40) it is far less than the number (over 200) that the White Paper guideline would require. (DHSS 1975, p.45).

* not calculated due to seasonal variation.

THE TAKE-UP OF PLACES AND WHAT IT MEANS FOR FUTURE POLICY AND PLANNING

The total number of places built was 210. The number available was 185. At Worcester (Studdert Kennedy, described above) lack of space had led staff to restrict the numbers of users (when possible) from 40 to 35. Malvern was run as a 50 place centre (instead of the 70 places planned) because of the low take-up of places. However, 185 places is still slightly in excess of the White Paper guidelines (60 places per 100,000). Take-up varies considerably across the centres, and in some seemed very low (TABLE 20 above). Various factors are involved in this complex picture and are relevant in relation to policy development and future planning decisions.

I. Planning factors: provision effectively in excess of the White Paper guideline.

Malvern was built as a 70 place multi-purpose centre and it was not until its completion that it was decided to use it exclusively for the mentally ill. The population of the Malvern Centre's catchment area is approximately 60,000 so a 40 place centre would have been more in keeping with the guideline.

Droitwich day centre was the only WDP day centre serving the Wychavon district of the Social Services southern division, with a population of 88,000. This means that the 40 places provided were fewer than the guideline. However, 57,000 of this population lived outside the Droitwich district and few if any of them actually attended the day centre. This in effect means that Droitwich served a catchment area of just over 30,000. The social services provided 10 places for the mentally ill at their Evesham multi-purpose day centre which catered for the rest of the Wychavon district.

Worcester was the only one of the day centres with a relatively high take-up of places. It would seem that the guideline of 60 places per 100,000 population is excessive, especially when dealing with rural areas. However, this remark may need qualifying in the light of the other related factors.

Other day care places

In addition to the day centre places, various other day provision is available for psychiatric clients:

a. WDP day hospital provision. Whereas the WDP Feasibility Study recommended a provision of only 40 day centre places it recommended a provision of 280 day hospital places. These were all provided:

160 places at Newtown Psychiatric Unit
80 places at Kidderminster Psychiatric Unit
20 places at Evesham Peripheral day hospital
20 places at Malvern Peripheral day hospital.

These 280 day hospital places are in excess of the White Paper guideline for day hospital places - which is normally 65 places per 100,000. For the WDP area population of 319,000 (the County Council's 1976 estimate) this would indicate a need for 210 day hospital places. At the time of the study, it seemed unlikely that the area's population would increase by more than a few thousand by 1981. The Feasibility Study planned this provision for a projected population of 405,000 by 1981 and this [illegible] would explain many of the excess places provided. The picture is further complicated by the fact that the guideline for day places in the peripheral day hospitals, where there are no in-patients attending, is 30 places per 100,000.

b. In addition to the 4 WDP day hospitals there are also some day hospital places provided by St Wulstan's hospital, the regional rehabilitation hospital at Malvern.

c. Other day centre provision:

The MIND centre at Droitwich. This is run 3 mornings a week in a church hall. The centre has been open for 5 years and about 10-15 clients attend each morning.

Evesham day centre. Opened in 1977, when because of financial constraints it was used for mentally handicapped people. There were currently 60 places available, 40 for the mentally handicapped, 10 for the physically disabled and 10 for the mentally ill. All these categories of clients were attending together; there were not separate groups for each category.

This large number of day hospital and alternative day centre places must affect the demand for places at the WDP day centre. How these different sectors of day care provision interacted and how comprehensive a service they provided will be more fully examined later, in the evaluation of the peripheral day hospitals.

Limitations on take up

How far use is made of available day centre places is affected by three main factors: liaison with health authorites, social services' own policies on day care, and the centres'internal policy on admissions.

Liaison with Health Authority services

The relationships between the day centres and the health authority providers of mental health care differed markedly between centres particularly with reference to the liaison with health authority referring agencies on the placements of clients.

i. Worcester day centre (Studdert Kennedy) had extensive liaison with health authority referring agencies. In addition to a wide range of other referring agencies, it dealt with referrals from the wards at Newtown Psychiatric Unit, GPs, community nurses and other health authority sources although it did not receive referrals from

the day hospital at the psychiatric unit. The organiser at the centre felt that they provided a "viable, easy, alternative to the day hospital at Newtown" and he was effectively bypassing the day hospital as a referring agency by taking referrals direct from the weekly ward meeting he attends at the unit; he felt that it was the more dependent clients who attended the day hospital.

ii. Malvern also had strong ties with health authority referring agencies notably with Malvern day hospital from which many of its clients had been referred. There was some disquiet among staff at the day centre that the majority of the referrals from the day hospital were for chronic mentally ill clients which was generating an over-emphasis on support and maintenance at the centre. Malvern was serving an area with a high proportion of elderly people (19% in 1976) which was affecting the percentage of patients over 65 at the peripheral day hospital (54%) and of clients at Malvern day centre (35%).

iii. Droitwich (Covercroft) had noticeable lack of liaison with health authority referring agencies including the GPs. Although it saw itself as providing an alternative service to day hospital care it was receiving few health authority referrals.

iv. Kidderminster's (Edward Parry) major referring agent was the Kidderminster Psychiatric Unit day hospital. Unlike Worcester it received few referrals from the wards. The organiser at Kidderminster felt that the centre was providing a supporting rather than an alternative service to that provided by the day hospital.

These differing types of arrangement over referrals are examined more fully and related to the day hospital's perspective in subsequent evaluation on the peripheral day hospitals, below.

Local social services policies on the role of day centres

Another important influence on use of available WDP day centre places was local social services policies, which appeared to favour the development of multi-purpose day centres rather than day centres exclusively for the mentally ill.

The social services were planning to open a new multi-purpose centre at Bromsgrove (outside the WDP catchment area) to cater for the mentally handicapped, the mentally ill, the physically handicapped and the elderly, attending together, sharing facilities and activities, and were providing 10 places for the mentally ill at their Evesham multi-purpose day centre.

Malvern day centre was originally designed as a multi-purpose day centre and there was discussion at the local social services as to whether Malvern should become a multi-purpose centre. The size and scale of facilities provided at Kidderminster day centre suggests that the possibility of multi-purpose use was catered for in its design. It is worth noting that the provision of special facilities for client groups other than the mentally ill may attract such groups into a centre.

Three of the day centres are presently being used by physically disabled groups at times when the centre's regular client groups attend. There was little interaction between the different groups.

TABLE 21

Client Profiles for Day Centres (1979)

Clients using the Centres in December 1979 (rounded %)

	No.	Male	Female	Under 25	25 -45	45 -65	65+
Worcester	63	35	65	6	46	40	8
Malvern	69*	34	66	7	19	38	35
Droitwich	26	35	65	19	27	42	12
Kidderminster	34**	56	44	12	49	36	3

Average number of clients per day (July-December 1979)

	July	Aug.	Sept.	Oct.	Nov.	Dec.
Worcester	24	24	27	28	29	***
Malvern	21	18	23	22	21	***
Droitwich	6	8	8	8	9	***
Kidderminster	7	11	14	14	15	***

Duration of stay as at December 1979 (% in brackets)

	up to 3 months	4-6 months	7-12 months	1 year-2 years	2 years & over
Worcester	13 (21)	12 (19)	13 (21)	11 (17)	14 (22)
Malvern	8 (12)	6 (9)	16 (23)	16 (23)	23 (33)
Droitwich	10 (38)	6 (23)	10 (38)	****	
Kidderminster	8 (24)	26 (76)	*****		

* No data for one client
** No age data for one client
*** Seasonal variations preclude calculation
**** Droitwich Day Centre opened April 1979
***** Kidderminster Day Centre opned June 1979

The Centres' internal aims and policy on admissions

Worcester Day Centre was intended to accept a wide range of problems but not people who required considerable staff supervision (for medication, dementia, incontinence, acute disturbance etc). Long stay users were being limited to 30%. Development of the Centre as an advice and resource centre for the community was seen as desirable.

Malvern Day Centre was accepting most people except those who are physically handicapped, incontinent or mentally handicapped. A high proportion of users (35%) were over 65, reflecting the 'elderly' nature of the catchment area, but the confused elderly were not accepted. The emphasis was on long-term support, and preventive work, with a mothers' group once a week. The design of the building was unsuitable for the rehabilitative and preventative work the staff would like to do. The new organiser hoped to extend community evening use of the centre.

At Droitwich Day Centre many referrals did not lead to the client attending, either because the centre rejected the client, or because the client did not wish to attend; at least during some months, referrals were sufficient to full the centre, if all had been accepted and had wished to come. In fact the take-up of places was very low (TABLE 20). It appears from the evidence of the previous organiser's report, from the evaluation interviews, and from the figures above, that staff attitudes as to what constituted an appropriate referral were one of the factors determining the low number of places taken up. The organiser showed a marked preference for particular groups of clients, actively seeking referrals of certain types while discouraging referrals of others.

(Droitwich)

The low number of clients attending Covercroft and the high number of referrals declining to attend poses a number of questions including:

1. How many people were there in the area who were in need of day centre care but who had declined to attend or were not considered appropriate?

2. Were there people using other more expensive forms of day or in-patients care who could have been provided for at Covercroft?

3. What was the impact on the referring agencies of having so many of the people they referred to the day centre declining to attend?

When considering these questions it should be noted that the Covercroft centre had only been opened since April 1979. Covercroft had concentrated on rehabilitation of clients and prevention of mental health problems among young mothers on local estates, rather than on long-term support. Various ways of extending these roles were mentioned in interviews with staff, including offering places to clients outside the centre's catchment area as an advice centre, and community use.

Kidderminster Day Centre did not accept people who are very disturbed, with dementia or mentally handicap, and only occasionally accepted clients over 60. It focussed on support and rehabilitation, and aimed to do more rehabilitation using the flat originally provided for a caretaker, and to develop as a community advice centre and a social resource for clients, outside normal houses. No quota was imposed on the long stay, who formed 25% of the clients.

The duration of stay figures in TABLE 2/ above show differences in attendance which reflect the different aims, and quotas on long stay of the various units. Of the two centres which had been in operation for over three years, Malvern had more clients (56%) who had attended for over one year compared with Worcester (39%). These figures show an increase when compared to figures produced in a 1979 report on WDP day care (Hassall 1979), which suggests that even where a day centre imposes a quota, as Worcester does, pressure to take long term clients makes itself felt. A day centre which has many empty places is presumably less able to adopt or maintain quotas. Other categories of client who are widely rejected as unsuitable (eg the mentally handicapped) are presumably more likely, in the long run, to be accepted if there are great numbers of unused places. If the number of places originally provided is in excess of the guideline, it is very difficult for a day centre to achieve full take up of 'suitable' clients. Over provision may thus tend to increase the likelihood of a centre widening the categories of client it accepts, and tending to a 'mixed' use.

There were centres which were adopting quotas for certain clients who looked as if they are potentially long stay, and all centres totally excluded certain categories of client. Limitations such as these can be necessary in order to protect the interest of other categories of clients and to prevent the service becoming clogged up, and the FS stated that preventing an accumulation of "hard core long-stay patients most of them elderly" (p.8)was an objective for the WDP service as a whole. However, it is interesting to note two things: restrictions are often considerable even where facilities appear under-used, and there was no clear pattern across the service. Specialisation in certain groups,the general aims of the centres were not governed by an overall policy but appear to respond to local contingencies such as the initiative of those running the unit and the characteristics of local population (and liaison with the health authority services as referred to above). A tendency to ad hoc development has been in widespread in day services generally (Carter 1981) and has to be borne in mind in relation to planning and design. Take up figures do not reflect the true demand for mental health day care from all those who could on a broad definition be considered to need it, because of the complex factors indicated above. Nevertheless the very generous level of day centre places in the WDP provides an opportunity to look at what happens when there is no limit in the supply of physical places - an unusual condition in the health service.

The Centres as a community resource

Day centres can play a role here in providing premises and facilities for use by groups from the community, at weekends and in the evenings. Intensive 'out of hours' use of this short could be seen as offsetting to some extent the diseconomies of the low take up of places described above, as being part of what is meant by "community" orientated, and as

helping educate public opinion about mental illness. The White Paper described day centres as one focal point of volunteer help in encouraging social activities (p.27). There was a shortage of community and recreational facilities in the WDP area, and all centres either already encouraged community use of their premises, or proposed to. However, the degree to which such use was made of the centres varied. To some extent, this reflects their different locations, some being more geographically accessible than others; but it also reflects the policy of the individual units.

Malvern had the least favourable location, (situated on the outskirts of the town, difficult to find, and surrounded by hedge so that it is invisible from the road and with poor public transport) and it was the least used. Only three groups other than the day centre clients, used the buildings on a regular basis: Gingerbread, the one parent family association, a social club and a physically handicapped group.

Kidderminster has some locational advantages, being within easy walking distance of the town centre, but also disadvantages - being near a dangerous road junction. However the organiser was actively encouraging outside groups, by, for example giving talks to local organisations, and the centre although it had only been open a short time, had built up a range of community users including a support group for alcoholics, a social club, a yoga club and others. Worcester too was well used. It had a central inner city site, good public transport and a positive policy on community involvement. Community use was seen by the centre as important because it provides an otherwise scarce resource, helps integrate the day clients into the community and helps educate the public about mental health.

Participation of clients

The White Paper stated that the participation by clients in the organisation of day centre life was even more important than precisely what activities were offered:

> "More important than the exact mix of activities is the way they are planned and organised. Those attending the centre should be encouraged to take part in this process; their involvement in shaping the programme should not only help make it more relevant but should also be a means of developing self-confidence and self-reliance" (pp 35-36).

How far this aim can be realised depends on various factors to do with policy, the design of the building and the nature of the clients. The operational policy varies between units on such matter as how structured the day is, how frequently meetings of all clients are scheduled and what access to facilities clients have. Covercroft and Kidderminster, for example, have comparatively unstructured programmes; 'community meetings' of all clients are held twice daily at Worcester and less often elsewhere. Access to the kitchen is not generally extended to clients at Malvern; there is nowhere else where clients can make themselves a cup of tea, and kitchen staff are unwilling to encourage client participation in the preparation of meals.

Restricted access can be related to inappropriate design: the kitchen at Malvern was entirely unsuitable for clients wishing to pursue domestic pursuits independently (or for rehabilitation). It was originally designed as a WRVS kitchen to supply not only all Malvern meals but also 250 'meals on wheels', and had commercial scale equipment. A 'Baby Belling' cooker, meanwhile, elsewhere in the building also proved inadequate for training in independence! The kitchen at Kidderminster also had expensive commercial-scale equipment, not appropriate for people wishing to participate in, or learn, 'normal' meal preparation.

Policy external to the centres can also restrict the degree to which clients can participate in centre life. At Kidderminster, clients at one time helped in meal preparation, but subsequently social services policy changed and the centre had to go onto the school meals service. This was against the wishes of clients and staff, produced what they felt was a drop in the standard of meals, and interfered with attempts to make the environment at the centre non-institutional.

Sometimes the categories of client can limit participation. At Malvern, clients are often elderly, and perhaps less motiviated to get involved energetically; three days a week, other age groups attend, and such a lack of continuity may make active involvement less likely.

DESIGN OF DAY CENTRE BUILDINGS

i. In general it would seem that small centres should be built on a domestic scale designed to give a non-institutional, non-clinical environment. The need for several small rooms was particularly mentioned.

The centre in Worcester, which was the most extensively used of the day centre, used a number of rooms for more than one purpose. This seemed to increase the 'intimate' feel of the building without causing any compromise in the facilities it had to offer: eg the dining area was also used as a recreation area, for indoor games, for twice daily community meetings, and for social events.

ii. The open-plan design at Malvern was especially disliked. A high degree of staff supervision is not necessary in a mental illness day centre. Open-plan and large spaces in such buildings should be balanced by provision of small rooms.

iii. The amount of staff accommodation needed requires further investigation. With roughly the same number of care staff, Worcester day centre is satisfied to use just one room while Malvern and Kidderminster needed 4 rooms. A large multi-purpose staff room might supply most of the staff requirements, as a place to rest, have discussions etc. This room could be supplemented by a small office.

iv. Separation of areas for noisy and quiet activities is helpful.

v. Kitchen provision is more useful in helping clients show independence and participation, and for rehabilitation training, if it is domestic in scale.

vi. Storage problems were experienced at the one centre which is full: the variety of activities and the number of different user groups can generate considerable need for storage.

vii. All the centres except Worcester suffered from lack of usable outdoor space. The interior garden courtyards were not espeically appreciated where they were provided. They were not a real substitute for the kind of domestic rear garden that was provided at Studdert Kennedy, which seems to have been a far better use of available space.

viii. Most of the day centres were felt by staff to have an unprepossessing external appearance making them look somewhat institutional and segregating them from their immediate environment.

ix. Location and transport considerably affected accessibility and this may affect take-up of places and degree of use by outside groups.

x. Various problems arose with services: ventilation problems, and problems in regulating heating systems and lighting, and a need for more sinks.

xi. The trend to increased use of centres by outside groups had not resulted in reports of difficulties with the design of the building but it may still be helpful to consider this function further in future design, particularly regarding location and access.

xii. The design which was most helpful for the kinds of contact users wanted and for the accomplishment of the tasks being performed was the Worcester Centre. This was the smallest of the purpose built centres, and appears to have the most frugal space allowances per client of any of the purpose built centres, yet is was the best liked. However, it should be noted that it restricts numbers to 35 places and reported a shortage of activity space.

2.3.3.4 Evaluation of peripheral day hospitals

Background

In addition to the local authority day centres provided under the WDP there are various other forms of provision of daycare:

two peripheral day hospitals, provided by the Health Authority, offering day care for patients attending from the community: these are Malvern day hospital (St Anne's Orchard) and Evesham day hospital (Waterside), each with 20 places. (Day care is also available in day hospitals integral to the psychiatric units; these are discussed later in the evaluation of the psychiatric units.)

a multi-purpose day centre provided by the Local Authority at Eversham, taking 10 mentally ill clients a day

a MIND day centre at Droitwich, open three mornings a week for 10-15 patients.

The evaluation which immediately follows deals with the peripheral day hospitals, the multi purpose day centre and the MIND day centre. It then discusses day care generally in the WDP, referring back to day centres already evaluated above, and includes particular reference to the buildings and design recommendations.

In line with the policy of setting up a more local service, peripheral day hospitals were established at Malvern and Evesham, as satellite day hospitals to Newtown Psychiatric Unit providing inpatient care for paitents from the Malvern and Evesham areas. The day hospitals were providing facilities for day patient and outpatient care and acting as a base from which community psychiatric teams operate.

EVERSHAM DAY HOSPITAL - 'WATERSIDE'

Waterside is a purpose-built, two storey, 20 place day hospital opened in 1979, ' providing day care for patients living in the south-east Worcester districts of Evesham and Pershore. The population of this area was 57,000 in 1976, so 20 places is roughly in line with the DHSS guideline of 30 day hospital places per 100,000 population. Over 18% of the population is over 65 years of age.

The day hospital was administratively part of Evesham General Hospital (Avonside Branch) and had been built on the Avonside site. A limited geriatric day hospital was run at Avonside. A few hundred years away was the Evesham multi-purpos e day centre, providing ten day centre places for the mentally ill.

Evesham peripheral day hospital.

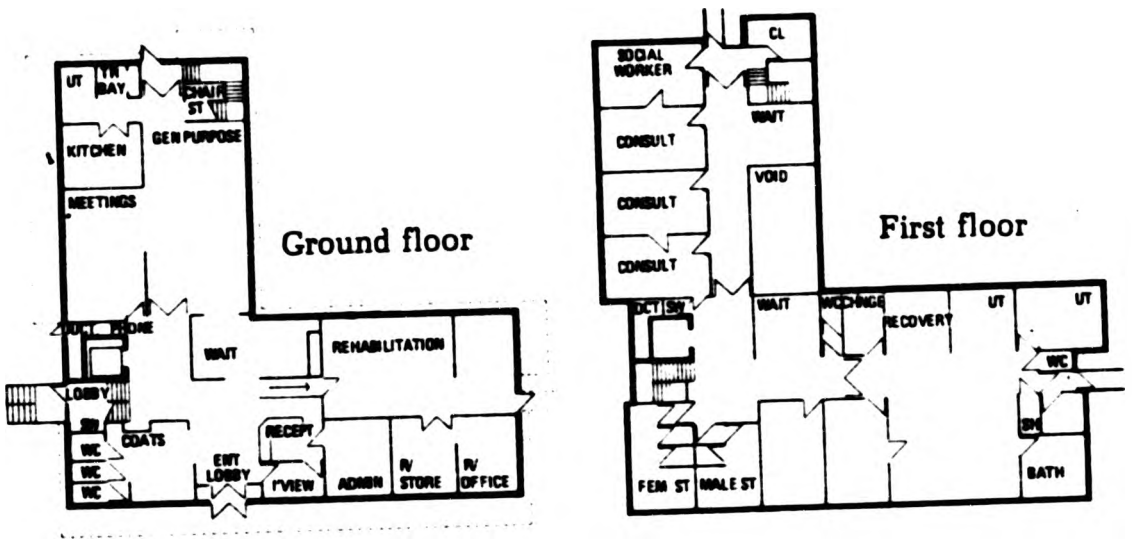

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FIGURE 9 PAITENT PROFILE AT EVESHAM DAY HOSPITAL

Number of patients attending during April 1980 (Total = 33)

		No	% (rounded)
Sex	Male	8	24
	Female	25	76
Age	Under 25	0	0
	24-24	4	12
	45-65	9	27
	65+	20	61

Intensity of Use by Patients (October 1979-April 1980 excluding December)

	Total number of patients attending during the month	Average number of patients per day
OCTOBER	32	17
NOVEMBER	34	13
JANUARY	33	12
FEBRUARY	30	17
MARCH	35	15
APRIL	33	17

Average daily attendance for 1st four weeks in June 1980

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	AVERAGE
22	15	18.5	19	19	19

Duration of Stay as at April 1980

	No	%
Up to 3 months	7	21
4 to 6 months	5	15
7 to 12 months	9	27
12 months	12	36
	33	99

FIGURE 10

Staffing (July 1980) at Evesham day hospital

Full-time

1 x Charge Nurse
2 x Nurses (1 x RMN; 1 x SEN(M))
2 x Nursing Assistants
1 x Occupational Therapist
1 x Secretary/Receptionist

Part-time

4 x Domestics

Other Staff Users of the Building

1 x Consultant Psychiatrist
1 x Registrar
1 x GP (Clinical Assistant)

2 x Psychologists
1 x Nursing Officer
Community Psychiatric Nursing Team

TAKE UP OF PLACES AT THE DAY HOSPITAL

Figure 9 includes attendance over a seven month period, but after the day hospital opened in March 1979 the demand for places rose steadily: the average number of patients attending rose from 11 a day in June 1979 to 19 a day in June 1980.

Although originally planned to provide 20 places, staff at the day hospital felt there was adequate space available in the building to take up to 40 people, subject to some extra facilities (such as more WCs) being added.

Age data in Figure 9 show that a very high proportion of patients attending the day hospital were elderly (61% aged over 65 years in April 1980) and there had been a fairly rapid build up of potential long-stay attenders; 36% of patients attending in April 1980 had been attending almost continuously for over 12 months. The occupational therapist at the day hospital expressed concern at this preponderance of elderly and long-stay patients and noted a lack of alternative provision for the elderly in the Evesham area. She felt many of the patients could be as well looked after in a non-hospital setting, in a day centre or club, if adequate facilities were available locally. It was very difficult for the day hospital to discharge many of its more elderly patients.

ADMISSION REFERRALS AND DISCHARGES

The day hospital was accepting almost all referrals, and because there was sufficient space and staff to deal with them would not restrict the number of places available to the planned 20 per day. All referrals are made through the consultant psychiatrist with responsibility for the day hospital, based at Newtown Psychiatric Unit, often via other members of the community psychiatric team. The major sources of referrals were direct from the wards at Newtown, out-patients clinics, community nurses and GP s.

There was good liaison with GPs over referrals and one local GP was employed as a clinical assistant at the day hospital, working 2 sessions per week for the unit.

The day hospital did not appear to h ave much link with the local social services. It received few referrals from social workers and referred few, if any, patients on discharge to social workers. The day hospital provided cover over bank holiday periods for mentally ill clients from the nearby multi-purpose day centre who had the option of attending the day hospital; otherwise the day hospital does not have much contact with the day centre. Discussions were in progress between the social services and the day hospital staff about improved liaison and co-operation.

Approximately 40 patients were discharged from 'Waterside' during the first year of operation and had not started re-attending by April 1980. Of those with a recorded follow-up the majority (61%) were referred to community nurses, to the day hospital's out-patients clinic, or to a combination of both of these; 21% were admitted as in-patients to Newtown and 15% died.

The main service emphasis developed at the day hospital was on providing long-term support and this on preventing admission to hospital for long-term care.

The day hospital acted as a local base for the community nurse team and provides facilities for holding out-patient clinics for both new and follow-up patients ie used as demand warrants one morning a week for approximately 20-25 out patients. Attenders were mostly follow-up patients but usually two or three new patients were seen each session. Patients were also seen at other times by other disciplines such as the psychologists.

THE BUILDING: Planning and Design Comments

The space standards for this 20 place day hospital appeared over-generous: a floor area of nearly 700m^2 or 33.5m^2 per patient place.

Reasons for this very high space allowance include:-

1. ECT

An ECT suite comprising a treatment room, a 3-bed recovery area, a waiting area, a changing room, a bathroom, a shower, a W/C and clean and dirty utility rooms was provided on the first floor of the day hospital. The main recovery area was fitted with a built-in counter/nurses station and 3 bed/trolley bays each fitted with a nurse call system.

The suite was 115m^2 and accounted for 17% of the area of the building excluding circulation space). The suite was designed to provide ECT facilities for 3 patients per session.

The ECT suite had never been used as intended. No day patients had been referred for ECT while attending the day hospital. Those few patients from the Evesham area who had required outpatient ECT had been treated at Newtown where ECT facilities were readily available.

The ECT suite was being used as an occupational therapy area.

2. OFFICES

Not including the nurses station there were 7 offices and a total of 117m^2 of office space.

Office provision for full-time staff was planned to include a Sister/Charge Nurses office, a Secretary/Administration office and a Occupational Therapy office. None of these 3 rooms was being used as originally planned. The office provided for the charge nurse was on the first floor and had a viewing panel so that it overlooks the consulting rooms and waiting areas. The office provided for the secretary/ receptionist was on the groun d floor near the entrance. This arrangement was inconvenient as the charge nurse felt he needed to be able to monitor patients and visitors arriving at or leaving the building, and the secretary/receptionist needed to be able to organise out-patient sessions on the first floor. Hence they exchanged offices soon after moving into the building. However, nursing management were not convinced this was a good move, as nurses tend to be drawn into reception duties rather than being out and about monitoring patients.

The OT office was being used as a discussion/music room.

Four offices were provided for professional staff using the building. This suite of 4 adjoining rooms on the first floor was very underused and included:-

Community nurses office, used daily but for limited periods of time as the community nurses were generally deployed on work in the community;

a psychologist's office; used for a maximum of one and a half days a week.

two doctors' offices, one of which was the visiting consultant psychiatrist's office. This room was used for out-patient sessions on Monday mornings and occasionally on Friday afternoons. The other doctor's office was used regularly by the GP/clinical assistant for consultations and also by doctors assisting the consultant psychiatrist for the Monday out-patient clinic. These rooms were not put to any alternative uses.

One of the offices was originally planned for use by social workers but as the day hospital prefered to make use of community nurses for follow-ups this room was now the one used by the community nurses as a local base.

3. RECEPTION WAITING AND CIRCULATION SPACE

The amount of circulation and waiting space in the day hospital seemed excessive. There were waiting areas provided, one of which was used by outpatients awaiting appointments, one day a week and very under used at other times. They have built-in seating and so are not very versatile spaces, but some use was made of the first floor waiting area for relaxation classes.

The reception desk was in the entrance lobby. It had never been used and was described by staff as a 'white elephant'.

UNDER PROVISION

Despite the apparent over-provision at the day hospital and the high gross floor area, the size and layout of the area allocated for patients' activities had given rise to difficulties. The original provision for patients' craft and recreational activities was considered inadequate. The rehabilitation suite provided on the ground floor of the building had proved too small. This suite was used as pl anned for the first few months that the building was in use. It was found that it could not comfortably accomdate more than 12-15 patients at any one time and that it was not a sufficiently adapatable space to allow a number of different activities to be carried out at the same time. The provision of OT storage space was inadequate: it did not allow for keeping patients' craftwork on days when they were not attending. These faults prompted the staff to convert the ECT suite for use as an OT area. The change was relatively simple. It required no structural alterations and the only fittings moved were free standing storage shelves. This proved a successful move and a boost to staff morale, and provided a better and more versatile space as an OT area than the originally designed rehabilitation suite on the ground floor which was used as a patient recreation area.

The treatment room was used at the OT store and office, supplemented by the original OT store on the ground floor (which is also where the ECT trolleys are kept). The recovery areas, clean utility area and the intervening corridor space were being used as activity space, but the permanent fixtures such as the nurses station and the built-in seating were a constraint on making fuller use of this area. The dirty utility room had been converted into a clinic room.

THE DAY PATIENTS' USE OF THE BUILDING

Most of the patients were brought to the day hospital before 10.00 am by transport provided by the health authorities. They would then congregate in the dining/lounge area and have tea before going upstairs to participate in such craft activities as knitting, sewing, rug-making, pottery and cooking. Some cooking and domestic rehabilitation took place in the kitchen which had a small adjoining laundry area. Staff felt that a door should be fitted to the laundry area to reduce noise from the machines.

The kitchen was provided with a rather elaborate modern cooker with separate oven and hob. Although this cooker was well used the staff felt a less expensive cooker, more in tune with what patients might use at home would have been more appropriate. The OT staff had acquired a small cooker which they use for some cookery classes upstairs. Craft activities usually stopped at lunchtime although pottery groups were sometimes held in the afternoons.

Lunch was cooked in the kitchens of the geriatric unit on the site, delivered to the day hospital in a heated trolley and served out by the day hospital staff. A member of the domestic staff laid the tables for lunch and cleared and washed up afterwards. Many of the more elderly patients take a nap after lunch.

After lunch the 1st floor area of the day hospital was virtually unused except for limited use of office and toilet facilities. For most of the patients the afternoon period was spent at leisure and recreational activities - relaxation classes, darts, table games, cards, carpet bowls and table tennis. These activities took place in the lounge/dining area and the area on the ground floor previously used as the OT suite.

Due to a small number of places/patients at the day hospital and to the high ratio of elderly patients few discussions or therapy groups are held and only a small proportion of patients attending were involved.

Little use was made of the grounds of the day hospital, which were very uneven and stoney. A small amount of flower-bed gardening was done by patients. A sitting out area was to be provided with the help of funds donated by Evesham MIND Group.

OTHER USES OF THE BUILDING

The day hospital was not used during the evening or at weekends. Requests by the local MIND branch for permission to use the day hospital had been deferred due to security problems, and lack of specific information on the use by the group, but this policy was under review and use of the building by the MIND group was being reconsidered.

The way the patients' day at the hospital was organised meant that for most of the morning much of the ground floor was unused and for most of the afternoon much of the first floor was unused.

The size of the building and the way space was used meant that changes were made without having to consider seriously the possibilities of shared or multi-use of space. More use of the building could be made in the evenings and at weekends by community groups, patient groups, stroke clubs, relatives' groups and so on.

OTHER DESIGN COMMENT

An unusual feature of the day hospital was the glass panels running down the sides of the doors. These were particularly well liked by the staff as they allowed for easy but unobtrusive observation of patients.

The provision of a lift, and of shallow, well lit stairs made getting around the day hospital easy even for elderly and less mobile patients.

The OT staff felt that the building suffered from acoustic problems. Noise from the kitchen area seemed to be amplified and caused disturbance in the patient's lounge and dining areas.

The staff felt that the staff toilets/locker rooms on the first floor were larger than necessary and that they were unsuitable as a place for the staff to rest or have a break. A proper staff room would have been preferred.

It was planned that staff at the day hospital could use the facilities at Avonside but most prefered to bring packed lunches.

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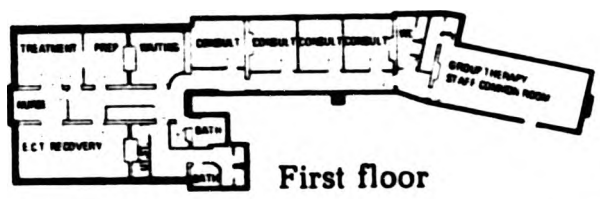
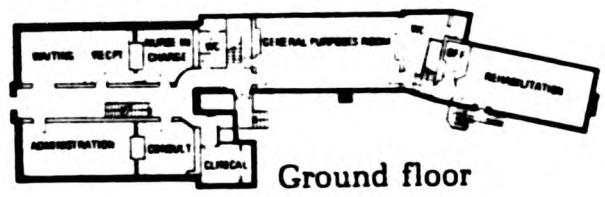
MALVERN DAY HOSPITAL - ST ANNE'S ORCHARD

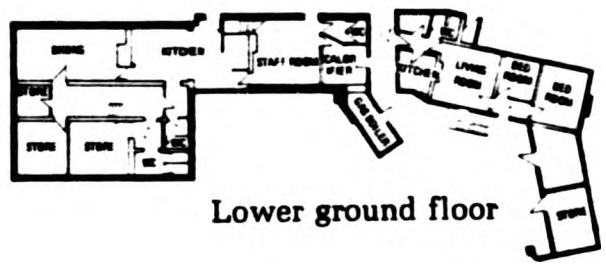
St Anne's Orchard was a converted 3 storey Georgian country house overlooking the adjacent common. It had formerly been a 30 bed hostel serving Powick hospital. The hostel was adapted for use as a 20 place day hospital for the mentally ill, providing outpatient and ECT facilities and opened in 1979. A considerable amount of redecoration and upgrading went into the conversion. The day hospital served the South Western part of Worcester health district (Malvern, Upton and Martley) population 60,000 (1976). Over 19%of the local population were over 65, Malvern being a retirement area. The 20 places provided were roughly in line with the DHSS guideline of 30 places per 100,000 population. However, the day hospital was serving the same catchment area as the 50 to 70 place Malvern day centre, which opened in 1977. As reported above the number of places available at the day centre had always greatly exceeded the actual take-up.



First floor



Ground floor



Lower ground floor

D351/J19/JL

FIGURE 11 PATIENT PROFILE AT MALVERN DAY HOSPITAL

Number of patients attending during April 1980 (Total = 28)

		No	% (rounded)
Sex	Male	8	29
	Female	20	71
Age	Under 25	5	18
	25-45	6	21
	45-65	9	32
	65+	8	29

Intensity of Use by Patients (October 1979-April 1980 excluding December)

	Total number of patients attending during the month	Average number of patients per day
OCTOBER	27	10
NOVEMBER	30	12
JANUARY	24	9
FEBRUARY	30	10
MARCH	27	9
APRIL	28	11

Average daily attendances for 1st four weeks in June 1980

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	AVERAGE
12	10	14	11	11	12

Duration of stay as at April 1980

	No	%
Up to 3 months	11	39
4 to 6 months	8	29
7 to 12 months	4	14
12 months+	5	18
	28	100

FIGURE 12 STAFFING (JULY 1980) AT MALVERN DAY HOSPITAL

Full-time	Part-time
1 x Sister	2 x Domestics
3 x Trained Nurses (1 x RMN; 2 x SEN(M))	1 x Cook
1 x Nursing Assistant	
1 x Occupational Therapist	
1 x Occupational Therapy Aide	
1 x Secretary/Receptionist	

Other Staff users of the Building

Consultant Psychiatrist	Social Worker
Registrar and medical team	Community Nursing Team
Psychologist	Unit Nursing Officer

TAKE UP OF PLACES AT THE DAY HOSPITAL

The average number of patients attending St Anne's had risen from 12 a day at the start of the evaluation in June 1980 to 17 a day in November 1980.

Different types of patients were attending on different days of the week: a mainly elderly clientele (60 years+) on Tuesdays and Thursdays; younger patients, mostly the more acutely ill, on Wednesdays and Fridays, a mix of these two groups, comprising mostly patients who were attending for three or more days a week attending on Mondays.

The consultant psychiatrist in charge of St Anne's felt that the day hospital's primary function was to provide a short stay rehabilitation day care service for the acutely mentally ill. The greater proportion (59%) of the day hospital's patients had attended for less than 3 months; over 40% had attended for less than one month (see Figure 11 above).

The day hospital had a good working relationship with the nearby day centre to which it referred a number of patients who no longer needed the day hospital's medical and nursing services. A number of such attenders were slowly weaned from the day hospital to the day centre by attending both for a period of time.

ADMISSIONS REFERRALS AND DISCHARGES

In-patient facilities for people from the Malvern, Upton and Martley areas were available at Newtown Psychiatric Unit, where the medical team covering this area is based. The team preferred if possible to treat patients in the community or at the day hospital rather than to admit them as inpatients. It was reported that admission to the wards was seen as something of a last resort, made often only after attempts to cope with the patient at the day hospital. Since opening in February 1979 until the end of April 1980 there have been over 70 discharges from the day hospital. A high number of these (35%) had been admitted either immediately or within the next month to Newtown.

The main sources of referral to the day hospital were:-

from Newtown Hospital of patients no longer in need of inpatient care;

from the community nursing team and from medical members of the team making domiciliary visits in the community;

outpatient clinics - to which GPs refer patients;

from the day centre.

The medical team covering the Malvern area received a number of referrals from outside the area, especially from Hereford and Gloucestershire.

Excluding the out-patients who become in-patients after a stay at the day hospital, the majority of discharged patients from the day hospital were referred to the community nursing team for follow-up, and/or to the out-patient clinics held at the day hospital. 16 patients were referred to Malvern day centre.

THE BUILDING: Planning and Design Comments

It was planned in the WDP Feasibility Study that the peripheral psychiatric day hospital in Malvern should be purpose-built. However, due to difficulties in procuring a suitable site it was decided to convert St Anne's Orchard for use as a day hospital. Major structural alterations were not made because the long range objective was to provide a purpose-built day hospital as the final phase of a new community hospital. (This hospital would include a day unit for the elderly, geriatric beds, ESMI day places and an acute unit to replace the existing Malvern General Hospital.)

St Anne's was a very large building for a 20 place day care unit. It had a total floor area of 716m^2 or the equivalent of 35.9m^2 per patient place. It was noted in the Feasibility Study for WDP that St Anne's was likely to be too big:

> "St Anne's Orchard is less than ideal because its hostel facilities will not be required and it is too large for a day hospital alone" (p.14)

St Anne's was less than ideal not only because of its size but also because of its layout. It had three storeys a number of steep and often narrow stairways and additional changes of level on each storey. The installation of a lift was considered at the planning stage to overcome the problems of patient access posed by these stairs and steps, but was decided against for economic reasons as the building was planned to have a relatively short life as a day hospital.

Patient Areas

The main activity areas for day patients use were rather dispersed from one another.

The Middle Floor

The nucleus of the day patient space was the lounge and the OT Room to the rear of the middle floor of the building. The main entrance to the day hospital was on this floor but all the space to the front of the building was used as office, administration and waiting space. These areas took up more of this, the main floor of the building, than do the patients' lounge and OT Room. This layout did not meet with the approval of the OT staff who felt that "OT is rather shoved to the back of the building which is not good for patients. The area that the patients are in during the day should be to the front of the building so that it is welcoming and easy to get to". The nursing staff however, felt that OT was more appropriately placed to the rear as it might cause disturbance if to the front of the building.

The lounge and OT Room themselves suffered from a number of drawbacks:-

Access to the OT Room and to the only female toilets on this floor was through the lounge. This restriced the amount of usable space in the lounge by a quarter and also created disturbance, especially on outpatient clinic days. There was a proposal to resite those toilets at the front of the building to overcome disruption by outpatient traffic.

The OT Room was too small and could not acommodate more than 14 people at any one time. The built-in cupboards made the room too narrow and limit where the tables can be put. Patients sometimes felt inhibited about making a mess in such a 'smart room'. "We need a proper workshop type room where we can really hammer hard and do metalwork; it is not a good room for many activities".

There were two outside stores with light and heating which staff were hoping to have converted for use as a workshop.

Getting from the rooms on the middle floor to the patient areas in other parts of the building often meant that nursing staff must accompany patients.

The Top Floor

The main area intended for patient use on this floor was the relaxation/yoga room and also planned as a staff room, but not used as such except for a fortnightly multi-disciplinary team meeting. This room was also used for a group therapy and games. Access to this floor was by one of two steep stairways, which restricted the use made of this large room, as it was difficult for some patients to climb these stairs. The bathrooms situated on this top floor were infrequently used.

ECT

Like Waterside, at Evesham, Malvern day hospital had been provided with an ECT suite which had never been used. The suite on the top floor comprised waiting, preparation, treatment and recovery rooms and a small nurses offices, in all totalling 80m^2.

At the time of inteviews there were two patients attending the day hospital who were receiving ECT treatment at Newtown Psychiatric Unit. It is cheaper to send patients there for treatment and this arrangement works well.

As there was no real demand for the ECT provision at the day hospital, part of it was being used as additional OT space. The preparation room was used as a beauty/hairdressing salon, and the treatment room as an art room. The former ECT waiting area was used as waiting space for patients being interviewed by medical and psychology staff using the top floor offices.

The Ground Floor

The main areas used by patients on the ground floor were the dining room, the rehabilitation flat and the gardens and patio (access to which must be gained through the ground floor).

The dining room was used exlusively for dining; it was not used for recreational purposes. Due to difficulties experienced by patients getting to and from the dining room, and to the ground floor generally, a chair lift was to be installed on the main stairs from the middle to lower floors.

The rehabilitation flat, where several cookery and domestic retraining sessions were held each week, was in an annex to the rear of the building. While it was an advantage that it was set apart from the main building it might be better utilised if access were easier. Patients often had to be assisted down to the flat, having to go through the kitchen, laundry and boiler room to get there. The flat was not decorated as expensively as the rest of the building, but furnished with second-hand furniture. This was a successful scheme providing a realistic and home-like setting for a domestic retraining. It had recently been agreed that the day centre are to be allowed to use this flat one day a week for rehabilitating clients.

The day hospital had particularly beautiful mature gardens including a vegetable plots tended by patients and a patio area with a greenhouse for patients' use. These areas were well looked after but again restricted mobility means that some patients could not use these facilities. The gardens are on a slope and access was through the kitchen. It seemed a pity that those patients who were not able to participate in the gardening were also not really able to visit the gardens regularly as a place to sit and walk in beautiful surroundings. Patients were encouraged to make more use of the garden but many of the elderly and less mobile patients were reluctant and tended to say "I can't get down there". Plans had been made to improve the paths around the garden in order to make it easier to negotiate.

With the existing number of patients attending the day hospital there were sufficient staff available to overcome most of these problems of restricted access. The number of staff also allowed for the monitoring of patient groups using different parts of the building at any one time. For example, patients could be using the flat, the garden, the OT area and the hairdressing/beauty room. However, if the take up of places increased as well as the use of the rather dispersed activity areas, the problems of restricted access and monitoring could get worse.

OFFICES, ADMINISTRATION AND WAITING

A large proportion of the building was occupied by office, administration and waiting space. There were seven offices:

4 on the top floor: doctor; social work; community nurse and psychologist

3 on the middle floor: consultant psychiatrist; sister/charge nurse; occupational therapist

Many of the offices were used irregularly especially those used by the professional staff whose main base was not at the day hospital, (ie, the consultant psychiatrist, psychologist and the social worker). These three offices were used for limited periods two or three days a week. The community nurses' office was used daily as a base from which the community nursing team operate and the other doctor's office was also in daily use. As is to be expected with full time staff, the sister's office and the OT office on the ground floor were the most frequently used. The latter, which was used by the two OT staff, was by far the smallest office in the building, being only 3.6m^2 compared with the other offices which are all over 10m^2.

Much of the most accessible space in the building, over 70m^2 nearest the main entrance, was designated as waiting and administration space. A designated waiting area was only really required on the day when the out-patient clinic is held. The administration room to the right of the entrance hall was mainly used as a staff room.

Kitchen and Laundry

Meals at the day hospital were prepared in the kitchens by the cook. The kitchen was well equipped and of an adequate size. Domestic retraining took place in the small kitchen in the flat, better suited for this purpose. The room (20m^2) next to the kitchen was used as a laundry room. Although the facilities were used it is a very large room for a laundry when compared with the space provided at the Evesham day hospital and the WDP day centres. The 31m^2 of kitchen stores seemed overgenerous.

OTHER USES OF THE BUILDING

St Anne's was not used in the evenings or at weekends, although a group therapy session was to be held there one evening a week in the near future.

OTHER DESIGN COMMENTS

St Anne's was a rather fine old country house with splendid fireplaces and a very beautiful garden. It had a sunny aspect, good natural light and any elevated position giving it very good views over the common.

These features, and the age of the building, generated a warm and intimate environment for day care of the mentally ill which could be lost if St Anne's is replaced by a purpose-built day hospital some time in the future. If access within the building were improved St Anne's could cope with an increased demand for day places while continuing to act as a community nurse base and a venue for outpatient clinics.

DISCUSSION OF EVESHAM AND MALVERN DAY HOSPITALS

Take up of Places

Both day hospitals were planned to take 20 patients a day. The daily average number attending in June 1980 was 19 at Evesham and 12 at Malvern (see Figures 9 and 11). Since then the number attending Malvern had risen to 17 a day. However, although Evesham has had more patients attending per day it has had fewer patients attending overall; 74 to Malvern's 98. Evesham's patients attended more frequently and for longer periods of time.

FIGURE 13 DURATION OF STAY (AS AT APRIL 1980) AT PERIPHERAL DAY HOSPITALS

	Evesham (opened March 1979)		Malvern (opened February 1979)	
	No	%	No	%
Up to 3 months	7	21	11	39
4 to 6 months	5	15	8	29
7 to 12 months	9	27	4	14
12 months+	12	36	5	18
	33	99	28	100

In April Evesham day hospital patients attended for an average of 11 days a month and Malvern patients for an average of 8 days a month.

FIGURE 14 AGE OF PATIENTS (AS AT APRIL 1980) AT PERIPHERAL DAY HOSPITALS

	Evesham		Malvern	
	No	%	No	%
Under 25	0	0	5	18
25-45	4	12	6	21
45-65	9	27	9	32
65+	20	61	8	29
	33	100	28	100

Malvern was catering for a wider age range than Evesham, which had many more patients over 65 years of age. In general the over 65's attended more frequently that did younger patients. Some of the elderly mentally ill from the Malvern area attended the Newtown Psychiatric Unit day hospital and, as previously mentioned, Malvern day hospital served the same catchment area as the WDP Malvern day centre, to which it had referred a number of elderly people in need of day centre support. This day centre had the highest proportion of elderly and long stay clients of any of the 4 DHSS funded WDP local authority day centres;see evaluation above. The more rapid build up of such patients at Evesham day hospital may be due, in part, to a lack of alternative mental ilness or other day care facilities locally.

The build up of the long-term and elderly at Evesham was a cause of concern to staff who expressed some anxiety that an unacceptably high proportion of users were elderly and potentially long stay. The OT noted that many of them were just "lonely old folk" who once admitted were very difficult to discharge. One staff member commented:

> "For a lot of them you are the only people who care or ask them how they are ... they take it as a personal slight when they are discharged. There are very few of them who are delighted to get better ... There are patients that if you cut them off completely they regress so much that you get them back five days (a week)".

Both the OT and the charge nurse felt that they had a number of patients who could be more appropriately looked after in less expensive ways if more facilities were available locally.

Most referrals to the satellite day hospitals were from medical souces: Newtown Psychiatric Unit, psychiatric outpatient clinics, community nurse and so on. Some referrals come from outside the WDP area, from adjoining areas, Warwickshire, Hereford and Gloucestershire. Both day hospitals had had patients attending who are resident in Part 3 accommodation, and Evesham had had inpatients from the local geriatric hospital attending.

Of those discharged patients who were not admitted as inpatients or discharged to other day care, by far the most common form of follow-up was by community nurse visits and/or by attendance at outpatient clinics.

Patient Involvement

The main ways in which patients were involved in the daily routine of the day hospitals were by participation in rehabilitation and recreational activities and by helping with occasional jobs such as tea-making and washing up. Recreational and rehabilitation activities included craftwork, cookery, relaxation, gardening, domestic re-training, hairdressing, table games and darts. Both day hospitals organised a number of outings, both local (walks, shopping trips) and to other places of interest.

A number of factors limited the degree of patient involvement:-

i. The high staff/patient ratio compared with the ratio of staff to clients at the day centres (See Figure 16 below). There were 7 full-time care staff in each of the day hospitals, giving a staff/patient ratio of more than 1 : 3, even on days when the day hospitals have their planned number of patients attending. Evesham occasionally had more than the planned number of patients attending. The charge nurse felt that, given the type of patient presently attending, there were enough staff to cope with substantially more patients providing staffing levels were always fully maintained.

The rural locations of the peripheral day hospitals were one reason for this apparently high number of staff. There were five nursing staff at each day hospital (usually three trained nurses and two nursing auxiliaries). Nursing Administration in Worcester felt it was necessary to have three trained nurses to ensure that, taking holidays, sickness and emergencies into account, there was still always at least one trained nurse in attendance at the day hospital.

These staffing ratios did not include the full-time secretary/ receptionist and part-time domestic staff employed at both day hospitals. Most clerical and domestic duties were performed by these ancilliary staff members. For example there was little opportunity for patients to become involved in the preparation or cooking of their mid-day meal. At Malvern meals were cooked by the cook and her kitchen assistant; at Evesham they were cooked in the geriatric hospital's kitchens, on the same site.

ii. Building constraints: Problems of access and lack of facilities at Malvern militated against patient involvement. There were no kitchen facilities on the middle floor near the patients' lounge and the OT Room. The main kitchen was on the lower floor so it was with some difficulty that patients were able to get involved in preparing their morning or afternoon tea. Tea was made in the lounge (with a kettle) and the OT Room sink used for washing up. This sink was too small; there could be methylated spirits, paints and other dangerous liquids nearby. The OT commented ..... "We want to encourage the patients to prepare and wash up after their own teas but it is very difficult". At St Anne's the many stairs and steps meant that most patients had to be accompanied by a member of staff when going from one part of the building to another.

iii. There were a number of patients, especially at Evesham, who because of their age or incapacity may be less motivated or capable of being more actively involved. Some concern was expressed at Evesham that the preponderance of elderly patients militated against providing more effective care for other actual and potential patients who might be able to participate more fully in the day hospital's activities. It was noted at Evesham that it is difficult to develop small groups because of the low number of more active patients.

iv. The majority of patients were brought to the day hospitals by Health Authority provided transport. The poor local transport facilities prevented staff from encouraging more patients to make their own way to the day hospital.

ECT

Neither of the day hospitals had ever used the ECT facilities they were equipped with; these facilities were available at the parent hospitals, and there was no real demand for them.

Even if there were sufficient patients from the area requiring ECT there are reasons for not providing such facilties at outlying day hospitals:-

i. ECT suites are by their very nature intermittently used, so transporting patients to the main psychiatric unit uses spare capacity.

ii. The cost of transporting patients to the psychiatric unit was less than the cost of providing the required medical and nursing cover at the day hospital. The provision of the ECT suites at the day hospitals may in part explain the seemingly high nursing staff levels.

iii. ECT can be a traumatic experience. If the day hospitals are attempting to develop a welcoming and domestic environment it would seem better to provide any necessary ECT facilities elsewhere.

Outpatients

A large amount of office and waiting space was provided in both buildings to cater for outpatient clinics. Outpatient clinics were held once a week at both the day hospitals, by the consultant psychiatrist with responsibility for the day hospital patients, and by other doctors. A smaller number of outpatients were seen by the visiting psychologists. It was planned in the Feasibility Study that GPs would be able to hold 5 outpatient sessions a week at each of the day hospitals but this usage has not developed, although at Evesham one local GP is employed as a clinical assistant to provide medical cover for the day patients. Prior to the WDP outpatient facilities were available in both Malvern and Evesham. The Feasibility Study (1971) speculated that:-

"A full day hospital service will tend to reduce the need for follow-up outpatient clinics".

This has not happened. In 1971 outpatient attendances were averaging:-

Evesham 29 a week
Malvern 10 a week

In April 1980 they were averaging:-

Evesham 27 a week (not including outpatients
Malvern 11 a week seen by the psychologists).

The majority of attendances at all these outpatient clinics were for follow-up sessions which seem to be a preferred method of caring for some patients who may not need to attend the day hospital as a day patient.

Community Involvement

Community groups were playing little part in the activities of the day hospitals at the time of interviews. The buildings were closed in the evenings and at weekends; with the exception of a once weekly evening group planned at Malvern. Local organisations and groups including a voluntary group interested in the welfare of the mentally ill (MIND) had requested permission to use the Evesham buildings, and such use, which was previously refused, was being discussed.

Reasons given for the low level of community use included:-

i that it would be an inappropriate use of a 'hospital' building;
ii. the demands such use would make on staff time outside normal hours;
iii. the keeping of confidential patient notes, poisons and drugs on the premises.

THE WORCESTER DEVELOPMENT PROJECT DAY CENTRES AND PERIPHERAL DAY HOSPITALS

Figure 15 Take up of places: average number of attenders per day in day centres and peripheral day hospitals.

		Opened	Number of places planned per day Feb. 1980	Average no of places taken up: Nov. 1980	Average no of places taken up:
	Day Centres				
DHSS funded	(Stuart Kennedy, Worcester	Jan'77	40	28	33
	(Malvern*	Jan'77*	70*	22	32
	(Covercroft, Droitwich	Mar'79	40	11	20
	(Edward Parry, Kidderminster	Jun'79	60	16	23
	Evesham	Oct'77	10(60)**	9	9
	MIND, Droitwich	1975	-	9	9
	Peripheral Day Hospitals				
	Waterside, Evesham	Mar'79	20	17	18
	St Anne's Orchard, Malvern	Feb'79	20	10	17

*Malvern day centre - originally designed to be a 70 place multi-purpose centre but now operating as a 40/50 place psychiatric day centre.

**Evesham day centre is a 60 place multi-purpose centre; 10 of these places are for mentally ill.

There were 250 places available in the six DHSS funded day care buildings, and another 80 inpatient day places available at the day hospitals of the two psychiatric units day hospitals. This number of places provided is broadly in line with the DHSS guidelines of 60 places per 100,000 population for day centres, 65 places per 100,000 for psychiatric unit day hospitals and 30 places per 100,000 for peripheral day hospitals. Take up of places at the day centres, in particular

at Malvern, Droitwich and Kidderminster, was low when they were evaluated in 1980. As Table 15 above shows there had subsequently been a significant increase in the number of places taken up at these three centres. Factors affecting the increased take up include the appointment of new organisers at both Malvern and Droitwich and the fact that Droitwich and Kidderminster had been open for less than one year at the time of evaluation. However, the nubmer of places taken up was still only approximately half the number of places provided.

The Feasibility Study (1971) originally planned for the provision of the two psychiatric units, the two peripheral day hospitals and only one 40 place day centre. However, when the guideline of 60 day centres places per 100,000 (1972) was issued it was decided to increase the number of day centre places. The provision of the full number of day centre places increased the number available from 40 places to 210. The building of the full number of day hospital places went ahead as planned in the Feasibility Study despite the fact that in the interim the provision for day centre places had risen by over 500%.

The take up of places at the day centres and day hospitals seems to indicate that too many places were provided as part of the WDP. The day care buildings under discussion obviously represent only a tiny proportion of all day care buildings nationally. However, they formed part of an attempt to provide a "comprehensive" service with a full complement of day care places. The low take up of places in some areas does suggest that the guidelines on how many places should be provided may need to be qualified to give norms more appropriate to day care in a joint service context, where both day hospital and day centre provision is planned.

Referrals

The majority of referrals to the two peripheral day hospitals were made through the consultant psychiatrists from health authority sources. Evesham's main referral sources were Newtown Psychiatric Unit and outpatients clinics, from social workers. Malvern day hospital had most of its referrals from Newtown and from out-patient clinics but also took a number of referrals from the nearby day centre. Both the peripheral day hospitals refered the majority of their patients to community nurses and/or outpatient clinics for follow up.

The day centre had referrals from a wider range of sources, chief among them being the psychiatric units and the social workers. As noted in the day centre evaluation the degree to which each of the day centres liaised with the health authority referring agencies on the placement of users differed markedly. Malvern and Kidderminster day centres had many of their referrals from the nearby day hospitals' (St Anne's and Kidderminster Psychiatric day hospital). The other two day centres, Worcester and Droitwich, do not have many referrals from the day hospitals. The day centre evaluation showed that Droitwich day centre received few referrals from health authority sources; the situation has since altered and Newtown hospital is now the main referring agency. The number of referrals from GPs was also increasing.

Elderly and Long Term* Users of Day Care

The elderly and chronic users of day care, in general, attended more frequently than other attenders, so that on any given day there could be a higher ratio of elderly and chronic users in a attendance than their numbers in relation to the user population as a whole suggests. Many of the attenders at day centres and peripheral day hospitals had a previous, often lengthy, history of contact with the psychiatric services.

Evesham day hospital and Malvern and Kidderminster day centres had the high est proportion of the elderly among their attenders. Staff at Evesham day hospital were worried that they were getting an unacceptably high concentration of elderly and long term users attending.

Out of these [illegible] WDP day care buildings only Worcester and Malvern day centres had been open for more than two years at the time of evaluation; they both opened in January 1977. Both these day centres had experienced a build up of long term users (39% at Worcester and 56% at Malvern). This build up had happened over a number of years, whereas the very large percentage of long term attenders at Evesham day hospital, which opened in March 1979, (36%) had occurred rapidly. The MIND day centre and the Evesham multi-purpose day centre both saw the provision of long-term support as a main objective, and the majority of their attenders had been attending for more than one year.

The Service

The WDP Feasibility Study envisaged different roles for the day hospitals and the day centres (only one day centre was planned originally). The day hospitals were planned to "help many patients in the process of rehabilitation and enable them to take their place in the community without further day time support"; the day centre was to provide "particularly for patients no longer needing treatment who have no settled occupation." The 1975 White Paper "Better Services for the Mentally Ill" envisaged a more active treatment programme at the day hospitals under medical supervision and a more social and rehabilitative role for the day centres, though it indicated that it was difficult to draw a dividing line.

In practice in the WDP there was a great deal of ovelap in the activities they both provide for their users. The majority of attenders at both spent the greater part of their day engaged in a wide range of occupational, rehabilitation and leisure activities, and in socialising with other users and staff. A mid-day meal was provided at both day centres and day hospitals. (Attenders at day centres payed a 70p a day attendance charge which covers a main meal, payable whether a meal was taken or not.) The extent of individual counselling, small group therapy and large group therapy varied among the day centres and day hospitals, but there was little to suggest that the peripheral day hospitals were more active in this regard than the day centres. The main facility provided at the day hospitals, and not available at the day centres (the ECT provision) had never been used as planned.

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*Those who have attended continuously, or almost continuously, for over one year

It is not suggested that the similarity between activities in day centres and activities in peripheral day hospitals necessarily establishes that they have identical aims in terms of treatment, rehabilitation and/or support. It may be that the activities (such as crafts) provide suitable practice material, so to speak, whether the aim of care is to treat patients, ie help them recover from acute mental illness; to rehabilitate them, ie help them regain ability to take part in ordinary living; or merely to offer support in a structured existence as most of us are offered support by the structure of our employment. Some evidence as to how far these three different aims were in fact being served by each facility's activities can perhaps be inferred from other information in this report, eg about methods of referral and length of stay; but some other relevant facts, eg on assessment p racticcand the understandings reached with the patient or client, were not included in the study, as they were beyond the scope of this particular study. What evidence there is suggests that although there is considerable variation both among and between the day centres and peripheral day hospitals in how they function, there is also a considerable overlap in the users' daily activities. Whatever the objectives served, similar activity patterns imply similar building needs.

Figure 16 Staffing at day centres and day hospitals (Nov 1980)

	Number of places planned	Average attendance 3-7 Nov'80	Attendance on busiest day of week	Number of full-time care staff	Average ratio
Evesham Day Hospital	20	18	19	7	1 : 2.6
Malvern Day Hospital	20	17	19	7	1 : 2.4
Worcester Day Centre	40	33	36	4*	1 : 8.25
Malvern Day Centre	70	32	41	4	1 : 8
Kidderminster Day Centre	60	23	27	4(5)**	1 : 5.75
Droitwich Day Centre	40	20	33	4	1 : 5
Evesham Day Centre	60***	46	47	6	1 : 7.8
MIND Day Centre	****		15		

* Includes one full-time volunteer.
** The organiser's post at Kidderminster was vacant at the time these figures were collected. This post has now been filled.
*** Evesham day centre is multi-purpose - average number of mentally ill clients attending is 9 a day.
**** MIND day centre is only open for 3 mornings a week.

The day hospitals had a far higher ratio of full-time care staff to day attenders than the day centres.

The user attendance figures given are based on daily attendance during the week 3-7 November 1980 inclusive. This week was used so that the ratio given could be based on more up to date attendance figures, which took account of a recent up-take in the numbers attending, particularly at Malvern day hospital. At each of the buildings it was felt that this was a typical week's attendance, undistorted by such factors as holidays, outings, or bad weather. Kidderminster day centre felt their numbers would increase when a new organiser is appointed.**

The figures do not include outpatients who attend the once weekly sessions at the day hospitals or the physically disabled groups and supporting 'contact' groups held at the day centres. The staff figures only include the full-time care staff nurses and occupational therapy staff at the day hospitals, and organisers and centre assistants at the day centres, but not include the professional staff, staff who use the buildings as a base or the secretarial, domestic or peripatetic staff.

All the day centres made use of volunteers and/or sessional workers to provide instructions in a variety of activities including yoga, art therapy, cookery, crafts, (and to increase social contacts for clients). At the day hospitals such instruction was mostly provided by the occupational therapists. One nember of the OT staff interviewed felt that volunteers could make an important contribution to the welfare of the hospital users but that with the present high staff/patient ration it was not practicable to use volunteers.

The Evesham multi-purpose day centre used volunteers to help with clients. Staff there felt that volunteers can help maintain links between the clients and the local community. The MIND day centre had only two part-time paid staff and relied on volunteers to a greater extent than any of the other day centres.

Community Involvement

Besides their use as day centres for the mentally ill all the WDP day centres were used by a wide variety of community groups, including social clubs for users and ex-users, contact groups, play groups, leisure groups local societies, charity groups. Most of these activities took place in the evenings or at weekends and some of them provided opportunities for users to attend and participate in activities with other members of the community. Some of these groups were held during the day, for example contact groups and play groups, and staff and volunteers helped to organise them. Three of the day centres also had physically disabled groups using the building or part of the building during the day, once a week.

The use of the WDP Droitwich day centre by community groups was vetted by the local district council. Such groups as the physically disabled and a single parents' group were allowed to use the centre, but its use in the evenings, by a flower arranging group and a dance group had to be stopped as the council were threating to withdraw the rate relief benefit for the building. The staff at the centre felt the council imposes too strict a limit on who can use the building and that this restriction damages attempts to integrate the centre and its clients into the local community.

** The organiser's post at Kidderminster was vacant at the time these figures were collected. This post has now been filled.

District Councils varied in their interpretation of the legislation giving the power to grant rate relief on buildings used for the disabled. Some District Councils interpreted the legislation rigidly and may refuse a rate rebate on premises used for any activities other than those provided entirely for the disabled. The Social Services Department felt that this militates against their aim of encouraging the integration of clients with other groups in the community and that clearer guidance on the legislation should be given to District Councils to encourage them to give rate relief on those buildings which are mainly used for the disabled and only partly used for other purposes.

The day hospitals were not as well used by community groups as the day centres. Up to November 1980 they were not used at all in the evenings or at weekends and except for outpatient clinics were unused by other groups on week days. It had recently been decided that the rehabilitation flat at Malvern day hospital should be made available to the nearby day centre once a week, and that a local social worker should be allowed to hold an evening group therapy session. At Evesham day hospital the possible use of the building by the local MIND group was being discussed. An increased use of the day hospital buildings would further their integration into the local community and would mean better use could be made of expensive resources.

Those interviewed at the MIND day centre in Droitwich, where the day to day running of the centre was dependant on a high level of community support, felt it was a great advantage to be based in a building that was used for a wide range of community purposes.

THE BUILDINGS

Space Allowances

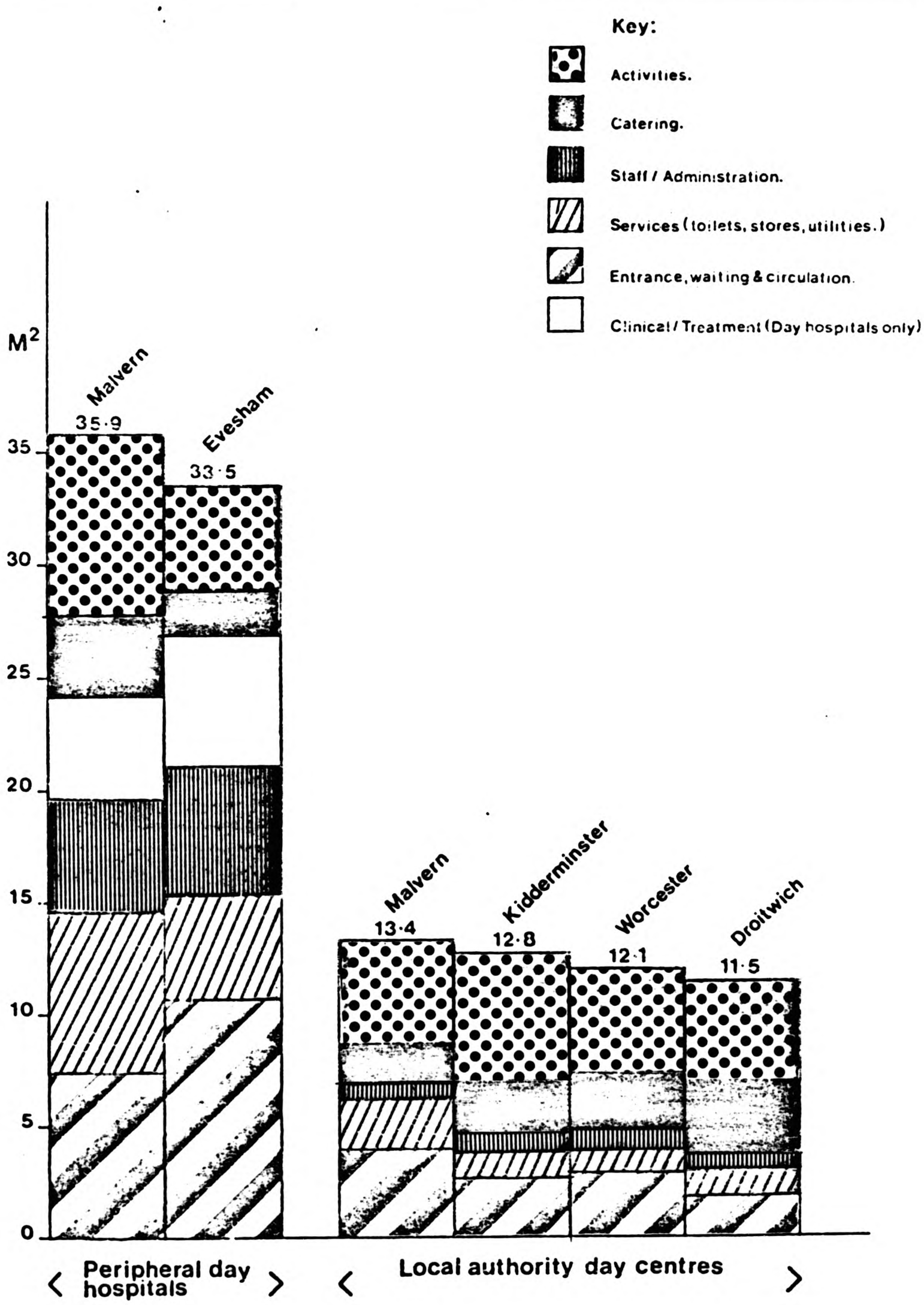
Figure 17 shows the planned space allowances per place in each of the six WDP day care buildings, and show how much space is allowed for six different functions in each building.

The two day hospitals had a far greater space allowance per place than any of the day centres. The average area allowance per patient/client in the day hospitals was 34.7m^2 compared to an average of 12.5m^2 for the day centres. The 20 place Evesham day hospital was 670m^2, almost 200m^2 larger than the 40 place day centre in Worcester. Both these buildings were purpose built. The 20 place day hospital in Malvern was 718m^2, more than 250m^2 larger than the 40 place day centre in Droitwich. Both these buildings were adaptations.

Circulation and Entrance

Evesham day hospital was a two storey building, Malvern day hospital a three storey building and all the day centres single storey buildings. This in part explains why the day hospitals had such a high allowance for circulation space. However in Malvern's case the circulation space did not allow for easy movement around the building. There were no lifts and the stairs were steep and narrow. Circulation and internal traffic were felt to be satisfactory at most of the day centres except Malvern where the open-plan layout meant constant interruptions from internal traffic.

Figure 17
Area per patient / client in m^2 (based on planned number of places)



Evesham day hospital and Malvern day centre had large entrance lobbys which were not often used.

Problems of access at Malvern day hospital illustrate some of the difficulties that adaptations of old buildings can incur. It is especially important to ensure adequate access to all parts of the building, particularly if the building is to be used by elderly or less mobile people. If possible patient/client areas should be sited on the ground floor from which there should be access to an outdoor area or garden.

Activity Space: From the day to day routine in the day care buildings, the demands on activity space for day attenders appeared greater than the demands for any other type of space. More space was provided specifically for user activities than for any other purpose in the day centres. Despite the fact that around 40% of all available space was designated activity space and much of the rest of the building was used frequently for formal and informal activities, Worcester, the most intensively use of the day centres, felt short of such space. It is difficult to estimate whether activity space at the other day centres would be sufficient if they were catering for their "planned for" numbers. Kidderminster and Droitwich seemed satisfied with their facilities but Malvern day centre had great difficulty in making the best use of the space provided because of its open plan design.

The space allowances shown for user activity space in Figure 17 do not include multi-use of space in other categories. Some such use already exists: for example, all the day centres use their dining room for recreational activities. In other cases multi-use is restricted: for example the location of the kitchen at Malvern day hospital makes it unsuitable for patients to use, and the type of kitchen at Malvern day centre is inappropriate for clients to use.

Although the day hospitals had almost as much or more activity space per place as the day centres, a much smaller proportion of the total area in the day hospitals was designated for patients' activities. In Evesham day hospital only 14% was provided for this purpose and this was felt to be unsatisfactory. The ECT suite provided being used not for its planned purpose but as the main patient activity space, thus increasing activity space to 30%. The original overall area provided for patient activities was approximately the same per place as that provided in the day centres but the proportion of this given to occupational therapy activities was not seen to be sufficient.

Malvern day hospital had a far greater area per place for patient activities than any of the other buildings but the actual activity areas are dispersed from one another and difficult for some patients to reach.

When planning day care buildings it would seem that more consideration needs to be given to the fact that most users spend the majority of their time in the activity and lounge areas. The activities that take place in day hospitals and day centres seem to be similar in regard to their demands on space and facilities. These areas should be large enough to accommodate almost all the users and some staff at any one time. They should be located together on one floor, as more dispersed areas increase the number of staff needed to monitor activities. Where separate rooms

are needed for quietness and privacy the use of unobstrusive glass observation panels, such as those at Evesham day hospital, might prove useful.

Catering

There was little difference between the day centres and the day hospitals in the amount of space allowed for catering, but there were differences in operational policies. Malvern day hospital was the only one of the buildings where the dining room was not used for other purposes, such as games and recreation. Meals were cooked on the premises in all the buildings, except Evesham day hospital where meals are supplied in heated trolleys from the geriatric hospital. Kidderminster day centre was for a period supplied with meals by the school meals service but they found this unsatisfactory, as they were losing out on the rehabilitative aspects of cooking their own meals, and had reverted to cooking their own meals. Day centre users in Worcester, Droitwich and Kidderminster participated in the organisation of meals. In these day centres and in Evesham day hospital the kitchen was also used for domestic re-training. The main kitchens in both the Malvern buildings were used solely by the kitchen and domestic staff. Kidderminster day centre and Malvern day hospital both had rehabilitation flats where individual or small group cookery tuition was given. Malvern day centre was about to begin using the day hospital's rehabilitation flat.

Some kitchen facilities for small cookery groups and tea making should be provided adjacent to the lounge and activity areas.

Administration, Staff and Office Space

The lack of small rooms had been a problem at Malvern day centre, so they converted an open plan bay into a small room and the manager gave up his office for use for interviews, counselling, and small groups. Much of the office and staff accommodation at the other day centres was also used for such purposes.

Although the day hospitals had considerably more administrative office and staff accommodation than the day centres, the full-time nursing and OT staff had relatively little of this space compared with that allocated for other staff users: at Evesham over 65m^2 (this was provided for visiting staff); at Malvern over 67m^2. This was partly because peripheral day hospitals were also planned to be used as a venue for out-patient clinics by psychiatrists, GPs, psychologists and as a base from which social workers and community nurses could operate. The extent of such use was over-estimated and many of these rooms were being used for limited periods, often a maximum of two half days a week. The community nurses room, probably the most often used, was used for a limited period each day. Usually only one outpatient clinic a week was held at each of the day hospitals and for much of the time the offices and consulting rooms were not in use.

When deciding on the needs for office/consulting space in future buildings, savings could be made by giving more thought to multi-use of such space. If a room booking system were operated for consulting rooms fewer such rooms would need to be provided.

Services

Most of the buildings were well provided with WCs although their location and layout were sometimes criticised. Malvern day hospital, previously used as a hostel, had seven separate sets of WCs yet to get to the only female WC on the main floor entailed going through the day patients' lounge. This was particular problem on the day when out-patient clinics are held and provision of additional WCs nearer the entrance on this floor was under discussion.

In many of the buildings the lack of storage space near activity areas was a common problem. Staff felt that enough space was rarely provided for storing attenders' work on the days they do not attend. In some of the day centres this problem was accentuated by a need to store the materials and equipment of other users (such as the physically handicapped and play groups) for most of the week even though they may only attend one day a week. Storage space was also often not well designed and was inadequate for such items as large sheets of paper.

ECT and Clinical Space (Day hospitals only)

The ECT provision in the peripheral day hospitals had never been used, for reasons mentioned above. It seems that it is not necessary to provide such facilities in these peripheral day hospitals where facilities are already provided at the parent hospital. The clinical rooms were used infrequently, mainly for physical examinations, injections and dressings.

PLANNING/GUIDANCE

The peripheral day hospitals described in this report are part of a unique experiment. The main reason for considering how they are operating is to draw lessons for improving guidance and briefing to make future buildings of this kind as appropriate and economical as possible. In accordance with recommendations in the Feasibility Study in "Better Services for the Mentally Ill", the peripheral day hospitals were adapted from design guidance for the day hospital section of the psychiatric departments, but in practice, the peripheral day hospitals appear to have much in common (in terms of activities and therefore of building requirements) with the day centres. Modelling the design on that of psychiatric department day hospitals has resulted in an over-generous provision of clinical and office space. The day hospital sections of a psychiatric department provides day time care for both in-patients and day-patients, and may have more need of distinctly clinical facilities, and of more consulting rooms and office space. The distinctly clinical facilities needed at the peripheral day hospitals are few and a relatively small amount of space need be set aside for such use.

It may be argued that the peripheral day hospitals have not the time to develop a greater need for clinical facilities, and may yet do so. However, given that these buildings had been open for almost two years, it seems unreasonable to discuss their present function as merely a temporary phenomenon.

The amount of waiting, office and consulting space provided should depend on the extent to which such rooms are to be used as out-patient departments, community nurse and social worker bases. If such use is to be less than full-time, preference should be given to design solutions which allow for some sharing or multi-use of rooms and facilities. Some of these additional functions could be as appropriately attached to a day centre as to a day hospital depending on local circumstances.

In general, the peripheral day hospitals do not appear to require a building that is very much different from the type required by the day centres (see discussion above). Therefore it seems that similar guidance would be appropriate for peripheral day hospitals and day centres. The recommendations that follow therefore apply to both types of building.

DESIGN OF DAY CENTRES AND PERIPHERAL DAY HOSPITALS: SUMMARY OF RECOMMENDATIONS

1. The entrance area where patients/clients arrive should be as welcoming and informal as possible. It should not be too large, and features such as reception desks/counters should not be provided. If a reception desk is necessary it should if possible be part of the office accommodation so as to minimise demands on staff-time manning the reception desk. A large reception desk/counter tends to give the reception area formal atmosphere.

2. Sufficient activity space for attenders should be provided. There should be a mix of small and large rooms capable of catering for a wide range of activities, groups and meetings. Some of these rooms should be suitable for noisy and messy activities. Some should be separate from other rooms where noisy activities take place. Too open-plan a design should be avoided.

3. As rehabilitation is a major focus at both day centres and peripheral day hospitals a domestic style kitchen should be provided where retraining can take place, where meals can be cooked preferably with attenders playing some part in the preparation of meals, and where attenders can make tea and coffee. The kitchen should be accessible for all attenders, and situated near the lounge and activity areas. Elaborate fittings and equipment such as split level cookers and hot water geysers should be avoided. The equipment in the kitchen (and elsewhere) should be similar to that which patients might be expected to use in their own homes. Such a domestic scale kitchen would provide a more realistic setting in which to assess users' capabilities.

4. The sharing and multi-use of rooms and facilities should be encouraged. Where possible office accommodation should be shared and office space when not in use should be made available for small groups, counselling, interviews and so on. If a high proportion of day care buildings is used exclusively for offices this may make it difficult to develop a domestic environment in the building. Large rooms such as the dining room can also serve as recreation meeting and social areas. The use of the buildings in the evenings and at weekends should be encouraged and this factor should be taken into account when assessing the demand for activity, office and storage space.

5. Attention should be paid to physical accessibility; if possible all parts of the building should be accessible to all the users. This is obviously easier to achieve in single-storey buildings. When two or three storey buildings are planned particular attention needs to be paid to problems of access and layout, so that the elderly and less mobile are not restricted from participating in activities.

6. Toilets should be sited near the main activity areas and near the entrance.

7. Sufficient storage space for craftwork items should be provided for attenders' work on the days they do not attend. This storage space should be capable of taking large sheets of paper and bulky objects.

8. A garden area should be provided for gardening, relaxation and outdoor games. A domestic rear garden desing is preferred to a courtyard desing. A greenhouse is a useful addition to the garden area.

In addition to these specific recommendations relating to design features the development of combined day centre and peripheral day hospitals could be considered. As the evidence above suggests that day centres and satellite day hospitals have similar building needs, as economy is very necessary, and as present policy is seeking ways of achieving closer collaboration between the Health Authorities and the Personal Social Services (see Secretary of State's foreword to 'Care in Action' DHSS 1981b), such joint ventures might have a number of advantages:

they could avoid the unnecessary duplication and underuse of buildings and staff;

the simplest, cheapest building and the least expensive staff able to do the job could be provided;

they could provide a neutral forum where staff of the two sectors could work together in a multi-disciplinary way;

the treatment, rehabilitation and support needs of users of day care could be more comprehensively met in a single setting;

such a service might yield valuable insights into the co-ordination of the roles of the two sectors.

2.3.3.5 Evaluation of psychiatric departments

Background

A key feature of the policy behind the Worcester Development Project was that hospital services for the mentally ill should no longer be separated from hospital services for other patients but should be provided as hospital psychiatric departments in district general hospitals.

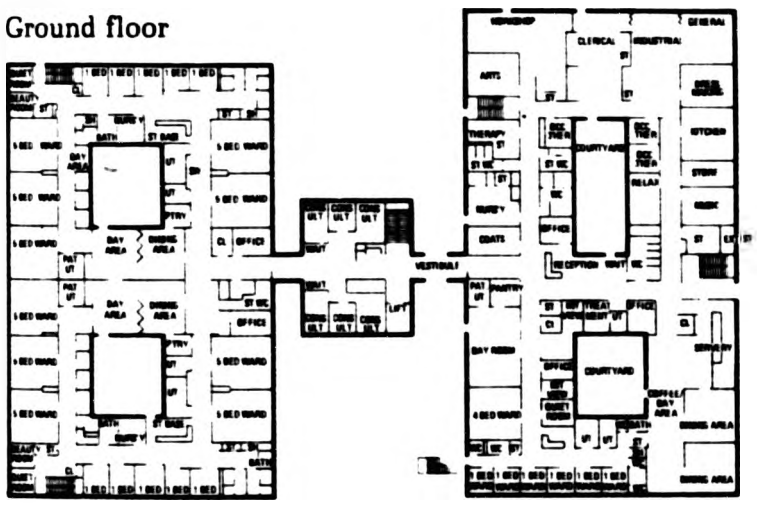
Two such psychiatric departments were provided as part of the Worcester Development Project:

> Newtown Psychiatric Department, with 160 beds and 160 day hospital places, 40 of which were available for non-inpatient day patients;
>
> Kidderminster Psychiatric Department, with 60 beds and 80 day hospital places, 40 of which were available for non-inpatient day patients.

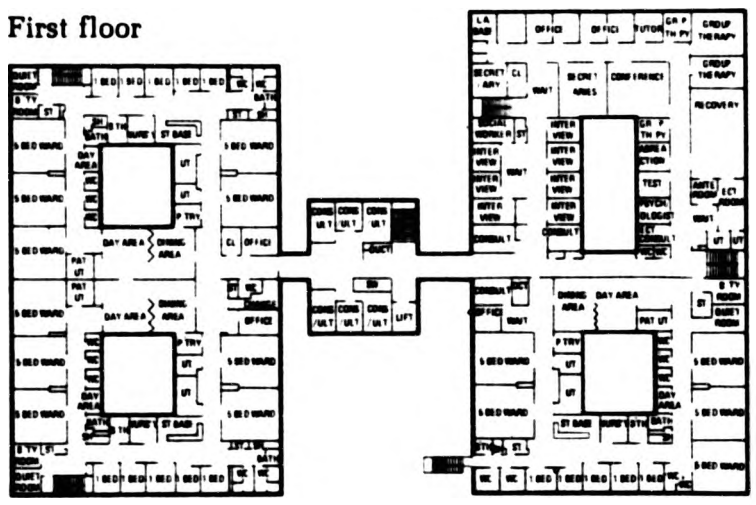
Departments of Psychiatry

Worcester, Newtown

Ground floor



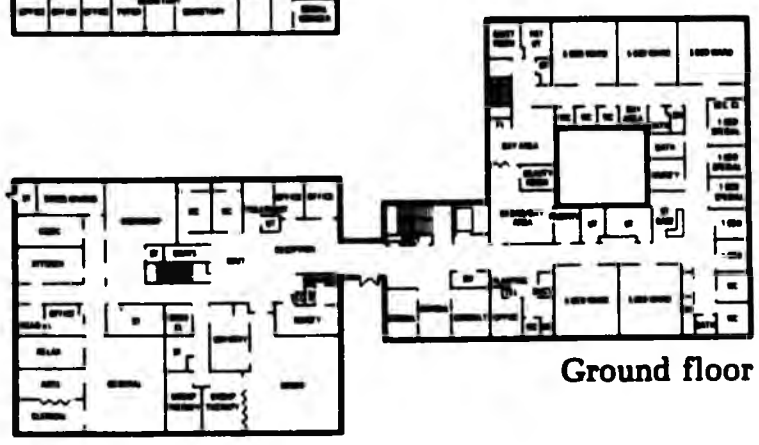
First floor



Kidderminster

First floor

Ground floor



Operational and Planning Policies

Government policy on the development of services for the mentally ill remains broadly as set out in the White Paper 'Better Services for the Mentally Ill' (DHSS 1975b) supplemented by 'Care in Action' (DHSS 1981b) and 'Community Care' (DHSS 1981a).

The WDP psychiatric departments were planned and designed and were intended to be run in accordance with the policies in Hospital Building Note 35. This BN reflects policy expressed in the 1975 White Paper (DHSS 1975) and still broadly current. Some of the main BN 35 policies relating to the design of a psychiatric department are:

i. The psychiatric department in a district general hospital should be the centre for hospital treatment of the adult mentally ill. It should be able to accommodate all types of patient except patients with senile dementia and patients whose disruptive or violent behaviour means they require the services of the Special Hospitals.

ii. The majority of inpatients would need inpatient treatment for a relatively short time, usually only a few weeks.

iii. The number of beds and day hospital places required in a department would be assessed on the DHSS guidelines of 0.5 inpatient beds and 0.65 day hospital places per 1,000 population.

iv. This provision of beds and day places would "be made in multiples of 30 beds (the suggested optimum size for accommodation of this nature) and 40 day places".

v. 60 inpatient beds (2 x 30 bed wards) and 80 day places are the suggested minimum size of a department.

vi. The majority of inpatients are expected to spend most of their day in the day hospital.

vii. As the department is designed as part of a district general hospital, kitchen, outpatient, and staff changing and dining facilities are not provided in the department. The DGH facilities should be utilised by the psychiatric department.

viii. The design of the department should attempt to provide a domestic rather than an institutional environment.

ix. The design of the department should be as lucid as possible so patients can find their way about with ease.

x. Areas such as the ECT suite that are only used intermittently or for short periods should be designed to allow for alternative uses at other times.

xi. Facilities in the day hospital block should be made available for patient recreation in the evenings and at weekends.

xii. Outdoor facilities for patient relaxation, games and gardening should be provided.

xiii. Patients should be encouraged to use existing social and recreational facilities in the community as far as possible and patients' friends, relatives and other interested persons should be encouraged to participate in some of the department's activities.

The psychiatric departments are discussed under headings of broader significance to policy development design and guidance. (Fuller details of the evaluation are available elsewhere: DHSS Works Group 1982)

Take up of beds and day places

The Feasibility Study did not plan adequate provision for the elderly severely mentally infirm (ESMI). Extra facilities therefore had to be planned subsequently: a 60 bed, 50 day place ESMI unit, due to open in 1983. The lack of provision affected the use of the psychiatric departments. At Worcester, two of the free wards were being used for ESMI patients; this arrangement was intended to last only until the ESMI unit opened but the ESMI unit is unlikely to meet all demand, since it will not offer beds in line with the DHSS guidelines of 2.5 to 3 beds and 2-3 day places for 1,000 population aged 65 and over.

At the time of investigating (1981) the remaining three wards at Worcester were being used for their intended purpose - psychiatry. At Evesham , only one of the two wards had ever been so used; the other had always been used by ESMI, and later by geriatric, patients.

The take-up of places is given below for those wards which were being used for psychiatry.

TABLE 22

Ward occupacy at Psychiatric Departments

Ward	Available beds		Average Occupancy		Percentage Occupancy	
WORCESTER						
	1980	1981	1980	1981	1980	1981
7*	30	30	19.4	19.4	64.7	64.7
8	30	30	23.4	24	78	80
9	30	30	19.6	24.5	65.3	81.7
TOTAL	90	90	62.4	67.9	69.3	75.5
NEWTOWN	30	30	23	22	77	73

* Since 1981 the number of beds on ward 7 has been reduced to 25, although 30 beds could be made available if necessary.

Both the Newtown and Kidderminster Psychiatric Departments were too big in terms of the number of beds provided for acute psychiatry. Newtown had 160 beds and Kidderminster 60 beds: three of the seven wards this represents were used by other types of patient, but even the remaining four 'psychiatric' wards had never been full.

The Feasibility Study population projections for 1981 on which the number of beds (and day places) required were calculated were too high, considerably so in the case of Newtown, where the population was overestimated by 65,000. At Kidderminster the overestimation was 13,000.

The take-up of beds on the acute wards (ie excluding the wards used for ESMI and geriatric patients) was well below the DHSS guideline of 0.5 beds and 0.65 day hospital places per 1000 population.

The Newtown department had 3 acute wards with a total capacity of 90 beds serving a catchment area population of approximately 225,000 (ie not including the 65,000 overestimation). The average occupancy of the acute beds over the 2 years January 1980-December 1981 was 72% (65) beds occupied. The norms would suggest a need for 112 beds. Kidderminster with just one ward of 30 beds for acute patients, serving a catchment area of approximately 102,000, had an average of 75% (22.5) beds occupied. The norms would suggest a need for over 50 beds. It would appear from this that the norms on the number of beds required may need to be reduced in such non-metropolitan areas.

The number of admissions to these acute wards had decreased during the preceeding two years in relation to their respective catchment populations there are proportionately fewer admissions at Kidderminster than at Newtown.

Table 23

Admissions to acute wards

	Total number of admissions		Admissions per 1000 population	
	N	K	N	K
1980	807	255	3.6	2.5
1981	735	221	3.3	2.2

Day hospital places

The low take-up of in-patient day hospital places obviously reflected the low take-up of in-patient beds. The over-provision of beds necessarily means an over-provision of those day hospital places which are for in-patients.

In addition to provision for in-patients, both the WDP Departments' day hospitals were planned to provide 40 day places each for (non in-patient) day patients from the community. The take-up of day hospital places by day patients was also less than envisaged.

The Newtown day hospital provided half of the available day hospital places for the Worcester Health District population of 225,000, (ie it was serving approximately 112,000). The other half of the catchment area population was served by the two peripheral day hospitals. At Newtown an average of 21 day patients a day attended and at Kidderminster an average of 15 a day. Although more patients attended per day at Newtown, there were many more day patients "on the books" at Kidderminster than at Newtown. In the period 1 January to 30 June 1981, 87 patients attended Kidderminster day hospital and 48 attended Newtown day hospital. The majority of the Newtown day patients were ESMI patients which in part explains why they attended so much more frequently and for longer spells.

Table 24

Day patients (January-June 1981) at Newtown and Kidderminster Psychiatric Departments

	Newtown		Kidderminster	
Age	No	Percent	No	Percent
Up to 25	-	-	6	7
25 45	5	10	42	48
45 65	9	19	24	28
65+	34	71	15	17
Length of stay				
0 3 months	8	17	36	41
3 6 months	6	12	15	17
6 months 1 year	7	15	21	24
1 year+	27	56	15	17

Approximately half the available day hospital places for day patients were not taken up despite the fact that many of the places taken up at Newtown were taken by ESMI patients, not originally planned for. This would suggest that the day hospital guideline should also be reviewed.

Ward size

As discussed above, the Feasibility Study population projections and the DHSS guideline on what provision is required resulted in an over-provision of beds and day places in the WDP psychiatric departments. However, even with more accurate estimates of population size and more cautious use of the guidelines, the current guidance on how provision of beds should be made might also be a cause of over-provision. The Building Note guidance recommends that a minimum of 2 such wards should be provided in a department:

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* Newtown also had two peripheral day hospitals providing another 40 day hospital places: see the evaluation of the peripheral day hospitals above.

i. As provision is to be made in multiples of 30-bed wards planners of departments may be influenced to provide extra beds where the estimated number of beds required is not divisible by 30. (For example, if the guidelines suggested a need for 80 beds for a population of 160,000, the acutal provision made would be 3 x 30 bed wards or 10 extra beds).

ii. As the Building Note suggests that the minimum viable size of a department is 60 beds (2 x 30 bed wards), a health district with a population of less than 120,000 is therefore advised in the building guidance to provide a minimum of 60 beds despite the fact that the guideline of 0.5 beds recommends fewer beds. For example, in Kidderminster's case the population of 102,000 (approx) would require 51 beds according to the guideline but would actually have to be provided with 60 beds if it were to comply with the building guidance. It would seem therefore that the suggestions/ recommendation that a minimum of 2 x 30 bed wards should be provided may often lead to extra beds being provided. If it is necessary for guidance to recommend a set ward size (in terms of the number of beds), then wards with fewer beds would allow more accurate provision to be made.

The majority of staff at all levels in both the WDP departments considered 30-bed wards to be too big and would have preferred smaller wards (20-25 beds). They felt that smaller wards could provide better observation of patients and a more domestic environment. The staff at Kidderminster felt that it was very difficult to provide for a wide range of patients on the one ward they currently have available but recognised that they do not need two 30-bed wards. Two 20-bed wards would probably have been sufficient there and better value for money in terms of both capital and revenue costs.

Thirty beds is the size traditionally recommended for general wards, as 30 is considered to be the optimum number to make efficient use of staff time while providing a satisfactory and comfortable environment for patients. To know whether or not a 30-bed ward makes efficient use of staff time on an acute psychiatric ward would require a detailed study of its own, although it is worth pointing out that such psychiatric wards are very different from most general wards. On a general ward both staff and patients remain on the ward during the day, with most patients in bed, and the ward is almost always full. On an acute psychiatric ward few staff and patients remain on the ward during the day and the ward is less likely to be usually full. The size of the ward likely to give most efficient use of staff time and the best standards of patient care may be very different for a general ward than for a psychiatric one. If more beds are provided than are required then efficient use of resources will be difficult to obtain.

Rather than seeking an optimum size for a ward to suit all requirements, it would be more flexible to develop a ward design that can be varied in size and arrangement to suit local requirements. One possibility would be to develop a ward design that comprises components that can be used to "make up" wards of, for example, 20, 25 or 30 beds. The minimum size of a department could then be 40 beds and it would be easier to provide exactly the number of beds required for a department, thus reducing the possibility of over-provision.

Ward design

Staff did not consider the design of the wards suitable for the ESMI patients or for the long stay patients that are presently being cared for. The use of the psychiatric departments by such patients was not envisaged in their original design and provision of alternative, more suitable, accommodation for these two groups of patients is now DHSS policy. However at both the departments it was suggested that the wards are not a very suitable design for the range of patients that are accommodated and that will require accommodating in the future, even if ESMI patients are elsewhere. It was pointed out that psychiatric patients are not easily compatible with the needs of others. For example, it was felt that it would be beneficial to be able to effect a greater degree of separation between short-stay patients and medium-term potentially long-stay patients than is currently possible. It was also pointed out that there are a small number of patients that are likely to need long-stay hospital accommodation rather than hostel accommodation.

One suggestion as to how to improve this situation was to design the wards with two-thirds acute beds and one-third for "semi-chronic" patients. Another suggestion was that the ward layout should be capable of more flexibility so that the arrangement of spaces could be sub-divided to accommodate different groupings of patients.

In both the departments the staff felt that insufficient provision had been made for suicidal, violent or otherwise very disturbed patients. The trace-track layout of the ward makes observation of such patients very difficult and no special facilities for very disturbed/disruptive patients had been provided. At the Kidderminster department the nursery room on the acute ward had been converted into an observation/seculsion room.

Many of the staff at both departments suggested that a special seclusion room, which could also be used at other times as an ordinary single bed-room and that was "not obviously the nick", should have been provided on the ward.

Nursing staff, particularly at Newtown, queried the appropriateness of the inpatient provision for mothers and babies. They were anxious abut the risk to the baby from disturbed patients and about the fact that staff are not trained in caring for babies. It would appear that when mothers and babies are admitted they can best be looked after when accommodated in one of the larger single bedrooms. On only one of the four acute wards surveyed was the ward nursery being used as mother and baby accommodation. It is difficult to establish the level of demand for inpatient mother and baby facilities when factors such as staff anxiety over their admission and the availability or non-availability of nursery nurse assistance are taken into account. However there did not seem to be a need for a separate nursery room on each ward when single bedroom accommodation can adequately cope with mother and baby admissions and can be more flexibly used. Where a nursery room as opposed to mother and baby inpatient accommodation is required it may more appropriately be provided in the day hospital where the mother would be spending most of her day.

LAYOUT

The race-track ward layout was disliked in both departments and was not considered appropriate for psychiatry. Race-track may provide a reasonable compromise between privacy and observation on a general ward where patients are mainly confined to bed and are less mobile but it is unsuitable as a layout for an acute psychiatric ward where observation is particularly important and where it is more difficult as most patients are up and about. The staff felt the layout placed a heavy demand on staff time in trying to maintain adequate observation, and allowed patients to hide and abscond too easily. One effect of the race-track layout and the demands it places on staff time is that it appears to make it very difficult for staff to leave the ward in the evenings and at week-ends to supervise patient recreation in other parts of the hospital. The location of the ward nursing office and nurse base were criticised for the poor observation they provide and the use of the ward day room as a thoroughfare was also disliked.

All the wards are planned around internal courtyards with the intention that more rooms can receive natural light and ventilation and so that the courtyards can be used for patient recreation and relaxation. In practice the courtyards did not provide these benefits. They were too small and claustrophobic to be of much use for recreation and relaxation; they were overlooked from all angles. They were little used, uninviting areas that provided a poor environment for plants. They did not provide good natural light in some of the adjoining rooms particularly on the ground floor of these two-storey buildings, and they did not offer an interesting or attractive view for patients in the ward day rooms.

Ward areas/facilities

In addition to the general dislike of the race-track layout a number of rooms/facilities on the wards were consistently criticised.

The day rooms were found to be too small and not suitable for concurrent quiet and noisy activities. Some of the day rooms could be divided into two areas by means of a partition but this does little to reduce noise from the TV and makes observation very difficult. The general atmosphere of these rooms was not felt to be homely enough; they needed a more interesting view than that provided of the inner courtyards, better natural light and more variety in the type of furniture provided.

Problems of noise and overcrowding in the ward day rooms in the evenings and at weekends were exacerbated by the policy of closing the day hospital activity rooms in the evenings and at week-ends.

The cubicled bedrooms, which were intended for low dependency patients, were the least used and least liked of the three types of bedroom accommodation available on the wards. Particularly at Kidderminster they were felt to be too cramped and claustrophobic. They do not appear to be very suitable for elderly or physically frail patients. Observation of the cubicled bedroom areas was frequently said to be poor by the ward nurses. Accidents or other incidents in these cubicled areas are less likely to be noticed than elsewhere on the ward. The ward staff would have preferred more single bedrooms which they considered to be the most versatile type of sleeping accommodation suitable for both low and high dependency patients.

The nurses' stations were little used and are too big. They are not a good point from which to observe the high and medium dependency bedrooms. They were mainly used by the night staff who also needed to supervise patients in the ward day rooms and keep an eye on the ward exit. The nurses' station should be more closely related to these areas.

The nursing office was also criticised for its lack of observation of the ward exit and day room despite their close proximity to the office. Patients going through the day rooms can leave the ward unobserved. Perhaps one solution would be to have a combined nurses' office and nurses' station, with an observation window in the office to allow staff to monitor the ward exit. With a different ward layout this combined staff area could be situated to provide better observation than is presently afforded by the two separate staff areas.

The dirty utility room was considered to be too small. It has to provide storage for bed pans, bowls, etc, facilities for disposal and disinfection, for cleaning equipment and for temporary storage of dirty linen. It was not really big enough to cope with the amount of dirty linen produced and it was not unusual to find dirty linen bags in ward corridors because the dirty utility room is full and congested. If more efficient collection of dirty linen from the wards could be arranged or if a separate disposal room were provided, this might be less of a problem.

The ward pantries were also felt to be too small. They did not comfortably accommodate more than 3 people at a time and were not well equipped for use by patients. The use of hot water geysers/boilers in particular was felt to be inappropriate and dangerous.

The other rooms/facilities on the ward were generally found to be satisfactory, in particular the sanitary facilities seem to be very good and well located. The ancillary rooms for patients' use were liked but it was not clear how frequently they were used. There are some suggestions that the beauty room and the utility room could be combined if a separate beauty room were provided in the day hospital. At Newtown it was often suggested that a doctors' room for individual consultations with patients or relatives should have been provided on each of the wards and on a number of the wards a doctors' room had been provided by using the originally allocated as nurseries. Many of the nursing staff at Newtown also felt that a staff rest room should have been provided on or near to the wards.

Staff felt that artificial lighting was too harsh on the wards and that this gave corridors and day rooms a clinical atmosphere. The lack of a facility to dim the lights in the ward corridors at night and the over-provision of fluorescent light were frequently criticised.

<u>The day hospitals</u>

At both the day hospitals there have been many changes in how rooms and facilities are used. To some extent these changes from the different ways in which treatment is organised and the different pressures for space and facilities at the two departments.

Patient activity room

At Newtown two of the occupational therapy rooms are now used by ESMI patients and most of the activity rooms were not used for their original purpose. Kidderminster did not provide a special service for ESMI patients (within the psychiatric department) but here too many changes in the purpose to which rooms are put had been made. Almost the only activity rooms in the two day hospitals that were still being used as planned were the rooms that it would be very difficult to change, ie those rooms with an element of fixed heavy equipment and other special fixtures such as the kitchen and the workshop. Rooms with fixed equipment in particular need very careful planning especially if large pieces of expensive equipment are to be installed. At both departments there was much criticism of the type of equipment provided, of the siting of equipment, of the difficulties in getting equipment moved, and of the lack of consultation with the staff who are to instruct and supervise patients using equipment. It was claimed by the staff that much of the equipment was too heavy-duty, too sophisticated, dangerous and often poor value for money.

Workshop

Thw workshops at both departments had been provided with heavy duty electrical equipment often wired in under the floor. The siting of this equipment restricts the number of patients who can use the workshops and the L shape of the rooms makes supervision difficult. If the instructors had been consulted they would have chosen less sophisticated equipment, of the DIY variety, which would, it was felt, be more appropriate and less expensive and would allow the workshops to accommodate more patients.

Kitchen

The kitchen at Newtown was disliked for being too big, inappropriately equipped and for lacking access to an outdoor area. As the kitchens were primarily for retraining and assessing patients they should be as similar as possible in scale and equipment to the type of kitchen patients might be usedto in their own homes. The need to accommodate both staff and patients together obviously places constraints on providing a domestic scale kitchen but the use of very sophisticated or heavy duty equipment and utensils should be avoided. Consultation with the staff who will be assessing and teaching patients in the kitchen would help achieve a suitable design. The provision of an allotment for growing vegetables near the day hospital kitchen, with access from the kitchen to the allotment, would be useful.

Art/pottery

Art and pottery are closely related activities and are best located in adjoining rooms or in a combined art and pottery room. They are very popular activities and need a room capable of accommodating a large group. At both Newtown and Kidderminst er the roomsoriginally allocated for art were too small. The exposed position of the kiln in both departments was not suitable. It would be better if the kiln were housed in a separate small room of its own. The room provided for art activities should have good natural light and it should be provided with adequate storage and display facilities.

Rooms designed as workshop, kitchen and art/pottery rooms all need to function as such but the many changes in the use of the remining activity rooms indicates that specific rooms should not be labelled for activities such as music, dressmaking, clerical, relaxation, but rather that a number of general purpose activity rooms should be provided. In this way it could be left up to the users to decide what would be the most important activities and what rooms would be the most suitable. The general purpose provision could be divided into rooms for quiet and noisy activities and the rooms could also be used on a programmed basis as group therapy rooms.

Group and individual therapy rooms

There is very little group therapy at Newtown and the suite of group therapy rooms on the first floor of the day hospital is little used. There was a much greater emphasis on group and individual therapy at Kidderminster where these activities take place in a number of the activity rooms in the day hospital which was functioning more as an integrated occupational and group therapy area.

Rooms for group therapy need to be of a shape suitable for a group to assemble and to be comfortably furnished, but there is no reason why with programmed use they could not double as rooms for recreation, relaxation, drama, yoga, music and other general activities.

The staff at Kidderminster felt that there should be more joint user small rooms suitable for small group and individual therapy located close to the main activity areas rather than on the first floor. The interview rooms on the first floor of both the day hospitals, which were planned as joint user type rooms, were being mainly used as individual consulting rooms or as offices.

Staff areas

The nursing offices were not closely related to the patient activity rooms at either day hospitals. This was felt to be a drawback at Kidderminster where the nurses now use one of the offices allocated for OTs. There the nurses and OTs were sharing the adjacent staff room. This staff room was not part of the original provision but is felt to be very necessary and particularly useful in providing a forum for all the unit staff who work in the day hospital.

The Newtown staff also suggested a need for staff common rooms. They suggested there should be one on or near the wards for ward nursing staff and another for day hospital staff.

There seems to be a definite need for at least one staff room within the psychiatric departments particularly if staff dining facilities are elsewhere in the DGH. As most staff and patients are in the day hospital during the day this would seem the most important place to provide one.

Beauty/hairdressing

At both departments beauty room provision was made on the wards and not in the day hospital. At Newtown they now use the room intended for dressmaking as a beauty room, and at Kidderminstter many of the staff felt that the ward beauty room facilities would have been more appropriately located in the day hospital.

Toilets

Major problems in both day hospitals were created by the patients' toilets being located too far from the patient activity areas (to which they should be more closely related). In a larger day hospital such as Newtown it would be better to divide provision so that there are toilets near to the activity areas and also near to the dining/sitting area.

Bathrooms

The staff at both the day hospitals felt that there should have been at least one bathroom provided in the day hospital. This would have been much preferred to the showers which are little used. Newtown had recently installed a bathroom.

Nursery

Only Kidderminster still provided a nursery service in its day hospital. Staff did not consider the original provision to be adequate and were using two rooms, one quiet room for sleeping and another room for play, and felt that this was a very successful service. The more central location of the Kidderminster department makes it more accessible to mothers with babies.

ECT

Both Newtown* and Kidderminster were provided with ECT suites, each capable of accommodating up to 12 patients a session. Neither department required such a large suite. Use of ECT facilities had been considerably lower than was envisaged when the departments were planned.

Newtown held ECT sessions each week-day morning for approximately 7 patients a session; the suite was otherwise unused. Kidderminster held ECT sessions much less frequently and fewer patients attended each session (usually one or two sessions a week for two/three patients a session). When not used for ECT part of the Kidderminster suite was being used as a physiotherapy department.

The over-provision of ECT facilities in the WDP suggests that more efficient ways should be found of establishing what the level of demand for such facilities is in any district where a new psychiatric department is planned and more flexible ways of making provision should be investigated. Over-provision of ECT facilities seems to be particularly wasteful as they take up a lot of room and as currently designed are difficult facilities to use in a multi-purpose way. One possible alternative where use of ECT is as infrequent as it is at Kidderminster would be to have the ECT ante-room and treatment room as side rooms off a ward. If inpatient ECT were being given the patients own bed could be used for recovery; if outpatient ECT were being given an unoccupied bed could be used.

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* Newtown would have had a much larger ECT suite but for the provision of ECT suites(neither of which were used) at both the peripheral day hospitals.

Recreation

No specific provision for patient recreation or games was made at either of the departments. It had been planned that some of the day hospital activity areas and the patients' dining room would be available for patient recreation in the evenings and at week-ends. In practice, due to difficulties in providing adequate staff supervision in these off-the-ward areas at such times, the day hospitals were closed and very little was available for patients. Indoor games/recreation facilities are obviously necessary. A games/recreation room should be provided, located close to the ward areas, where table tennis and other physical recreation can take place. In addition some sort of shop/canteen provision should be made for patients where they can buy a cup of tea, cigarettes, etc. (At Newtown this provision is now being made). It is often not feasible to allow patients to go unescorted to local shops and in some cases there may be no local shops for patients to go to (as at Newtown).

Outdoor recreational and relaxation facilities were considered to be very poor at both departments. No specific areas had been laid out for horticulture/gardening or outdoor games and there is very little available for any form of outdoor relaxation. There should be adequate outdoor facilities provided for gardening, games and for relaxation. Gardening seemed to be a very popular patient activity that could be often provided for at less cost than most other activities. The provision of a heated greenhouse would allow all-the-year round gardening. Many of the staff pointed out that there is a great deal that is therapeutic about outdoor games such as football and cricket, particularly for younger, over-active or disturbed patients. If, like Kidderminster, the department is on a cramped DGH site a hard court area could perhaps be provided for outdoor games.

General

Although they had strong reservations about the layout of the departments and about some of the facilities provided (or not provided), the staff considered that departments such as these that are not obviously psychiatric provision were a major benefit and "a step in the right direction". Many of the staff also indicated that having the wards and the day hospital as parts of the same department was a great advantage.

Many of the criticisms and suggestions made reflect the particular preferences of the approach to treating the mentally ill being used in that department. In some cases what design and level of provision would suit one approach would not suit the other. This indicates that to attempt, as was attempted in the standard psychiatric department design, to devise a design to suit all approaches or to expect all departments to implement an approach to suit the design, is to attempt the impossible. Unless there is a greater degree of flexibility in what facilities are provided and in how they are provided, necessary changes to suit local circumstances may be very difficult to effect.

PSYCHIATRIC DEPARTMENTS: SUMMARY OF RECOMMENDATIONS

1. The present recommendation of making provision in multiples of 30-bed wards should be changed; for example 30 beds could be the maximum size of ward recommended. Ways of developing a more flexible ward design from components that can be used to build, for example 20, 25 or 30, or 16, 20 or 24 bed wards as required should be investigated. Provision made in this way would allow a more accurate and flexible matching of beds and associated facilities to estimated needs.

2. The minimum size of a department should be reduced from the present recommendation of 60 beds. There seems to be little sense in advising a district to provide a minimum of 60 beds where there is a need for fewer beds.

3. The DHSS guidelines on what provision is needed in terms of the number of beds and day places required per 1000 population should be critically reviewed; WDP evidence suggests theyare too high for non-metropolitan areas.

4. The race-track layout should not be used for acute psychiatric wards, on which observation and supervision of patients is particularly important.

5. The use of internal courtyards of the sort in the WDP departments should be discontinued. Theyprovide a dull and uninteresting outlook, mean that many rooms are overlooked by others and are of little use for patient recreation.

6. Wards should be designed to allow for maximum flexibility in how spaces are arranged and some sub-division of the ward should be possible to separate different patient groupings if this is desired.

7. A seculsion/isolation room for occasional use for suicidal, violent or otherwise very disturbed patients should be provided.

8. The question of how best to provide inpatient facilities for mothers and babies should be reviewed. The provision of a separate nursery room on a ward in addition to providing bedrooms capable of catering for a mother and baby seems unnecessary.

9. The size and design of the cubicled bedrooms should be improved or they should be replaced by more single and multi-bedrooms.

10. Nursing offices and nurses' stations should afford better observation of the main patient areas and of the ward exits than they do in the two WDP departments.

11. Ward day rooms should be improved. More thought should be given to how best to provide for both quiet and noisy activities on the ward.

12. Ward pantries should be enlarged and should be suitable for patients' use. The use of hot water geysers should be discontinued.

13. There should be better provision for disposing of dirty linen.

14. There should be a means of dimming lighting in the ward corridors at night.

15. A staff common room should be provided in the psychiatric department, preferably in the day hospital close to the main patient areas.

16. Activity areas in the day hospital should not be "labelled" if they do not have a heavy design input, ie unless they need to have fixed equipment. Rooms such as relaxation, music, and group therapy would be better provided as general purpose activity rooms.

17. There should be greater consultation with the staff who will be responsible for instructing patients in the use of large items of equipment before such equipment is bought and installed.

18. The level of provision required for ECT should be clearly established for each district, taking into account local variations in policy. Rooms where ECT is given should be more capable of alternative uses. Different less extravagant ways of providing ECT facilities should be investigated.

19. Some of the interview rooms in the day hospital would be better located on the ground floor close to the main patient activity areas.

20. A recreation/games room and some sort of shop/canteen facility should be provided for patients.

21. An outdoor area should be laid out for gardening and relaxation.

22. An outdoor games area should be provided.

2.4 FURTHER METHODS USED

The methods used in the work described above in this section have included:

use of documents (eg Building Notes)
use of existing records (eg Case Register data)
questionnaires to staff
interviews, structured and informal with staff

The mental health buildings evaluation work as a whole included work not reported above; this work involved further methods which included:

parent interviews
behaviour logging
short visits

These will be briefly described in turn.

Behaviour logging

Behaviour logging involves recording the activity of every user of a particular space at pre-decided points in time. It is a technique which is labour intensive and can be intrusive and in the work reported above it was not used. However it has the advantage of giving detailed and quantified data on space use, which made it relevant in a particular aspect of the Sheffield Development Project evaluation. Health Authority managers asked the evaluation team to investigate problems arising in the use of the day care centres in two new hospital units for mentally handicapped adults (N1 and N2 in work reported above). Staff complained that the buildings each designed to accommodate 115 severely handicapped adults were inadequate for this number, and they were running with considerably smaller numbers (46 and 36). Management was unsure how far staff criticisms of the design of the buildings was justified, so it was important to use techniques which would give definite, precise data, not based only on staff views. Behaviour mapping was therefore appropriate and worthwhile.

Observations were made over a period of three weeks, recording whether whether staff were communicating with residents and whether residents were 'engaged'. The criteria for 'engagement' followed those of Porterfield et al. (1980) and each resident was watched for a one minute period at fixed intervals. The work is fully reported in Dalgleish and Matthews (1981), but in brief, showed that large open plan areas are a less effective design for such day centres than smaller, more enclosed areas. Resident engagement, and communication from staff were both higher in the smaller, closed areas, and staff suggested in discussion that open plan areas involved such difficulties in distraction of residents, and supervision and control, that it was necessary to keep numbers low to cope. The behaviour mapping data confirmed the existence of the difficulties they experienced and attempts have since been made to compartmentalise the open plan areas as a step towards increasing the numbers of users who can be accommodated.

Parent interviews

Work reported above relied heavily on interviews with various grades and discipline of staff, but, for reasons discussed in section 1.4.4 above, did not use clients or patients using the services as respondents. However, in one particular area of work not reported above, parents of potential service users were interviewed. The service to be evaluated was a community unit for mentally handicapped children which had not yet opened. The evaluation was to look at its impact by comparing use of local services before and it became available. No Case Register existed, and no one service provider in the area was in contact with all those local families who included a potential user. Interviews with a sample of parents before the new unit opened therefore covered what services were currently being used, what unmet needs existed, and the likelihood of using the new unit.

Short visits

The work reported in this section involved considerable resources and time, and looked in detail at not only individual facilities but at the whole patterns of surrounding services. This gave a knowledge base and an awareness of relevant issues which could be used in 'short visits' to certain other facilities. In a relatively brief period an informal comparison could be made of a particular facility in relation to the more structured and detailed descriptions usually made. Even in a quick visit, it was sometimes possible to use part of a standard technique (eg assessment of client dependency) used in fuller work, to enable comparison. A short visit was made, for example, to a community mental health centre which was aiming to provide a novel mixture of services. This centre was of particular relevance because it appeared to exemplify some of the recommendations which emerged from the evaluation reported above of psychiatric day services (Section 2). A short visit, against the background of the more detailed work, confirmed that this was the case.

2.5 SUMMARY OF SECTION 2

Section 2 has described parts of detailed evaluation work in two major 'model' mental health development projects, including the context, methods, results and recommendations. Some techniques not used in the reported parts of the work are also briefly described.

3.0 DISCUSSION AND RECOMMENDATIONS

3.1 DISCUSSION OF THE MHBEP

3.1.1 How far was the MHBE work successful? Comment and discussion.

It was concluded in Section 1.3 that four general criteria could be given for any evaluation of mental health buildings; it should

i. focus on the physical environment, yet take as the point of concern the relationship between the environment and the delivery of services.

ii. have a rigorous approach

iii. draw appropriately from the range of possible research approaches and techniques

iv. be responsive to the needs of decision-makers

No formal assessment of the MHBE work was possible; it would have been impossible to obtain funds, given that funds for the building evaluation itself were not easy to obtain. Assessment can therefore be based only on a subjective commentary on how far the above criteria were met. They will be discussed in sequence.

i. Focus on the physical environment

Maintaining the focus on buildings, but buildings as they affect services, may appear straightforward. The MHBE work took as its unit of analysis particular building types (eg residential units) and investigated them primarily from the viewpoint of how they influenced the delivery of services, but in doing so it met two sorts of criticism. One type of critic expected a building evaluation to be about buildings as physical structures, reporting on their technical performance, efficiency of building services, novel use of materials, etc. The other type of critic believed that the role of buildings as an influence on services is negligible, and wanted more direct attention to the nature and quality of services offered. While both technical appraisals and service evaluations are important matters in their own right, the MHBE work was aiming to do only so much of each as was necessary to comment on the links between built form and services offered. This was not easy; it meant steering a course through conflicting pressures from, for example, the sponsors (who, being Works Group based, were accustomed to dealing with 'bricks and mortar' aspects of buildings) and influential researchers outside the DHSS, most interested in increasing the sophistication of service measures.

ii and iii. Rigour , and range of techniques.

For those parts of the overall MHBE work reported above, methods used are described, so reader can assess how far the work was rigorous, and how appropriately the full range of techniques was drawn on.

The approach was not experimental - no attempt was made to set up and test formally hypotheses about particular ways in which the design of a building affect what occurs in it. An experimental approach was not feasible - real world events could not be controlled in the necessary ways, and many variables could only be described, not quantified. More appropriate was a descriptive and interpretive approach, using known scales on those variables which could be quantified, and where possible, 'controlling' certain variables statistically. Thus, for example, it was not possible to allocate residents randomly to the various Sheffield residential units, but it was possible to describe the degree of dependency of all residents and to remove the effects of dependency statistically, by comparing groups of similar dependency across units of different size. This was how it was possible to demonstrate, for example, the important finding that smaller units were not (as is often assumed) dearer to run. Moreover, even if it had been possible to direct the placement of residents to ensure that a particular pattern of dependency across the various units was set up, any such intervention would have obscured another important finding revealed by the descriptive approach actually used: the role of physical design on placement, and the mismatch between original policies and actual practice.

Use of scales

The various scales were used to give quantified measures, enabling more precise comparison than does a less formal account. As discussed in Section 1, the available scales are numerous, but all have limitations. These limitations continue to lead many researchers to develop their own scales - Wright et al. (1981), for example, have recently gone to considerable lengths to measure dependency of elderly people. The multiplicity of measures of service, dependency, and appropriateness of the physical environment are both a healthy sign - suggesting widespread realisation of the need for precise description and comparison - and a problem: individual researchers are continuing to struggle with the same problems and little progress is made towards measures which gain widespread recognition. Resources did not allow the MHBE team to work on developing new measures, but time still had to be spent on ascertaining what ready-made scales were available and their history and relevance. The Wessex scale, measuring dependence of mentally handicapped people, was selected for use in the Sheffield Development Project work, in full recognition of the fact that its use does present certain problems. Firstly, it requires assessing each individual, via contact with a relative or member of staff who knows the individual well. Some questions are couched in terms which it is embarrassing to use with relatives (eg "Is s/he continuously injuring her/his self (headbanging; picking at sores; beating eyes)"), and access, whether to staff or relative, may not be easy to arrange. Where the information has already been gathered for other purposes, it may be possible to obtain permission to use it. This was the case in Sheffield and in Worcester; in both cases the information was up-to-date, but it is a common experience for researchers to find that existing information on assessments of individuals is either out-of-date, incomplete or otherwise unreliable. Secondly the Wessex Scale does not assess certain categories of mentally handicapped people (eg types of behaviour disturbance) with sufficient precision and this leaves gaps in information (eg about the sort and numbers of people who can be successfully grouped together, and about how particular facilities

come to be damaged, leading to an impoverished environment and/or high maintenance costs). The Wessex scale was used because resources did not allow for work on developing a more appropriate scale, and because it is the most widely used by other researchers, and is thereby necessary if work is to be compared to that of others. However, various other researchers using the scale have noted limitations, and the team has recently been liaising with some of them to agree on more precise and acceptable measures of dependency which could be used in future work.

In the present work, as well as the Wessex Scales, other measures were used which assessed different aspects of quality of life. It could be argued that although the measures used, taken together, give a reasonable description of what sort of people are receiving services (dependency, age, sex) and what the quality of life is (management style; quality of environment, particularly 'domesticity'; degree of integration with the community), a dynamic mental handicap (or mental illness) service is concerned with improving the health status of the service user. 'Output' (the amount and quality of care, treatment, etc, given) or 'throughput' (the speed with which patients benefit sufficiently to move on) therefore becomes important. Some of the difficulties of measuring such aspects have been discussed above (Section 1.5.1.) and no formal measures of these sorts were attempted in the MHBEP work. However, during the course of the work a particular development in mental health services was noticeable which may provide a useful index, possibly a substitute for output or throughput measures: individual patient/resident/client programmes. It appears that in an increasing number of facilities (in both mental handicap and mental illness services), some attempt is made to assess the user's individual needs, and to define and implement a personally-tailored programme of activities and treatment. The author knows of no hard evidence to support this observation, but if it is the case, one of the most useful criteria on which any mental health facility can in future be assessed may be the extent to which individuals have programmes worked out for them, and how far these programmes are put into practice. Some development work would be needed in order to be able to do this; it is not enough to ask staff what proportion of patients are on programmes, since experience suggests that staff may believe that all patients are on programmes even where observation shows little behavioural demonstration of their claim. "Being on a programme" has to be clearly defined, but this may be a worthwhile exercise. The physical design of any building is likely to affect implementation of programmes, particularly those requiring easy access to toilet facilities, or use of a kitchen, and normal domestic environment, or small private spaces for 'one-to-one' teaching.

Looking back over recent developments in mental health services and research, we can see that interest in the comparative 'load' on services across different users led to the development of dependency scales, and, later, concern about institutional environments and quality of life led to the development of corresponding measures. Given the current interest in dealing with individuals purposefully, to improve or cure their problems, it may now be timely to develop means of assessing prevalence of programmes as an important index of service quality.

Reliability and Validity

The reliability and validity of the scales and indices used has been referred to in some detail; as regards the other techniques used, reliability and validity can be assessed from the description of the work, in the context of the discussion in Section 1.4.4, but one particular question will be discussed below: the use of staff as informants.

The evaluation used a variety of techniques but still relied heavily on staff as sources of information. It may be argued that this produces unreliable information, given that the interests of the 'real' users (patients & clients) may sometimes conflict with those of staff.

There are various answers to this observation. Firstly, we can see both staff (some of whom spend longer in a given building than do patients) and patients as legitimate users. For the practical and ethical reasons described in Section 1.4.4 staff were the easiest point of access to the system. Some of the questions they were asked were couched in terms that left little scope for subjective answers (eg about size of patient groups); where questions about staff opinion were relevant, staff at various levels and from various disciplines were consulted, which reduces the chance of over reliance on one particular grade or type of staff. Nevertheless it should be said that, overall, direct contact with patients/clients as a formal source of information was nil; the team did not succeed in finding ways round the problems outlined in Section 1.4.4. However parents of mentally handicapped children were consulted in one part of the work (on mental handicap services in Hereford, not reported here) and the team included members who had been involved formally in mental. health services, as receivers, relatives and/or providers, and believed they had the interests of patients/clients as the first priority in interpreting data.

Generalisability

There remains the question of generalisability: how far can we fairly assume that from the data from Sheffield and Worcester Development Project lessons of national significance can be drawn? Such assumptions underlay the whole MHBEP work, and are particularly evident in the Pamphlets, whose recommendations about future services are largely based on the work in Sheffield & Worcester.

The remit for the MHBE work involved looking at all the buildings provided for two major services (Sheffield - mental handicap; Worcester - mental illness). Each of these services provided, in a short space of time, all the service elements recommended in current policy. These two services were therefore nationally unique; it could not be said that the buildings concerned were selected as a representative sample of national facilities. This suggests that generalisation would be difficult, but there are various reasons why in fact it is possible to draw from these particular situations information of broader relevance. Sheffield and Worcester each contained a wide range of buildings, and the work was concerned with general relationships between design and use of buildings. The wide range of buildings provided was useful in enabling comparisons (eg size in relation to revenue costs). As regards patients/clients, there is nothing to suggest that they were nationally atypical in

termsof type of mental handicap or mental illness (except perhaps that the incidence of the elderly at Worcester is slightly higher than normal). There is corroborative evidence showing that certain of the points described hold elsewhere -eg the 'flood' of elderly severely mentally infirm patients (Dick, 1980); lack of a clear role distinction between health authority and local authority day care (Carter, 1981). This suggests that the MHBEP account of such matters and their building ramifications in Sheffield and Worcester has broader national relevance.

iv. Being responsive to needs of decision makers.

The point of doing the work described in Section 2 above was to communicate relevant information about the Sheffield Development Project & the Worcester Development Project to those responsible for developing mental health policy, and those who influence the planning and running of mental health services. The facts and ideas gathered from the two Projects could not be expected to speak for themselves, since there is considerable evidence (See Section 1.5) of low 'take-up' of the results of research efforts in allied areas. During the course of the Mental Health Buildings Evaluation (MBHE) work it became clear that the difficulties of effective dissemination of DHSS - sponsored research generally were causing concern: a research project (Gordon & Meadows 1980) was initiated by the Office of the Chief Scientistspecifically addressing the process of, and responsibility for, dissemination of research for which the Office of the Chief Scientist was responsible.

MHBE work, being Works Group sponsored, was not significantly involved, but the MHBE team was concerned from the early stages of its own work to identify particular groups and individuals within the DHSS, the NHS, local authorities, and voluntary, campaigning and research organisations to whom products of the work should be 'marketed'. This process of 'selling' was approached in three main ways: by the written word, by personal verbal communications and by making use of the evaluation results in new collaborative work with other groups. These three approaches will be briefly described .

The written word.

As each building type was evaluated, a full report of findings and discussion in relation to policy, planning and building use was produced and copies distributed locally (to the staff and management of the units concerned), nationally (to regional and district health authorities, local authorities, CHCs, other official groups such as the Development Team for the mentally handicapped, campaigning and research groups and interested individuals). These reports gave detailed information; they were therefore unlikely to appeal to a casual reader. As soon as each of the two Development Projects had been fully evaluated these reports were available as full source documents, it was possible to produce a quite different kind of document, which were called pamphlets. These summarised the main results of the research, concentrating on those which were of broad relevance to people needing to make policy and planning decisions. Whereas the first documents (the reports) reported the work in a way acceptable to other researchers, the pamphlets were deliberately journalistic. They ignored detail and many complexities and drew

attention to the most important relationships and issues. Whereas the reports gave most of the information that was collected, the pamphlets included only that information which decision-makers were likely to need to know about; they were also professionally laid out and attractively printed and covered.

The circulation of the pamphlets was similar to that of the reports, (except that the specialist press was included,which generated reviews). The pamphlets were more successful (see below) in reaching a wide audience and it may appear that this suggests the reports were redundant. However, there are various reasons why the reports were an essential step towards the pamphlets. The report series represents a full account of how the evaluation was conducted and what it showed. It provided the reliable and organised knowledge base from which the pamphlets were developed. The pamphlets were easy to read largely because it was not necessary to support every statement in them with detailed research findings, but simply with references to the reports. The pamphlets therefore were rooted in serious work but did not daunt the casual reader by including all that work within their covers.

Personal communication

Invitations to make presentations at conferences and to discuss the pamphlets with particular groups gave team members the opportunity to try to convey ideas verbally and personally, and to learn, from interaction, how they were being perceived. Awareness of reaction from certain campaigning groups to Pamphlets 1 and 2, for example, was useful in writing Pamphlet 3.

Collaborative further work

During the course of the MHBE Programme, parallel developments in Building Note guidance were happening. Involvement of the MHBE team in this varied from very slight to considerable. The team's contribution was limited to comment, for example, on the development of guidance on psychiatric departments (Building Note 35 new draft) and regarding guidance on day centres (eventually not issued). The development of guidance on provision for mentally handicapped people with special needs, however was considerable, and drew on particular parts of the MHBEP work on Sheffield Development Project Services (not all reported here).

Collaborative work with groups external to the DHSS varied, from informal advice to field planners asking for help, to full involvement with a development project, the Harrow Road Family Support Unit. This initiative drew on information in the report series, together with expertise offered by team membes, and the resulting building and service was referred to in Pamphlet 1. From this, and from press and word-of-month publicity (generally very favourable to the Unit), considerable interest in the unit was stimulated (eg Godwin, 1982; Avon 1983). The Unit happens to be in London and therefore accessible to many people and has performed the role of show case for many of the recommendations arising from the MHBE work.

A further outcome involving collaborative work within the DHSS is perhaps especially significant. The Chief Architect invited the team to draw on its own work and other related work and develop a national strategy for mental health service buildings, in relation to Services, particular regard to the revenue implications (running costs, including staff) of the various ways services can be organised and housed. At the time of writing this is underway; it can be seen as a synthesis of MHBE knowledge and the growing interest among policy makers and service planners in considering capital and revenue costs together.

Internal interest is suggested principally by the request from a DHSS policy group (MHB, responsible for policy on mental handicap services) for the team architect to be on the working party developing guidance on services and building for mentally handicapped people with special needs, and by the Chief Architect's request for the team to develop a national strategy for mental handicap buildings. External interest is suggested by the number of requests from the field for further copies of the Pamphlets, including several requests for sufficient copies to allow every member of a team planning a particular development to have one, and by direct input of recommendations arising from the work into the Harrow Road Unit (referred to above) into various current development plans up and down the country.

Against this backdrop of a subjective assessment of relative success in gathering and communicating information and ideas, it is important for the development of effective evaluation in the future to analyse and appraise particular issues arising from the work.

3.1.2 Discussion of specific issues

Many issues related to the work described in Section 2.0 have a wider relevance and will be discussed under three general headings: issues concerning methods and organisation of building evaluation (3.1.2.1), new issues (3.1.2.2), recent policy initiatives in mental health, and the links between policy and guidance and evaluation (3.1.2.4) (3.1.2.3)

3.1.2.1 Issues concerning organisation and methods of building evaluation.

Who should do the evaluation?

The advantages and disadvantages of having evaluation conducted by neutral external researchers (as against researchers with personal involvement in the particular situation to be evaluated) has been raised in Section 1.4. The present author has experience as a participant, and as an observer, of various policy-related research projects in which the contact between researchers and policy makers ranged from very remote to comparatively close. The work described in Section 2 had the advantage of both 'internal' and 'external' workers. The research team had relatively close access to policy developments and developments regarding guidance, since four members of the team (three civil servants and the Director) were based in DHSS offices and in contact with individuals and groups responsible for policy and guidance work. At the same time, the 'external' researcherson the team (mostly social scientists, working on a contract basis) were located outside the department, living in the areas where most of the work was conducted; their number varied between two and five. During the course of the MHBEP, observation of other, completely separate research work, by research teams with weaker links with the government department sponsoring them, showed the difficulties this can entail. Gordon and Meadows (1980) study of how DHSS-sponsored research reaches, or fails to reach, an audience (including policy makers) confirms the general difficulty (referred to in Section 1.5) of making links between research and customers. Much of the responsibility for being responsive to customer needs during the research, and in communicating the results, tends to fall on the researchers. Gordon and Meadows show some of the difficulties, but one major improvement which could be added to their suggestions is that of locating the research, at least in part, in the relevant part of Central government, and involving some government officials in the work as a major and continuing part of their remit. The civil service tradition of regarding officers' responsibilities as instantly transferrable can be very damaging where it is already difficult to develop shared language and objectives in a team which includes researchers and government department representatives. This was the experience (although it was not reported), in work done for DHSS on the evaluation of hospital wards, described by Kenny and Canter (1981). By contrast, the work described in Section 2 above benefited from having on the team civil servants who were fully involved over the full period of the work, and who had access to policy and guidance developments (as well as researchers based in local 'patches', with detailed knowledge of geography and politics in the area of the evaluation).
Professor Donnison has frequently argued about the importance of the attitude of government departments in achieving good policy-related research. He argues (Social Research Association, 1983) that the

good funder will try to keep researchers in touch with the evolution of debate about policy, and suggests that the DHSS has been effective in this in the field of social security research. He also claims that another government department has shown political biais in controlling the publication of policy-relevant research results, to the point that researchers should be cautious of their reputations. The question of who should do the evaluation will be influenced by who is available to do it - given any degree of choice, researchers are likely to avoid work which may be associated with censorship.

Steering Committees

The work reported in Section 2 was done by a team working without any steering group. The team was accountable to the sponsors (the BERD committee) only in financial terms; the scope and objectives of the work were set by the team itself, as were the target audiences. The onus was therefore on the team to take initiative in seeking informal comment as its work developed. The MHBE team sought advice at various times from a wide variety of sources, including internal DHSS sources, independent bodies such as the Health Advisory Service and the Development Team, research and campaigning groups and service planners and practitioners. This flexible coopting of expertise may work reasonably well where team members have already, or know how to seek out, relevant comment at the right time both as regards the effectiveness of their research approach and as regards the relevance of their work to policy and guidance. It could be argued that a well-informed, benevolent, stable and accessible steering group may save research team time and mistakes, but informal observation suggests that such groups are rare. Although ideally, such a group concentrates expertise from the perspective of the sponsor, the various target audiences and the research expert, in practice an enormous amount of time can be wasted in vitualistic and repetitive exchanges; an excellent group may be useful but a less than excellent group may be wasteful of research time and can damage morale.

Constraints

Section 1 included discussion of what is theoretically possible in evaluation; however, in practice, various approaches and techniques are not always feasible. In the research reported, there were firstly limitations of resources: time, money and available techniques. In the work reported in Section 2, for example, funds were available only for a year at a time, and although the programme eventually ran for five years, all planning had to assume that funds ran only to the end of the current financial uear. Given the time needed to write up, it was impossible therefore to plan to monitor use of space in any particular building across a full year, to include all seasonal peaks and troughs. A second limitation on what techniques were feasible arose from the nature of the patients/clients, in some of the ways discussed in Section 1. Many of the most dependent mentally handicapped patients, for example, were not verbal or ambulant, and this precluded techniques using interviews with them, or observation of how they "chose" to use space (because they had to stay where others put them). Thirdly, there were ethical constraints: an experimental approach would have created ethical problems (allocation of patients/clients to services randomly rather than on the basis of clinical need); intensive observation of how an environment is used could have upset its users; and care had to be taken not to 'over' research in settings which had already experienced considerable scruitny for other purposes, and also to avoid making excessive demands on staff, especially where under-staffing was a problem.

Control

In addition to these three general categories of limitation on what techniques were feasible, experience in the work described in Section 2 showed another sort of limitation. This arose from the fact that a degree of control on the evaluation (sometimes implicit rather than explicit) was exercised, either by groups associated with the buildings evaluated, or by opinion within Works Group. Although in general cooperation was offered by practitioners, there were some instances of a particular professional group supressing or distorting information. This could not be referred to in reports on the evaluation without increasing the likelihood of problems. Hindsight does not suggest any way matters could have been improved, but the experience confirms the importance of spreading the 'base' of sources of information as widely as possible. No attempt was made in work reported in Section 2 to use patients/clients as informants, but since access to them is normally through those with professional responsibility for them, it has to be recognised that the possibilities for control of this sort are great in the field of mental health. Within DHSS, 'control' arose largely indirectly - from the researchers' own belief (almost certainly correct!) that 1) certain techniques would be unnacceptable generally within DHSS - eg action research - and 2) that because the evaluation was Works Group funded, a technique would be acceptable only if it appeared to have some immediate relevance to buildings. This meant, for example, that interviews with parents (asking about currently available services for their mentally handicapped child and about what their 'ideal' services would be like) could not be extensively used as a technique. Information gathered in this way (in MHBE work not reported here) proved useful (for example in giving some idea of customer priorities as regards siting and size of bedrooms in residential accommodation) but this technique was used sparingly because the relevance of such information about 'ideal' provision to the evaluation of existing provision often proved hard to explain within Works Group.

The extent to which it is feasible to use any particular technique in a given situation thus depends on limitations of resources, on the nature of the clients of the services and on ethical considerations, as discussed in Section 1 and exemplified in Section 2, but work reported in Section 2 also showed that other forces limit choice of techniques. Evaluation is an exercise which has to be conducted within constraints set, whether justifiably or not, by various groups with some degree of association with the process. It is not always practicable or helpful to confront such pressures and seek a rationale for them; more success may be had by recognising them and looking for lateral ways to work within them. Thus, for example in the situation where a particular professional group, (at the investigation of one dominant member) restricted access to information and misrepresented other information, the team decided not to confront the problem head on. Instead, the missing information was pieced together from other sources, (which also pointed out the misrepresentation). In reporting this part of the work, the temptation to 'expose' the culprits was resisted, but it was noted in reports that there were differing views on certain factual points! Uncompromising refusal to recognise the power of certain individuals and groups when reporting on evaluation work can be extremely tempting, but the price may be the premature end of effective work.

3.1.2.2 New Issues

There are two particular issues in social research which have emerged recently and are of great relevance in any consideration of mental health services: sex and race issues. In the late 60s and early 70s legislation dealing with discrimination and equal opportunities for women and ethnic minority groups came into force. Although it has had only limited success (eg Robarts et al. 1981) its existence, together with the work of the Equal Opportunities Commission, and the Commission for Racial Equality, and other bodies, has increased general awareness of how widespread discrimination is and how subtle it can often be. For our purposes, this raises the question of whether, in evaluation of mental health services and buildings, any issues concerning sex or ethnic origin are of importance, and, if so, how they can be dealt with in evaluation. We have earlier seen (Section 1.4.4) that the phenomena of mental handicap and mental illness impose certain requirements in evaluation: do the phenomena of sex and race also influence the research approach in anyway?

One approach to this question is to assert that both mental health services, and any research on them, are, or should be, 'colour blind' and 'sex blind' - ie that no distinctions are or should be made on the basis of ethnic origin or gender: everyone is to be treated the same. On this view, if no particular attention is paid to differences of ethnicity or gender, the chances of discrimination are reduced. As regards mental health, there is some evidence that suggests that race and gender are related to intensity and type of use of services, to perception of services, to experience of services, and to what people want from services. Ignoring such differences may therefore lead to services which are not fully appropriate.

Mental health services are, in practice, a predominantely female world: most of the elderly severely infirm, for example, (the category of mentally ill people who present the biggest current challenge, and an increasing one, to services), are female. Most mentally ill people (in general) are female. Most direct care staff are female, as are most trained nursing staff, most relatives visiting patients and most relatives caring for mentally ill and mentally handicapped people at home. Although it is sometimes assumed that mixing the sexes is inappropriate, and wards or units are run on a segregated basis, very little work has been done to look at whether users' experience of services is sex-linked. As a reminder of how little has been done, there is the fact that none of the pieces of research referred to so far in this document has explicitly considered sex (or race) differences. Yet where the question is addressed, such differences emerge: Willcocks (1983) for example has retrospectively re-analysed data reported in Peace et al. (1982) on user reaction to old people's homes. She found that female residents (some of whom were confused) used space differently and had different environmental needs compared to male residents. Scrivens and Hillier (1981) refer to work showing how incidence, diagnosis and presentation of mental illness can be linked to ethnicity.

The notion of 'community care', the main trend across services for the mentally ill, mentally handicapped and elderly, is one which has considerable implications for women. The Equal Opportunities Commission has devoted four of its publications to this issue, around the assertion (EOC, 1982):

> 'A growing body of evidence suggests that 'Community Care' has in reality meant care by individuals on an unpaid and often unaided basis in the home. Since traditional attitudes and practices within society continue to allocate to women the primary responsibility for caring functions, the majority of 'care rs' are women' (p iii).

Some workers have attempted to measure the 'load' that such care entails: Wykes (1982), for example, has used a 'burden of care' measure of strain on relatives, but work such as that of Nissel (1982) which tries to measure not only physical and social strain but opportunity costs (ie forgone earnings) is very rare. Discussion of the costs of service provision typically assume that the time contributed by relatives - of whom the great majority are female - is 'free'.

Services provided 'at home' by carers may also 'save' on the costs of providing buildings, but there remains the question of whether the physical design of the average home is suitable for certain patients, and who should properly bear the cost of any extra wear and tear on the domestic environment. There are major political and moral implications for women in the policy of community care; there are also practical questions: are there now, and will there be in the future, enough carers particularly in the geographic areas where the need for domestic 'placements' is highest, such as inner urban areas?

Turning to the race issue, we again find that use of services is not random: work by, for example Rwogellera (1980) and Brewin (1980) shows that psychiatric services are taken up at different rates by different ethnic groups. The reasons are complex, but is seems that perceptions about services are one factor: Asians, for example, may present themselves for treatment only at an advanced stage of illness because of their feelings of shame at seeking help. There is a feeling among some Afro-Carribean groups that mental health services are used as a form of control against black people; this view is clear in accounts in, for example the black newspaper The Voice. Ouseley (1982?) describing attempts to implement a positive action programme for black communities in Lambeth, reports that black peoples' perceptions of social services generally, including those for children in care, were very different from those of the service providers (pp 68-71). The Commission for Racial Equality opposes a 'colour blind' approach to staffing residential accommodation provided by local authorities, and recommends (CRE 1980)

> "The DHSS should consult the relevant organisation with a view to devising guidelines for keeping records of the ethnic origin of children in care. The Social Work Service should look into the medical needs of children from ethnic minorities (p 28)".

and points out (p 29) that a disproportinate number of black and mixed race children are in care.

This brief outline of some sex and race issues suggests that services and buildings cannot be evaluated as if all users were identical, but what actual differences in how we evaluate can be suggested? It has been argued (eg Roberts, 1981) that a basically different approach to research is required if womens' experience is to be accurately reflected. Oakley (1981) for example, interviewing women about personal matters, found it impossible to retain the 'aloof' stance of the researcher; she entered into relationships with her interviewees and offered them advice when they sought it. It is sometimes suggested that interviewers should always 'match' those they interview - that, say, a black female patient will respond better if the interviewer 'matches' her in colour and sex. Even if this is not considered possible and desirable, it may be possible to be aware of the approximate sex and race breakdown of users of any facility evaluated and to bear this in mind when devising questions. Accurate breakdowns of gender are often easily obtained from existing records, but accurate breakdowns by ethnic origin are a very different problem. The deep division among responsible opinion prior to the 1981 census, as to whether it was appropriate to ask about ethnic origin, and if so, how this should be done, shows that this is not an easy question (see for example Social Research Association 1983). However, very approximate estimates of the proportion of users of a given facility who are from ethnic miniority groups can be made by casual observation; where this is impossible - for example in doing research on unmet mental health service need in a particular area - it may be possible to obtain estimates of the ethnic breakdown of the area from the local authority. Even 'guesstimates' are better than ignoring the possibility that users response is affected by ethnic origin and/or gender and where a substantial proportion of potential informants are from ethnic miniority groups and/or female, alert the researchers to the need to bear this in mind in sampling, devising questions and analysing the data. Such increased refinement in our research catergories is valuable in giving increased scientific precision.

3.1.2.3 Recent policy initiatives in mental health and the implications for evaluation

Since the MHBE work began in 1978, there have been various developments in mental health policy which have implications for evaluation. Mental illness and mental handicap continue to be described as 'priority areas' (DHSS 1981b) and authorities are encouraged at, for example, Ministerial discussions with Regional Health Authorities, to act accordingly. Various initiatives have been set up to accelerate the move from institutions to community care, with special funds to encourage, for example, the move of children out of mental handicap hospitals: some of those funds are addressed to health authorities and some to voluntary bodies (the"pound for pound" scheme(1981) under which any money raised by voluntary groups is matched by central funds). Advice has been given on how to shift financial resources to local authorities (DHSS 1981a) and a special policy group study of the needs of severely and multiply (mentally) handicapped people is underway, with a view to producing guidance in 1983. There has been an increasing interest in the cost of buildings, and particularly in revenue costs. At the time when the MHBE work was initiated, the main concern was to see how building design could be made to match new policies about services: what design solutions would facilitate services being

offered which were in line with policy? Over the period of evaluation, central and local government became increasingly concerned with costs, especially revenue (running) costs. It became clear that the very slow rate of progress in closing old unsuitable hospitals was due not only to uncertainty among regional and district planning teams as to what should be built but also to uncertainty as to how it should be paid for. The MHBE work sought throughout to identify possible savings in building provision, and in Pamphlet 2 appended detailed costings for various options for new buildings. However, on the revenue side little information could be offered, apart from general observations, for example about ways in which certain designs were "staff intensive" and thereby costly to run, and certain furnishings and fittings expensive to maintain. Detailed breakdown of capital costs for particular building designs were presented, (DHSS Works Group 1982) but not for revenue costs. In the present economic and political climate it has now become more important to show acceptable revenue implications than to minimise capital expenditure - it may be justified to spend more than average in capital terms if this ensures relatively low revenue costs. The team is investigating this question at present, and it will be important in all future evaluation work.

It can be argued that the current stress on economy in revenue (as against capital) should lead to a revision of the 'zero cost' injunction which has so far accompanied governmental injunctions about development of services and the move to community based services. If the main objective is long term savings, a short run increase in costs may have to be acceptable. This is an important aspect of the debate about community care. One of the main reasons advanced for reservations about community care in practice has been concern that it may be seen as a cheap option. Heron et al (1983) for example, write:

> "It is, however, essential to make it clear, beyond any possibility of misunderstanding, that meeting the needs of the intellectually disabled person genuinely "in the community" is not a cheaper option. From the limited costing experience available, a community-based service is likely to be more expensive in the short term, and at best to break even in the long term. It is more expensive in the short term because (a) existing institutions, including many relatively new small ones, cannot be closed and savings effected immediately; and (b) some of the essential elements of an acceptable community-based service will involve substantial in-service training of present staff, and an increase in the strength of several relevant professional groups, notably psychologists, physiotherapists and speech therapists. Here it should be noted that, costs apart, national shortages may exist in the supply of suitably trained professionals interested in working with intellectually disabled people."

Other commentators have raised still more fundamental questions about the policy of community care. The Equal Opportunities Commission's comments, for example have been referred to above (Section 3.1.2.2). Evaluation will need to include consideration of the impact on the community as patients move out of institutions.

A further area of interest in policy circles is that of the recycling of old stock. A major report (the Davies Report HMSO 1983) suggested how authorities could review all their stock and rationalise its use before embarking on further 'purpose' building. This exercise becomes particularly complex in relation to mental health services, where it is expected that many functions and facilities will devolve to local authorities. Review of stock also points to a major area of uncertainty - the role of old hospitals. It is clear now that the run down and closure of many old isolated hospitals will not now occur at the pace anticipated in the White Papers of the 1970s, but there has been no clear government statement as to criteria on which to allocate money for upgrading; and there is no building guidance on upgrading. At the same time, it is clear from a recent press 'leak' (Guardian, 20 July 1983, front page) that despite the Development Team's efforts, the quality of services and buildings in very many old mental handicap hospitals is poor, often unacceptably so.

In what ways may policy issues such as these be relevant to evaluation of services and buildings? Firstly, the days of the 'grand slam' approach to developing services appear to be over; the 'top down' 'total service' approach seen in the Sheffield and Worcester Development Projects is unlikely to be repeated. The approach is now more that of 'pump-priming' with comparatively small amounts of money, thinly spread across many organisations, including voluntary organisations. There is also a clearer recognition that services are provided from a number of sources, not just the NHS. These trends make evaluation in many ways more complex, since a key question is the relative cost effectiveness of facilities provided piecemeal across the country, sometimes as an ad hoc response to pump priming funds suddenly being on offer. Other important questions are the relative advantage of purpose-built and converted buildings, and which categories of user (if any) require an environment which can be satisfactorily created only by purpose-building.

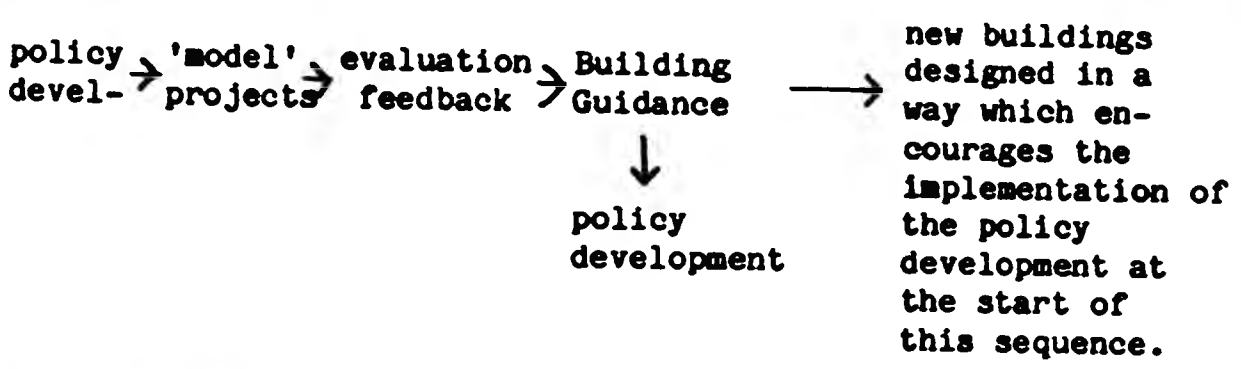
The increasing concern about costs, coupled with the move to community care and more attention to the voluntary sector, has important consequences for evaluation. Firstly, the form in which cost-related data about mental health services is collected (eg DHSS Hospital Statistics Returns and DHSS Return of Mental Handicap Statistics (form SBH112)) is based on a 'hospital' model of services, and does not easily reflect the changed pattern of services offered in new units. Cost data is normally based on 'cost per bed', which is an inappropriate measure where staff are often involved in giving services to families where the client is not occupying a bed - ie staff's role is to prevent bed use, yet their output is measured in bed use terms. Patients and clients are likely to be using services that cross NHS/LA/voluntary sector boundaries, and cost data is collected differently in each of these sectors. Moreover, in seeking efficient ways of meeting needs for mental health services, we should look at the whole 'market': every service offered is relevant, whether statutory or not, and whether paid for officially or not, and every cash transaction is relevant. Thus not only NHS/LA/voluntary and private sector activities are relevant, but also the 'free' labour of individual carers at home, and the central cash provided by DHSS benefits. The present cost and 'output' and 'burden' measures available simply do not cope with these aspects, the

importance of which is enormous: Haycox (1983) for example has shown that the cash benefits received by most families do not match the additional expenditure entailed by having a mentally handicapped child living at home, let alone the income forgone by not being able to work. He argues that it would only need a very small swing amongst such families away from having the child at home to flood residential services. This is of course likely to be even more true in the case of adult children, and underlines the need to find adequate ways of measuring and relating all costs involved in mental health services.

There are two particular cost ratios which are important in evaluating and making recommendations about future services. Firstly, the ratio between capital and revenue - when does it make sense to 'spend to save' ie to pay more in to building or converting a building in order to save on running costs (energy, maintenance, and especially, staff required)? Secondly, the costs of conversion in relation to a new building - not only in terms of immediate capital, but in relation to effects on other parts of the service.

3.1.2.4 Links between policy, building guidance and evaluation

In Section 2.2.2 above it was suggested that in initiating the Sheffield and Worcester Projects, and guidance generally, the DHSS could be described as tacitly following a model which looks likes this:



However, in practice, at least as regards mental health buildings the links between the elements in the above chain are rather less clear and logical. Responsibility for the various elements lies with different parts of the Department and it appears that no one group is charged with arranging and following through the sequence. As outlined in Section 2.2.2, the fact that there is no clear machinery for relating the many functions which are carried out in the DHSS in relation to policy development, model projets, evaluation and Building Guidance mean that the MHBE team had to try to create informal links between the element for which it was responsible (evaluation) and other elements in the chain.

This was not an easy exercise for several reasons. The DHSS policy staff are organisationally and geographically separate from Works Group Staff. Within each of these two large groups there are many subgroups; for example, matters concerning mental handicap policy and mental health policy are largely separately dealt with and unrelated; within Works Group, there is no structural link between those responsible for building guidance, for evaluation, and for development projects. In the second half of the five-year MHBEP economic pressures were increasingly felt both on mental health

services and, nearer home, on job security for DHSS staff. In the changed political climate, anything that smacked of 'nannying' the field including guidance and development projects, came under question. In this difficult atmosphere, however, some links were made and used, as described in 3.1.1.

In this process, it became clear that model projects, as they are now developing, and the nature of guidance, both present serious obstacles to the development of a straightforward chain as postulated above. (It should be remembered that unless one assumes some such sequence there is really no justification for producing any guidance or funding any development or pump priming projects, since there is no way of knowing whether they follow or contradict policy.)

Model projects now tend to be small scale, ad hoc, disparate and not systematically evaluated. Variety and experimentation may be very beneficial, but small scattered schemes are unlikely to be compared systematically unless the evaluation is initiated, organised and funded centrally. Without some such evaluation, the handing out of funds such as the "£1 for £1" scheme offered to voluntary bodies, may resemble mere largesse. Worse still, it may encourage counter-productive spending. When special funds are offered to authorities and organisations they are required to produce schemes to certain criteria, one of which is sometimes sheer speed of scheme formulation. This may mean, for example, that there is little time to assess local need, liaise with other responsible organisations, or review existing building stock. Whether or not this adversely affects the final building could be demonstrated by evaluation. Unless DHSS does compare the various schemes when implemented there is little point in encouraging variety.

Building guidance as formulated at present is another obstacle to rational interrelating of policy and building developments. A Building Note generally takes several years to produce, and gives very detailed advice. If often prescribes to a level which architects rarely need in other building types and where it does give options on particular aspects of the building, says little as to the relative advantages and consequences of each. The sheer amount of effort and time required to produce a Building Note is so great that after a certain point there may be reluctance to attend to any policy developments or evaluation evidence which may be relevant. At the other extreme, there is no Building Note at all on some facilities because policy simply moves too fast. Each Building Note relates to a particular building type, and makes little reference to relationships between that particular building - say a psychiatric department - and other parts of the service (day centres etc). Mental health services are now much more complex and with limited resources it becomes yet more important to be aware of how any new provision a) affects existing provision and b) has "opportunity costs" as regards alternative provision. There is very little indication in most Building Notes of such issues. Given the current encouragement to the voluntary sector in mental health services, and the favourable attitude of government to privatisation in health services generally, it may also be appropriate to consider the role of the voluntary and private sectors when developing guidance, and to refer to this in each guidance document.

3.2 RECOMMENDATIONS

3.2.1 Mental health buildings

Summaries of design recommendation about the main building types evaluated and adult are included at the end of the relevant parts of Section 2, and will not be re-sta ted.

Some main directions in the design mental health facilities are as follows.

A yet smaller proportion of people with mental illness or mental handicap are likely to need a 'medical' environment and the facilities of a general hospital always at hand and the need is for a range of progressively less 'supported' environments. There are serious gaps in this range at present - for example hospital hostels for long-stay psychiatric patients who do need some nursing care are rare. Wherever patients or residents live, the 'living group' size will be very much smaller than traditional 'ward' size and as much group autonomy as possible will be provided in the design. Outdoor space should receive far more attention than it has done. Where residents or patients are likely to be disturbed , robust design is important and need not conflict with the requirement for domestic, non-institutional settings.

The traditional approach in creating services was to concentrate on providing first a number of 'beds'. In future, this approach will be modified in two important ways. Firstly, it can be argued that in some sitations services can best be developed by starting with the provision of good day services. Secondly, any facility is likely to 'reach' more people than it has beds for, offering support to families, ex-residents etc.

There are some service users who are difficult to place because of very high dependency or disturbed behaviour. It can be argued that it is particularly such categories of people for whom purpose-built fa clities are especially relevant: robust design, noise insluation to protect neighbours, low cill heights to allow residents on the floor to see out, no steps etc - such features are much easier to build into a building at the start.

Revenue implications of every design decision are crucial. Maintenance, energy and catering all affect running costs and relate to design but about 70% of running costs are attributable to staffing costs. We can reasonably see the whole exercise of planning and designing mental health services as an exercise in the rational allocation of staff, both across buildings and within them. Any aspect of the design or siting of a building which absorbs staff time and effort in a way not directly beneficial to the residents or patients is too expensive - even if it represents a saving in capital terms.

There are many ways in which design decisions lead to a building which makes life more difficult than it need be. Inappropriate design can, for example, make it unnecessarily difficult to observe patients or residents;it can cause friction by not providing for sufficient privacy; it can make it almost impossible to provide opportunities for patients to learn more independent ways of daily

living, or to work intensively in a 'one-to-one' way with a staff member. Dedicated staff will try to overcome such design inadequacies by investing more staff energy in the situation - intervening to diffuse personality clashes from which the environment offers little protection, for example, or 'mocking up' tea-making facilities where no domestic skills training facilities have been provided. The revenue costs of staff are such that we need to look for every possible way in which building design can reduce wasted staff time.

3.2.2 Mental health building evaluation and guidance

In the light of all that precedes in this document, what recommendations can be made about how to conduct evaluation of mental health buildings? It will be assumed here that the evaluation concerns facilities of national interest; small-scale monitoring work for purely local purposes presents its own problems, but here we consider evaluation of facilities which are of significant to policy and planning development beyond the parochial situation: this may include projects that are quite small in themselves, since experimental developments are nowdays not always large in scale.

The first question to ask is "who needs to know what?" What are the appropriate audiences for the information to be gathered, and what is the relative importance of each group? It is likely that the groups will include individuals and organisations in the following categories : at a local level in the services; in the DHSS (and sometimes in other parts of central government eg the Department of the Environment where housing-type services overlap); the research world; other bodies working in the area (eg campaigning voluntary and inspectorial bodies). Before starting work, an evaluation team should be clear about which groups it wants to communicate with, and why. This matter will be related to the question of funding and of control of the work. Sponsorship, control and audience may all be concentrated in one group, and if so, this is likely to be a DHSS group, since the DHSS is the main funder of such work. But it is also possible that for example, the key audiences are to be found at regional level, or that, de facto control of much of the work turns out to be in the hands of a professional group running the services being evaluated.

As much clarity as possible on such matters is important, but as a minimum it is vital to establish with the sponsor agreed objectives and to negotiate the degree and nature of control they will have, in practical terms, and in particular, who exactly will be responsible for liaison with the team. It may be very difficult to get any guarantee that this individual will not be ever-changing and will be available reasonably often but it should be argued that this is critical to overall efficiency of the work. Time spent on negotiating for the services of the right liaison person and/or steering committee is well worthwhile, but this part of setting up the work is frequently not taken seriously.

The next question is who should do the research. It is commonly recommended that the team should be interdisciplinary (eg Australian Department of Health, 1982) but is is probably cumbersome and unnecessary to attempt to include representatives from all potentially relevant professional and interest groups. What matters is that the team should include members with the ability to organise research, to understand the concerns of all interested parties, to negotiate for resources, to handle architectural and cost aspects and to communicate the findings. In order to understand the concerns of those interested parties who are concerned with policy development and with guidance developments, it is essential to have strong continuous links with relevant individuals within the DHSS: this probably means that the team has to be based in part at the DHSS. There are strong advantages to having at least some researchers who are native to the geographical area of the work, where possible; this can save familiarisation time, local political blunders and travel costs.

Definite views are sometimes expressed as to when evaluation should start, in relation to the opening of the building in question (eg Capricode, 1974) but there is little in the literature to support any given interval. Waiting till 'teething' troubles have settled can mean waiting till the facility's significance has become less vital, and the very troubles themselves may be of interest. In practice, expediency may well dictate the decision on when to start. As regards the duration of the evaluation, it is clear that level and type of use of many mental health buildings varies through the week and through the year: there are definite 'peaks' in demand for places for mentally handicapped children during holiday periods, for example, and it is important to include any such periods when the buiding is fully stretched. The sort of approach taken in evaluation will be relevant in establishing the duration. The approach may be an 'action research' one, with continuous feed-forward of information influencing the situation - Klein (1976) for example, recommends that a series of evaluation loops should be set up so that evaluation can feed in at intervals to stage the design process, even before the building is commissioned. At the other extreme lies, for example, the NIMROD Scheme in Wales. This is an ambitous project aiming to provide non-hospital services for all mentally handicapped people in part of Cardiff, and includes a carefully devised evaluation programme. However, to avoid distorting the evaluation, those running the new services have agreed not to modify practice from those originally set out. This means that until evaluation is complete, the service is effectively 'frozen' - it cannot respond organically and make improvements as the opportunities crop up. In terms of how long evaluation should last, it is important to consider the immediate effects of the work on the services: where there is immediate feedback and no 'freeze', on developments, evaluation can continue longer, from the point of view of those researched.

Methods which can be used in evaluation have been extensively discussed and will be only very briefly summarised here. In most situations an 'experimental' approach (as used for example in drug trials) is not practicable and/or not ethical, but significant links between variables can be shown statistically. For example, we cannot, normally, randomly allocate patients across a range of different buildings before comparing the buildings' effectiveness. But when we want to compare a number of buildings, each of which has a different 'mixes' of patients, we can measure the patients (their dependency, handicap, etc) and then 'control' statistically for any naturally-occurring difference in patient population when we compare the buildings.

Methods should be chosen to meet the particular requirements of any particular evaluation project. This may appear obvious, but there is still a temptation to try to create a 'system' of evaluation which can be applied blanket-style across disparate situations. The urge to create fool-proof universal systems is understandable but there is no evidence to date of success. Evaluation does not lend itself to entirely robotic procedures. However, the use of standard measures where available and appropriate is very useful (eg measures of dependency of physical environment etc), since they enable precise comparisons and decrease subjectivity. Some measures, however, can appear alluringly precise yet be irrelevant or misleading. Moss (1983) has commented on the measure of nurse travel distance (distance nurses travel on each shift as they move about the ward), pointing out that distance travelled is, in itself, neither good not bad - it is what the nurse does and can observe as he or she travels that is significant.

Naive or spurious measures are to be avoided, but we should be on the look out for 'lateral' measures of excellence in services and buildings. As more patients and clients in mental health services start to be on individual programmes (activities designed to increase their independence etc) the extent and nature of programmes in any unit may be usable as one measure. The development of a small number of further measures would be of great benefit in evaluation of mental health facilities; this is something which requires central funding, and even more importrant, central initiative in bringing together existing expertise so that measures developed would be actively taken up by all relevant research groups. There is a particular need for measures appropriate to community care settings; most existing measures were developed in institutions.

Simplicity is a key objective in selecting methods, and not easy to achieve because of the complexity of many of the settings to be studied. It is important as a discipline and because the simpler the work, the greater the likelihood that eventual audiences can follow what was done. However, total reliance on a single method is risky, and a mix of verbal techniques, and behaviour based techniques and records offers a broader base of information.

Communication of the results of evaluation is a widely neglected part of the whole process. It starts from the moment the evaluation is set up, as negotiation with sponsors, and involves keeping in touch from then on with developments in the field, political initiatives, guidance developments, campaigning bodies, the research world - and with any significant sceptics about the evaluation who are encountered along the way! Gordon and Meadows' (1980) paper on the dissemination of DHSS funded research concludes with several detailed recommendations about the communication of data once collected. They recommend better definition and delineation of responsibilities as regards departmental consideration of final reports, more attention to dissemination of final reports, more attention to dissemination to professional practitioners (who tend to be neglected), more use of library and index systems of the Department's own publications, a more consistent manner of distributing reports, and departmental encouragement to researchers to disseminate. While these suggestions are useful, there are three major recommendations which should be added. Firstly, that impact on policy-makers within the Department is difficult to achieve unless at least part of the team is embedded within the Department (as mentioned above). Secondly, the physical presentation of documents is very important. It will be necessary to create different documents for different audiences, and for almost all audiences a short 'glossy' document, with professional layout and graphics will be most attractive. This should tell readers what they need to know and nothing more; it should be a frankly journalistic account, suppressing detail and complexity. It should refer to supporting evidence available in source reports, but not include it. Thirdly, as regards the evaluation of mental health buildings, there is one outcome which could be seen as the test of successful dissemination: the stimulation of action in the form of a further building or buildings (or conversion). Close contacts with various regional and district authorities, and a degree of availability of team time to discuss their plans on request, are likely to favour this.

Building evaluation consumes only a very small fraction of the capital costs of any facility, but nevertheless, in the current economic climate, it is important to consider how to evaluate economically. The use of existing measures (rather than the development of new ones) and the use of 'in-house' Departmental expertise (eg quantity surveyors) are two economies. Using local researchers, native to the areas of work, saves familiarisation time and travel costs. Researchers who are familiar with the issues in mental health and in evaluation are more rapidly productive, and once a nucleus of such people has come together it should be realised that, once disbanded, it will be expensive to re-create. In terms of cost effectiveness, all the recommendations in this section may have a place. Including the capital and revenue costs of buildings in evaluation is important because evaluation which ends by recommending unaffordable designs is not cost effective however cheaply it was carried out.

Guidance

Building guidance is a major medium whereby the DHSS can influence service developments across the country and encourage them to meet current policy. At present it is a medium with various inefficiencies, and planners and designers often find it less useful that it could be. This is partly because, while it is based largely on the expertise of small groups at the DHSS, it has little or no structured research underpinning it, and partly because the traditional format is cumbersome, lengthy, ill-adapted to present needs and with a chronic tendancy to being obsolete. There are various improvements which could make production faster and more responsive to policy and economic changes. The present blurred mixture of policy statement, descriptive statements and exhortations could be clarified to give briefer documents outlining:

main policy issues
needs and activities of users (including staff)
cost data (including revenue predictions)
reference to appropriate Activity Data for ergonomic detail

All recommendations and prescriptions should be justified by reference to evidence (statistics, research, etc); where no evidence exists, it should be made clear that this is the case. Most recommendations should be in the form of substantiated information and design alternatives on the basis of which the designer can make informed choices.

In relation to buildings for the acute sector of medicine, various important recommendations were made several years ago by Moss (1977). He pointed out, for example, that it was important in briefing for one department not to ignore relationships between that department and the whole hospital; that little attention had been paid to demand peaks, and that labelling rooms for the exclusive use of certain people could prevent full exploitation of space.

While mental health services and buildings differ significantly from those in the acute sector these observations have parallels - for example, every mental health building forms part of a total mental illness or mental handicap service, and any building guidance should place the building in question in the whole service context.

Particularly important points which should be addressed in all mental health building guidance include

i. Revenue implications of particular design alternatives - for example the number of staff needed to run a partiular unit will depend in part on the number of autonomus resident sub groups; space allocated to horticulture may produce income.

ii. Room Schedule lists, specifying and 'labelling' all rooms, are often inappropriate in the smaller, informal provision made for mental health services today. If designers understand policy, needs and activities, lists of labelled rooms are unnecessary and area can be used more flexibly

iii. Possible alternative uses for any building should be anticipated; it may be, for example, that the need for supported accommodation for mentally handicapped people will decrease as the need for accommodation for elderly confused people rises.

iv. Conversion, rather than purpose-building, may achieve more appropriate results, and can be financially viable at up to two-thirds the cost of new; there is great need for guidance on conversion (at present there are no Building Notes on this).

v. It is now clear that many old hospitals will have to remain open; there is great need for guidance on upgrading to achieve less institutional environments.

Given the time that is invested in the production of guidance, and the considerable influence it potentially has on services, little is knownabout how it is used by planners and designers. Some simple research on this could help rationalise the process of guidance development.

While the MHBE work had no formal link to the development of guidance (with some exceptions - see Section 3.1.1) it evolved a means of communicating about policy and design to the field (the pamphlets) which could be seen as a prototype of a new form of guidance. The pamphlets described recent research on interesting service and design development and from this developed various design options, in the light of current policy. Planners and designers can make informed choices among these alternatives, being aware of the consequences of their selection (effects on other parts of the services, costs etc).

Because of the range of alternatives included, slight shifts in policy or finance available (at either national or local level) can still be accommodated - the material does not instantly 'date'. Spaces provided within each option relate to functions but are not heavily labelled (eg 'Doctor's room'), again increasing flexibility. Costs and technical information are provided in separate appendices which can be rapidly adjusted. Production of this form of guidance is much faster than that of traditional guidance; the documents are less didactic, being written to stimulate discussion before action. They are rooted in research evidence about the effects of building design on services and user reaction, as well as reflecting policy, and they disseminate "good practice" by referring to real cases of worthwile developments. There is informal evidence that the three pamphlets produced to date are reaching and influencing some planning groups who would have little use for traditional guidance (see Section 3.1.1).

3.2.3 Coda

The nature of evaluation of mental health buildings is now sufficiently understood for various guidelines have been offered above as to how it should be tackled. It will also have become clear that the activity of evaluation draws on a curious range of skills: not only on the ability to adopt a scientific and analytic approach, but also on the ability to negotiate, compromise, be opportunistic and sell ideas. We need to create teams with such skills and to follow such guidelines: otherwise any amount of money spent on mental health buildings represente not a serious investment but merely a speculative gamble.

APPENDIX A

Raising themes for evaluation by interviews and from relevant documents

During informal preliminary discussions, many people with significant roles in the development of the SDP were asked what their main areas of concern and interest were regarding the buildings and their effects on services. This was to help in formulating a building evaluation which dealt with what was salient to those involved either directly in running the service or by virtue of their interest in developing policy and guidance for future mental handicap services.

Those interviewed were as follows:

Authority/Unit Background	Names of Contributors	Date
AHA(T)	Mr Manton (Project Co-ordinator)	11 7 78
SWS	Mr Snaith (Deputy Director Social Services)	12 7 78
ERG	Dr Race and Mr Malin	13 7 78
RHA	Mr Littlewood, Major Holmes Dr Sussenwein, Dr McGarrety, Mr Williamson	15 8 78
SWS	Mrs Armitage (Director Social Services), Mr Dunne, Mr Thompson	22 8 78
ERG	Professor Heron	23 8 78
AHA/District	Mr Manton/Dr Sinha, (Mr Dainty (DNO), Dr Jepson	24 8 78
Ryegate Centre	Dr Wright, Dr Hoskins, Mrs Ancliffe, Mr Steel, Mrs Bailey, Mrs Jacques	24 8 78
DHSS	Mr Hill (NO)	29 8 78
DHSS	Mrs Midforth, Miss Horrocks	29 8 78
AHA/District	Mrs Jones, Mr Hutchinson (DWO), Mr Evans (AWO), Miss Whitton, Mr Preston	11 9 78
LEA	Mr Frost	11 9 78
SWS	Mr Kay (Deputy Director Social Services)	11 9 78
DHSS	Dr Hunt (MED SM2), Dr Ward, Ms Nolan	13 9 78

Authority/Unit Background	Names	Date
DHSS	Mrs Woods, Mr Baddeley	20 9 78
Staff Training	Mr Lloyd (Staff Training Officer)	15 9 78
Rivermead	Mr McCallum (NO)	15 9 78
N General	Ms S Harrison (Deputy Head Mistress)	6 10 78
Consultant	Dr Cooper (Consultant, Medical Handicap)	6 10 78
Welsh Office	Dr Blunden (Director of Applied Research Unit, MH in Wales)	26 7 78
DHSS	Presentation to Mr Ratcliffe (Dev 3), Mr Rundle, Mr Turner, Mr Worsfold	22 9 78
Clients' Parents	(The parents of each of 4 clients)	Oct. 78

D351/J13/JD

List of Establishments visted in Pre-evaluation phase by Members of the Building Evaluation Team — Date

Woodcliffe Hostel, Wensley Street (Nurse in Charge)	11 7 78
Heeley Day Nursery (Unit head)	12 7 78
Warminster Road Hostel (Mr R Smith, Warden and the Deputy Warden)	
Rushey Meadow Hostel, Bannersdale Road (Mrs Humperson, Miss Richardson)	12 7 78
Crimicar Lane, Group Home (A Resident)	12 7 78
Woodside Lane, Work Assessment Unit (Ms R Elder, Principal + Deputy)	12 7 78
Adsett Street, ITU (Crown Hill Industries - Mr Jolly, Manager)	12 7 78
Gateway Club (Ms V Maskrey and Ms A Norris)	12 7 78
Ryegate Centre (Psychologist)	13 7 78
Arbourthorne Hostel (Mrs R - ex NO Thundercliffe Grange)	13 7 78

Rivermead Adult Day Care & Children's Residential (Senior OT)	23	7	78
Lightwood Unit (Mr Hartlebury, NO)	23	8	78
Chancet Wood Nursery (Mrs McNerny, Deputy Principal)	23	8	78
Ringinglow Road Hostel, (Mr P Driver, Principal)	23	8	78
St Joseph's	11	9	78
Middlewood Hospital, Unit 14 (Mr Martin NO)	11	9	78
Millbrook Hospital (Warden)	25	9	78
Aughton Court Hospital (Sr Mayers)	25	9	78
Gateway Club	25	9	78
Scot Road Hostel (Warden Mr Dainty NO)	10	10	78
Commonside Hostel (Mr Dainty NO)	10	10	78
Grenoside Hospital (Mr Kelly SNO)	10	10	78
Greenacres Hostel (Mr Kelly SNO)	10	10	78
Gateway Club	10	10	78

Each evaluation-relevant point raised in these discussions was noted on a separate card. The evaluation team discussed, sorted and re-sorted these cards and from this process produced a list of the main themes (given here in no order of significance):

1. planning/design stage issues

2. siting: in relation to hospital
   in relation to community

3. size of unit

4. space levels and subdivision of space

5. group size/'family' groups

6. group integration/segregation: by age/dependency etc

7. criteria for access to particular units, and movement between units

8. quality of life/care/service

9. staffing

10. supervision/observation

11. particular categories of client and their needs: eg physically handicapped

12. changes in how the building is used

13. design comparisons

14. design issues/miscellaneous: one or two storeys?
    access
    open plan design
    flexibility
    atmosphere
    user response

15. costs.

APPENDIX B

CHECKLIST - "39 STEPS"

A. Decisions on Top and Departmental Management Level

1. Bathrooms have
   2. mixing valves
   0. hot and cold taps

2. Toilets and bathrooms
   2. are separate for staff and residents
   0. are jointly used by both

3. Toilets
   2. are easily supervised (no doors or low doors, no locks)
   0. offer adequate normal privacy

4. Mirrors
   2. are provided generally only in the bathroom
   0. are also provided in bedrooms and near the front door (including one full length mirror)

5. Hooks (or rails) for hanging clothes, etc
   2. are missing in toilets and washplaces
   0. are present for individual requirements (eg bathroom, toilet, bedroom)

6. Colour schemes
   2. show use of one or two colours for each room of the Unit
   0. show different colours in all rooms. Give different character to each room by the use of different wallpaper and colours

7. Curtains and Carpets
   2. are of uniform design and colour throughout the main areas of the Living Unit
   0. are varied and reflect the different characteristics of particular rooms

8. Lighting Fittings
   2. are of the fluorescent bar type and uniform throughout the Unit
   0. are domestic looking, different lights supported by table and standard lamps, wall brackets, etc

9. Furniture in Bedrooms
   2. is of the same pattern throughout (eg lockers)
   0. shows available domestic variety

10. Chairs in the Sitting Room (Dayroom)
   2. are of more or less identical shape and design and placed in rows, mainly along the walls
   0. are of varying shapes and colours and grouped pleasingly and invitingly

11. Living Room
    2. contains generally only chairs, tables, TV, ashtrays
    0. contains also a sideboard, bookshelves, fishtank, table lamps, etc. (There must be at least three of these different furniture pieces to score)

12. Bedroom for Three of Four People
    2. contains screens for individual bed spaces
    0. are arranged so as to give each resident his defined territory without the use of screens

13. Meals
    2. are supplied by a central kitchen
    0. are cooked in the Unit

14. Markings (eg numbers, labels, etc)
    2. are used throughout the Unit
    0. are practically entirely absent

15. Fire Notices are
    2. displayed conspicuously
    0. not at all (or discretely)

16. Fire Fighting Equipment
    2. is positioned conspicuously
    0. discretely

B. Decisions Agreed to by Top and First Line Management

17. Staff are having meals
    2. away from residents
    0. with the residents

18. Staff
    2. wear uniforms or identical overalls
    0. wear their private clothes or overalls or housedresses of different design and pattern and also some adornments, even if cheap, and change them

19. Personal Clothes for Residents
    2. are supplied by Central Stores from existing stock
    0. are purchased individually by or in the presence of individual residents under supervision

20. Dinners
    2. are served as a plated meal
    0. are given out according to individual preferences

C. Decisions by First Line Management

21. Staff addressed
    2. as Sister, Nurse
    0. Mrs, Mr or Christian names

22. Residents
    2. are not required to look after their own area (eg bedroom) which is cleaned, etc, by domestic staff
    0. are responsible for own "private corner" (including bedmaking) even though communal areas are cleaned by staff

23. Kitchens
    2. are accessible to a few residents only
    0. are freely used by all residents for obtaining drinks and preparing meals

24. Dining Room
    2. is only used for meals
    0. is part of the living area and frequently used for other purposes where tables are required

25. Dining table is set for meals
    2. with drinks in glasses and/or buttered bread
    0. with carafe with drink, butter dish and bread supply

26. After meals
    2. the residents wait for the dismissal sign
    0. the residents leave individually (though perhaps observing the common courtesy of waiting till everyone at the table has finished)

27. Breakfast
    2. is handed out as a standard ration
    0. can be eaten "individually" (eg choice of cereals, jam, butter, etc)

28. Private food supplies (eg orange squash, cocoa, biscuits)
    2. are not permitted
    0. are permissible and provision for storing is made in kitchen cupboards, etc

29. At meal times, vegetables, potatoes, etc
    2. are handed out in equal portions (whether as a plated service or in cafeteria style)
    0. are available in bowls to help oneself as desired

30. Living space
    2. is partly "out of bounds" (eg bedroom for part of the day or reserved for staff only, eg duty room)
    0. is freely accessible to all residents (though particular items are kept under lock and key)

31. Bedspreads
    2. are uniformly of the same colour and material throughout the Unit
    0. are "individualized" by different patterns, material, style, ornaments and general treatment

32. Dressing tables, chest of drawers, etc
    2. are generally bare and no personal possessions are displayed
    0. are generally exhibiting a full show of "personal" knick-knack

33. Personal possessions in wardrobes and chest of drawers
    2. are regularly "weeded out" by staff to avoid "hoarding of rubbish"
    0. are considered "private" and reduction in its volume is carried out by discussion and persuasion

34. Bedtime
    2. is regular and fixed by a "lights out" order
    0. is by and large left to the residents' discretion (with discouragement of abuse)

35. Bathing
    2. is carefully supervised, involving staff presence most of the time
    0. is regarded as a private affair requiring only occasional spot checks

36. Best clothes
    2. are only obtainable by permission of staff
    0. are freely accessible to residents

37. Waiting for certain events (eg medication, bathing, meals) can be done either
    2. in a queue in a corridor
    0. in a group sitting and occupied in some way

38. Outside doors
    2. are usually kept locked
    0. are only locked at night-time

39. Sundays
    2. follow the same pattern as weekdays - same getting-up time, etc
    0. give opportunities for lying in a little longer (not necessarily being used by all)

USE OF THE "39 STEPS"

The checklist contains a variety of items. It includes provision of facilities which will be encountered in normal everyday life or in a "normal" home (items 1, 3); in addition, the existence of a normal bathroom (no multiple facilities), and provision of a kitchen with domestic-type units and equipment could also be included. Items 13 and 23 relate to the use of the kitchen. The intrusion by fire regulations and labelling are covered in items 14, 15 and 16. The importance of a variety of furnishings and colours are covered by items 6, 7, 8, 9, 10, 11, 31. There were complaints (reported in the text) that a limited choice of furnishing and furniture were available as they were subjected to stringent fire regulations, and there was criticism of the practice of buying in bulk, so that the whole unit was fitted out with the same items. The importance of mirrors for self-help training is looked at in item 4, and provision of hooks in relevant places for individual requirements in item 5. Item 12 did not apply to all units, Ringinglow Road, Arbourthorne and Rushey Meadow having no 3-4 bedded rooms; at Rivermead the 4 bedded rooms had only 2 children each and at St Joseph's there were no rooms for children with as few as 4 beds. Many of the items examine staff behaviour; ie whether they behave more as a family (17, 18, 21, 39); whether residents have opportunities for decisions: ie in choosing their own clothes, meals, looking after their personal area (19, 20, 22, 25, 27, 28, 30, 32, 33, 36). Items 24 and 38 look at how the living space is used.

On certain questions containing 2 points (eg item 4 where mirrors could be provided in the bedrooms or near the front door but not both, and item 10 where chairs were either identical shape and colour but were arranged pleasingly and invitingly OR were of varying shape and colours but placed in rows along the walls) units were given half a point if one part had been achieved. Certain items were not applicable to certain units. (NB This is not the same as an item not having the same meaning for children and adults as discussed in the text, the point being in that case that some items which are normal for adults may not be normal for children). For example item 39 was inapplicable to Rushey Meadow, since the unit does not open at weekends; item 33 did not apply to two units who had not experienced this problem. This information was obtained by observation where possible (furnishings; colour schemes etc), and otherwise from the unit heads.

It is important to remember the following points about the 39 Steps:

i. The checklist was devised for adults not children (eg it could be considered 'normal' for a child to receive a meal already plated).

ii. Certain items were not applicable to certain units and these items were not scored. Taking these items into account, however, affects the overall ordering only slighly, and the ordering of units within an authority is unchanged.

iii. The checklist was intended to be used in units of not more than 20 residents.

iv. It was intended for able-bodied residents.

Although it is clear that there are many points on which the "39 Steps" can be shown to be unsuitable for children's units, certain aspects, particularly those relating directly to the physical environment, were applicable. In the absence of a more appropriate measure it was decided just to see what results were obtained from using the checklist (on the grounds that the units would all be similarly handicapped). This information was obtained by observation where possible (furnishings; colour schemes, etc) and otherwise from the unit heads.

The scores were as follows:

	"Steps" achieved	"Steps" not applicable	Items not applicable
ST JOSEPHS	21	2	12,26
RYEGATE	23	3	28,36,37
RIVERMEAD	19	2	12,28
ARBOURTHORNE	27	4	12,26,33,36
RINGINGLOW ROAD	33	2	12,36
STRAFFORD HOUSE	28	1	36
RUSHEY MEADOW	20	4	12,33,36,39
"Average Steps Per Unit".....	24.57	2.57	

APPENDIX C

Additional 'architectural' evaluation of the childrens' residential units - one of the seven units as an example of this approach.

RIVERMEAD (a hospital unit)

A. LOCATION:

Rivermead is the the name given to a recently completed and fairly large group of buildings for mentally handicapped children and adults which is located within the overall complex of the Northern General Hospital. The group as a whole consists of both residential and day care facilities and is an almost self-contained unit at the far NE corner of the hospital site. The main entrance into the hospital grounds is in Herries Road and is about a half-mile from the children's unit which is, in fact, much nearer to Longley Lane. Overall it must be about three miles from the City Centre which is almost due south of the hospital.

B. SITE:

1. Having decided that the children's unit should be part of a group of buildings which would also accommodate adults and that the whole group should be set within the grounds of the District General Hospital there has, obviously, been anxiety about two things:-

a. The relationship of the unit to the "community".

b. The separation of the children from the adults.

2. Relationship to the community and to the hospital:-

a. The site selected for the Rivermead group may have looked from the plan as though it could identify with proposed housing nearby and so be seen as part of that rather than as part of the hospital.

The housing is, in fact, Local Authority flats and is some way from the unit. The nearest buildings are flats for the Rivermead staff, an isolated and rather large house occupied by one of the hospital doctors and the Hospital Authority's Blood Bank, the latter being a very large structure on the adjoining hill overlooking Rivermead.

There is, therefore, very little "community" to which the unit can relate.

b. On the other hand, the Rivermead site was deliberately selected so as to afford some identity separate from the hospital. In this it succeeds. It is a long trek through the grounds from the main entrance and, once you are on the site, little or none of the main hospital is visible.

So, in a way, Rivermead's site satisfies neither situation. It is not part of the community and not part of the hospital.

c. The latter is certainly the case with regard to organisation. There has been some feeling among staff that the hospital administration is not geared to the needs of the mentally handicapped and the special problems faced by those running the unit. The result has been a change in the arrangements so that the unit is now linked to another establishment for the mentally handicapped rather than to the administration section of the Northern General Hospital.

d. In providing such a unit for the most severely handicapped of mentally handicapped children, it was to be hoped that its being associated directly with the General Hospital would bring certain advantages. Pharmacy facilities were felt to be one; emergency services were another.

The pharmaceutical provisions obviously results in a very good, quick service but acceptable arrangements could well be made even if the unit were on a site out of the city. The emergency service situation is, if anything, confused rather than helped by Rivermead being within the hospital - the children are under the care of local GP's for normal medical treatment, the doctors attending for three sessions per week and being on call at other times. So, there is a dilemma to be faced by the nurses - if emergencies do arise, should the first reference be to the GP or to the hospital service?

Proximity to the hospital cashier's office can be seen as an advantage because cash can be obtained on the day it is required. Plans for outings, etc, needing such cash, have to be made in advance, however, and so such rapid service is not essential.

The disadvantages of being on the District Hospital site are seen by the staff as seriously outweighing the advantages.

e. The physical isolation of the children's unit struck me as extreme. Although there is a pedestrian access into the hospital from a road near the Blood Bank and one of the bus routes from the city centre comes close to this road, very little of the footpath is visible from the unit and so little of the life of either the city or the hospital is experienced. Visitors are usually limited to relatives.

There is a conscious effort on the part of the staff to overcome this by taking the children out into the city to shops, cafes, swimming pools and leisure centres.

3. Separation from adults:

a. There is, certainly, a physical separation now that a large earth bank has been formed between the children's and the adults' units. You are hardly conscious of one from the other.

b. The hospital signposting system encourages this separation. All signs to Rivermead direct you to the adult units and so, unless you know the overall layout beforehand, it can be very confusing. Being re-directed to the children's accommodation does not end the confusion; the first building on the children's site is the day centre and this effectively screens the residential unit behind it.

It all underlines the isolation.

4. I have dwelt on this aspect of Rivermead at some length because it seems to me that the decision to relate this accommodation to the District General Hospital has made it virtually impossible to satisfy one of the aims of the Feasibility Study.

No matter how pleasant the buildings themselves may be (and we shall come to that later) there is an uneasy feeling reminiscent of the old subnormality hospital on its large site outside town. Admittedly, Rivermead's problem is on a much smaller scale, but it remains a problem.

C. FUNCTION:

1. The unit was designed to accommodate 24 children from Group A, ie those requiring the support of a full hospital service. At the date of the visit there were 17 children in residence and, as is explained in reports S1 and S2, the number of children of this kind requiring full residential

provision has proved smaller than anticipated by the Feasibility Study. As a result it is now envisaged that the maximum intake at the Rivermead Children's Unit should be reduced to 18.

2. The way in which the unit is organised and the physical provision made to satisfy that organisation, are described in report S2. That report also includes detailed notes of the particular handicaps suffered by the children and the ways in which this has led to "specialisation" within groups. Whether the building has helped or hindered such development and the likely reallocation of spaces made possible by the proposed reduction in numbers are also dealt with in S2, and there are staff comments on the building in use.

Here, I think, I need only set out the main points about the design concept:

3. The building is arranged as three family houses, each referred to as a "cottage" and given the name of one of the local rivers. At the moment Derwent Cottage houses children in need of physical care and requiring training in feeding etc; Dove Cottage has a group of aggressive and hyperactive children (those with behaviour disorders); Don Cottage accommodates children classified only as "falling between the other two groupings", ie rather active and in need of some training.

4. The layout of the cottages is very similar; in fact two of them are identical on plan but with different orientation. The third is arranged slightly differently, again to take account of orientation and, although the rooms are the same, their disposition is, subtly, more successful.

5. The cottages are grouped around a central paved area which is covered with a glazed pyramid.

6. The fourth block, which completes the group around the pyramid, contains administration.

7. There is no staff residential accommodation on site and there are no sleeping-in facilities within the unit. From this point of view Rivermead fits into the normal pattern of hospital staff residential provision. Staff on duty are awake; staff off duty are resident in nurses' homes, hospital flats or in their own houses. Once off duty the Rivermead staff are away from the unit.

8. In the report on Arbourthorne I made the general observation that I thought the spaces generous and the overall area large. The impression at Rivermead is the reverse; it feels very tight. In fact, the need to reduce numbers seems to have arisen out of lack of space as much as from the lack of children. The staff's view is that the building would not work with 24 children.

D. THE NATURE OF THE BUILDING AND ITS SETTING:

1. Relationship to surroundings:

The Rivermead children's unit does not relate to its surroundings; it is a building in a landscape but, as we shall see, even the landscape is not developed as a setting for it. The same brick is used on both the residential and day care units but that is virtually their only common feature. Although they are fairly close together they are, deliberately, very different. Other buildings around the site are so far away as to have had no influence on decisions concerning materials and form.

2. External form and character:

The group of buildings is single-storey and, generaly, of load-bearing brick construction, with pitched roofs. The brick is red-brown in colour and of a metric size which is larger thanusual and so creates a slightly unexpeted scale. The roofs are of a fairly shallow pitch and covered with dark grey asbestos slates; some are double pitches, others monopitch. In some instances the asbestos slates are used as the finish to sloping walls and so carry down almost to ground level.

Although, as has been described, the unit consists of the three "cottages", these are not clearly defined externally. The form of each cottage is complex and they are grouped so close together as to read as one building. The central glazed pyramid around they are clustred is, also, unusual enough as a building form to set the whole thing apart, in some way, from our normal experience.

Perhaps the aim was to create a kind of "fun" building which would relate to the children for whom it was designed. The sloping walls certainly suggest this because they do not arise naturally from the structural concept and so they have an "applied" look. Unfortunately the overall effect is confused and sombre; some of the detailing, too, is decidedly heavy-handed - the large timber fascia/hidden gutter seems excessive and out of scale with the small areas of roof which it serves.

3. External spaces:

a. The impression one has, on walking around the building, is that it is on too restricted a site. Although sufficient land may have been available overall, the children's unit seems to have been pushed rather too far into the corner of the site. On two sides the walls are very close to the boundary fences and on the third the approach road and the proximity of the day care unit reduce the landscape setting to insignificance. I acknowledge that this feeling was probably aggravated during my visit because the extreme rains on that day, and for some period before, had rendered the immediate surroundings a series of muddy pools with little remaining areas of grass. There are obviously serious land drainage problems yet to be resolved.

b. The largest open space is to the south of the unit and this is mounded, grassed and landscaped. There is virtually no hard-paved area for play during wet weather, the small spaces outside each cottage being totally inadequate.

c. No part of the site is enclosed, by walls or fences or by the buildings, so as to from a secure space for outside play. Yet many of the childen are good "runners" and will be away without prompting. Thee is a major hospital road flanking one side of the site and this presents a serious risk, so that staff have to supervise all outside activities with a high staff/children ratio. In terms of the needs of children this lack of enclosed play space is a serious omission, especially since many of the present group of children are hyperactive and become frustrated and aggressive if unable to get outside for a good run-around.

d. I was given to understand, during my visit, that on adventure play area was being planned for the larest of the open spaces and no doubt this will help, especially if it includes some hard-play surfaces. My impression was, however, that the need for enclosure came first and there was also some anxiety about the play area being available to the whole of the Rivermead unit, ie adults as well as children. The space is really too small for this and, in any case, the principle seems wrong. The children should have their own identifiable and "defensible" spaces.

(I understand that the adventure play area is now completed. The only "hard" play surfaces which have been added for use in wet weather are its pea shingle/gravel surrounds).

e. The limited size of the central play area below the pyramid, the plan shape of the cottages and the wish to ecpress each of them as a separate unit detached from its neighbour and from the administration block, have combined to produce some unfortunate external spaces in the immediate vicinity of the group. They

are merely narrow gaps between the buildings, usually flanked by unbroken brick walls. Two of them are paved and so have become repositories for toys and items of rubbish; the third faces north and is very gloomy; it is nothing but a muddy alley.

f. Services areas:

None of the kitchens is provided with any form of external enclosure or yard. In any case, the kitchens are not used as originaly intended and their external doors are normally kept closed. The service entrance (and, for that matter, the only usable entrance to the group) is that to the administration block; this has no enclosed external space related to it and so rubbish collects near the door in full view of the approach to the building.

No outdoor clothes-drying area is provided; lines are strung across play spaces and are difficult of access in wet weather because of the muddy ground.

4. Interior/exterior relationship:

a. Approach:

The sign outside the building, at the end of the hospital service road, uses only the names of the three cottages as identification. The visitor is thus made aware of Don, Dove and Derwent Cottages but can see nothing identifiable as a cottage and has to guess the point of entry. The door most likely to provide access would seem to be that below the pyramid since it is a double door and is brightly coloured. The original drawings shouw this as the entrance and the layout of the unit really only makes sense if it is used as such; access to all parts is from this central area. As it is, the double door is kept locked. The single door at the end of the administration block, which looks like a service entrance, is now the only

way in. It leads into a long, narrow and artificially lit corridor flanked by various service rooms. This is less welcoming than it might be and gives little indication of the quality of spaces elsewhere.

b. Once inside the buildings, however, one is reminded at practically every turn of the isolation and remoteness of the unit. Hardly any of the rooms enjoy long views; the majority of windows look out on to small spaces often flanked by plaing brick walls; even the long views do not encompass scenes of activity - there are no footpaths or roads from which passers-by can wave to the children; only on one side, from three rooms, can the approach road be seen and traffic on this is limited to laundry vans, food vans and staff cars.

c. The central play space should have a sense of being a covered outdoor area with views of trees and landscape. It has a very enclosed and top-lit feeling about it and enjoys views only of brick walls.

d. The play area within each cottage should lead on to a paved area with protective walls dripping with foliage and flowers and with changes of texture and changes of level to be experienced by the children who are mobile. There should be zones shaded from the sun with the sky seen through moving leaves. The layout and the general feeling and scale of the building cry out for the interconnection of inside and outside, the gradual transition from the protective within to the exposed without.

There is none of this and it is a terrible disappointment.

e. If we ask "why?", we know that the answer will be "money". The building stands unrelated to its surroundings and the children have to be kept indooors because there are no enclosed spaces outside. In this respect, therefore, it does not work.

As I have said in the notes on most of the other establishments, I also find it very strange that the great concern for breaking down the overall number of children into smaller groups is only expressed inside the building. The doors open on to the world, not on to a private space. Yet most families seek some "defensible" outdoor area, be it a garden, a back yard or a balcony.

5. Internal spaces:

It is the general quality of the interiors and the care which has obviously been taken with the choice of colours, fabrics etc, which leaves the strongest impression.

In the organisation of the unit, however, considerable emphasis is placed upon the need to keep the hyperactive children in a separate group in one of the cottages; mixing can be extremely disruptive and lead to a lessening of achievement among the quieter children. It is easy to tell which accommodates the behaviour-disordered children. Dove Cottage has suffered heavy wear and tear inside, both in damage to the finishes of the building itself and in breakages of furniture and fittings.

The following notes are general observations about the accommodation and result from a walk-round with one or two of the staff. More comprehensive comments on the buildings in use may be found in report S2.

a. Central play area:

This is the space, in the centre of the group, from which access is gained to the three cottages; the administration block is also linked to it. It is covered with a fully-glazed pyramid which makes it cold in the winter, extremely hot in the summer and tends to give the space a rather special "conservatory" air; summertime heat and glare are obviously excessive and blinds should be fitted. The unrelieved hard finishes also make it extremely noisy.

The entrance to it is now via the rather long, dim central corridor of the administration block, instead of being direct from outside, and this tends to emphasise the artificiality of the term "cottage" applied to each of the family units which lead from it.

As an enclosed play space which serves all the children in the unit it is rather too small. Large toys and other bulky items of equipment, which stand about in it, also reduces its usefulness and only four or five children can use it at any one time if accidents and damage are to be avoided.

b. Dove, Don and Derwent Cottages:

(i) General:

Each of the cottages is entirely self-contained, with its own kitchen facility and all accommodation normally found in a shouse. The finishes, colours, furnishings and fittings are different in each cottage so that each has its own identity; they have been selected with great care so as to create as near domestic a feeling as possible. Yet there are still features which are outside most people's experience of home and so mark the buildings out as unusal. Some of these are unavoidable; some of them are not.

The unavoidable parts are concerned, for example, with requirements in bathrooms and lavatories. The bathrooms, in particular, are very large and contain a multiplicity of fixtures and fittings. The way in which they are arranged seems to emphasise their special nature and the use of strong colour underlines it. It is interesting to compare the general feeling of these spaces with those at Ryegate where the same problem has been solved within the discipline of the existing rooms available. The layout there, with its recesses giving some privacy, seems more sympathetic to the children.

The avoidable parts are, of course, much more subjective. In most cases they arise out of a wish to create internal spaces of interest and identity and this is a commendable aim. The danger is that a good idea in one place may lead to difficulties elsewhere. The internal expression of the roof structure, which springs from a fairly normal eaves level but rises quite steeply, results in some of the walls in quite small rooms being extremely high. Internal corridors become narrow, top-lit alleyways. Small windows, set within sloping walls, presumably originate from a wish to relate to the scale of a small, physically handicapped child who may spend a lot of time on the floor, yet looking the other way within the same space, the ceiling rises to, perhaps, 4.0m and this takes little account of the size and condition of the child. The use of exposed timber boarding on these sloping soffits also results in the ceilings being rather dark and overpowering. Flat, plastered ceilings, at normal domestic height, and two of the bedrooms. The 4-bed room is, in many ways, the pleasantest room in each of the cottages - it is certainly closest to most people's idea of a "normal" room.

(ii) Particular spaces:
(These refer to one cottage but apply to all three).

1. Entrance hall: The door into each cottage from the central pyramid space leads into an ordinary entrance hall which is large enough to be used also as a quite "retreat" space if needed. There is no coats cupboard, just a row of hooks, which is a pity, but I understand that there are now plans to fit such a cupborad. The mirror was fitted as an after-thought but is, obviously, very

useful. The telephone is an extension for incoming calls only; it does not permit a call to the office in the administration block if help is required. This would necessitate the instalation of a new system, or the extension of the existing intercom system, and this was felt to be an unjustifiable expense.

2. Four-bed room: This is adjacent to the entrance hall, presumably to be more convenient for supervision from administration unit. It was probably envisaged that the most severely handicapped children would be accommodated in this room and ease of access in an emergency would thus have been a factor in its location. As it is, this bedroom is somewhat isolated from the others, a feature which will be overcome if the reduction in overall numbers is agreed and its proposed use of a living room can be implemented. Four beds in one room is seen as a disadvantage anyway; two-bed and one-bed rooms are preferred. Occupancy of a one-bed room is related to the physical condition and abilities of a child but is also seen as a privilege to be gained as a reward for good behaviour!

3. WC: Primarily designed for use by the physically handi-capped, this is fitted with a sliding door which cannot be fully opened because of the size and position of the ironmongery. The overhead tracking system for the sliding door is inadequate for the use it gets and the regular repairs found to be necessary have led to its fascia being permanently removed.

The semi-recessed wash-hand basin is too small and is extremely awkward to use, even for an able-bodied member of staff. It has also been mistaken for a miniature urinal; it should really be replaced.

4. Linen store: This is good.

5. One-bed room: One of the single bedrooms in each of the cottages opens off the play area and is intended for use by a child who may be behaviour-disordered. The light switch is outside, the light itself is a bulkhead fittingand the floor is of vinyl sheet instead of carpet. Such provision acknowledges the need for particular safeguards in particular situations but the furniture is still movable and there is no observation panel in the door. It is interesting to note that, in Don Cottage, it is this room which has been converted into a space for "activities"; the lockable door then enables things to be left out overnight if needs be.

6. Play area: This space flows through into the dining room and the passages leading to the remaining bedrooms and so is fairly generous in floor area and is certainly not the kind of space normally available at home. As originally intended, however, for use by 8 children, it is considered by the staff to be rather cramped and awkward. For some reason, which is difficult to define, the different plan arrangement of this play area in Don Cottage is more success-ful than in the other two cottages.

7. Kitchen: Each unit has a fully-equipped kitchen which is like a kitchen in an ordinary house. Unfortunately the present arrangements for meals are such that the facilities are little used. The meals are delivered from the main hospital kitchens into the central play area from there are brought to the cottage kitchens by the housekeepers; they are served through the hatch into the dining room. It is a sort of "pretend" situation. The door direct from the kitchen to outside is not used at all; neither is the large and expensive dishwashing machine installed in each unit. Drinks and snacks are, however, prepared in each cottage.

   The establishment at present includes four housekeepers whereas the full use of these kitchens for the preparation of meals, as well as snacks, would require the appointment of cook/housekeepers for each cottage. The facilities have been provided but are not matched by the staff.

8. One-bed room: This is one of the rooms in which the ceiling soffit is most disturbing. The sloping window wall, also, seems somewhat arbitrary, especially as the ceiling finish does not extend on to this surface. The slope has made possible the incorporation of the heater unit below the window but it would seem to be an expensive way of achieving this and has led to other difficulties. The window is very low and ideally suited only to a small child who may use the room; the sloping wall prevents curtains being fitted and so blinds have been used. In most cases these can no longer be operated; they are flimsy and the mechanism unpredictable and so difficult to use, especially for the handicapped.

9. Two-bed room: Arranged on a corner, this room has two windows, one small and low in the sloping wall and the other of normal dimensions. It is unfortunate that the larger window affords a limited view, in two of the cottages, on to blank brick walls. Those rooms are, potentially, the most interesting of the bedrooms; pleasant in size, shape and character.

10. Bathroom: Reference has already been made to the general atmosphere of this room and its overall size and layout. The central bath works well but grip handles would be disadvantageous; an insert plastic bath has been purchased for the smaller children. Similar adaptors have been found necessary for the WC and this seems the best way of coping with specific needs. The small basin by the WC is useless. The work surface, for dealing with the physically handicapped, is inadequate in size and is too high. Originally no mirror was fitted but this has now been rectified.

Laundry bags are kept in this bathroom but the system is not liked by the staff. They are more used to a laundry chute in a hospital situation. Personal clothing is intended to be laundered in the special Rivermead unit laundry which is designed to deal with the laundry for all the children and adults within the complex as a whole. This laundry is not yet operating and so it is impossible to judge the efficiency or success of the system.

A sluice is provided in the administration block and so is not needed in each cottage.

11. Dining room: This space seems to work quite well and provides an additional activity area for much of the day; the tables are patent units, the fittings on which are easily damaged or broken. In this room blinds are fitted between double glazing of the windows and this works well and is much more successful than the separate blinds used in the bedrooms.

12. WC: The positioning of a second WC between the dining room and the living room provides a facility with almost direct access from outside. It is similarly arranged to that described under (3) above and the same comments apply.

13. Living room: I suspect that this was originally intended as a "snug" because it is the only group space in each of the cottages which has a door. In use, however, the room has proved to be far too small. None of these living rooms is equipped with its full complement of furniture and yet the overcrowding is immediately apparent. The fitted wall cupboard tends to reduce the sense of space and the over-large television set doesn't help. It was suggested that the storage space might have been better provided by means of a bench seat with cupboards below it; this would at least have afforded seating for more children than can be accommodated at present. In Dove Cottage the wall cupboard has been removed and the effect of increased space is quite marked.

c. Administration block:

(1) General:

The planning of this unit with a rather narrow and artificially lit central corridor was a simple and

economic solution to the original problem when the main entrance to the building was elsewhere. Now that the entrance is into this corridor, the first impression of the interior is a disappointment and is misleading.

(ii) Particular spaces:

1. Office: Rather small and overcrowded with furniture, equipment and paper. It was positioned close to the original entrance, with a window overlooking the front door, but this is now ineffective.

2. Staff room: This is very small and is inadequate for the number of staff who use it (6 nurses and 6 ancilliary staff). In addition to providing room to rest and room for a small number of lockers, it is used for meals. The ancilliary staff do not use the hospital meals service anyway and, in bad weather, the nurses also tend to stay on the unit.

3. Utility room: This is mainly used for sorting laundry but it is fitted with a sink, worktop and some cupboards. A combined automatic washing machine/spin dryer is installed but it is of domestic size and so is only used for small items of personal clothing such as socks and underwear. A refrigerator also stands in this room but is hardly used.

4. Central store: Fairly small but used for "best" clothes and toys.

5. Cleaners' cupboard: This contains the sluice.

d. General:

(1) Provision for the physically handicapped:

There is very little fixed special equipment for severely physically handicapped children. Perhaps it has to do with the age and size of the children in residence, so that, at present, there is no need for ambulifts etc and they will be provided only when those affcted have grown too heavy to be managed by the staff without mechanical aids.

(ii) Furniture, fittings and finishes:

The furniture, fittings and finishings used throughout the unit have created just the right atmosphere but in some places (especially in Dove Cottage which houses the hyperactive children) have ben subjected to quite severe damage. It is extremely difficult to balance this use of "domestic" detailing with the need for the building to withstand tough usage. Particular items which were noted include:-

1. Wardrobes and other bedroom furniture: None of these items is built-in and so they can be easily overturned. The wardrobes are especially vulnerable. Most items are made of faced and lipped chipboard, which can easily be picked apart and is quickly destroyed.

2. Light fittings: Those within easy reach, especially the wall fittings, have been taken apart and broken. Few of them are now in working order.

3. Carpets: Most of the floors in the unit are covered with "Flotex". Some has started to lift from its base and, once this happens,

slices of it are soon stripped away. One child constantly regurgitates food and this requires the Flotex to be scrubbed and suction-dried once per week.

4. The fire-alarm panels are fixed at quite a low level and it is fortunate that only two false alarm incidents have occurred in the one year since opening!

5. The layout of bedrooms, in some instances, results in beds being set rather close to heating outlets.

6. Curtain fittings need to be very securely fixed; children will often hang on the curtains. The blinds which are fitted to some of the small, sloping windows have been referred to elsewhere.

7. Wallpaper is easily picked at exposed edges and so needs to be very carefully and firmly hung.

(iii) Windows: There are two main faults:-

1. Originally many of the opening sections, which provided ventialtion, were fitted with glass louvres. These proved to be very dangerous, since they were so easily broken. They have been replaced either by openable, framed casements or by hard perspex louvres.

2. Where openable casements were fitted originally, the iron-mongery was found to be too flimsy in use. Restrictors also had to be fitted to prevent the windows being opened too far; some of the children are off-and-away at the slightest chance.

(iv) Engineering services:

1. General:

The siting of Rivermead within the grounds of the hospital has had a marked effect on the methods of servicing the buildings. The systems have all had to be fitted into the overall policies for the provision and maintenance of the hospital engineering services.

2. Heating:

All units, both for chidren and adults and residential and day care, are served from central plant, provided specificaly for Rivermead and located on the mound between the children and adults zones. The children's residential unit is somewhat remote from the plant rom and so has to be served by long runs of underground main ducts and by ducts beneath the floors of the building. It is a steam installation and its incorporation has been a costly operation. In addition to the system itself, the formation of the ducts, their covering and, particularly, the provision of a multitude of access panels below carpetted floor surfaces, represent a high percentage of the total expenditure on the building.

The end product is successful in that one is hardly aware of the physical presence of the system - it appears to have been integrated well. However, it has not operated successfully so far and is especially cold at night. The central play area is, also, poorly provided with heat.

3. Electrical:

Comments on this have already been made concerning the vulnerability of light fittings and the one-way telephone system from the office.

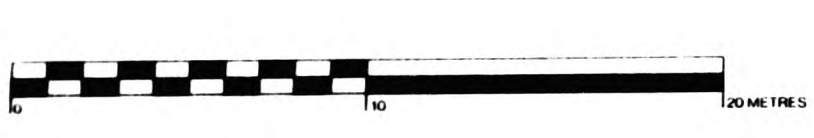
Another point of interest is that each of the bedrooms is fittedwith a "microphone", connected to the office in the administration block, enabling staff to hear noise or disturbance, especially at night, and so deal with it immediately.

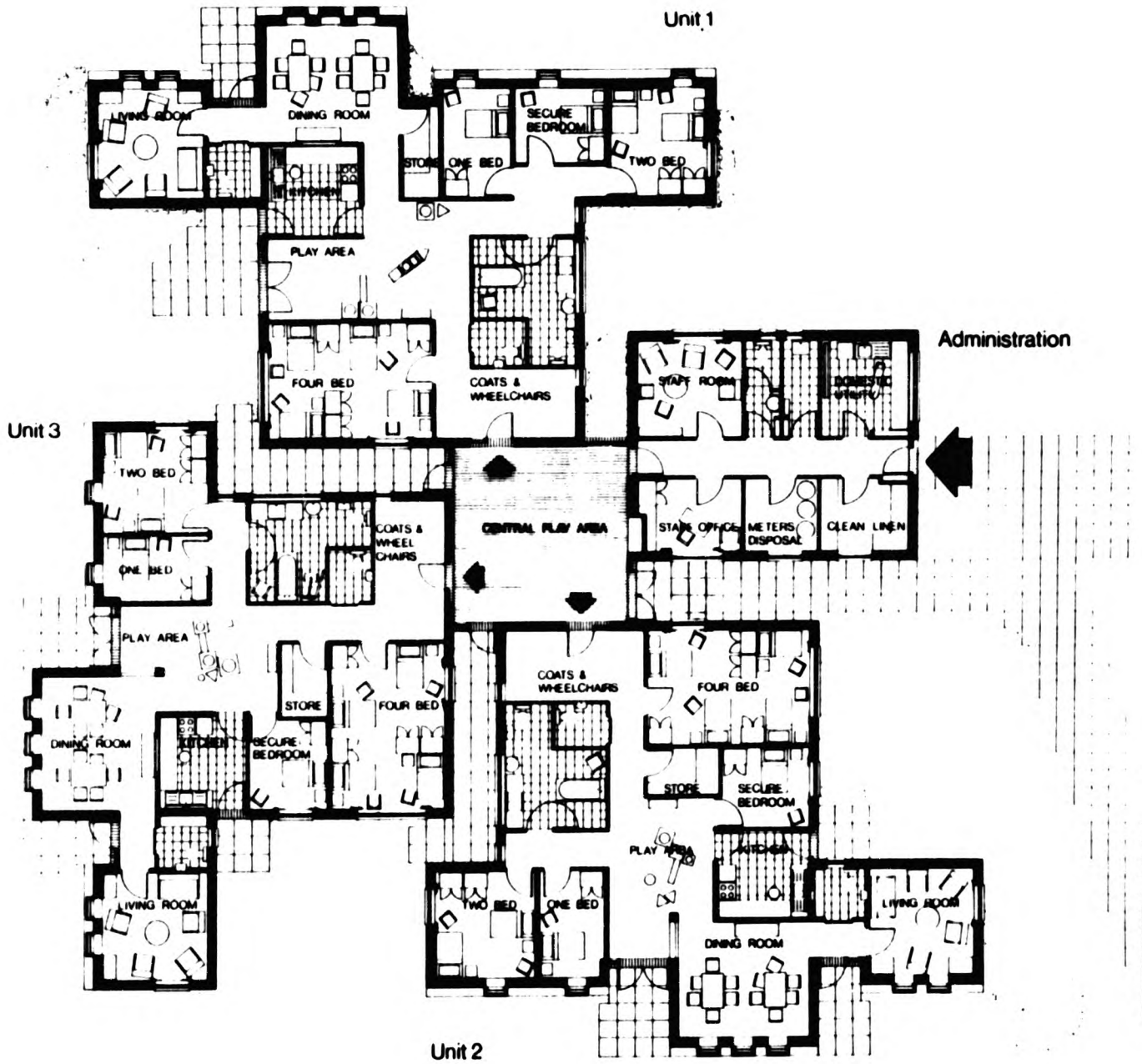
E. CONCLUSIONS:

In some ways Rivermead is an almost classic case of the right building being in the wrong place. Few advantages seem to have derived from its being sited within the grounds of the hospital and the disadvantages of it; isolation from the community appear to be extreme.

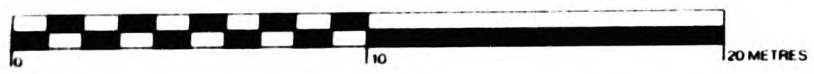
Its external form and character and disappointing, as is the lack of any real relationship between the building and the landscape. The almost total absence of usable outdoor space is a most serious drawback and must pose considerable problems for the children and the staff; the situation is probably saved only by the proximity of the day care unit, which eases the pressure for at least part of most days.

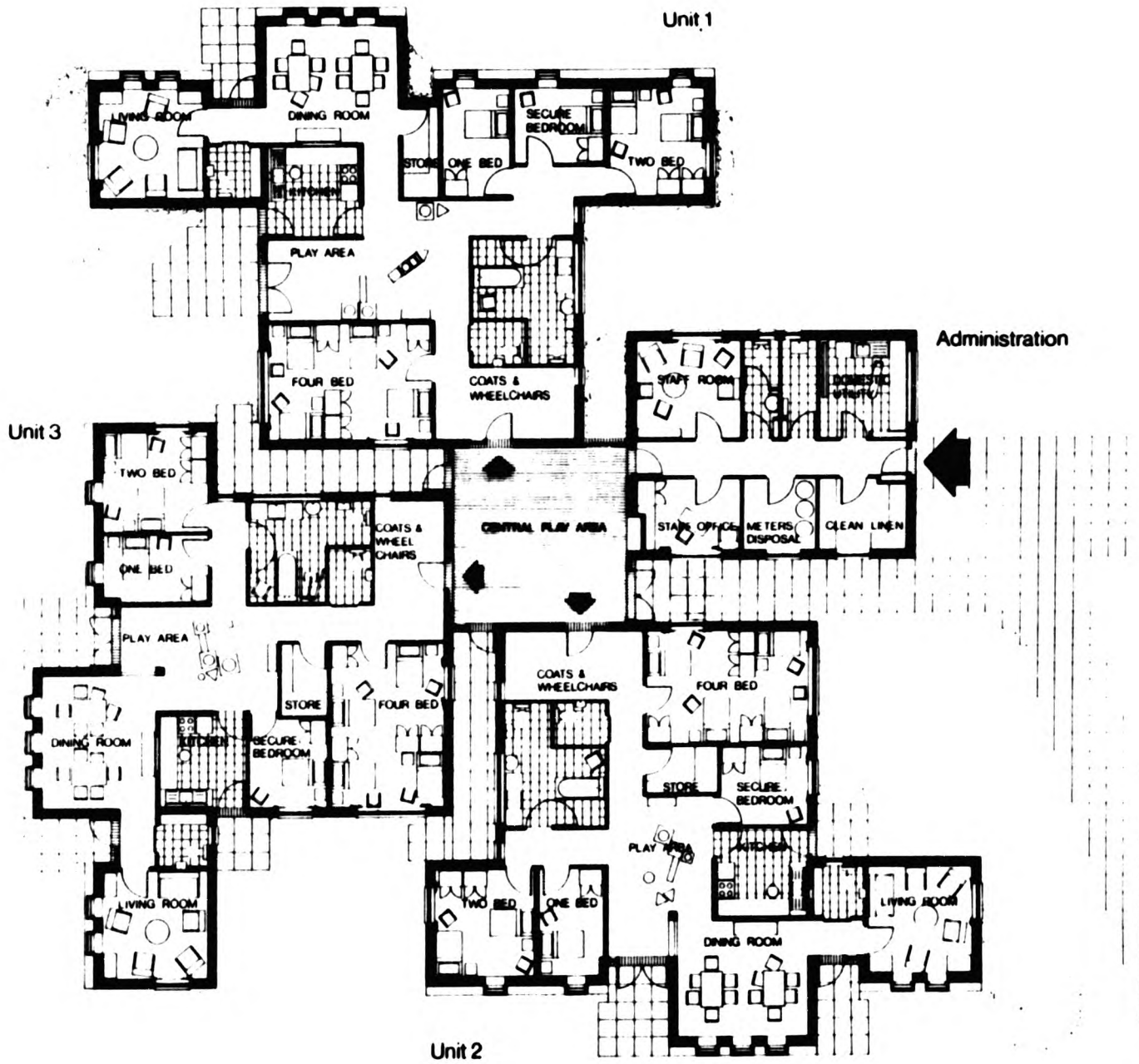
However, much of the interior is very successful and has an atmosphere about it which is just right. The main doubt, inside, is the inadequacy of the overall area and the tightness of some of the rooms; the reduction in the total number of children to be accommodated (from 24 to 18) may well resolve this.



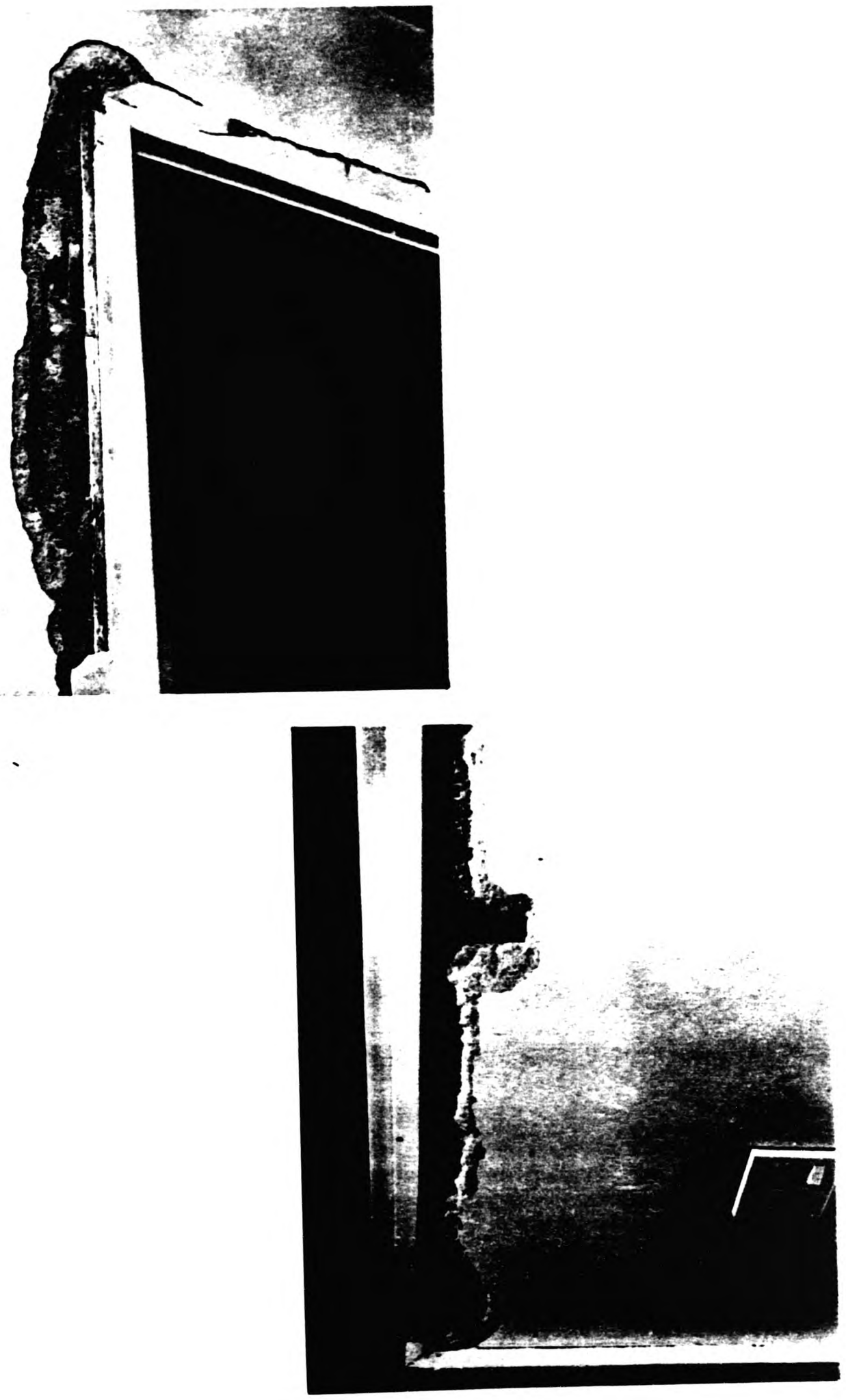


Ground floor





Ground floor



Signs of severe wear and tear. Plaster breaking away around a door frame.

1. Part of the route through the Northern General Hospital complex to the Rivermead site. The main Hospital entrance is beyond the crane to the left of the picture and Rivermead is some way up the road disappearing to the right of centre and turning behind the building on the right.

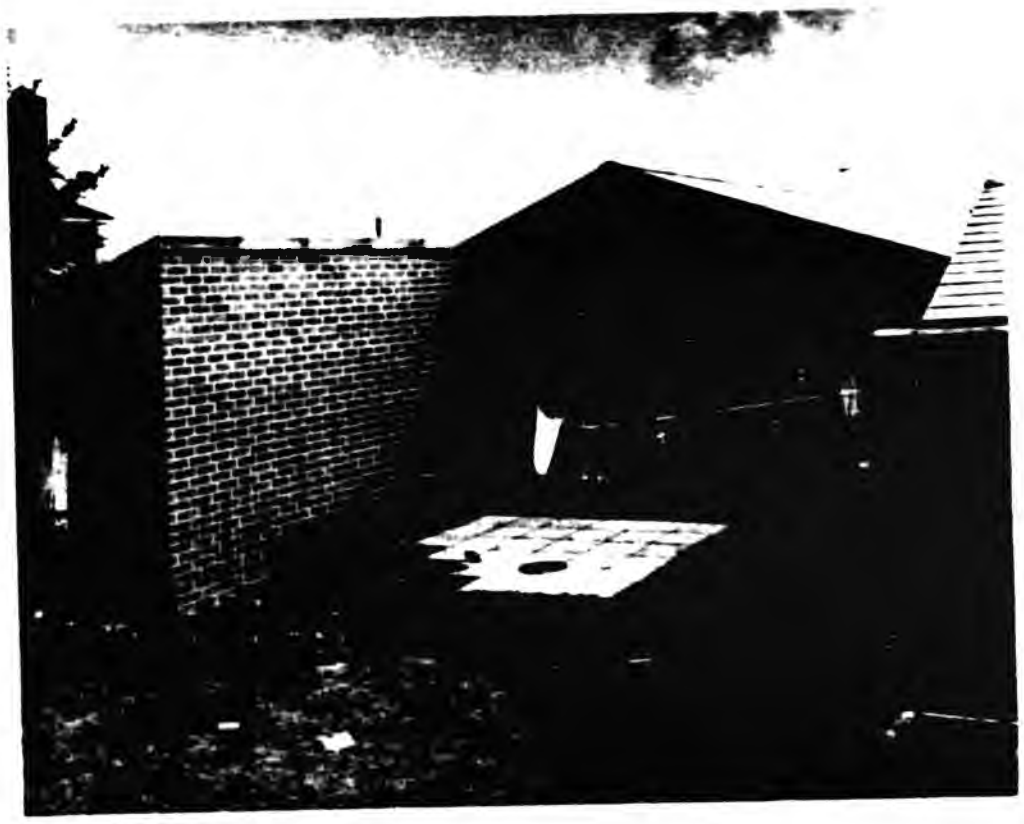
2. Nearing the Rivermead children's residential unit which is behind the children's Day Centre on the left of the picture. The tall building on the right houses the boilers and other plant for the whole of the Rivermead complex. The edge of the Northern General site is just in front of the flats seen in the distance.

3. The children's residential unit seen from the top of the bank by the Rivermead plant room. The curved wall on the extreme left is one of the corners of the Day Centre. Don, Dove and Derwent Cottages, which form the residential unit, are clustered around the central play space below the glazed pyramid and the fourth block, containing administration rooms, etc, is just to the right of the pyramid. The large building dominating the back of the site is the Regional Blood Bank and the Hospital site boundary is marked by a chestnut-pale fence just visible at the right hand edge of the picture and in the distance beyond the curved wall on the left.

4. A general view from the grassed play area, with the curved wall of the Day Centre on the right and the Blood Bank on the left. The glazed pyramid over the central play space can just be seen above the roof of one of the cottages and the gable-ends of another cottage are on the left.

5. A general view of one of the cottages showing the local authority flats in the background beyond the Hospital site boundary. The extremely small paved areas and the lack of enclosure to any part of the site, can be seen.

6. A view along the flank of one cottage with another in the left foreground. The children's Day Centre is on the right and the tallest block in the background on the extreme right is the plant room for the whole of the Rivermead complex.



7. Another general view showing two of the cottages and the glazed pyramid over the central space between them. The projecting block to the right of the picture is the dining room of one cottage and the other two windows in the sloping wall nearer the camera are to bedrooms. The rooflights illuminate the circulation and play area.

8. A detail of the paved space available to one of the cottages. The double doors lead from the play area within the cottage and the single door is that to the kitchen. The original design intention was that meals would be delivered to each kitchen from outside but, as can be seen, there is no path to this door. Also the paved area is extremely small and has no form of protective enclosure. Clothes drying facilities have had to be improvised and involve traversing muddy ground in the winter. The bricks are larger than the usual imperial standard and so give the building an unusual and unexpected scale.

9. A detail of part of one of the cottages showing the sloping walls of the dining room on the left and the living room on the right. The steps which lead off between the walls on the right give access to the approach road and the lack of enclosure suggests the care which has to be taken to keep external doors closed.

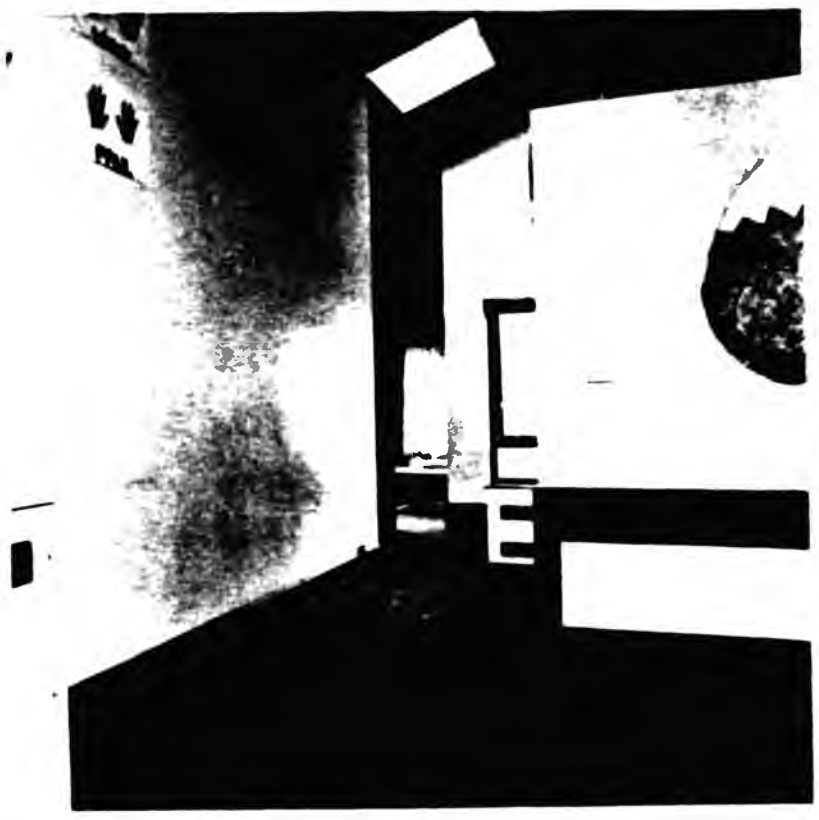
10. The approach path between the administration block, on the right, and one of the cottages on the left. The double doors lead to the central play space below the glazed pyramid and were originally intended as the main entrance to the unit. They are painted bright yellow and so invite you to use them in this way. In fact they are now kept locked and entrance is via the service door into the administration block.

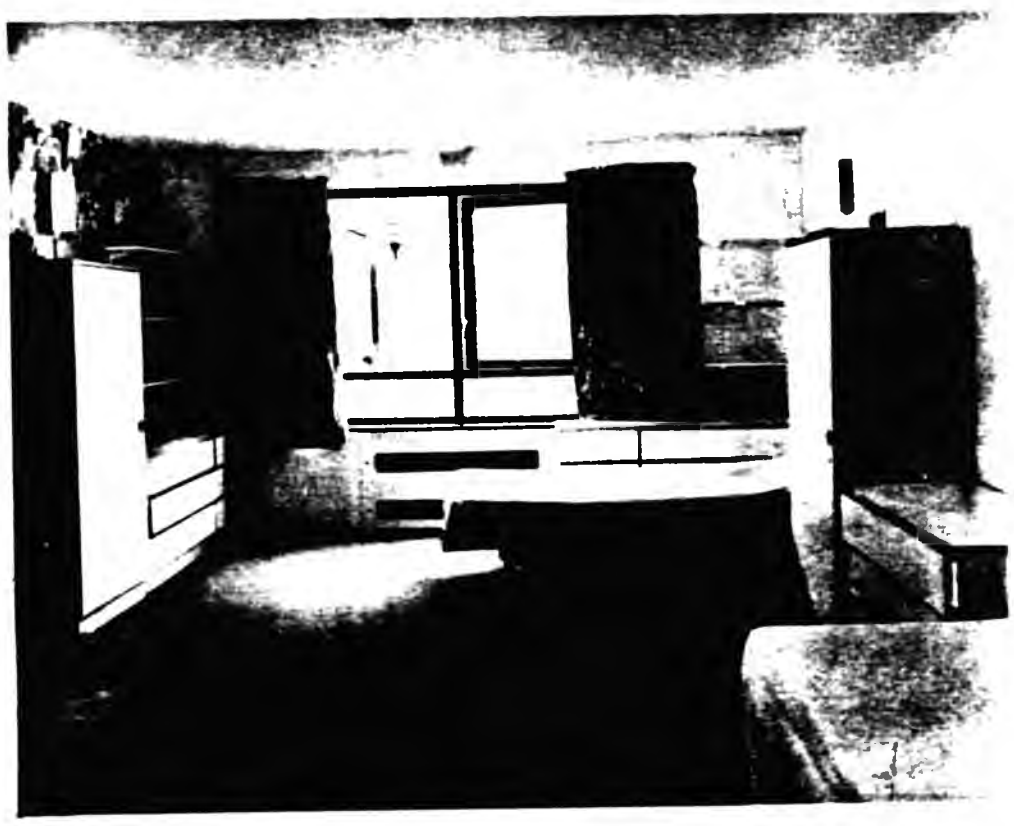
11. The approach path to the unit from the Day Centre showing one of the cottages on the left and the administration block on the right. The entrance shown in plate 10 is between these two blocks and below the pyramid. The door into the administration block, which now forms the main entrance to the unit as a whole, is the service door on the extreme right of the picture with the dustbin nearby.

12. The central corridor of the administration block which now forms the main approach to the unit. The central play area is seen at the far end through the open door. The doors along this corridor lead to various service rooms and to the office and staff room.

13. The central play space below the glazed pyramid. Each of the cottages is entered off this space and has its own front door alongside its nameboard. The other door in the picture leads to the external space between two adjacent cottages. The play space is usually cluttered with large toys and play equipment which tend to restrict its use.

14. One of the narrow external spaces between cottages which have no particular function and easily become depositories for broken equipment and other rubbish. The door leads to the central play area.





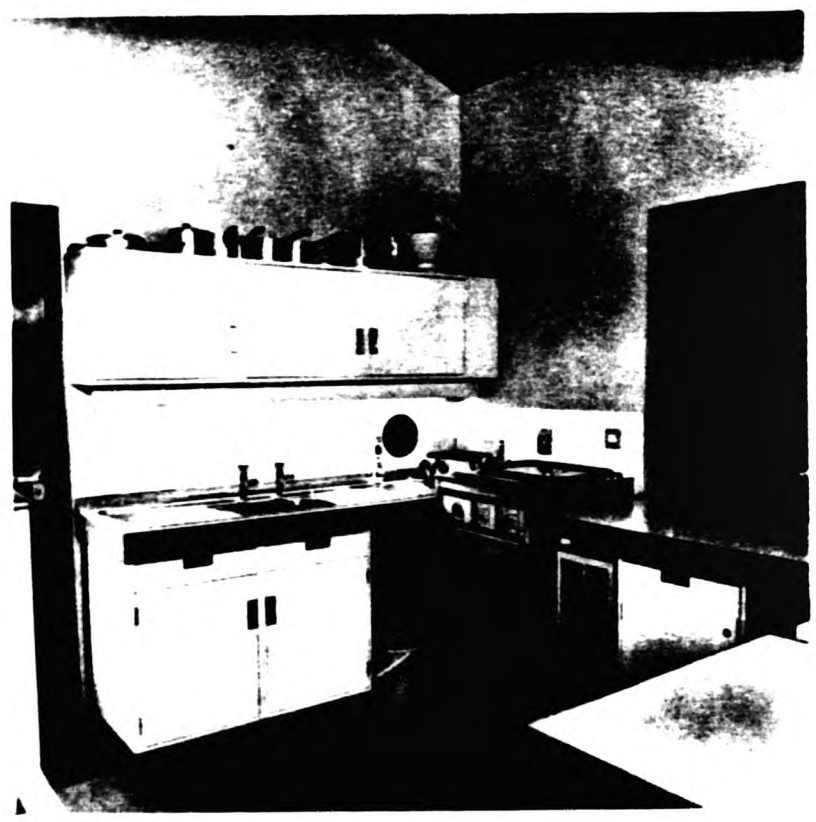
15. The corridor in one of the cottages leading from the play area to the bathroom and the small bedrooms. The boarded ceilings follow the slope of the roof and so tend, in the centre of the building as this is, to be very high and to result in expanses of high wall.

16. The four-bed room in one of the cottages. Although wallpapers, curtains, etc, have all been carefully chosen and are very pleasant, the lack of objects on shelves, lack of pictures, etc, is very noticeable.

17. A one-bed room. The sloping wall, with its correspondingly sloping window, result in blinds having to be used instead of curtains and the mechanisms have, in some instances, proved inadequate for the job. The boarded ceiling follows the slope of the roof and, although it springs from a reasonable level, it soon rises to heights unrelated to small children.

    The'beam' above the window is, in fact, the boxing of the hidden gutter.

18. The living room of one of the cottages. This room has proved to be rather too small in practice and is one of the spaces to change use in the proposed reduction in the number of children in each cottage.



19. The dining room of one cottage. The 'beam' across the space is, again, the boxing of the hidden gutter above.

20. The kitchen of one cottage. Beautifully equippped but hardly used because meals are produced elsewhere and trolleyed into each unit. The hatch on the right serves direct into the dining room.

21. A bathroom in one of the cottages.

22. A typical WC and washbasin unit in one of the cottages. The washbasin is of somewhat inappropriate design because it has been mistaken for a urinal.

23. The domestic utility room (laundry) in the administration block.

24. Some of the furniture is subjected to extreme wear and tear.

D351/J15/JD

APPENDIX D

Summary of interview with head of residential units for mentally handicapped adults and checklists

Unit opened:
Unit head in post

I SITING

Limitations of neighbourhood on residents' movements:
Advantages of site:
Disadvantages of site:
Gardens tended by:
Resident participation in gardening:
Gardens first layed out by:
Existing fencing/walling:
Necessity for fencing/walling:
Access to local amenities:
shops/hairdresser/public transport - frequency, proximity/parks/ sports grounds/cinemas/cafes/churches/pubs/other
Amenities lacking:
Nearby "satellite" housing:
Nearby staff housing and occupancy:
Residents'use of local amenities independently:

II CONTACTS WITH THE COMMUNITY

Public opposition when unit planned or opened:
Current local feelings:
Financial aid received:
Invitations received:
Policy on contact with the local community/volunteers/relatives/visitors:
Provision for overnight visitors:
Refreshments for residents' visitors:
Policy on open days/number held/purpose/effects believed to have had:
Specific incidents relating to the community:
Number of residents with local friends (not relatives):
Number of residents with local families/effect on community links:
Number of staff living locally/effect on community links:
Use of unit by local community/residents' help at such events:
Contacts with other units - between staff/between residents:

III RESIDENTS

Between units-
Residents for whom building physically unsuitable:
Residents who gain most from the unit (eg. through staff interest or skills):
Selection of residents:
Residents who would be more appropriately placed elsewhere:
Differences in objectives from other LA or HA units:
Within units-
Physical separation of groups:
Independence of groups:
Staffing of groups:
Appropriateness of group sizes/suggested alternatives:
Criteria for placing residents in groups:
Mixing of handicaps:
Flexibility in group sizes within the building:
Number round table for meals/number for "family" atmosphere:
Specific individuals who inhibit the way the group runs:
Residents remaining on the unit during the day - reasons/activities:

IV PHYSICAL

Changes in use of areas and reasons:
General good points:
General bad points:
Furnishings and fittings - choice/bulk vs individual purchases:
Windows - unbreakable glass/restricted openings:
Mirrors - unbreakable glass:
Wall/floor coverings:
Bathrooms - shower/facilities for physically handicapped people/sluice:
Bedrooms - size/individual storage:
Privacy:
Dining/living room - separate/uses:
Central activities area - required/frequency of use/uses/largest gathering:
Storage space:
Circulation space/wheelchairs:
Messy activities:
Doctor's room:
Heating system/ventilation/washing machines:
Fire regulations:
Internal decoration:
Garden:
Other problems:
Characteristics of ideal new building for mentally handicapped adults- total size; sub-group size; groups dispersed or on one site; siting within or on edge of community; central kitchen/dining or group facilities; independence of groups; bedroom size:

V STAFF FACILITIES

Office:
Short-stay accommodation for staff on call at night:
Residential accommodation as part of unit or located nearby:
Staff toilets:
Staff room - uses/staff meals:
Additional existing staff facilities:
Additional required staff facilities:
Staff uniform/ordinary clothes:
Employment of domestic staff:
Domestic staff present when residents home:
Distinctions between care and ancillary staff:
Residents help with housework:
Suitability of kitchen for residents use:
Use of kitchen encouraged:
Choice of menu:
Shopping for food:
Attraction of building/Sheffield Development Project for staff:

APPENDIX D

CHECKLISTS

Full descriptions of the development and use of three checklists, the Index of Community Involvement (ICI), the index of the physical Environment (IPE) and the Revised Resident Management Practices scale (RRMP) are in Raynes, Pratt and Roses (1979). In this study, procedures for the IPE and ICI were similar, the former relying on a walk round the building to observe the relevent items, the latter being completed from information provided by LA hostel heads, or, in HA units, the relevant charge nurse. Completion of the RRMP was slightly different, however. In their study, completion of the RRMP involved observation of certain management practices on two separate days in each unit. Due to limitations on both manpower and time, in this study, completion of the RRMP relied entirely on asking the charge nurses or LA hostel heads about the various items. King and Raynes (1968), in validating their inmate management scale, a 16-item scale containing some similar items to the RRMP, found no difference between item scores based on observation and those based on interview data, suggesting that use of the RRMP entirely as an interview would produce valid responses. RRMP items were scored in a similar way to the Inmate Management Scale items, with 0 indicating the most resident-oriented management of an item while 2 indicated the most institution-oriented management. Scores on the scale could thus range between 0 (most resident-oriented) to 56 (most institution-oriented).

The 39 Steps (Gunzburg, 1973) was used in addition since it covered further points of interest (such as whether staff wore uniforms). To be comparable with the RRMP, most domestic responses were scored 0, while most institutional responses were scored 2. Totals on this checklist thus ranged from 0 (most domestic) to 78 (most institutional).

In table 6.4, inter-correlations between the 39 Steps and the IPE and RRMP indicate the 39 Steps correlates more highly with the IPE (tau =+0.571) than with the RRMP (tau =+0.376). Thus, the 39 Steps seems to be weighted more strongly to physical measures. The RRMP and IPE correlate together with tau=0.479, suggesting that physical environment and resident management practices are related to some extent. A domestic environment might encourage more resident-oriented management practices or more resident-oriented staff might be better at creating a domestic environment. A higher correlation between resident-management practices and measures of the physical environment was found by Mazis and Canter (1979) using different measures. Raynes et al (1979) however, found little relationship between the IPE and RRMP in their American study.

Limitations of the measures

The ICI, IPE and RRMP were developed for an American study; hence the use of words like "tub", "closet" etc. The 39 Steps was developed for use in units not exceeding some 20 able-bodied residents where basic material requirements have been met (i.e. each resident has a wardrobe, no bedroom has more than 6 beds). One problem with both the RRMP and 39 Steps is the distinction between what residents are <u>allowed</u> to do and what they are <u>able</u> to do. Thus, it may be policy to allow residents to, say, use the kitchen or put up posters, but if the resident is unable to take advantage of this opportunity, lack of a restriction will not add to his quality of life. One instance where policy was not always mirrored by observed behaviour occurred in one New Hospital where nurses were

said to be addressed by christian name, yet one or two residents still referred to all staff-like persons as "nurse" (even those who weren't nurses).

It is important to be aware that the checklists sample a restricted range of items, items considered important by the people who developed the checklists. The IPE, for instance, is particularly concerned with the presence of mirrors and with bathrooms. At one of the Old Hospitals (OH4), the least dependent group scored less well on the IPE due to its less adequate bathroom facilities compared to the most dependent group. However, the living and dining areas were more domestic for the former than the latter, but these figure less prominently in the IPE. It must be recognised that such biases exist. Certainly, Gunzburg (1973) held out no claims for the adequacy of his checklist: simply that achieving a full score on the list shows that some basic requirements of "normal" living have been met.

INDEX OF PHYSICAL ENVIRONMENT (IPE)

1. Ratio of bathrooms to residents
2. Ratio of handbasins to residents
3. Ratio of tubs/showers to residents
4. % or showers with partitions and doors
5. Ratio of mirrors to residents
6. % of bathrooms with mirrors
7. % of toilets with paper
8. % of toilets partitioned
9. % of toilets with doors
10. Ratio of dorms to residents
11. % of residents with lockers
12. % of residents with own closets
13. % of residents with bed-drawers (3rd storage space)
14. % of dorms with posters
15. % of dorms with curtains and shades
16. % of dorms with mirrors
17. Ratio of TVs and radios
18. Ratio of armchairs and settees
19. Ratio of occasional tables
20. % dayrooms with curtains or shades
21. % dayrooms with wastebins

INDEX OF COMMUNITY INVOLVEMENT (ICI)

1. How many residents went shopping in the last month?
2. How many residents went to the cinema in the last month?
3. How many residents went to a museum in the last month?
4. How many residents have been on a public bus in the last month
5. How many residents have been to a restaurant or cafeteria in the last month?
6. How many residents went to a house other than that of their parents for a visit in the last month?
7. How many residents have been for a car ride in the last month?
8. How many residents have been to religious services off the grounds in the last month?
9. How many residents have been on overnight visits home or elsewhere in the last month?
10. How many residents have been to a hairdresser in the last month?
11. How many residents have been to a doctor or dentist off the grounds in the last month?
12. How many residents went on a vacation in the last year with their families?
13. How many residents went on a vacation organised by the unit or ATC in the last year?

Scoring Procedures

RATIO SCALES:					PERCENTAGE SCALES:			
	1:1	- 1:2	=	0		100% - 80%	=	0
	1:3	- 1:5	=	1		60% - 79%	=	1
	1:5	- 1:10	=	2		40% - 59%	=	2
	1:11	- 1:15	=	3		20% - 39%	=	3
	1:16		=	4		0% - 19%	=	4

REVISED RESIDENT MANAGEMENT PRACTICES SCALE (RRMP)

1. Do the residents get up at the same time at weekends as they do during the week?
2. Do the residents go to bed at the same time on weekends as they do during the week?
3. When may residents use the yard?
4. When may residents use their bedrooms?
5. When may visitors come?
6. Are any residents toileted at night?
7. What do the residents do between dressing and breakfast?
8. Do the residents wait in line before breakfast?
9. Do residents wait in a group before bathing?
10. Do residents wait in a group after bathing?
11. How do residents return from the toilet?
12. How long do residents wait at table before the meal is served?
13. How long do residents wait at table after the meal is served?
14. How are residents organised when they go on walks?
15. What is done with the clothing a resident brings?
16. What is done with the personal possessions a resident brings?
17. How many residents possess all of the following items of clothing: shirt or blouse; trousers or skirt; dress or jacket; sweater; top coat; shoes; bathrobe; slippers?
18. Where are the residents daily clothes kept?
19. How many residents have personal possession?
20. Are residents allowed pictures and pinups in their rooms?
21. How are residents birthdays celebrated?
22. How are tables set for meals?
23. How many residents can use the kitchen?
24. Do the residents have access to the office?
25. How do staff assist residents at bathing time?
26. Do staff on duty eat with the residents?
27. Do staff on duty watch TV with the residents?
28. How many residents have been on outings in the past three months.

REVISED RESIDENT MANAGEMENT PRACTICES SCALE (RRMP)

1. Do the residents get up at the same time at weekends as they do during the week?
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27. Do staff on duty watch TV with the residents?
28. How many residents have been on outings in the past three months.

D92/J16

APPENDIX E

INTERVIEW SCHEDULE: DAY CENTRES

This schedule was used for formal interviews with the day centre organisers. A number of informal follow-up interviews also took place, particularly to gather more information on admission criteria and referral sources.

D92/J16

BUILDING EVALUATION

INTERVIEW SCHEDULE

Worcester
Development
Project

No. 1. Day Centre for the Mentally Ill.

Name of Unit

Interviewee

When Opened:

No. of Places Planned: Available:

No of staff Full-time: Gradations

Part-time: No. of whole time equivalents

Planned Establishment

Professional Qualifications of staff

Staff/Client Ratio: Peak:

Normal:

Case Register Breakdown of Clients

Length of Stay Breakdown of Clients - 0 - 3 months
4 - 6 months
7 - 12 months
1 yr - 2 yrs
2 yrs+

Actual Client Attendances for week before interview:

Monday Tuesday Wednesday Thursday Friday

Type(s) of Transport used by Clients

Brief Outline of Accommodation

Location

Parking

Area of Site

No. of Storeys

No. of rooms

Purpose built or adapted

COMPLETED BY INTERVIEWER: DATE OF INTERVIEW:

D02/J16

1. CLIENTS - Numbers and Categories

1. Is there sufficient space in the building for current numbers?

2. Is there sufficient space for planned numbers? (If no - how many places could actually be made available?)

3. Do you expect demand for places to reach the number originally planned for? (If not - why not?)

4. Does the building preclude certain categories of clients?

5. Would you take clients with these problems otherwise?

6. Is there inadequate provision for any of your present clients groups? (If yes - how is there?)

7. In the event of a client becoming disturbed and causing problems is there a separate area where he or she may be taken in the first instance?

8. What facilities, ideally, would help in dealing with disturbed clients?

9. What is your policy regarding clients likely to become long-stay?

10. Do you have clients who attend primarily for social reasons (If yes - what percentage of the total number?)

11. In your opinion would any of your clients be more appropriately placed elsewhere? (If yes - why aren't they?)

12. Do you get many referrals from other WDP Units? (If yes - specify from where)

13. Do you have particularly close links with any other day centre or psychiatric unit?

14. Does the day centre provide any amenities for joint ventures with outside groups?

15. Are clients encouraged to use community resources in preference to day centre resources where possible?

16. Do you hold social events? How often?

17. When social events are held do ex-clients attend?

18. Do clients from other psychiatric units attend these events?

19. Do other local people attend these events?

20. What role do you think this day centre fulfils at present?

21. Are there any gaps in the service it provides that you would like to see covered?

22. Do you feel the training of the present staff is appropriate for the service you currently provide? - (for the service you would ideally provide?)

2. ACTIVITIES AND SPACE AVAILABLE

23. What are the main objectives/aims of the day centre?

24. What facilities for treatment/therapy do you provide?

25. What occupational and rehabilitation activities do you provide facilities for?

26. What other practical services could the day centre provide?

27. Does the day centre provide a service to other people in the local community besides the mentally ill?

28. Does the general layout of the day centre allow for easy observation of clients?

29. Are there places in the building where clients can meet informally?

30. Are there rooms where private and confidential conversations and interviews may be held?

31. Are these rooms suitably positioned?

32. Is the layout of the bigger rooms adequate to accommodate a wide enough range of activities? Can the layout be altered?

33. Are occupational and recreational facilities well used or under used?

34. How are meals provided?

35. Is the kitchen adequate?

36. Are cooking facilities in line with facilities clients might be expected to use in their homes?

37. Do staff and clients have their meals together?

38. Is the dining room large enough to accommodate everyone at one sitting?

39. Can the dining room also be used for recreational activities?

40. Is there a place where clients may occasionally sit and rest quietly by themselves?

41. Is the day centre used in the evenings or at weekends?

42. In what ways if any do you feel the building could be more fully used?

43. Has enough storage space been provided for occupational and recreational equipment?

44. Has enough storge space been provided for foodstuffs and kitchen equipment?

45. Is there somewhere near the entrance where clients may hand their coats?

46. How many toilets are there? (Is that sufficient for both normal and peak times?)

47. Is there a sufficient number of SINKS) BATHS) - for both normal and SHOWERS) peak times? SLUCIES)

48. Are these conveniently loacted?

49. Is there a disabled toilet? How often is it used

50. Are laundry facilities provided? How often are they used? Is the equipment adequate?

51. Are hairdressing facilities provided? How often are they used? Is the equipment adequate?

52. Are there any rooms that are only used one or two days a week?

53. Are there any rooms that are not used intensively enough - which are used for fewer purposes than they could be? (If yes - which rooms?)

54. What rooms are too small for the uses to which they are put?

55. How suitable is the building for enlargement by expansion?

56. What changes in the use of rooms have been made since the day centre opened?

57. What changes of room arrangements have been made? (in the internal layout of rooms?)

58. Why have these changes occurred? (Who decided on them?)

59. Have you found it difficult to make changes?

60. Does the location of the different rooms within the day centre meet with client approval? - staff approval?

61. In your opinion has there been any under-provision of facilities?

62. In your opinion has there been any over-provision of facilities?

3. STAFFING/ADMINISRATION AND SUPERVISION

63. Do you think actual staff levels are adequate for the present number of places provided? (If no - would there be enough staff if the day centre had its full establishment?)

64. Would there still be enough staff if all the available client places were taken up? (If no - where would the shortages occur?)

65. Are there enough staff offices?

66. Are these offices satisfactory for regular use? (or only for intermittent use?)

67. Are any offices shared? (If yes - how does this work in practice?)

68. Could fuller use be made of any of the offices?

69. Are there any controlled drugs kept on the premises - is there a secure drug cupboard?

70. Can confidential notes be looked away securely when not in use?

71. Is there somewhere in the building where staff can go if they need to relax?

72. Has a suitably equipped room been provided for the cleaners/domestics?

73. Is the building easy to keep clean?

74. Has enough space been allocated for the storage of cleaning equipment and materials?

75. Do voluntary organisations assist in the running of the day centre?

76. Are clients allowed free access to all parts of the building - (if not - where is access restricted?)

77. What facilities do clients use unsupervised?

4. ACCESS

78. What is your opinion of the external appearance of the day centre? (Does it blend in well with surrounding buildings?)

79. Do you have any problems with the transport provided for clients?

80. Is the centre accessible to people travelling on foot or by public transport?

81. Is the site centrally located within the area from which the majority of users come?

82. Is there adequate parking area available?

83. In your opinion do any specific types of clients have particular difficulties in getting to and from the day centre?

84. Is it easy to get out to use local amenities:

1. Pub?
2. Park?

3. Shops?
4. Library?
5. Cinema?
6. Baths?
7. Laundry?
8. A-y others?

85. Is there sufficient outdoor space provided for recreation and games?

86. Are there any problems about fully using this outdoor space?

87. Can the building be securely locked up at night?

5. ENVIRONMENTAL AND MAINTENANCE TOPICS

88. Are there any areas of the building that are too warm at times?

89. Are there any areas that are too cold?

90. Are there any parts of the building where the lighting is too bright - too dim?

91. Are the light fittings well situated and easy to use?

92. Are there any parts of the building that get too stuffy or smelly at times?

93. Is it easy for clients to find their way around the day centre?

94. Are there any problems with lifts, stairs or ramps?

95. Are there any safety hazards stemming from the buildings design?

96. Are the decor and furnishings appropriate for the day centre?

97. Are the furnishings and fittings robust enough?

98. If anything in the building is damaged is it easy to get it repaired?

99. Is there something you particularly dislike about the building? (If more than one, which is the most important?)

100. Is there something you particularly like about the design of the day centre? - (If more than one, which is the most important?)

101. Do you have any other comments on the building design?

D92/J17

INTERVIEW SCHEDULE: PERIPHERAL DAY HOSPITALS

REFERRALS AND ADMISSION CRITERIA

1. What are the day hospitals main referring agencies?

Newtown Psychiatric Unit
St Wulstans
G.Ps
Out Patients Clinics
Community Nurses
Social Workers
District Nurses
Health Visitors
Relatives
Self - Referral
Voluntary Agencies
Others

Which of these do you get most of your referrals from?

2. How good is the liaison between the hospital authorities and the social services on the referral of individuals to the day hospital?

3. Do you have particularly close links with any other psychiatric unit, day hospital, hospital, day centre or mental illness hostel?

4. How selective is your admission criteria? Why do you accept/reject a referral? What criteria do you use to disqualify a referral?

5. Do you accept EMSI patients?

6. Is there inadequates provision for nay of your present patient groups?

7. Does the building design preclude certain categories of patients?

8. Would you take patients with these problems otherwise?

9. What percentage of referrals do you not accept?

10. What percentage of your referrals decline to attend?

11. Have you ever had to refuse a referral because of space/building constraints?

12. Is there sufficient space in the building for planned numbers - how many places could actually be made available?

13. What number do you expect the demand for places to rise to?

14. What is policy regarding patients likely to become long-stay?

15. Do you have patients who attend primarily for social reasons?

16. In the event of a patient becoming distressed or ill is there a separate area where he or she may be taken in the first instance?

17. In your opinion would any of your patients be more appropriately placed elsewhere? (If yes - why are they not?)

18. What role do you feel this day hospital fulfills at present?

19. What are the main aims/objectives of the day hospital?

20. Are there adequate facilities and space provided for the clinical treatment of patients?

21. Are there facilities provided for group and individual therapy?

22. In your opinion do you feel facilities for ECT should be provided in a peripheral day hospital?

23. What occupational and rehabilitation activities do you provide facilities for?

24. What facilities are provided for the therapeutic teams working in the community?

25. How often do the medical members of the team visit the hospital?

26. How many psychologist sessions are held each week? How many patients are seen? How long is the session?

27. What facilities are provided for outpatients coming to the day hospital? How adequate are these? Are they well used?

28. Is the waiting area for the outpatients separate from the main entrance? Is this adequate?

29. Are there any gaps in the service it provides that you would like to see covered?

30. What other services could the day hospital provide?

31. Do you think actual staff levels are adequate for the present number of places you provide? (If no - would there be enough staff if the day hospital had it's full establishment?)

32. Would there still be enough if all the available patient places were taken up? (If no - where would the shortages occur?

33. Do you feel the training of the present staff is appropriate for the service you currently provide? (For the service you would ideally provide?)

34. Are there enough staff offices? Or too many?

35. Are these offices satisfactory for regular use? (Or only for intermittent use?)

36. Are any offices shared? (If yes - how does this work in practice?)

37. Could fuller use be made of any of the offices?

38. Is there somewhere in the building where staff can go if they need to relax?

39. Has a suitably equipped room been provided for the cleaners/domestics?

40. Is the building easy to keep clean?

41. Are the domestics involved in the domestic/catering rehabilitation of patients?

42. Has enough space been allocated for the storage of cleaning equipment and materials?

43. Do volunteers assist in the running of the day hospital?

44. Does the location of the different rooms wtihin the day hospital meet with staff approval?

45. Are there any controlled drugs kept on the premises - is there a secure drug cupboard?

46. Can confidential notes be looked away securely when not in use?

GENERAL LAYOUT AND FACILITIES

47. Does the general layout of the day hospital allow for easy observation of patients?

48. Are these rooms suitably positioned?

49. Is the layout of the larger rooms adequate to accommodate a wide enough range of activities? Can the layout be altered?

50. Is there sufficient space allocated for O.T.?

51. Are occupational and recreational facilities well sued or under used?

52. How are meals provided?

53. Is the day hospital kitchen adequate?

54. Are there cooking facilities available in line with facilities patients might be expected to use in their own homes?

55. Do the staff and patients have their meals together?

56. Is the dining room large enough to accommodate everyone at one sitting?

57. Can the dining room also be used for recreational activities?

58. Is there a place where patients occasionally sit and rest quietly by themselves?

59. Are there places in the building where patients can meet informally?

60. Are patients allowed free access to all parts of the building - (if not - where is access restricted?)

61. Does the location of the different rooms within the day hospital meet with patient approval?

62. How involved are the patients in general running of the day hospital?

63. Is the day hospital used in the evenings or weekends? Who by?

64. In what ways if any do you feel the building could be more fully used?

65. Has enough storage space been provided for occupational and recreational equipment?

66. Has enough space been provided for foodstuffs and kitchen equipment?

67. Is there somewhere near the entrance where patients may hang there coats?

68. How many toilets are there? (Is that sufficient for both normal and peak times?)

69. Is there a sufficient number of:

Sinks
Baths
Showers
Sluices

- for both normal and peak times?

70. Are these conveniently located?

71. Is there a disabled toilet? How often is it used?

72. Are laundry facilities provided? How often are they used? Is the equipment adequate?

73. Are hairdressing facilities provided? How often are they used? Is the equipment adequate?

74. Are there any rooms that are only used one or two times a week?

75. Are there any rooms that are not used intensively enough - which are used for fewer purposes than they could be? (If yes - which rooms?)

76. Are the rooms too small for the uses to which they are put?

77. What changes in the use of rooms have been made since the day hospital opened?

78. What changes of room arrangement have been made? (In the internal layout of rooms?)

79. Why have these changes occured? (Who decided on them?)

80. Have you found it difficult to make changes?

81. In your opinion has there been any under - provision of facilities?

82. In your opinion has there been any over - provision of facilities?

83. Does the day hospital provide any amenities for joint ventures with outside groups?

84. Are patients encouraged to use community resources in preference to day hosptial resources where possible?

85. Do you hold social events? How often?

86. When social events are held do ex-patients attend?

87. Do patients from other psychiatric units attend these events?

88. Do other local people attend these events?

89. Does the day hospital provide a service to other people in the local community besides the mentally ill?

ACCESS

90. What is your opinion of the external appearance of the day hospital?

91. How is transport provided?

92. Do you have any problems with the transport provied for patients?

93. Is the day hospital accessible to people travelling on foot or by public transport?

94. Is the site centrally located within the area from which the majority of users come?

95. Is there adequate space available for parking and manoeuvering vehicles?

96. In your opinion do any specific types of patients have difficulties in getting to and from the day hospital?

97. Is it easy to get out to use local amenities:

1. Pub?
2. Park?
3. Shops?
4. Library?
5. Cinema?
6. Baths?
7. Laundry?

98. Is there sufficient outdoor space provided for recreation and games?

99. Are there any problems about fully using the outdoor space?

100. Can the building be securely locked up at night?

ENVIRONMENTAL AND MAINTENANCE TOPICS

101. Are there any areas of the building that are too warm at times?

102. Are there any areas that are too cold?

103. Are there parts of the building where the lighting is too bright-too dim?

104. Are there any parts of the building where noise is a problem?

105. Are the light fittings will situated and easy to use?

106. Are there any areas of the building that get too stuffy or smelly at times?

107. Is it easy for patients to find their way around the day hospital?

108. Are there any problems with lifts, stairs or ramps?

109. Are there safety hazards stemming from the building desing?

110. Are the decor and furnishings appropriate for the day hospital?

111. Are the furnishings and fittings robust enough?

112. If anything in the building is damaged is it easy to get it repaired?

113. What sort of building would you consider to be most appropriate for a mental illness hospital?

114. Is there something you particularly dislike about the building? (If more than one, which is the most important?)

115. Is there something you particularly like about the design of the day hospital? (If more than one, which is the most important?)

116. Do you have any other comments on the building design?

APPENDIX F

SAMPLE PROGRAMME - Studdert Kennedy Day Centre

MONDAY	9.45 - 10.15 a.m. COMMUNITY MEETING	Relaxation * 11.15 *Poetry Art * College * Gardening (Children's Playgroup)	12.30 - 2.00 p.m. LUNCH	Discussion Group * 3.00 Basic Cookery *	3.30 - 4.00 p.m. COMMUNITY MEETING
TUESDAY		Small Group * 12.0 Sewing * Woodwork *		Craft Work * Group Games *	
WEDNESDAY		Handicraft * Basketry * Art * (Children's Playgroup)		Football * Basic Cookery/budgeting * Agoraphobics Group * Yoga *	
THURSDAY		Keep Fit * Woodwork * Rag Rugs/Stool Seating		Swimming/Pottery * Discussion Group * Small Group *	
FRIDAY		Playreading * Basketry * Gardening * 12.0-12.30 COMMUNITY MEETING		STAFF TRAINING	

nb except for community meetings this programme is flexible and tends to change in response to specific needs

* Alternate weeks

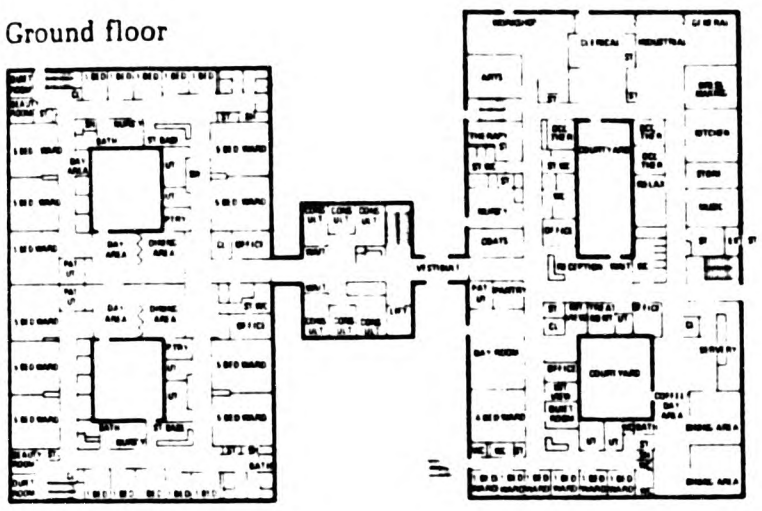
APPENDIX G

BUILDING PLANS - WORCESTER PSYCHIATRIC BUILDINGS

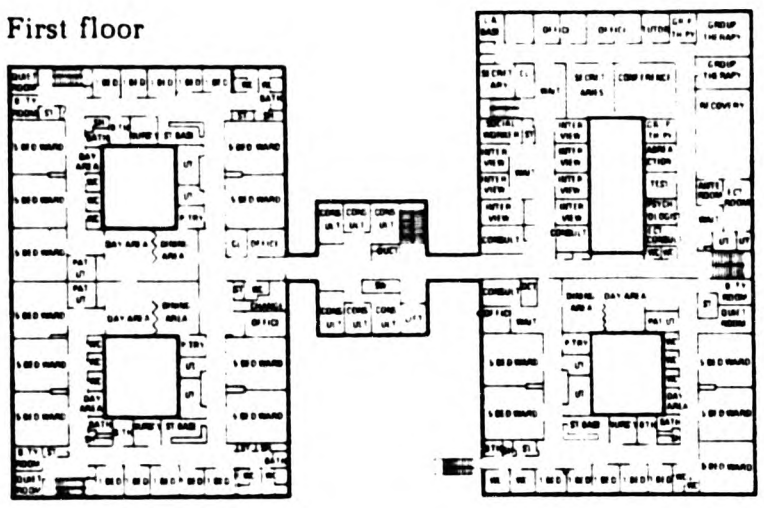
Psychiatric Departments

Worcester Newtown

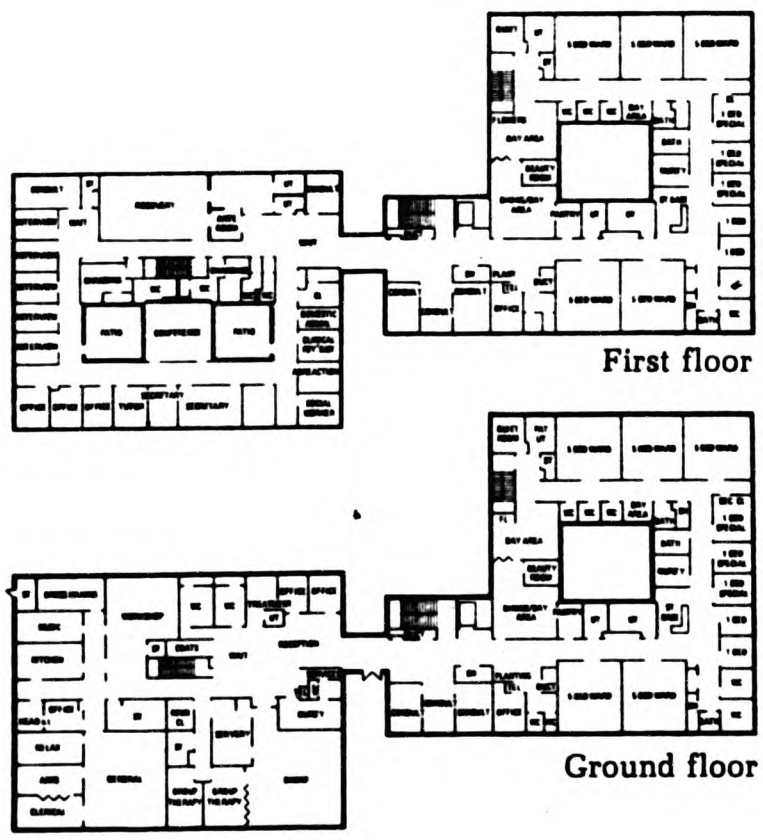
Ground floor



First floor



Kidderminster

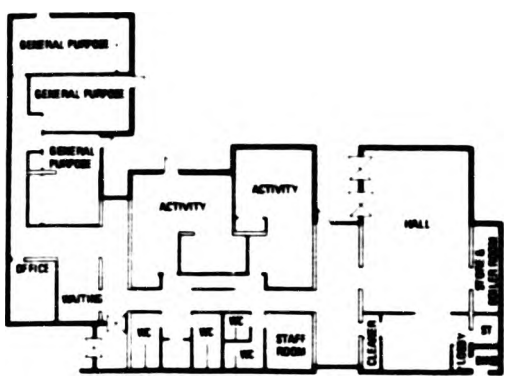


First floor

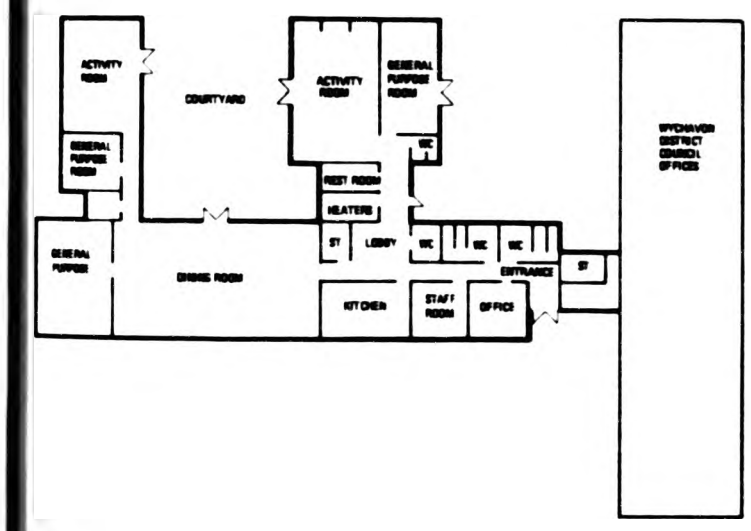
Ground floor

Peripheral
Day Hospitals

See plans in Section 2

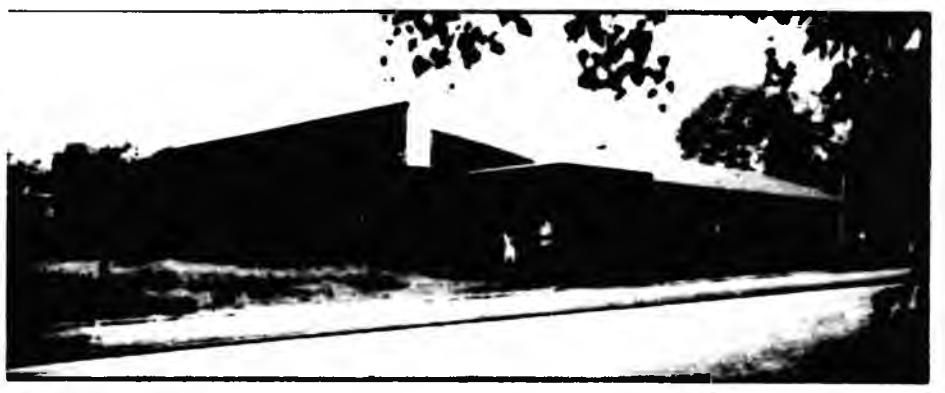


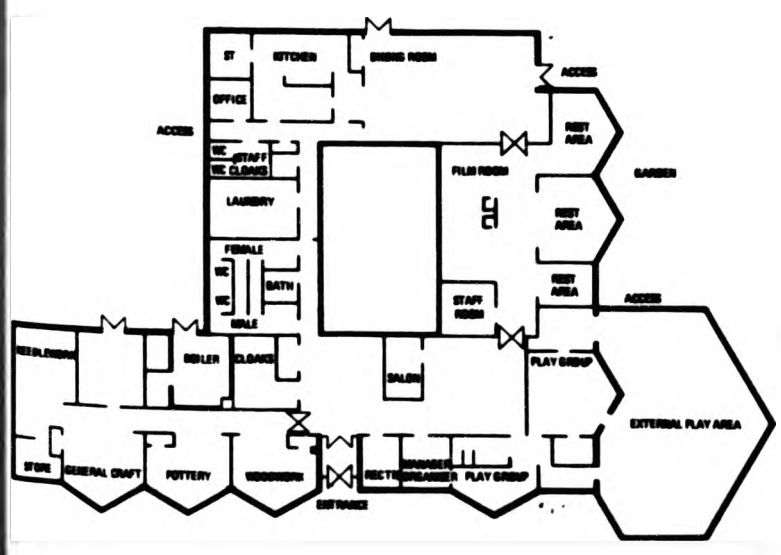
Worcester
Studdert Kennedy



Droitwich
Covercroft

Kidderminster
Edward Parry





Malvern
Geraldine Road

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