

***'THE MENTAL HEALTH OF NEWLY REMANDED PRISONERS, THE
PRISON RECEPTION HEALTH SCREEN AND THE RESULTING
MANAGEMENT OF MENTAL DISORDER AT DURHAM PRISON'***

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ABSTRACT

Recent cross-sectional studies have confirmed that the prevalence of mental disorder in English prisons is high but they provide little insight into the fate of the mentally disordered in prison.

This thesis concentrates on a longitudinal study of mental disorder in 569 unconvicted adult male remand prisoners received into Durham prison between 1 October 1995 and 30 April 1996. Subjects were interviewed at reception by psychiatric researchers and monitored throughout the remand period. The data collected was used to establish the prevalence of mental disorder and substance misuse at reception into prison, effectiveness of prison reception screening, number of mentally disordered subjects identified and referred for psychiatric assessment, nature of psychiatric interventions, and final disposal of all subjects.

Additional research was undertaken at Durham to evaluate health care provision at this prison, and, in order to comment on the generalisability of the findings, health care facilities at other prisons in England and Wales were investigated.

More than a quarter of subjects at Durham prison were suffering from mental disorder. Serious disorders were especially prevalent and one in twenty remands was acutely psychotic. Drug and alcohol misuse was the norm. More than half of our subjects received current substance abuse or dependence diagnoses.

Prison reception screening failed to identify nearly 80% of subjects with mental disorder, including 75% of those with acute psychosis.

The treatment needs of the majority of mentally disordered subjects were overlooked in prison. Just over one quarter of mentally disordered subjects were referred for a psychiatric assessment. Contact with psychiatric services was frequently hampered by the prison regime and the actions of the courts. This resulted in acutely psychotic prisoners being released without adequate treatment or follow-up.

Help for prisoners with drug and alcohol related problems was minimal. Detoxification regimes were insufficiently prescribed leaving the majority of subjects addicted to opiates, benzodiazepines and alcohol at risk of serious withdrawal.

Inadequate resources, a lack of suitably trained health care staff, low morale and staff sickness hampered the delivery of effective health care at Durham prison. However, staff attitudes, institutionalised practices and negative responses from prisoners also made a significant contribution. Further inquiry indicates that Durham prison is not unique in these respects. Problems of a similar nature are endemic in the Prison Health Service. Indeed, when the history of this organisation is traced it is apparent that such difficulties have plagued it throughout its existence.

CONTENTS

	Page
Abstract	i
Contents	iii
List of tables and figures	vii
Acknowledgment	x
Author's declaration	xi
Chapter 1 - Introduction	1
Chapter 2 - Prison medicine: an historical perspective	
John Howard and the social reform movement	6
The first prison health care legislation	8
Medical services within an expanding prison system	10
Medical experimentation in the convict prisons	13
Overcoming the lack of medical provision in the local prison system	15
A centrally coordinated prison medical service	17
Interest and expertise in insanity	20
Reducing the numbers of mentally infirm prisoners	22
Grave defects in the prison medical care persist	23
The new prison reform movement	25
Calls for integration with the National Health Service	26
Physical and pharmacological methods of control and restraint	27
Prison suicides	28
The training of prison health care staff	29
The present day prison health service	35

Chapter 3 - Mental disorder in the present day prison system and the rationale for the Durham Remand Study

The problem of the mentally disordered in prison	38
The prevalence of mental disorder in different prison populations	39
Substance misuse in prisons	42
Psychiatric provision for mentally disordered prisoners	43
Health screening at reception into prison	46
Rationale for the Durham Remand Study	47

Chapter 4 - Methodology

Introduction and overview of the Durham Remand Study	51
Setting	52
Subjects	57
Screening	57
Inter-rater reliability	59
Treatment recommendations	60
Evaluation of prison reception health screening	62
Constructing a model to identify those at risk of mental illness	63
Follow-up	64
Ethical issues	65

Chapter 5 - Results I - The characteristics of the Durham Remand Study population

Numbers recruited and screened	68
Demographic details	69
Prevalence and patterns of mental disorder	69
Prevalence and patterns of illicit drug use	71
Alcohol use and co-morbidity with drugs	73
Co-morbidity of substance diagnoses and mental disorder	74
Mental illness and substance use	75
Personality disorder and substance use	75

Chapter 5 (cont)

Immediate treatment needs

Mental disorder: psychiatric referral, prison location and hospital transfer needs	76
Mental disorder: continuing prescriptions of antipsychotic and antidepressant medication	76
Treatment for substance users	77

Chapter 6 - Results II - Prison reception health screening and the initial management of mental disorder and substance misuse post-reception

Facilities and staffing for prison reception health screening	79
Prisoners' views on reception screening and other aspects of prison health care	80
Availability of prison records	82
Detection of factual information relating to mental disorder	82
Identification of mental disorder	83
Detection of substance use	83
Immediate provision for prisoners with treatment needs	
Prison location	85
Continuing prescribed psychotropic medication	86
Detoxification regimes	88
Variables associated with mental disorder and the implications for screening	89

Chapter 7 - Results III - Follow-up

Time on remand and outcome	92
Follow-up of subjects identified at reception by researchers as having psychiatric treatment needs	94
The nature of referrals to psychiatric services and the findings of the psychiatric assessments performed	97
Management of those who received a psychiatric assessment	100

Chapter 8 - Discussion

Prevalence and patterns of mental disorder and substance misuse	102
Prison reception health screening	104
Provision for prisoners with psychiatric treatment needs	113
Generalisability of findings	
Prevalence of mental disorder and psychiatric treatment needs	116
Prison health screening	117
Provision of psychiatric treatment	117
Towards better identification and management of mental disorder in prison	
Improving prison reception health screening	118
Subsequent identification and management of mentally disordered prisoners	122
The prospect for change	124
Tables 1-19	126
Figures 1-8	144
Appendices	
1 - Research screening instrument	152
2- Case example - 1	173
- 2	175
- 3	177
- 4	179
References	181

LIST OF TABLES AND FIGURES

TABLES

- Table 1** - Demographic details of 569 unconvicted remand prisoners
- Table 2** - Prevalence of current mental disorder (excluding substance misuse) in 569 unconvicted remand prisoners
- Table 3** - Prevalence of lifetime mental disorder (excluding substance misuse) in 569 unconvicted remand prisoners
- Table 4** - Number of subjects currently using each class of illicit drug at recreational (non abusive or dependent use), DSM IV abuse and DSM IV dependence levels (312 subjects)
- Table 5** - Number of illicit drugs used by 312 subjects
- Table 6** - Current level of alcohol use in 548 subjects
- Table 7** - Association between a lifetime alcohol misuse diagnosis and lifetime history of mental illness in 548 subjects
- Table 8** - Association between a lifetime amphetamine misuse diagnosis and lifetime history of mental illness in 548 subjects
- Table 9** - Association between a lifetime benzodiazepine misuse diagnosis and lifetime history of mental illness in 548 subjects
- Table 10** - Association between personality disorder and lifetime substance misuse diagnosis in 548 subjects
- Table 11** - Psychiatric management required in 569 subjects
- Table 12** - Numbers identified by health care officers' screening according to their level of use of the four most frequently used illicit drugs
- Table 13** - Factors considered as possible predictors of current mental illness together with the odds ratio, 95% confidence interval and P-value from individual logistic regression models
- Table 14** - The final logistic regression model
- Table 15** - Performance of the logistic regression model according to research screen findings

Table 16 - Performance of the logistic regression model according to health care workers' findings

Table 17 - The outcome of 597 remands in 569 subjects according to the presence or absence of mental disorder at reception into prison

Table 18 - The findings of the 52 initial assessments performed by forensic psychiatric services

Table 19 - Subjects transferred to hospital under the provisions of section 48 of the Mental Health Act 1983

FIGURES

Figure 1 - Number of prisoners transferred each year between 1985 and 1995 to psychiatric hospitals under the provisions of section 48 of the Mental Health Act

Figure 2 - Primary psychiatric diagnosis in 148 mentally disordered subjects

Figure 3 - Information elicited by prison health care worker screen, prison medical officer health assessment, research screen administered to the same 546 remand prisoners at their reception into prison

Figure 4 - Percentage of cases of illicit drug use identified by health care worker screen and research screen according to drug type

Figure 5 - Prison location of the 50 subjects judged by researchers to require immediate psychiatric intervention following reception into prison

Figure 6 - Outcomes for 16 subjects judged by researchers to need immediate transfer to psychiatric hospital

Figure 7 - Outcomes for 5 subjects judged by researchers to need further assessment in the prison health care centre with a view to transfer to psychiatric hospital

Figure 8 - The outcome of psychiatric intervention in 33 subjects treated within the prison setting

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Others to whom I am particularly grateful include: the staff at Durham prison, most especially the officers on the induction wing who accommodated us and assisted us in our research, the prisoners who participated in the study, Dr. David Harkness of the Home Office who supported the project in its early stages, Dr. Janine Gray for her assistance with statistics, and Professor Jan Scott for her advice and encouragement. I also wish to thank the Home Office and the Northern Region Health Authority who between them funded the Durham Remand Study. Last but by no means least I would like to thank my wife and our two children for their continued love and support whilst I have been researching and writing this thesis.

AUTHOR'S DECLARATION

This thesis is based on research carried out during my two year appointment as a Clinical Research Associate in Forensic Psychiatry at the University of Newcastle upon Tyne. A considerable amount of the data presented in this thesis is taken from the Durham Remand Study. I was the primary research worker on this two year project which was undertaken within the Department of Forensic Psychiatry at the University of Newcastle upon Tyne. The research was carried out by myself and a co-researcher Dr. Debbie Mason, a Senior Registrar in Forensic Psychiatry, under the supervision of Professor Don Grubin.

The aims of the Durham Remand Study were to estimate the prevalence of mental disorder and substance misuse in adult male remand prisoners at the point of reception into prison, to determine the psychiatric treatment needs of this population, and by monitoring subjects throughout their time on remand to determine whether these treatment needs were recognised and addressed in prison. The study achieved its aims and also provided information about the effectiveness of prison reception health screening.

During Stage I of the study, Debbie Mason and I visited Durham prison on a daily basis. Throughout this seven month period we screened all new unconvicted remands received into the prison and recorded the results of their prison reception health screening. We divided this work equally between us. The second stage of the study, which comprised following up the subjects

recruited in stage I was less labour intensive; I undertook this work myself. Professor Don Grubin played an active role throughout the research project, and his supervision helped to ensure that the research went smoothly and the study achieved its aims.

Statistical support was provided by Dr. Janine Gray, Senior Lecturer in Medical Statistics at the University of Teeside. In addition to the general advice she provided Dr. Gray assisted with the analysis of screening data using logistic regression.

All other areas of research included in this work and the writing of this thesis were undertaken by me.

The following articles arising from the Durham Remand Study have been published in medical journals:

Birmingham, L., Mason, D. & Grubin D. (1996) Prevalence of mental disorder in remand prisoners: consecutive case study. *British Medical Journal*, 313, 1521-1524.

Birmingham, L., Mason, D. & Grubin, D. (1997) Health screening at first reception into prison. *Journal of Forensic Psychiatry*, 8(2), 435-439.

Birmingham, L. (1997) Should prisoners have a say in prison health care?
British Medical Journal, 315, 65-66.

Mason, D., Birmingham, L. & Grubin, D. Substance use in remand
prisoners: consecutive case study. *British Medical Journal*, 315, 18-21.

At the time of writing further papers on prison reception health screening and the follow-up stage of the study have been submitted for publication.

I presented the paper "Prevalence of mental disorder in remand prisoners" at the 1997 Winter Meeting of the Royal College of Psychiatrists, and a paper entitled "A follow-up study of mentally disordered men remanded to Durham prison" at the 1998 Winter Meeting.

In addition to the published articles listed above, a comprehensive 104 page report entitled "The Durham Remand Study" written by myself, Professor Don Grubin and Dr. Debbie Mason was submitted to the Home Office in June 1997.

CHAPTER 1

INTRODUCTION

Primary health care for prisoners in England and Wales is provided by the Prison Health Service. Because this organisation is part of the Prison Service, this means that prison health care is under the direction of the Home Office not the Department of Health, and the Prison Health Service and the National Health Service are therefore quite distinct from one another.

The Prison Health Service was until recently known as the Prison Medical Service. It is Britain's oldest civilian health service, although exactly when this organisation was founded is unclear: according to Sim (1990) the Prison Medical Service came into being following the 1774 Prison Act for preserving the health of prisoners, for Hardy (1995) its origins are in the 1850 Prison Act which brought the convict prisons under Government control and led to the appointment of full-time dedicated prison medical officers, and Smith (1983b) believes that the beginnings of the Prison Medical Service can be traced to the 1877 Act of Parliament which brought the entire English prison system, convict and local, under central Government control.

In comparison with the much larger National Health Service which was founded in 1948, the Prison Health Service has been slow to evolve and there is an ever

widening gap between the standards of health care offered by these two organisations. Prisoners report widely differing standards of medical care throughout the English prison system, some are favourable and others are not (Leech, 1993; King, 1993), but it is generally accepted that many prisoners receive a level of medical care below that offered by the National Health Service (Smith, R., 1992).

Smith, who published a series of review articles during the mid 1980's on the mental health of prisoners and the state of prison health care, collectively entitled "*The state of the prisons*" (Smith, 1983a; 1983b; 1984a; 1984b), came to realise that: "*one reason why nobody has attempted such articles before may be because they are extremely difficult to research and write.*" (1983a). Perhaps similar reasons explain why in the face of manifest problems associated with prison health care, research in this area remains sparse and why most doctors outside the Prison Health Service know so little about the day to day running of prison health care services. Many of the health care procedures carried out in prisons today were established decades and in some cases centuries ago. Tradition and protocol have a strong influence on the day to day running of prisons and internal audit and evidence based practice have not been widely embraced by prison health care staff. There is, therefore, a tendency for procedures such as the doctor's routine assessment of the health of each new prisoner, a statutory requirement by law for the last one hundred and thirty years, to become institutionalised. If the requirement to carry out such a procedure becomes more important than its purpose it runs the risk of becoming a formality which does

not fulfill the role for which it was originally intended. If there is then a continuing assumption that such procedures remain effective and worthwhile and they are not subject to regular review and periodic re-evaluation, as can be the case in prisons, the problem persists.

To date research on mental disorder in prisons has tended to focus on specific aspects of prison health care and prisoners' health care needs, and considerable attention has been paid to the high rates of morbidity and mortality amongst prisoners. This thesis takes a wider view of mental disorder in remand prisoners and it examines how health care services respond to prisoners with mental disorder and whether inmates with psychiatric treatment needs have these addressed during their time in prison.

The research on which this thesis is based was undertaken between August 1995 and July 1997. This principally comprises *The Durham Remand Study*, a two year research project undertaken by myself and two other researchers from the Department of Forensic Psychiatry at the University of Newcastle upon Tyne. The Durham Remand Study took the form of a prospective and longitudinal study of mental disorder in a cohort of 569 consecutive male remands to Durham prison each of whom were screened for mental disorder at prison reception by researchers and subsequently followed up throughout their unconvicted remand period.

In order to portray an overall picture of health care at Durham prison this thesis includes not only data obtained from subjects participating in the Durham Remand Study, but also information sought from a variety of other sources within the prison. Furthermore, although the focus is on health care for mentally disordered remand prisoners at just one large English remand prison, I undertook a limited inquiry into health care services in other prisons in England and Wales to provide insight into the similarities and differences in health care provision between Durham and other prisons in England and Wales. During visits to these prisons I inspected health care facilities and interviewed prison medical officers, prison health care workers and prisoners there. In addition to the information gained through personal research experience, I discussed the results of the Durham remand study with other psychiatrists involved in prison research and compared research findings. Through these and other contacts at the Home Office and in the Prison Service I obtained a considerable amount of information on prison health care. Finally, I had the opportunity to talk to Dr. Rosemary Wool, former Director of Health Care for Prisoners and Sir David Ramsbotham, the present Chief Inspector of Prisons to ascertain their views on health care provision for mentally disordered prisoners.

Because history plays an important role in dictating present day procedure and policy within prisons, understanding how prison medical services have developed over the last three centuries provides an invaluable insight into the structure and function of the present day Prison Health Service. For this reason I

have chosen to incorporate an historical perspective in this work, which begins with an outline of the evolution of prison medicine in the next chapter.

CHAPTER 2

PRISON MEDICINE: AN HISTORICAL PERSPECTIVE

JOHN HOWARD AND THE SOCIAL REFORM MOVEMENT

The first regular medical service for prisoners in England began in 1692, the year in which a surgeon from St. Bartholemew's Hospital, London was appointed to visit the inmates at nearby Newgate prison (Prewer, 1974, page 116; Sim, 1990, page 11). Similar services were developed in a few more English prisons during the early and mid 1700's, but the great majority of prisoners detained in gaols, prisons and other houses of correction continued to have no access to medical care of any kind during this time. Prisoners were kept in abysmal conditions; overcrowding and poor sanitation encouraged the spread of disease, many prisoners fell ill and large numbers died in custody.

At the beginning of the eighteenth century the Society for the Propagation of Christian Knowledge sent a committee to visit a number of English prisons. The committee found these institutions to be in a deplorable state: overcrowding and lack of ventilation were recognised as being important factors in the spread of plague in prisons, but it was not until 1752, following the infamous "black assizes" at Newgate prison in which fifty prisoners died from gaol fever, that

mechanical ventilators began to be installed in gaols to flood them with fresh air (Porter, 1995, page 15).

The second half of the eighteenth century saw the emergence of a social reform movement whose actions pressured the Government into bringing about substantial changes within all manner of English institutions, including prisons, goals, madhouses, orphanages, workhouses and hospitals. The improvement in conditions for prisoners that resulted is largely attributed to the work of the reformer and Bedfordshire landowner John Howard. Howard's campaign for prison reform began after his appointment as High Sheriff of Bedfordshire in 1773. Shortly after taking up this post he visited the local gaol in Bedford where he witnessed the poor conditions in which remand prisoners were being kept. His inspection of this gaol led him to investigate the management of prisoners in the prisons of neighbouring counties and he subsequently went on to visit many more prisons at home and abroad.

Howard wrote a number of papers, but most of his work on prisons is contained in two books: *State of the Prisons*, first published in 1777, with subsequent editions in 1780 and 1784 (Howard, 1784) and *An Account of the Principal Lazarettos in Europe*, published in 1789 one year before his death (Howard, 1789).

During his prison visits Howard witnessed cases of scurvy, cholera, smallpox and plague, but he soon realised that gaol fever, otherwise known as putrid or

malignant fever, and now recognised as typhus, posed the principal threat to the lives of prisoners. In *State of The Prisons* he records: “*I was fully convinced that many more prisoners were destroyed by it, than were put to death by all the public executions in the kingdom.*” (Howard, 1929, page 6). He also recognised that outbreaks of gaol fever and other infectious diseases were exacerbated by the insanitary conditions and overcrowding, remarking: “*Air which has been breathed, is made poisonous by to a more intense degree, by the effluvia from the sick...any one may judge of the probability there is against health, and life, of prisoners crowded in close rooms, cells, and subterraneous dungeons, for fourteen hours or fifteen hours out of the four and twenty. In some of those caverns the floor is very damp: in others there is sometimes an inch or two of water: and the straw, or bedding is laid on such floors; seldom on barrack bedsteads.*” (Howard, 1929, pages 4-5).

THE FIRST PRISON HEALTH CARE LEGISLATION

Howard won renown as a prison expert and in 1774 he gave evidence before the House of Commons who were at that time considering implementing an Act to improve prison conditions. Later that year the *Act for Preserving the Health Of Prisoners in Gaol and Preventing Gaol Distemper* (14 Geo. III c.59) was passed. The principal aim of the Act was to empower Justices of the Peace to intervene in the administration of prisons to ensure the maintenance of health standards within them. The 1774 Prison Act which is recorded in its original form by Porter (1995, pages 18-19) enabled Magistrates to enforce the cleaning of prison

accommodation, the scrubbing and white-washing of walls, and the provision of sick rooms and regular washing facilities for prisoners. In addition the Act gave specific instructions to Magistrates: “ *to appoint an experienced surgeon or apothecary, at a stated salary, to attend each gaol or prison respectively, who shall and is hereby directed to report to the said Justices by whom he is appointed, at each quarter-sessions, a state of the health of the prisoners, under his care of superintendence* ” (Porter, 1995, page 19).

Eighteenth century prisons and gaols were the responsibility of the local authorities and not central government as they are today. Local authorities took little interest in prison administration, and instead chose to delegate the task to gaolers whose main interest was financial. Because the 1774 Prison Act was not enforced by the Government, it was not widely implemented. In some prisons, however, changes were made in accordance with the Act; Sim (1990, page 15) reports that hygienic rituals were introduced at Gloucester prison following its opening in 1791 and, in 1794, Shrewsbury prison was one of the first to draw up model rules to improve the standards of medical care for its prisoners. According to these rules, the attending physician was required to: “*visit the patients every day, examine every person on admission, see every prisoner at least once a week, inquire into the state of his body and mind and if he had reason to consider that one or the other was affected by the discipline or the diet should, in conjunction with the chaplain, certify the same in writing to the governor for appropriate action to be taken.*” (Bluglass, 1990a, page 1322).

In some prisons new powers were abused. Prison surgeons who were afforded high status and whose opinions and practices were rarely questioned were among the offenders. For example, some prison doctors who had little or no experience in psychiatry saw it as their task to detect feigned madness. Sim (1990, page 15) provides accounts of their methods which include the administration of electric shocks and stimulating medicines to prisoners suspected of shamming insanity and the repeated immersion of disturbed prisoners in cold baths until they were exhausted. Ulterior motives may also have accompanied other practices sanctioned by prison doctors, such as the shaving of prisoner's heads and enforced dietary restriction. According to Ignatieff (1980, page 101), the medical rituals that accompanied admission "*had a latent but explicit purpose of humiliation*". He describes how on entry, convicts at Gloucester prison were "*striped naked, probed and examined by a doctor, and then bathed, shaved, and uniformed. This purification rite cleansed them of vermin and filth, but it also stripped them of those marks of identity that defined them as persons*".

MEDICAL SERVICES WITHIN AN EXPANDING PRISON SYSTEM

At the beginning of the nineteenth century medical provision in the prison system remained patchy and was generally substandard. The Gaol Act of 1820 (4 Geo IV. c.64) introduced by the Home Secretary, Sir Robert Peel, led to the appointment of doctors to most English gaols, although, such appointments usually provided only part-time or emergency cover by local general practitioners.

Progressive changes to the justice system during the late eighteenth and early nineteenth centuries led to a gradual reduction in the use of the death penalty and transportation to the colonies (the American War of Independence (1775-6) resulted in the abrupt and permanent cessation of transportation to this former colony and the Government finally halted shipments of convicts to New South Wales in 1840) (Hinde, 1951, pages 82-83). Instead, increasing numbers of prisoners were receiving long-term prison sentences, and as a result the prison population began to grow steadily from the beginning of the nineteenth century. To accommodate the expanding prison population and relieve the ageing floating prison hulks at Woolwich which were no longer able to cope with the demands placed upon them, new prisons were commissioned. Five new convict prisons were built during the first half of the nineteenth century, comprising: Millbank, Pentonville, Parkhurst, Portland and Dartmoor. In many respects these new convict prisons were revolutionary: the medical service that the convict prisons provided was far more comprehensive than that found in the remainder of the prison system; each had an infirmary and all employed one or more full-time medical officers.

Millbank was completed in 1821 and was the first of the new prisons to open. It was also the first English penal institution to appoint a surgeon who was obliged to reside and work exclusively within the prison, whose duties included attending to the infirm and examining new prisoners (Hardy, 1995; Prewer, 1974; Sim, 1990).

The rate at which medical services developed throughout the prison system as a whole did not match the rate of reform in the justice system during the early nineteenth century. In local prisons, medical provision was often scant, and some prisons provided no medical service at all. Sim (1990, page 23) believes that the passing of the New Poor Law in 1834 exacerbated the situation by increasing the emphasis on discipline within prisons and placing prisoners below paupers and free labourers in the hierarchical access to medical care.

The failure of local authorities to comply with the standards of prison administration laid down in earlier Acts of Parliament, led in 1835 to the establishment of Government Inspectors of Prisons, and from that time onwards local prison authorities became subject to increasing Government scrutiny and control. In spite of this, medical provision in some prisons remained almost non-existent. In 1836 the First Report of the Inspectors of Prisons (Sim, 1990, page 23) described the lack of medical care and the appalling conditions at Ipswich Borough Gaol; the prison had no infirmary and the surgeon there did not examine new prisoners or keep records of any kind. Subsequent reports by the Prison Inspectorate highlighted similar problems in many other prisons, and although attempts were made to standardise medical care throughout the prison system, the Government's demands were met with resistance from the local authorities who remained defiant. Consequently disorder in the local prison system persisted and medical services in local gaols remained fragmented and isolated; prison medicine continued to be practiced in an idiosyncratic manner

and prison doctors voiced diverse views on the causes of prison morbidity and mortality, the rates of which remained high (The Lancet, 1838).

MEDICAL EXPERIMENTATION IN THE CONVICT PRISONS

The medical service within the five large convict prisons developed at a far greater pace and was better integrated than that in the local prison system. The Act for Better Government of Convict Prisons (13 & 14 Vict c.39), passed in 1850, brought the convict prisons under Government control and so helped to ensure better regulation of medical practice in these prisons. This, however, did not necessarily translate into better medical care. The convict prisons were certainly less squalid than local gaols, but their regimes were harsh. For example, Dr. William Guy who occupied the post of medical superintendent at Millbank penitentiary between 1859 and 1865 was an ardent disciplinarian and the regime he ran was tough. Guy abhorred waste, he saw idleness as the root of society's problems, and he had a particular and long-standing interest in the effects of the diet on the criminal mind. But dietary manipulation had already caused problems at Millbank. Less than five years after its opening, severe rationing ordered by the prison's doctors resulted in an outbreak of scurvy and thirty one deaths. The inquiry that followed this incident led to the dismissal of the Principal Medical Superintendent, Dr Copeland Hutchinson (Sim, 1990, page 17). Thereafter, the subject of prisoners' diets remained a contentious issue, and the possible link between dietary excess and criminal vice was a topic of heated debate amongst prison doctors.

In 1863 a Select Committee of the House of Lords, the Carnarvon Committee which was set up to inquire into standards of prison discipline sanctioned research into the effects of prison dietary manipulation (Wiener, 1995, pages 52-53; Sim, 1990, pages 34-35). The following year, William Guy was appointed to chair a departmental committee (consisting of three prison medical officers) whose purpose was to investigate this subject in detail and achieve a level of dietary provision just sufficient to maintain a prisoner's health. Rations were reduced to even more meager levels and meat was excluded from the prison diet. Dietary restriction in some prisons were so severe that prisoners were fed only two portions of gruel each day, and some inmates had to resort to eating candle wax and tallow to stave off hunger (Hardy, 1995, page 66). Not surprisingly a number of prisoners died from malnutrition and disease brought about by dietary experimentation. Guy had warned against tampering excessively with the prison diet, but the situation had clearly gone beyond his control. He left prison medicine in 1865 to be appointed to the Commission on Criminal Lunacy, but in his absence the debate on prison diet continued. Some doctors expressed a view that *"any excess of liberality in prison scale has been repeatedly found to act as an efficient inducement to crime"* (British Medical Journal, 1868), whilst others were of the opinion that the diet in English county and borough prisons was *"so low as to be considered punitive and unfit to sustain health"* (British Medical Journal, 1866). As a consensus view could not be established the 1878 Penal Servitude Commission attempted to settle the issue, declaring that *"prison diet ought in all cases to be strictly limited to what is necessary to maintain prisoners*

in health, and to enable them to perform the work imposed upon them." (Hardy, 1995, page 68). In essence this was exactly what the Carnarvon Committee had recommended fifteen years earlier.

The experimentation sanctioned by the Carnarvon Committee had been poorly regulated and unscientific. Recognising this, the Government by means of the 1865 Prison Act (Vict c.126) tried to set standards for prison research to ensure that such work was conducted in a more rigorous and scientific way.

OVERCOMING THE LACK OF MEDICAL PROVISION IN THE LOCAL PRISON SYSTEM

The 1865 Prison Act drew attention to the lack of medical provision in the local prison system, and it included a number of orders relating specifically to health care in these institutions: every local prison was to have an infirmary, only surgeons registered under the Medical Act of 1858 were to be appointed, and prisoners were to receive regular medical attention, including an examination of all new arrivals by the prison surgeon. Considerable emphasis was also placed on the need for the doctor to be alert for signs of insanity in prisoners, especially when undertaking the examination of new arrivals (Smith, 1981, page 21; Hardy, 1995, pages 59-60). In common with earlier legislation aimed at improving conditions in local prisons, however, the Prison Act of 1865 had little impact. Once again the main reason for this was that with local gaols remaining outside of the Government's jurisdiction the Act was not enforced.

An ethos of “*hard fare, hard labour and a hard bed*”, as recommended by the Carnarvon Committee prevailed in prisons (Smith, 1983b). Reports of harsh conditions and low standards, especially in local gaols, continued to appear with regularity. The following account in *The Lancet* (1868) of the inquest into the death of Edward Barrett, an eighteen year old imprisoned for two months for a minor theft is one such example. The report reads: “*The inmates are fed - we can not say sustained - on a diet which would not keep a healthy adult alive for any length of time...He (the deceased) went in apparently strong and well, and came out after the expiry of his term of two months so emaciated and weak that he could hardly walk...from the prostration he contracted in prison he never recovered; and not withstanding that he received every attention and was generously dieted, he was found dead in his bed in the house in which he lodged*”.

Barrett had been put to work on the treadwheel, a machine used throughout prisons during the nineteenth century. Convicts assigned to the treadwheel steadied themselves against a hand rail and climbed the slatted steps of a large revolving cylinder set to rotate at approximately fifty steps per minute. While some of these machines were geared to grind corn or raise water most performed the function of purposeless hard labour for the masses in prison. Being unable to perform this arduous task Barrett was punished, but not before he had been seen by a doctor. The account given in the *Lancet* continues: “*The medical examination of a complaining prisoner is of the most perfunctory kind. Not only*

is no convict's health inquired into on his coming in, even though as it appeared in BARRETT'S case, he be suffering from pulmonary tuberculosis; but when the labour of the mill proves more than he can bear, he is simply "looked at" by the prison surgeon, reported as "nothing the matter with him" to the warder, by whom, in turn he is reported to the governor, who says - "coming off the wheel without cause. Two days bread and water."

A CENTRALLY COORDINATED PRISON MEDICAL SERVICE

Although prison doctors in the convict prisons spent more time reporting on the health of inmates than treating the sick, the disciplinary regimes and hygienic rituals which they had helped to introduce had resulted in a significant reduction in the spread of infectious diseases such as gaol fever. This fact was noted by Benjamin Ward Richardson a renowned medical humanitarian who quoted in the 1876 report of the Directors of the Convict Prisons remarked: *"nothing in the sanitary history of this country is so astonishing as the history of gaols within one hundred years...epidemic disease is under instant control"* (Hardy, 1995, page 59). The situation in the local prison system, however, remained desperate. What changes had been instituted resulted largely from campaigns by prison reformers following in John Howard's footsteps (Hinde, 1951), and medical services were in a state of disarray.

Recognising that legislation had done little to improve standards of medical care in local gaols, central Government finally took over responsibility for the

administration of the local prison system in 1877 and in doing so adopted overall responsibility for prison medical services (Hardy, 1995, page 69). As the Government intervened to regulate standards of discipline and management throughout the prison system prison doctors were encouraged to see themselves as professional state servants, who as a body had a role to play in the maintenance of order within prisons. Oppressive practices, some of which were sanctioned and regulated by prison doctors caused increasing disquiet amongst prisoners. Prison authorities attempted to regain order by responding with force, causing further unrest, and at the end of the nineteenth century there were a series of prison riots.

The excessive emphasis placed on the maintenance of prison discipline during the late Victorian era caused prison medical care to suffer and in some prisons it was sadly neglected. After a spate of deaths in the early 1880's at one prison where no doctor was in post, the Prison Commissioners were severely criticised by the Lancet for trying to secure medical provision in prisons at the lowest possible expense (The Lancet, 1882). The Lancet was also of the opinion that prison conditions were not always as favorable as official sources indicated and in 1887 in a article on the state of accommodation for prisoners awaiting trial, The Lancet reported: *"nearly every requisite of humanity, and even of common decency, is wanting; and scenes still take place which it might reasonably have been be hoped belonged to fifty or a hundred years ago"*. The report continues with a description of horrific, unsanitary conditions and barbaric practices witnessed throughout the country's prisons and it concludes: *"We have had*

repeatedly to comment on the deaths of prisoners in gaol from pneumonia or suicide, and other causes, and we are repeatedly told that these are the exceptions - that no system was ever more perfect. We doubt it" (The Lancet, 1887).

Persistent low standards within what had formally been the local prison system resulted in further Government action, and in 1894 the Home Secretary appointed a departmental committee on prisons, which became known as the Gladstone Committee. The Gladstone Committee under-took a wide ranging investigation into prison standards. Whilst their report was awaited the speculation and debate on prison standards increased. In 1895 The Lancet attacked the administration of local prisons, this time drawing attention to two main subjects of unfavourable criticism: the prevalence of insanity and the death-rate (The Lancet, 1895). The Lancet's comments were seen as reflecting on the standards of medical officers in prisons, whose response to this perceived insult was blunt. Dr. Quinton, medical officer at Wandsworth prison, in a letter published the following week refuted many of the Lancet's claims. He drew attention to a recent circular in which the Home Secretary had declared that: "*prisons are places of penal discipline*", and therefore Quinton argued that prisons were "*not places where they (prisoners) can retire to recruit their health*" (Quinton, 1895). Thornton (1895), another prison doctor who wrote on the same subject two weeks later added: "*It is not always remembered by writers that the inmates of a prison are largely made up of the scum of our population.*" and he continued on the subject of suicidal behaviour: "*Some years ago in my*

gaol in a fortnight four prisoners pretended to hang themselves in order to escape work. In each case I informed the governor (now dead) that I believed that the prisoner was humbugging”.

The report of the Gladstone Committee which was delivered in 1895 encompassed ideas first put forward over fifty years earlier by prison reformers including Elizabeth Fry (Summers, 1995) and Jeremy Bentham (Wiener, 1995) who believed that prison could be used for a positive purpose. Whilst the Gladstone Committee established that rehabilitation of the offender should become a priority for prisons, it also upheld many of the views expressed by members of the Prison Medical Service concerning the use of discipline and punishment to achieve this aim. The recommendations of the Gladstone Committee were put into effect in the 1898 Prison Act. The importance of the role played by prison doctors in the maintenance of discipline and the moral education of prisoners was recognised, and their role as experts in psychiatric examination and classification of prisoners was seen as fundamental for these purposes.

INTEREST AND EXPERTISE IN INSANITY

As the prison population began to decline during the latter half of the nineteenth century, the convict prisons adopted a new role as centres where “weak minded” prisoners could be studied and reported on. Although it was recognised that the most seriously insane prisoners should be cared for in asylums and not in prison,

few vacancies and a general concern about the lack of security offered by asylums meant that mentally ill prisoners tended to remain in prison.

Broadmoor which opened as a secure criminal lunatic asylum in 1863 offered a solution. It took patients from asylums and convict prisons, but initially at least this proved to be problematic and eleven years later in 1874 the transfer of convicts to Broadmoor was temporarily halted because such individuals were perceived as being more troublesome and more likely to escape than other patients. Transfers recommenced in the 1880's, but a large number of insane prisoners remained within the prison system, either because they were not considered suitable for transfer, or because vacancies could not be found elsewhere (Gunn *et al*, 1978, pages 6-7).

Because prisons continued to house large numbers of mentally abnormal individuals, prison doctors were increasingly regarded as experts in the field of psychiatry. According to Sim (1990, page 63), local magistrates began to turn to prison medical officers for help when faced with individuals whom they suspected were suffering from mental disorder. As a result, from the end of the nineteenth century onwards, the practice of remanding to prison for psychiatric assessment and reports became increasingly popular.

A small group of prison doctors, mainly those from the convict prisons, were well trained in psychiatry and suitably qualified to assess and categorise prisoners' mental health problems. Indeed some of these men were highly

influential in academic circles. For the majority of prison doctors however the Prison Medical Service offered low rates of pay and poor working conditions, and recruitment into the service was a problem.

REDUCING THE NUMBERS OF MENTALLY INFIRM PRISONERS

The Gladstone Committee's recommendations brought about further improvements in conditions for prisoners. At the beginning of the twentieth century the treadwheel was abolished, the prison diet was improved, and prisoners who had previously had to remain silent when in the company of other inmates were allowed as a privilege to talk to one another. The prison authorities, who at this time wished to concentrate on the punishment of crime and the rehabilitation of the offender, saw the large number of mentally infirm individuals in prison as an obstacle to achieving this goal. The annual prison reports at the beginning of the twentieth century drew attention to the lack of facilities available for feeble minded prisoners, and it was recommended that these individuals were more suited to receiving medical care outside of prison (Gunn *et al*, 1978, page 10).

The Mental Deficiency Act of 1913 enforced the setting up of institutions for the mentally deficient and gave the courts powers to commit mentally deficient offenders to these institutions rather than sending them to prison. The Act also made it possible for sentenced prisoners who fell within the definitions of the Act to be transferred to asylums (Gunn *et al*, 1978, pages 13-14). The outbreak of

war in 1914 delayed the implementation of the Act, but ultimately it did have the desired effect of reducing the number of seriously mentally deficient offenders in prison.

GRAVE DEFECTS IN PRISON MEDICAL CARE PERSIST

As interest in rehabilitative techniques grew, the Commissioners of Prisons encouraged prison doctors to combine their expertise in the fields of psychiatry and criminology and apply these skills to the treatment of offending behaviour (Smith, 1983b). Less of the prison medical officer's time was therefore devoted to the care of physically and mentally ill inmates and as a result these prisoners suffered. The report of the Prison System Inquiry Committee which was published in 1922 under the title: *English Prisons Today* (Hobhouse & Brockway, 1922), brought this and other problems to light. *English Prisons Today* was the product of a comprehensive study of the prison system undertaken between 1914 and 1918 which devoted a considerable amount of attention to prison medical services. The report describes medical care in many prisons at that time as inadequate and prison medical officers were said to be engaged in the diagnosis of mental cases well beyond their training or level of qualification. In addition, some prisons were found to have no hospital facilities while in others the infirmary was used to house persistently rebellious prisoners. The report also contains accounts of what would now be considered unethical medical practices, including the use of authorised "*painful tests*" administered to prisoners suspected of feigning illness. The following account taken from *English Prisons*

Today describes the use of “*the cage*” at Dartmoor prison, a glass box reinforced with metal bars, just large enough to accommodate a standing man, designed for this purpose: “*A convict apparently becomes insane and is suspected of shamming. He is removed to hospital, stripped and placed in the cage which is guarded by a warder and inspected by the doctor. Above the convict’s (supposed lunatic’s) head is an ordinary shower bath apparatus which is turned on and left on if need be for fifteen minutes (but not more)*” (Hobhouse & Brockway, 1922, page 290).

The 1922 report of the Prison System Inquiry Committee revealed grave defects in the Prison Service, but it had little effect on prison procedure and the practice of prison medicine. Interest continued to centre around the development of psychotherapeutic techniques for the prevention of future antisocial behaviour, and the role of the prison medical officer remained firmly rooted in the domain of discipline and reform of the criminal mind.

In the introduction to the 1929 Everyman edition of John Howard’s *State of the Prisons* (Howard, 1929), the editor, Kenneth Ruck describes a prisoner in “*modern times*” as being “*potentially in a worse condition than a slave, because the slave is the property of someone whose interest it is to keep his property in serviceable condition*” (page xiii). Sim (1990, pages 68-69) describes the prison regime of the 1920’s and 30’s as “*hard and uncompromising*”. Doctors were involved in the administration of punishment to prisoners and their duties included being present at floggings. Bowden (1976) in an examination of the

role of the prison medical officer states that: *“a doctor cannot serve two masters...his (the prison medical officer’s) dual allegiance to the state and those individuals who are under his care results in activities that largely favour the former.”* In 1922, Mary Gordon a Medical Inspector of Prisons was more forthright in expressing her opinion about the loyalty of prison medical officers, stating: *“The prisoner does not consult the doctor, the State pays the doctor and consults him about the prisoner”* (cited in Gunn *et al*, 1978, page 5).

THE NEW PRISON REFORM MOVEMENT

During the 1940’s, Brockway, co-author of *English Prisons Today*, the report of the Prison System Inquiry Committee (Hobhouse & Brockway, 1922), joined the committee of the newly established Prison Medical Reform Council. This organisation published a series of reports over a twenty year period in which *“grave defects in the Prison Medical Service”* are identified, and it was alleged that *“medical care was of the most perfunctory and casual kind imaginable; and that regular medical examinations were the merest matter of form, often only a glance or a question.”* (cited in Sim, 1990, pages 70-71). Some of the Prison Medical Reform Council concerns, particularly those about inadequate resources filtered through to Government level and in 1952 a further Prison Act was passed. According to this Act each prison was to have a medical officer in post and the level of medical standards was to be improved.

In order to provide extra help for prison doctors, the Prison Service began to recruit more health care staff. Hospital officers (now known as health care officers) had been in existence since the turn of the century, but now more of them were required to perform nursing duties, and these new posts were usually filled by recruits from the armed forces medical corps. More psychologists were employed, but their role was to assist in the investigation of the criminal mind and help with the management of prisoners with behavioural difficulties. The Prison Medical Service grew, but reform organisations remained skeptical, adopting the view that this expansion in resources would do little to improve the delivery of health care to prisoners because the service continued to focus on providing medical explanations and treatments for crime.

CALLS FOR INTEGRATION WITH THE NATIONAL HEALTH SERVICE

To help overcome some of the problems associated with the delivery of medical services to prisoners, the Howard League for Penal Reform in its annual report for 1954 suggested that *“a closer relation between the Prison Medical Service and the National Health Service should be encouraged.”* (cited in The Lancet, 1955). In 1957 The Lancet reported on a matter brought to the attention of the Home Secretary, the training of prison doctors. At that time only six of the forty-nine full time medical officers employed in the Prison Service held the Diploma of Psychological Medicine (The Lancet, 1957). On the subject of psychiatric reports to the courts, and the level of expertise required by prison doctors providing this service, Bartholomew (1961), writing in the British Medical

Journal commented: *“The truth is that many medical officers reporting on the mental state of prisoners not only lack a diploma but also (at least initially) lack experience”*.

Parliamentary debate over the standards of training of prison doctors and the isolation of the Prison Medical Service from the National Health Service resulted in the creation of a working party to investigate these matters. The *Report of the Working Party on Organisation of the Prison Medical Service* (the Gwynn report) was published in 1964 (cited in Sim, 1990, pages 100-102). The report made 15 recommendations. Some of the organisations who had contributed to the report (amongst whom were the Royal College of Physicians and the Institute of Psychiatry) supported integration of the Prison Medical Service into the National Health Service, but ultimately this was not one of the report's recommendations. Closer links between the two organisations were recommended, but the working party concluded that the Prison Medical Service should remain separate from the National Health Service, that the bulk of prison health care should continue to be provided by doctors employed full-time by the Prison Service and that this organisation should be expanded.

PHYSICAL AND PHARMACOLOGICAL METHODS OF CONTROL AND RESTRAINT

During the early 1960's, concerns were voiced about prisoners being subjected to outdated methods of mechanical restraint. Straight jackets, which had long since

been abandoned in British mental hospitals were still being used in prison and in 1961 the death of a prisoner at Dartmoor who was being restrained in a straight jacket in a padded cell led to the condemnation of such practices (Kidd, 1961).

Prison doctors defended the role of the padded-room but they also expressed the view that new antipsychotic and tranquilising drugs should eventually replace more traditional methods of control (Angus & Lontinga, 1961). These drugs proved an effective and increasingly popular treatment for mental disturbance, but their use in prison has not been without controversy. More recently the issue of consent to treatment by prisoners has been addressed by English courts and following the case of *Freeman v's Home Office* ([1984] 1 All ER 1036, cited in Livingstone & Owen, 1993, page 117), it was established in law that a prisoner has the right to refuse medical treatment just as any other competent adult does.

PRISON SUICIDES

According to Liebling & Ward (1995, page 119), the first substantial study of suicide in prisons was carried out in 1879 by Dr R. M. Gover, a convict prison medical officer. His findings indicated that the suicide rate in local prisons, which had only come under Governmental control two years beforehand, was four times that found in the more tightly regulated convict prisons. Gover also discovered that most suicides occurred within one week of imprisonment and that suicide was most prevalent amongst first time prisoners and those on remand.

Further research in this field was undertaken at the end of the nineteenth century. Strahan observed that between 1879 and 1891 the proportion of all deaths in prison caused by suicide was twenty four times that found outside of prison (cited in Liebling & Ward, 1995, page 121). Whilst this does not provide a direct comparison of suicide rates (because the number of deaths from all causes was also higher in prison), it still indicates that suicide amongst prisoners was relatively common during this twelve year period.

More recently, Dooley (1990) who studied 98% of prison suicides between 1972 and 1987 reported an increase in the suicide rate far in excess of the rate of rise of the prison population during this period. During the late 1980's the suicide rate in prison increased further with spates of suicides occurring in institutions for young offenders. This prompted the Home Secretary to commission the Chief Inspector of Prisons to review suicide and self harm amongst prisoners. The report by Judge Tumin (H M Chief Inspector of Prisons, 1990) made one hundred and twenty-three recommendations; sixteen of these focused directly on prison reception and health screening procedures and a further thirteen were directly related to other aspects of prison health care.

THE TRAINING OF PRISON HEALTH CARE STAFF

After the Gwynn Report (cited in Sim, 1990, pages 100-102) was published in 1964 there were no further inquiries into prison medical services for over twenty

years. In 1985, the House of Commons Select Committee on Social Services, a body of professionals who review important health and social issues, decided to investigate the Prison Medical Service. The report (House of Commons Select Committee on Social Services, 1986), published the following year made fifty-eight recommendations. Once more the issue of transferring responsibility for prison health care to the National Health Service was addressed. There was considerable support for this, but in keeping with the recommendations of the Gwynn Report, the committee chose to reject this option and recommend instead further integration of the Prison Medical Service with the National Health Service. The report also made other important recommendations concerning the training of prison health care staff, the organisation of prison health care services, and medical practices and ethical principals within prison. Although the Government accepted forty-eight of the report's fifty-eight recommendations, these were poorly implemented and so, ultimately, this comprehensive inquiry had little effect on prison health care standards.

One positive outcome from the House of Commons Select Committee report was the establishment of a working party by the Royal College of Physicians to consider the recruitment and training of prison doctors (Working part of the Royal College of Physicians, 1990). This working party delivered its report three years later in 1989: whilst it too considered bringing the Prison Medical Service under the National Health Service, it dismissed this as impractical. Instead it chose to recommend considerable reform of the Prison Medical Service and improved training for prison medical staff.

In the same year as the Royal College of Physicians report was delivered the Prison Medical Service was subject to particular attention from the Chief Inspector of Prisons (British Medical Journal, 1990). The Chief Inspector's report was highly critical of prison health care, citing wide spread inefficiency, and poor standards and training of prison health care staff as being amongst the main problems in the service.

Following the publication of these critical reports by the Chief Inspector of Prisons and the Royal College of Physicians, the Home Office decided to undertake its own efficiency scrutiny of the Prison Medical Service. This report published in July 1990 (Home Office, 1990a) detailed fundamental problems relating to the structure and management of the service and the delivery of medical care to prisoners. The recommendations which were wide ranging included: improved management structure, accountability and aims, better training and resources, integration with the Prison Service as a whole, a closer alignment with the National Health Service and more clinical links with this service. The report's authors also recommended that the Prison Medical Service remain distinct from the National Health Service and that its name be changed to the Prison Health Service.

During April 1990, whilst the efficiency scrutiny was being undertaken a series of prison riots occurred. The inquiry that followed was headed by Lord Justice Woolf, who reported a consensus of opinion amongst those who provided

evidence as to the causes of the disturbances, including: “*insanitary and overcrowded physical conditions to which prisoners were subjected*”; “*the negative and unconstructive nature of the regime*”, and “*the lack of respect with which prisoner’s were treated*” (Home Office, 1991). The report also recommended that the number of mentally disordered people within the penal system should be minimised. Indeed by the time the Secretary of State presented the Woolf report to Parliament in February 1991, the Home Office had already started to take action. Some six months after the riots, a Home Office circular was issued to the courts, police, probation and prison medical officers throughout England and Wales (Home Office, 1990b). The aim of this was to draw attention to the needs of mentally disordered offenders and the legal powers available to ensure that wherever possible these persons receive care and treatment from health and social services. This communication contained specific instructions for prison doctors to remind them to be alert for signs of mental disorder when examining prisoners (especially those on remand) and to make effective use of the provisions of the Mental Health Act 1983 in managing mentally disordered offenders.

The provision of adequate treatment facilities for mentally disordered offenders was the main focus of the Reed report (Department of Health and Home Office, 1992). This wide ranging report on services for mentally disordered offenders re-iterated the importance of addressing the treatment needs of such individuals in appropriate settings; it also recommended improved facilities for diverting mentally disordered offenders from the criminal justice system and it called for

an increase in secure psychiatric beds to facilitate this. The needs of prisoners were addressed within the Reed report by the Prison Advisory Group (Department of Health and Home Office, 1991) who made recommendations aimed at reducing the number of mentally disordered entering prisons, improving the identification of mental disorder at prison reception by laying down standards for reception health screening, promoting the transfer of mentally ill prisoners to hospital, and for the mentally disordered remaining in prison, ensuring adequate health care provision during imprisonment and post-release.

Needless to say shortfalls in the prison health care system, exposed by these reports and inquiries, resulted in considerable media interest, and a number of articles expressing strong views on the matter were published in the medical press. There were demands for better treatment provision for mentally disordered offenders (Dillner, 1992), Chiswick (1992) called for greater emphasis on prison psychiatric services being contracted out to the National Health Service and Smith (1992) advocated handing total responsibility for the health care of prisoners over to the National Health Service.

The report by the Royal College of Physicians on the recruitment and training of prison doctors (Working part of the Royal College of Physicians, 1990), prompted three of the medical Royal Colleges to join forces to investigate the subject in more detail. Although completed in June 1992, the report of this working party was not published until May 1994 (Royal College of Physicians, Royal College of General Practitioners, Royal College of Psychiatrists, 1992).

The report highlighted the lack of research into prison medicine, it outlined the problems created by poor recruitment and lack of training, compounded by a tendency for prison doctors to become professionally isolated. Shortfalls were also identified in the doctor-patient relationship arising from the doctor's difficulties in maintaining confidentiality and his involvement in punishment. Central to the report's recommendations was the view that prisoners should be provided with a level of health care equal to that found in the National Health Service, and in order to achieve this the working party proposed that a series of training programmes should be established for doctors working in prisons.

Improved training for prison health care staff has also been recommended by the Chief Inspector of Prisons (Annual Report 93-94, cited in Her Majesty's Inspectorate of Prisons, 1996, appendix 4, pages 37-43). Further recommendations made by the Chief Inspector in the following year's annual report include more privacy and time for proper medical examinations and better planning and responsibility for health care within the Prison Health Service (Annual Report 94-95, cited in Her Majesty's Inspectorate of Prisons, 1996, appendix 5), and more recently in a discussion paper entitled *Patient or Prisoner?* (Her Majesty's Inspectorate of Prisons, 1996), the Chief Inspector puts forward a strong case for the National Health Service to assume responsibility for prison health care.

THE PRESENT DAY PRISON HEALTH SERVICE

Primary health care in prisons in England and Wales continues to be provided by the Prison Health Service which is run by the Prison Service under the control of the Home Office. The Prison Health Service is considerably smaller than the National Health Service: according to the most recently revised figures (unpublished Home Office statistics), in November 1996 the Prison Health Service employed one hundred and forty-four full-time and one hundred and forty-six part-time medical officers, while figures updated in March 1996 (cited in Her Majesty's Inspectorate of Prisons, 1996, appendix 2) indicate that at that time there were 1458 prison health care workers in post, consisting of 557 nurses and 901 prison health care officers (including senior grades). Only 280 of the 901 prison health care officers held nursing registration. This means that during 1995-96, 40% of prison health care staff employed in a nursing role were without state nursing qualifications. Of the 60% who were qualified nurses only one third were Registered Mental Nurses.

Standards for the delivery of health care in prisons in England and Wales are laid down by the Prison Service. Two documents are of particular relevance to prison health care staff in their daily work, *Standing Order 13* (April 1991) and *Health Care Standards for Prisons in England and Wales '95*. These contain the standards and guidelines relating to the delivery of health care to prisoners. *Standing Order 13* is particularly concerned with the overall responsibilities and duties of prison health care staff and how this relates to their clinical practice in

every day and special situations. It states that allowing for the constraints imposed by the prison environment, prisoners should be provided with a quality of care commensurate with that provided by the National Health Service for the general community. The importance of regular medical attendance and reception health screening are emphasised. Prison doctors are reminded that they should at all times observe the United Nations Code of Medical Ethics and principals relating to the role of health personnel in the protection of prisoners and detainees against torture and other crimes, inhuman or degrading treatment or punishment. The principals of consent to treatment are also highlighted.

Health Care Standards is a more proscriptive document which dictates standards relating to particular aspects of health care. Once again, health assessment at first reception receives a considerable amount of attention.

International legislation governing the provision of medical services in prisons exists in the form of *The European Prison Rules*, laid down by the Council of Europe in 1987 (cited in Muncie & Sparks, 1991, ch 11). These rules include: a requirement for the services of at least one qualified general practitioner to be available at each institution, the mandatory examination of every new prisoner by a medical officer who is instructed to pay particular attention to the discovery of physical and mental illness, and various other directives concerning the medical officer's role in inspecting and advising upon diet, hygiene and sanitation. These rules are distinctly reminiscent of the requirements laid down in previous English Prison Acts dating back to the nineteenth century. Just as

compliance with these Acts was poor, there is concern that the European Rules are weakened by loopholes that permit compliance at barely minimum levels (Muncie & Sparks, 1991, page 211). The report of The European Committee for the Prevention of Torture and Inhumane or Degrading Treatment (cited in The Lancet, 1991) which visited five "local" British prisons in 1991 appears to support this view. The committee described a combination of overcrowding, lack of sanitation and inadequate activities which constituted "*inhumane and degrading treatment*". More-over, "*normal ethical standards were being systematically violated during medical consultations, examinations were perfunctory and confidentiality was at hazard*".

Although external bodies have been highly critical of the delivery of health care within British prisons, such organisations have little or no direct power to effect change. Prisons are institutions in which the maintenance of discipline and security are seen as the main priorities and therefore health care is a secondary issue.

CHAPTER 3

MENTAL DISORDER IN THE PRESENT DAY PRISON SYSTEM AND THE RATIONALE FOR THE DURHAM REMAND STUDY

THE PROBLEM OF THE MENTALLY DISORDERED IN PRISON

In the United States, prisons and jails have been dubbed America's new mental hospitals. The number of severely mentally ill individuals entering these institutions is steadily increasing and it is estimated that they now house in excess of twice the number of severely mentally ill in state mental hospitals (Torrey, 1995). Prisons are not appropriate places to manage such individuals and American prison health care is struggling to cope with the problem (Berkman, 1995; Anno, 1993).

Similar problems in English prisons were highlighted in a series of well researched articles in the mid 1980's (Smith, 1984a; 1984b). Bluglass (1988) subsequently drew attention to the lack of improvements despite a considerable number of inquiries into the management of the mentally disordered in prison, and the inadequacy of Home Office and Department of Health reports which relied heavily on limited information available from censuses of "mentally disturbed" prisoners carried out by prison medical officers.

THE PREVALENCE OF MENTAL DISORDER IN DIFFERENT PRISON POPULATIONS

Prison research has demonstrated that psychiatric morbidity is a frequent finding amongst prisoners in westernised countries. Coid's meta-analysis of studies of psychiatric morbidity in sentenced prisoners revealed a raised level of neurotic symptomatology, but an incidence of psychotic and neurotic illness that was not significantly greater in prisoners compared to the general population (Coid, 1984). More recent research has shown marginally higher rates of psychosis in sentenced prison populations in other westernised countries: in Australia, the prevalence of psychosis amongst sentenced prisoners is reported at 3% (Herrman *et al*, 1991), and according to Smith *et al* (1996), 4% of the relatively small number (126) of sentenced prisoners they studied in The Republic of Ireland suffered from functional psychotic disorders. In England and Wales, however, a recent large scale point prevalence study of psychiatric disorder in sentenced prisoners by Gunn *et al* (1991) which used data collected independently by psychiatric researchers detected psychotic disorders in 2% of these prisoners. Although Gunn *et al* (1991) found the prevalence of psychosis was comparable with that in the community, 37% of prisoners they studied suffered from psychiatric disorders, reflecting a high level of disorder and treatment needs in this group of prisoners.

Until recently less has been known about the prevalence of mental disorder in remand prisoners. The practice of remanding to prison for psychiatric reports, the less stable nature of the remand population, and potentially less time and fewer opportunities to screen out and divert the severely mentally disordered at this earlier stage in criminal proceedings suggest that the prevalence of mental disorder should be higher in remands compared to sentenced groups of prisoners. Research has also identified a number of other factors which mean that mental disorder, and in particular mental illness is even more likely to be encountered in remand prisoners. According to Teplin (1984), mentally disordered individuals are more likely to be arrested than non mentally disordered individuals in similar circumstances, and following arrest, Taylor & Gunn (1984a) have demonstrated that not only are mentally ill individuals who commit acts of violence perceived as more dangerous simply by virtue of their mental illness, but that remand is also more likely even when lesser offending occurs in association with mental illness. Other factors relating to an individual's immediate circumstances and which may be consequent upon mental disorder may also make remand more likely, one example being homelessness (Michaels *et al*, 1992).

In the United States research on jail detainees confirms high rates of psychiatric morbidity amongst prisoners awaiting trial. North American jails are similar in many respects to English local remand prisons, one of their main functions being to house prisoners awaiting trial (unconvicted remands). Teplin (1990; 1994) who studied men in urban jails between 1983-84, reports high rates of psychiatric disorder; she found that 30% of these inmates suffered from current severe

disorders, (mental disorders and substance use disorders combined) and in excess of 6% had current and severe mental disorders (psychoses and major mood disorders), a rate two to three times higher than that found in the American general population.

During the 1980's, whilst Teplin's work in the United States was on-going, research on English remand prisoners began to provide insight into the mental health and treatment needs of prisoners in this country. Studies by Coid (1988a; 1988b) and Robertson *et al* (1994) had an emphasis on treatment needs and provision for prisoners presumed to be suffering from mental disorder, whilst Taylor & Gunn (1984a; 1984b) concentrated on prevalence issues and outcome in terms of conviction and sentencing. Taylor & Gunn (1984a) considered nearly 9% of their study population to be psychotic, but concluded that this was almost certainly an under-estimate. Whilst this study provided valuable information, it had a number of methodological draw-backs: it was based at Brixton, a prison to which individuals suspected of suffering from mental disorder were preferentially remanded for reports, biasing the study population, and it relied on information contained in prison records to make diagnoses which is also likely to have influenced results. These factors mean that the extent to which the findings of this study can be generalised throughout the remand population is limited.

Further research on rates of mental disorder in the prison population was conducted in 1993-4 by researchers from the Institute of Psychiatry (Brooke *et al*, 1996). Brooke *et al* used the methods previously employed in the Institute's

sentenced study (Gunn *et al*, 1991) to estimate the prevalence of mental disorder in the unconvicted male remand prison population. Compared to the sentenced study which detected psychiatric disorder (including substance misuse) in 37% and psychosis in 2% of subjects, Brooke *et al* (1996) reported psychiatric disorder in 63% and psychosis in 5% of unconvicted male remands. Treatment needs amongst remand prisoners were also greater; Gunn *et al* (1991) judged 23% of sentenced prisoners to have immediate treatment needs including 3% who required transfer to hospital for psychiatric treatment, while amongst the remands, Brooke *et al* (1996) recorded the same level of treatment need in 55% and 9% respectively.

SUBSTANCE MISUSE IN PRISONS

In the U. K. general population there has been a dramatic increase in the use of illicit drugs in recent years. This is reflected in the increase in numbers of notifiable drug addicts in England and Wales from approximately 17,000 in 1990/91 to about 33,000 in 1995/96. With an even steeper rise in the rate of notification in prisoners who made up 12% of notifications in 1990 and 23% in 1995 (Joyce, 1996), the problem appears to have major implications for the prison service. In addition to the general social problems and effects on health associated with illicit drug use, there are particular problems secondary to drug use in prison such as the fostering of gangs, debt to other prisoners, and violence.

Substance misuse causes a considerable amount of morbidity in its own right, but it also complicates the management of mental disorder. In North American prisons where substance use is rife, lifetime comorbidity rates for mental illness and substance abuse in excess of 90% have been reported (Smith & Hucker, 1994). In prisons in Great Britain concern has been expressed about the spread of human immunodeficiency virus (HIV) infection (British Medical Journal, 1995) and the treatment programmes offered to drug dependent prisoners aimed at curbing this have been heavily criticised (Ross *et al*, 1994).

PSYCHIATRIC PROVISION FOR MENTALLY DISORDERED PRISONERS

Home Office circular 66/90 (Home Office, 1990b) states that: “*mentally disordered persons should, wherever possible, receive care and treatment from the health and social services.*”

To help ensure that mentally disordered individuals remanded in custody receive the treatment they require, Home Office circular 66/90 contains specific instructions directed at prison medical officers who are required to: “*ensure that action is taken to arrange transfer to hospital under the provisions of section 48 of the Mental Health Act 1983 in respect of any mentally ill or severely mentally impaired person remanded in custody who appears to require urgent treatment in hospital, and to consider advising the courts of the suitability of any other mentally disordered person on remand for treatment as part of a non custodial*

disposal, such as a psychiatric probation order or a guardianship order, after conviction”.

Prison health care centres are not recognised as hospitals for the purposes of assessment or treatment under the Mental Health Act 1983. Treatment for mental disorder can, therefore, not be given in prison without the prisoner's consent. The only exception to this would be when urgent intervention is required to prevent serious harm or death and the prisoner lacks the capacity for consent, the necessary treatment (and nothing more) can be given under common law. Such circumstances are exceptional. Transferring a mentally ill (or severely mentally impaired) remand prisoner to a psychiatric hospital under the provisions of section 48 of the Mental Health Act allows psychiatric care to be given in a more therapeutic environment where treatment can be enforced if necessary.

As **Figure 1** illustrates the use of section 48 has increased in recent years (Home Office, 1997). In 1985, 39 remand prisoners in England and Wales were transferred to psychiatric hospitals under the provisions of section 48; in 1990 this number had risen to 172 (Smith, J, 1992). During 1995, the year in which this study commenced, 484 remand prisoners, comprising 450 males and 34 females, were transferred to psychiatric hospitals under the same provisions (Home Office, 1997).

Although the use of section 48 has allowed increasing numbers of mentally ill and severely mentally impaired remand prisoners to receive treatment in psychiatric hospitals, a large number of mentally disordered remand prisoners remain in prison. Some of these individuals do not warrant hospital transfer under section 48 of the Mental Health Act, but a number of those who are potential candidates for hospital treatment are rejected by consultant psychiatrists because they are perceived as too disturbed or dangerous, or seen as criminals who are unsuitable for treatment. Coid (1988a) found one in five of such remand prisoners, most often those with greatest need for care including chronic psychotics, the mentally handicapped and the brain damaged who were turned down for hospital treatment. When these prisoners plus the remands who remain in prison because their psychiatric treatment needs have not been identified are added together they form a substantial group, and the results of Brooke *et al* (1996) seem to indicate that the number of mentally disordered remands who remain in prison is substantially greater than the number who are transferred out to psychiatric hospitals.

Many prisons have an arrangement with local National Health Service psychiatrists for a sessional input into the prison. As well as helping to manage and arrange hospital transfer for the severely mentally ill, there is the potential for psychiatrists and other health care professionals such as community psychiatric nurses and psychologists to spend a considerable amount of their time helping to meet the treatment needs of the mentally disordered who remain in prison. In such cases psychiatric intervention may not only benefit the prisoner,

but if acute behavioural disturbance or self harm has been a problem the prison staff may benefit also.

HEALTH SCREENING AT RECEPTION INTO PRISON

The first step towards providing psychiatric care for mentally disordered prisoners and treatment for those with drug and alcohol related problems, is to identify the individuals concerned. Effective health screening at reception into prison should play a major part in the early identification of mental health and substance related morbidity. This should then result in the prompt delivery of treatment to those who require it.

As outlined in Chapter 2, health screening at reception into prison is governed by strict guidelines contained in Prison Service documents circulated to all prison medical officers: *Health Care Standards for Prisons in England and Wales* and *Standing Order 13*.

At present, all new prisoners undergo a two stage health assessment. The initial health screen, carried out as part of the reception process on entering prison is undertaken by a health care officer who uses a standard medical questionnaire, form F2169. This focuses on identifying physical and mental health needs, suicide risk and drug and alcohol related problems. The health care officer is instructed to alert a doctor immediately if the prisoner is in urgent need of medical attention, otherwise all new receptions see the prison medical officer the

following day. The role of the medical officer is to take a full medical and psychiatric history followed by physical and mental state examinations. Medical officers are guided in their assessment by findings recorded on form F2169. Their findings are recorded on a standard medical assessment sheet, F2000. The doctor then makes a decision about the inmates health care needs, location within the prison and fitness for work and physical education.

There is very little research on the reception screening process used in English prisons. The Chief Inspector of Prisons in his report on suicide and self harm (H. M. Chief Inspector of Prisons, 1990) highlighted the importance of reception screening to identify inmates at risk, but he formed the opinion that: "*The purpose of the reception at present seems simply to process a large number of prisoners through an impersonal system*". In a recent paper which addressed prison reception health screening, Mitchison *et al* (1994), described conditions and time constraints which militated against the detection of clinically significant information, coupled with health screening questionnaires of doubtful validity and reliability. Also highlighted in this paper were the poor standards of record keeping by prison medical staff and the lack of established procedure in the event of significant information being detected.

RATIONALE FOR THE DURHAM REMAND STUDY

The research by Gunn *et al* (1991) and Brooke *et al* (1996) provides important information about the prevalence of mental disorder and psychiatric treatment

needs in remand and sentenced prisoners in England and Wales. These studies extrapolate that there are likely to be nearly 1800 prisoners in England and Wales who need transfer to hospital for psychiatric treatment, including 1100 with serious mental illness. However, because both are cross-sectional studies it is not known how many of the prisoners identified by researchers as suffering from mental disorder were known to prison medical services and whether their treatment needs were met during their time in prison. Point prevalence studies of this nature also suffer from being biased in favour of those serving longer terms in prison, and a study of this design can not comment on rates of mental disorder at reception into prison. The remand study also had a high refusal rate, averaging 18%, which will have influenced its results.

Research on mentally disordered remand prisoners conducted during the 1980's focused on the management of these prisoners in prison. Despite methodological drawbacks these studies made some important findings. Taylor & Gunn (1984a) concluded that remand was rarely followed by help for the mentally disordered, and Robertson *et al* (1994) demonstrated that the cumbersome and inefficient nature of the three large bureaucracies involved; the court system, the prison system and the hospital system, were competing rather than complementary and as a result the needs of the prospective patient might not be served.

Dell *et al* (1993a; 1993b) investigated the psychiatric management of female remands at Holloway prison. Although male and female prison populations differ in terms of their psychiatric treatment needs, given the lack of research

into the management of mentally disordered prisoners of either sex it is worthwhile considering the findings of this study. Dell *et al* (1993a; 1993b) found that many women, whose condition they judged to merit psychiatric intervention were referred not because of concern for their mental health, but for court reports, or because of the nature of the charge. Similarly, very few (3%) of their population were referred because of concerns which became apparent after reception. Women with major mental disorder fared best. Three-quarters of those with psychotic disorders were referred for psychiatric assessment and nearly all were admitted to hospital (Dell *et al*, 1993a), but only one third of women judged to require psychiatric intervention for non-psychotic disorders were referred for assessment (Dell *et al*, 1993b).

The next logical step in researching the natural history and the management of mental disorder in male remand prisoners is to undertake a longitudinal prison study, avoiding the pitfalls of earlier research. By recruiting a large number of remand prisoners, screening each for mental disorder at reception into prison, and then following them up during their time in prison, it should prove possible to

- Estimate the prevalence of mental disorder at reception into prison.
- Determine how effective prison reception screening is in detecting psychiatric morbidity.
- Develop a better understanding of the management of mentally disordered prisoners.
- Examine outcomes at the end of the remand period.

With this purpose in mind, a longitudinal study in which a large cohort of consecutive adult male remands was screened at reception into Durham prison and then monitored throughout the remand period was designed. This research is collectively entitled *The Durham Remand Study*.

CHAPTER 4

METHODOLOGY

INTRODUCTION AND OVERVIEW OF THE DURHAM REMAND STUDY

The *Durham Remand Study* was conducted over a two year period. The study was designed and piloted between 1 July 1995 and 30 September 1995, data collection took place between 1 October 1995 and 30 April 1997, with data analysis continuing until 30 June 1997.

The data collection period was divided into two stages:

Stage I: recruitment and screening. All new remand prisoners received into Durham prison between 1 October 1995 and 30 April 1996 were screened for mental disorder and substance use related problems at the point of reception into prison by 2 research psychiatrists. The routine prison reception health screening of all subjects was then inspected and compared with the research assessments of the same prisoners.

Stage II: follow-up. All subjects recruited in stage I of the study were monitored throughout the period spent on remand. This stage focused on how those with mental disorder were managed in prison, whether those with

psychiatric treatment needs had these addressed during their time in prison, and whether follow up arrangements for psychiatric care in the community were made and kept for those mentally disordered prisoners who were released from prison during the study period.

SETTING

Durham prison is a local male remand and short term sentence prison. In 1995-96 it had the capacity to accommodate approximately 640 inmates. Average occupancy figures indicate that during this time it ran at 95% of full capacity (H. M. Prison Service, 1996). Throughout the study period Durham prison received nearly all men aged 21 years and over remanded from courts in Tyneside, Northumberland, Cumbria, and County Durham. This was a large catchment area with considerable variation in its geography and population. Most remands however came from three magistrates courts, Newcastle, Gateshead and North Shields, which covered separate and sizeable areas of urban deprivation and high unemployment on Tyneside. In common with other remand prisons the prison population at Durham was highly mobile and constantly changing. Prisoners were received and discharged six days a week (Monday to Saturday). On busy days in excess of 10% of the inmate population were moved in and out of the prison, mostly to and from courts. On occasional days during the study period there were thirty or more new receptions into the prison. Unconvicted remands usually comprised half the new intake, the remainder being newly convicted and newly sentenced prisoners.

Throughout the study, most of the prison accommodation comprised of standard prison cells on the ordinary prison wings, each cell housing up to two inmates at a time. The main prison accommodation complex, comprising wings A - E, was built during the Victorian era. Recent refurbishment including integral sanitation meant that “slopping out” was no longer practiced, but accommodation remained for the best part cramped, dingy and cold during the winter months. Remand prisoners were routinely housed on B wing. From time to time interviews were conducted in prisoner’s cells; those on B wing were noted to be particularly grim.

Remand prisoners were sometimes placed in other locations within the prison including the vulnerable prisoners unit, the segregation block and the health care centre. At the time of the study, the vulnerable prisoners unit comprised a segregated area on D wing which was used to house prisoners who because of the nature of their charge or conviction (usually sexual offences), or because of reasons such as debt or bullying were at risk on ordinary location.

The segregation unit was located in a modern building separate from the main accommodation complex. This unit had 28 single rooms most of which were used to house high profile, high risk prisoners. There were in addition 2 unfurnished rooms each with a “Broadmoor style” bed (*i.e.* a 6 inch high concrete platform with a slatted wooden top). These rooms, known as “special cells”, were used for seclusion. Inmates placed in a special cell had to be

categorised as being subject to either non-medical restraint (used for discipline problems) or medical restraint (for behavioural disturbance related to mental health problems and containment to minimise self injury and the risk of suicide).

Each prisoner housed in segregation was subject to daily review by one of the prison medical officers. Providing they were declared “fit for adjudication” by the doctor they would appear in front of the governor who would decide on their treatment and dispense punishment to those who had transgressed the rules.

The prison health care centre was also separate from the main cell block. Accommodation here consisted of an 11 bed open ward, 7 double and 6 single rooms all with sanitation, and 2 unfurnished observation rooms. The observation rooms, which were virtually identical to the special cells in the segregation unit, were used for seclusion, but only under the category of medical restraint. All medical restraint, whether in the health care centre or the segregation unit, had to be sanctioned by one of the prison medical officers and reviewed by a doctor on a regular basis.

Throughout the study period, Durham prison employed three full-time prison medical officers. Nursing care and prison reception health screening of inmates was carried out by 14 health care officers and 2 ‘E grade’ nurses (collectively known as health care workers), who were in turn supervised by 5 health care senior officers. All 14 health care officers were trained prison officers, 7 of whom had additional National Health Service nursing qualifications. The

remainder had a nursing certificate from the Home Office six month nurse training course (which became obsolete over five years ago). The prison medical staff provided primary medical care to the prisoners.

Whilst the study was on going, Durham prison purchased all of its mental health care from a single National Health Service trust. As all prison psychiatric referrals were dealt with by a single provider, all requests for psychiatric assessment as well as the outcome of this could be monitored without difficulty.

The contract with psychiatric services included an expectation that all non-urgent cases would be seen within fourteen days of referral, with urgent referrals seen within three working days. Psychiatric services did not provide a service for those with drug and alcohol related problems unless a coexistent mental disorder which required treatment was also present.

In accordance with current national prison policy all new receptions into Durham prison underwent a health screen consisting of two parts. The first of these was carried out on the day of reception by a health care worker. This utilised the standard medical questionnaire, F2169. Unless any immediate concerns were raised by the health care worker, prisoners were seen by a prison medical officer the following working day. His findings (all were male) were recorded in the inmate's medical records on form F2000. This medical examination formed part of the prison induction process for all new prisoners. For prisoners who were on ordinary location (the majority of new receptions), this took place in a designated

area, I wing. Here inmates sat together in an open area and throughout the morning they were summoned to adjacent interview rooms and interviewed by a variety of professionals including a probation officer, chaplain, prison officer, prison governor, and a prison medical officer.

The health assessments of new prisoners comprised just part of the morning's work for the prison medical officers. There were often many prisoners to be seen. Prisoners in the prison health care centre, segregation unit, vulnerable prisoner's unit and those on ordinary location who were an escape risk were not brought over to I wing for induction, but were assessed wherever they were housed.

The research screening procedure was integrated into the prison induction process. This enabled us to see nearly all subjects within one working day of their reception into prison, usually on the same morning as they were seen by the prison medical officer. Subjects who did not attend the induction process on I wing were screened in whatever facilities were available wherever they were located in the prison. All screening interviews whether, they took place on I wing or other locations in the prison, were conducted in private.

SUBJECTS

All unconvicted men remanded to Durham prison over a seven month period from 1 October 1995 to 30 April 1996 were approached by one of two research psychiatrists (LB or DM) for inclusion in the study.

SCREENING

A semi-structured interview designed specifically for this study was used (Appendix 1). This incorporated well validated psychiatric instruments used in the prison studies conducted by researchers at the Institute of Psychiatry (Gunn *et al*, 1991; Brooke *et al*, 1996) to allow a direct comparison of results. The Schedule for Affective Disorders and Schizophrenia - Life-time Version (Endicott & Spitzer, 1978) was used to detect and classify current and lifetime mental disorders, IQ was measured using the Quick Test (Ammons & Ammons, 1962; De Cato & Husband 1984), the CAGE Questionnaire (Mayfield *et al*, 1974) was used to assess problem drinking, and the Severity of Dependency Questionnaire (Phillips *et al*, 1987) to quantify levels of drug abuse and dependence.

To aid the diagnosis of mental disorder, a brief personal and family history were taken, details of any contact, past or present with psychiatric services were noted, previous episodes of self harm were inquired about and currently prescribed

psychotropic medication recorded. Abnormal mental state findings were also documented.

Self reported levels of alcohol and drug consumption were recorded. The previous year's substance use was asked about in particular detail: if criteria for abuse or dependence were met in this period, the diagnosis was rated as "current". All other substance diagnoses, including cases where a dependency diagnosis was made but the individual did not report harmful or excessive use of that substance in the previous year, were rated as "past".

The main aim of screening was to detect serious mental illness. We felt, however, that personality could not be neglected and that some form of assessment was merited. Such an assessment posed difficulties. Diagnoses of personality disorder had to be made on the basis of a single interview. Time constraints ruled out the use of lengthy personality inventories, pejorative questions risked an angry reaction and refusal to continue with the interview, and information from independent sources was rarely available. We relied therefore on clinical judgment. If personality disorder was suspected more specific areas of functioning were inquired into, and if appropriate, diagnoses were made using DSM - IV criteria (American Psychiatric Association, 1994). If dysfunctional personality traits were present but DSM criteria for personality disorder were not met, this information was recorded as "vulnerability".

Interviews lasted between 20 minutes and one hour depending on the nature and complexity of an individual's presentation. From the information obtained DSM-IV diagnoses (American Psychiatric Association, 1994) and ICD 10 (World Health Organisation, 1992) equivalents were recorded. In a few cases where serious mental disorder was suspected but inadequate information was obtained at interview, information was obtained from other sources within the prison, which in practice usually meant questioning the landing officer about the inmate's behaviour since reception. Further attempts were then made to interview the subject at a later date.

INTER-RATER RELIABILITY

Prior to commencing the main study a pilot study was undertaken. During this, and regularly throughout the screening stage of the study, inter-rater reliability was monitored. Limited time and a lack of available interview rooms precluded a totally independent assessment of inter-rater subjects by each researcher. It was also felt that many of these subjects had they been asked to undergo a second identical screening interview with another researcher would have declined. Therefore, inter-rater reliability was measured with one researcher interviewing the subject and the other observing. Both researchers recorded lifetime diagnoses and psychiatric management required without conferring, and agreement between raters was measured by calculating a kappa coefficient (Maxwell, 1977). A total of 116 interviews were jointly rated in which 51 lifetime diagnoses of mental disorder and 184 separate substance misuse

diagnoses were recorded by either one or both raters. Diagnostic agreement occurred in 216 of these ($\kappa = 0.90$). Most disagreements were over diagnoses of personality disorder ($\kappa = 0.76$) and adjustment disorder ($\kappa = 0.65$). In respect of the 15 lifetime diagnoses of psychosis there was complete diagnostic agreement between raters ($\kappa = 1.0$).

To further ensure consistency in diagnosis and management, cases were reviewed randomly by a steering committee of senior academic psychiatrists. Complex cases where diagnosis or management recommendations were unclear were also discussed with the steering committee to reach a consensus decision.

TREATMENT RECOMMENDATIONS

After screening each inmate researchers made a clinical decision about the need for psychiatric care. In terms of immediate treatment need, one of a range of treatment options was chosen:

- No psychiatric intervention required
- Refer for psychiatric outpatient management
- Locate in prison health care centre
- Immediate transfer to a psychiatric hospital

Immediate transfer to a psychiatric hospital was recommended for those with severe mental state disturbance, who were in need of urgent treatment and who

were thought to be inappropriately placed in prison. Such individuals, had they presented in the community, would have required urgent admission to hospital, in many cases under an appropriate section of the Mental Health Act.

Placement in the prison health care centre was judged necessary for disturbed individuals who needed observation and assessment, and for those who by virtue of mental disorder would be at significant risk if placed in other locations in the prison. Although these individuals were deemed not to require urgent transfer to a psychiatric hospital, some required further assessment with a view to hospital transfer (in the community, these men would have merited admission to hospital, in most cases on an informal basis).

Psychiatric out-patient management within the prison was reserved for the remainder with significant mental health needs. These prisoners could be adequately managed on ordinary location, segregation or in the vulnerable prisoners' unit with periodic input from visiting mental health professionals.

In a minority of cases where mental disorder was present but there was inadequate information about treatment needs, no decision regarding management was made.

The treatment of substance misuse was specifically excluded from the remit of psychiatric services contracted into Durham prison, and the only treatment offered was a detoxification regime provided by the prison medical officer. The

issue of ongoing treatment for substance misuse was therefore not addressed by this study. The only consideration given to the treatment needs of those using drugs and alcohol was to identify new remand receptions who might benefit from a detoxification regime.

EVALUATION OF PRISON RECEPTION HEALTH SCREENING

After each subject had been screened by a researcher, his inmate medical record was inspected and the findings of the two prison health screens (*i.e.* that of the health care worker and that of the medical officer) noted and compared with the research assessment in respect of mental disorder and substance abuse. Any indication of a current mental health problem identified by either prison health screen, however minimal, was interpreted as detection of mental disorder. In some cases this could be as limited as an isolated comment such as “*seems depressed*”.

The prison reception and health screening processes themselves were observed, and the prison doctors and health care workers who carried out these screening assessments were interviewed to determine their experience and attitudes towards screening. Information obtained from the prisoners relating to their attitudes towards, and experiences of, prison health care was also recorded. Although observing prison screening and interviewing staff and prisoners about their attitudes towards this was not part of the main study, I decided it was

important to do this in order to gain more insight into the health care procedures which formed part of the reception and induction process.

CONSTRUCTING A MODEL TO IDENTIFY THOSE AT RISK OF MENTAL ILLNESS

It was apparent when analysing the data collected during the research assessments that certain demographic and historical features were associated with the presence of mental disorder in the population we interviewed. Therefore, a model was constructed with the aim of determining the variables that were the best discriminators for the presence of mental illness. The presence of mental illness rather than mental disorder was chosen on the grounds that this identified those in the population with the most significant health care needs. To develop the model, variables likely to be associated with a diagnosis of mental illness were drawn from the research assessments. Recognising the implications this could have for improving the prison reception screen administered by health care workers, variables linked to simple factual information were chosen in preference to those requiring subjective interpretation that might require specialist training. Univariate logistic regression models were used for each variable in turn to identify those positively associated with a diagnosis of mental illness. Variables that did not display a significant association ($p > 0.2$) were discarded. Remaining variables were then entered into a logistic regression model and, using backwards stepwise techniques, a subset of those independently predictive of mental illness were identified. Results for the

logistic regression models are presented in terms of odds ratios together with 95% confidence intervals. Sensitivity, specificity, negative predictive value and positive predictive value were calculated for the final model to assess its practical value.

FOLLOW-UP

All subjects recruited during stage I, the initial screening stage of the study (1 October 1995 to 30 April 1996) were followed-up from reception into prison to the end of their unconvicted remand. In the case of those prisoners who received psychiatric input continuing into a post-conviction period of imprisonment, monitoring of psychiatric treatment was extended into this period; in such cases follow-up ceased when psychiatric treatment concluded, the prisoner was released or transferred, or on 30 April 1997, when the second, follow-up stage of the study was concluded.

During the follow-up stage of the study, subjects' prison computer files were inspected at regular intervals (usually each week). This allowed prison location throughout the unconvicted remand period to be monitored and the date and outcome at the end of the unconvicted remand period to be recorded. Details relating to any form F2052SH (a file opened in response to concern about risk of suicide or self harm) raised on study subjects during the follow-up period were recorded from the prison records.

Referrals to psychiatric services made whilst subjects were unconvicted on remand were recorded. In cases where the unconvicted remand period was brief and was followed immediately by a conviction and continued imprisonment in Durham, any referral made within the first 2 weeks of reception was accepted regardless of the prisoner's status. Details, including reason for and urgency of referral, were recorded from the referral form, if this was unclear this information was sought from the inmate's medical records. The psychiatric notes which resulted from these referrals were inspected periodically and the results of psychiatric assessments and treatments suggested were recorded. Particular attention was paid to any diagnoses made, management plans suggested and, where appropriate, post-release follow-up arrangements.

In cases where research screening identified substance dependence with a potential need for detoxification, or the need to continue a prescription of regular antipsychotic or antidepressant medication, the inmate's medical records and his drug kardex were inspected regularly during the first two weeks of imprisonment and all medication prescribed during this period was recorded.

ETHICAL ISSUES

Ethical approval for the study was granted by the Joint Ethics Committee for Newcastle and North Tyneside Health Authorities and the Prison Ethics Committee. The prison authorities and in particular staff involved in the delivery of health care services at Durham prison were made fully aware of the nature of

the research and were in agreement with the methodology. Regular meetings were held between the researchers, the senior medical officer and the governor for health care at the prison to ensure smooth running of the study.

Prisoners eligible for entry into the study were given an explanation of the nature and purpose of the research and if they agreed to participate their written consent was obtained prior to interview. Prisoners were assured that information given would be treated in confidence and not passed on to the prison authorities.

A potential problem was posed by a researcher identifying serious mental disorder which was not detected by the prison screening. The information given by subjects would be obtained in confidence, and passing this on to the prison medical officers would not only be a breach of confidentiality, but would interfere with the follow-up aspect of the research. On the other hand the health and safety of research subjects had to be borne in mind. Therefore, prior to interview each subject was informed that absolute confidentiality could not be assured, but confidentiality would be breached only in exceptional circumstances. In the event that a researcher should gain information which indicated that a prisoner represented a grave and immediate danger to himself or others, and the prison staff were unaware of this risk, then it was agreed that confidentiality would be broken. In cases where the risk was less immediate and serious the case would be discussed and if necessary the risk reassessed.

A considerable amount of research information was obtained from prison staff. This includes their qualifications and level of experience and their personal opinions and attitudes towards prison health care and mentally disordered prisoners. All information of this nature which appears in this thesis is printed with the individual's consent, and efforts have been made wherever possible to ensure the anonymity of the individual concerned. The personal opinions and experiences of prison health care supplied by prisoners have been treated in the same manner as information obtained from prison staff.

CHAPTER 5

RESULTS I - THE CHARACTERISTICS OF THE DURHAM REMAND STUDY POPULATION

NUMBERS RECRUITED AND SCREENED

During the initial screening period of the Durham Remand Study there were 634 new unconvicted remands to Durham prison comprising 606 individuals (27 individuals were remanded more than once on separate charges during the screening stage of the study). Thirty seven men returned to court on the morning following reception and did not subsequently return to the prison; it was not possible to interview these men and they were therefore excluded from the study. This left 569 prisoners who formed the study population.

Of the 569 eligible subjects 549 (97%) consented to be interviewed, 19 (3%) refused and one was unfit for interview. Five hundred and twenty-eight (96%) interviews were fully completed and 21 (4%) partly completed (the result of language barriers, mental state disturbance or situational constraints). A comprehensive substance use history was obtained from 548 of those interviewed

IQ scores were recorded in 441 (80%) of those undergoing the research assessment; poor concentration, agitation, language difficulties or other adverse factors made the testing unreliable in the remainder.

DEMOGRAPHIC DETAILS

The general characteristics of the population are summarised in **Table 1**. The majority, 378 men (66%), were white males aged 30 years or under. Almost 80% of the population were unemployed or on sickness benefit. Of those tested, 389 (88%) had an I.Q. score below the general population mean, and 57 (13%) scored 70 or less.

PREVALENCE AND PATTERNS OF MENTAL DISORDER

Mental disorder (excluding drugs and alcohol abuse or dependency diagnoses) was present in 148 (26%) of the 569 subjects at the time of reception into the prison (**Table 2**). Of the 27 men who were remanded more than once during the screening stage of the study, 10 (37%) were suffering from mental disorder. Mental illness was the primary diagnosis in 104 (70%) of the 148 mentally disordered subjects, the remainder having diagnoses of personality disorder or mental retardation alone (**Figure 2**).

With an additional 22 men identified as having a history of mental disorder, but no current symptoms, the total number of prisoners with lifetime mental disorder

was 170 (30%) (Table 3). Fifteen men had a history of psychotic disorder and were either symptom free or in a stable state without positive symptoms of psychosis at reception into prison. There was thus a 7% lifetime prevalence of psychotic disorders.

In addition to the 38 men with a diagnosis of personality disorder, 68 men (12%) were judged to have significant personality vulnerabilities. Mental retardation diagnosed in 6 subjects was probably underestimated: the diagnosis was only made in subjects whose I.Q. had been measured, because without an I.Q. score we did not consider the diagnosis valid.

There was no significant relationship between the presence of mental disorder and subjects' area of residence prior to arrest, but the nature of their accommodation was important. Prisoners suffering from mental disorder were more likely to have been in temporary accommodation or homeless (sleeping rough) prior to arrest and the non-mentally disordered were more often at a stable address (chi square = 42.58, $p < 0.00001$, d.f. = 2). A significant relationship between current mental disorder and a lifetime history of homelessness was also found (chi square = 23.79, $p < 0.00001$, d.f. = 1). The relationship between current mental disorder and social class reached a level of statistical significance (chi square = 19.11, $p = 0.014$, d.f. = 8); this appeared to be related to the excess numbers of mentally disordered individuals on sickness benefits. No association was demonstrated between the presence of mental disorder at reception into prison and either age or I.Q.

PREVALENCE AND PATTERNS OF ILLICIT DRUG USE

A lifetime history of illicit drug use was given by 382 (70%) of the 548 men from whom substance use histories were obtained. Three hundred and twelve men (57%) said they had used illicit drugs in the past year and 181 (33%) currently met DSM IV abuse or dependence criteria for one or more drug. **Table 4** shows numbers currently using each class of drug according to level of use. It can be seen that although cannabis was by far the most commonly taken drug few men reported problems associated with it. Amphetamine, benzodiazepine and opiate use was frequently encountered, and these three drugs taken in significant quantities, such that more often than not a DSM IV diagnosis of drug abuse or dependence was justified. Many of those using opiates and benzodiazepines complained of withdrawal symptoms since arrest. Objective evidence of drug withdrawal was, however, not common, and only 12 diagnoses of drug withdrawal syndrome were made.

Intravenous drug use was reported by 101 men (26 %) of whom 29 said they had shared needles.

The extent of multiple drug use is shown **Table 5**. Poly drug use was the norm rather than the exception amongst illicit substance users. As illicit drug use was so prevalent amongst the study population as a whole, nearly 40% of all subjects (204 men) were using more than one illicit drug prior to remand. The use of

illicit drugs besides cannabis was reported by 236 (75%) of drug users of whom 204 (65%) were using more than one class of drug. Of the 181 subjects whose illicit drug use met abuse or dependence criteria, 60 had two such diagnoses and 20 had three or more. There were no particular combinations of drugs favoured by subjects, but the vast majority of poly substance use consisted of various combinations of some or all of the most frequently used drugs: cannabis, amphetamine, benzodiazepines and opiates.

There was a significantly higher rate of opiate use in men from Northumberland compared with those from other counties in Durham prison's remand catchment area (chi-square = 41.095, $p < 0.0005$, d.f. = 12). Twenty three (34%) of the 67 men remanded from Northumberland reported opiate use prior to imprisonment (all of whom had diagnoses of dependency), compared with 77 (16%) of the 481 men from the remaining counties. Overall levels of drug use were otherwise similar between counties. There was also a statistically significant association between social class and illicit drug abuse and dependence (chi square = 30.027, $p < 0.00005$, d.f. = 4): 170 (94%) of the 181 inmates who had current illicit drug abuse or dependency diagnoses were either unemployed or on sickness benefit, the remaining 11 came from social classes 4 and 5. Those with illicit drug misuse diagnoses were more frequently charged with dishonesty (chi square = 16.75, $p = 0.0022$, d.f. = 4), and correspondingly there were fewer numbers than expected charged in each remaining category of offence. There were no significant associations between patterns of illicit drug use and either age or I.Q.

In addition to the 312 men who reported the current use of illicit drugs, a further 9 who gave no history of illicit drug use said they were being prescribed benzodiazepines on a regular basis, 3 of whom were dependent on them.

ALCOHOL USE AND CO-MORBIDITY WITH DRUGS

Levels of reported alcohol use in the previous year are shown in **Table 6**. As had been the case with illicit drug users, a number of alcohol dependent subjects reported symptoms of alcohol withdrawal since their arrest, but a diagnosis of acute alcohol withdrawal was only made when symptoms and signs were clearly present at interview; only 4 such diagnoses were made.

In contrast to the higher levels of opiate use found amongst inmates from Northumberland, there were significantly lower rates of alcohol use in subjects from this county compared to those from the other three counties (chi-square = 43.08, $p = 0.002$, d.f. = 20). Forty four (66%) of the 67 men from Northumberland reported being abstinent or drinking less than 21 units of alcohol per week compared with similar levels of alcohol consumption reported by 271 (56%) of the 481 from the 3 other counties. The association between charge and alcohol abuse or dependence appeared to be related to the significant excess of charges of violence and corresponding lower numbers of dishonesty charges amongst alcohol misusers (chi square = 14.11, $p = 0.007$, d.f. = 4). There were no apparent associations between alcohol abuse and dependence and I.Q, social class or age.

Of the 307 individuals (56%) with one or more current substance abuse or dependency diagnosis, 51 men met these criteria for alcohol and one or more illicit drug. A further 3 men without an illicit drug history were dependent on both prescribed benzodiazepines and on alcohol.

CO-MORBIDITY OF SUBSTANCE DIAGNOSES AND MENTAL DISORDER

If the figures for substance abuse and dependency diagnoses are included with those for mental disorder, then the current and lifetime rates for all disorders combined in the 569 subjects rise to 354 (62%) and 404 (71%) respectively.

Amongst the 548 subjects from whom a comprehensive substance use history was obtained were 144 mentally disordered and 404 non-mentally disordered individuals. One hundred and three (72%) of the mentally disordered compared to 204 (50%) non-mentally disordered were abusing or dependent upon one or more substance. These findings resulted in a highly statistically significant relationship between current mental disorder and substance misuse (chi square = 19.06, $p = 0.00001$, d.f. = 1).

Mental illness and substance use

As illustrated in **Table 7**, a lifetime diagnosis of alcohol dependence (but not abuse) was significantly associated with lifetime diagnoses of major depressive disorder (chi-square = 13.9, $p = 0.0012$, d.f. = 2), dysthymia (chi-square = 6.69, $p = 0.035$, d.f. = 2), and anxiety disorders (chi-square = 7.96, $p = 0.019$, d.f. = 2). There was no association between alcohol dependence and psychosis.

Table 8 demonstrates the statistically significant association between a lifetime diagnosis of amphetamine abuse or dependence and a lifetime diagnosis of psychosis (chi-square = 14.59, $p = 0.00068$, d.f. = 2). **Table 9** shows a similar association between lifetime diagnoses of benzodiazepine dependence (but not abuse) and psychosis (chi-square = 8.31, $p = 0.016$, d.f. = 2). There was no association between abuse of or dependence upon either of these drugs and any other DSM IV axis I disorder (*i.e.* mental illness). There was also no association between abuse of or dependence upon opiates or cannabis (the two other drugs most commonly encountered) and DSM IV axis I mental disorder.

Personality disorder and substance use

A diagnosis of personality disorder was significantly associated with lifetime diagnoses of alcohol abuse and dependence (chi square = 23.09, $p = 0.00001$, d.f. = 2), amphetamine abuse (chi square = 16.47, $p = 0.00026$, d.f. = 2) and

benzodiazepine abuse (chi square = 10.2, $p = 0.0061$, d.f. = 2), but not opiate abuse or dependence (Table 10).

IMMEDIATE TREATMENT NEEDS

Mental disorder: psychiatric referral, prison location and hospital transfer needs

One hundred and sixty-eight (30%) of the 569 subjects were judged to require psychiatric input (Table 11), with 50 of these men considered to need urgent attention. The latter group comprised 16 men (14 psychotic, 1 severely depressed and 1 mentally retarded) who were judged to require immediate transfer to an outside psychiatric hospital, and 34 who needed to be housed in the prison health care centre (5 of whom needed further assessment with a view to hospital transfer).

Mental disorder: continuing prescriptions of antipsychotic and antidepressant medication

Twelve prisoners stated that prior to their arrest they had been taking prescribed antipsychotic medication on a regular basis, an additional 33 men reported taking prescribed antidepressants, and one man said he was taking both medications prior to remand. Eleven of the 12 men taking antipsychotic medication alone had a current mental disorder, the remaining subject received no lifetime

diagnosis of mental disorder. The 11 mentally disordered prisoners who had been taking regular antipsychotics were all judged to require this medication following remand, and for 6 of these men who were acutely psychotic continued prescription was considered to be particularly important.

Twenty seven of the 33 men who reported taking antidepressants alone had current mental disorder (comprising mainly mood disorders, anxiety disorders and personality disorders). In some cases it was difficult to establish what effect discontinuing this medication would have had, but for 7 of these men, all of whom were suffering from a current episode of major depressive disorder, continuing antidepressant medication in prison was considered to be especially important.

The single subject who said that he had been taking antipsychotic and antidepressant medication prior to his remand was judged to require at least a continuing prescription of antidepressant medication for treatment of a current episode of major depression.

Treatment for substance users

Of the 548 subjects from whom adequate substance use histories were obtained, 391 (71%) admitted to using illicit drugs on a regular basis, using alcohol to abuse or dependency levels or using both, to the extent that researchers considered that these men should be offered help directed at their substance use.

Two hundred and forty-four (62%) of these individuals wanted help for substance misuse if it did not prejudice their management in prison. There were a further 84 individuals using illicit drugs, in most cases cannabis alone, for whom it was judged that help would not be required if they chose to discontinue using drugs.

At the more severe end of the spectrum, the presence of physiological dependence upon any combination of benzodiazepines, alcohol or opiates at the time of reception into prison was taken as an indication that a detoxification programme should be offered: 197 (36%) of the study population were judged to be potential candidates for a detoxification programme. Of these men, 64 wanted treatment including detoxification, 22 wanted methadone maintenance, 45 wanted other treatments such as group work and 66 did not want treatment of any sort.

CHAPTER 6

RESULTS II - PRISON RECEPTION HEALTH SCREENING AND THE INITIAL MANAGEMENT OF MENTAL DISORDER AND SUBSTANCE MISUSE POST RECEPTION

FACILITIES AND STAFFING FOR PRISON RECEPTION HEALTH SCREENING

On arrival at Durham prison all new inmates were taken in groups to the reception area where they sat on wooden benches and waited to be processed through prison reception. Their property was listed, they were photographed, allocated a prison number, and they saw a prison health care worker who completed form F2169, the reception health screen. The reception area was observed to be very crowded and the emphasis was on processing prisoners. Because prisoners usually arrived in batches at the prison, this added to the cramped and rushed atmosphere in the reception area. Little time was afforded to each inmate during reception and the regime lacked privacy. All 16 health care workers were involved in administering the initial reception health screen. Seven of them had no formal nursing qualifications.

The medical officer's assessment which took place the following day formed part of the induction process. The interview room used for this purpose was small, it

had no examination couch, and the doorway opened directly onto the area where the other prisoners waiting for induction were sitting. Interviews with the doctor were conducted in the presence of a prison officer, and the interview room door was almost invariably left open. Prisoners often stood throughout the interview which was usually less than a minute in length and sometimes of only a few seconds duration.

The majority of medical assessments were conducted on week days by two of the full-time prison medical officers. Neither of these doctors held postgraduate qualifications in psychiatry. Both were of the opinion that prison health screening was worthwhile and effective, and both believed that a review of the health screening procedure was not required. Pressure of time and difficult prisoners who deliberately withheld information were cited by both doctors as the main obstacles encountered in their daily work.

PRISONERS' VIEWS ON RECEPTION SCREENING AND OTHER ASPECTS OF PRISON HEALTH CARE

Many of the prisoners interviewed by researchers had first hand experience of prison health care gained through previous imprisonment in Durham and other prisons; few had anything positive to report about this. Comments such as "*They (prison health care staff) are just part of the system that's here to punish us*" epitomised the view, widely held amongst the prisoners, that prison medical staff were part of the establishment and did not have the health or other interests of

prisoners as a priority. The brevity of health assessments was a source of concern: one acutely psychotic young man was taken away to see the prison doctor whilst in the middle of a research interview, but returned after less than a minute and reported, *"The officer in the room told me to stand in front of the desk. The doctor didn't look up, he said something or other, but I don't think he asked me any questions so I didn't tell him anything and that was it"*. Other prisoners expressed reluctant to disclose information, and some said they had deliberately withheld information from prison medical staff for fear of the consequences. *"I learned my lesson the last time I was inside"* one subject said *"I was suicidal after my brother died. I told them and they put me in strips. You wouldn't treat a dog like that. I wouldn't tell them anything now"*. A number of prisoners with mental health problems recognised their need for treatment and had realistic views concerning this; many, however, said that they did not trust the prison health care system enough to help them and so elected to try and manage their problems themselves whilst in prison. One inmate who gave a clear history of recurrent major depression stated, *"They don't want to know and they don't listen. If you make a fuss you make it worse for yourself. You're better trying to getting your head down and get it sorted on the out"*. He went on to describe a previous remand to another prison where he was placed in segregation because he had lost his temper with the doctor who had discontinued his antidepressant medication. As a result, he said he intended to try and manage his depression himself on this occasion, using illicit drugs if necessary, until he was released.

AVAILABILITY OF PRISON RECORDS

The inmate medical records belonging to 13 of the 569 subjects could not be traced, despite repeated efforts to locate them. The prison health screening contained in the notes of the remaining 556 prisoners was seriously incomplete in 38 cases: 29 contained no medical assessment, 6 had no health care worker's screen and 2 contained neither. Thus prison medical records were missing or significantly incomplete in 51 (9%) of cases. This left prison reception screens for 546 subjects (96%) that contained sufficient information to allow a comparison of the findings with the research assessment.

DETECTION OF FACTUAL INFORMATION RELATING TO MENTAL DISORDER

Information on past psychiatric history, a history of deliberate self harm, and recent illicit drug use was recorded in both prison screens and by the researchers. The questions asked to elicit this information were similar in each case and therefore the findings directly comparable. As illustrated in **Figure 3**, the prison screens failed to detect a considerable amount of this information, and consequently the number of mentally disordered prisoners identified at reception was relatively small. Conversely, the combined prison screening of health care workers and prison doctors recorded 6 cases of illicit drug use, 10 histories of deliberate self harm and 18 past psychiatric histories where the researchers did not.

IDENTIFICATION OF MENTAL DISORDER

One hundred and forty-three (26%) of the 546 men whose prison and research screens were compared were judged by the research assessment to be suffering from mental disorder. The combined prison screening detected just 32 (22%) of these cases. As **Figure 3** illustrates, most of this psychiatric morbidity was identified by the health care workers rather than the prison doctors. Only 6 (25%) of the 24 men who were acutely psychotic had *any* form of mental state abnormality identified by the prison screening, and only 2 were recognised as being psychotic.

Overall, the combined prison screening identified 47 (9%) of the 546 subjects as having a current mental disorder. In 15 of these cases the research assessment recorded no diagnosis of mental disorder.

DETECTION OF SUBSTANCE USE

Of the 548 subjects from whom researchers obtained comprehensive substance use histories, prison screening for substance misuse was not recorded in 12 cases. The prison and research screen findings for substance use were therefore compared in the remaining 536 cases. The health care worker's screen was found to be more informative than the medical officers' assessment. The former recorded information about which substances were being used, whereas the

prison medical officers' assessment usually just recorded "drugs" when their use was detected and "alcohol abuse" when alcohol consumption was thought to be excessive. In the majority of cases neither screen sought further information concerning quantities of substances used or problems associated with substance use; in those for whom there was additional information recorded, terminology was inconsistent and ambiguous, making it difficult to interpret.

The health care workers' screen identified 131 subjects as having used illicit drugs recently, but missed 175. The number of cases of drug use detected by the health care workers for the four most commonly used drugs is illustrated in **Table 12**, while **Figure 4** demonstrates the proportion of subjects using these drugs at all levels (as determined by the research assessment) detected by the health care workers' screen.

The prison medical officer screen identified a further 40 individuals as "using drugs" (usually, as mentioned above, without distinguishing which particular drugs were being used), increasing the number detected by the combined prison screen to 170. With the exception of 6 individuals who, when asked by us, denied ever using illicit drugs yet were said by the prison screening to be using cannabis, there were no other instances where either prison screen detected current drug use when we did not.

Drug users were increasingly likely to be detected by the prison reception screen as the number of drugs used increased (chi square = 60.14, $p < 0.0001$, d.f. = 6)

and if there was one or more current drug abuse or dependency diagnosis (chi square = 56.90, $p < 0.0001$, d.f. = 1). The health care workers' screen detected 56 (69%) of the 81 subjects identified by researchers as currently opiate dependent, 15 (35%) of the 43 the research screen identified as currently amphetamine dependent, and 22 (31%) of the 70 subjects identified by researchers as currently dependent upon benzodiazepines.

Problem drinking was identified by one or both prison screens in 88 (51%) of the 172 subjects identified by the research assessment as having a current alcohol abuse or dependency diagnosis. A further 15 men were said by prison health care staff to have alcohol problems when no alcohol diagnosis was made by us. Considerable inconsistency between the two prison screens was evident, with problem drinking identified by the health care worker alone in 42 subjects, by the prison medical officer alone in 20 subjects, and by both in the remaining 41 subjects.

IMMEDIATE PROVISION FOR PRISONERS WITH TREATMENT NEEDS

Prison location

Forty eight (8%) of the new remands studied were initially placed in the health care centre, although in 21 cases this was for reasons other than mental health, such as physical health problems or the nature of the charge against them.

Of the 50 men judged by researchers to require urgent psychiatric intervention (immediate transfer to a psychiatric hospital or placement in the prison health care centre), 17 (34%) were placed in the prison health care centre as a result of mental state abnormalities being detected at prison reception screening, although 3 others (6%) were located there for non-psychiatric reasons. This left 30 men (including 16 who were acutely psychotic) who were housed on normal location in the prison despite being in need of immediate psychiatric care (Figure 5).

Continuing prescribed psychotropic medication

Of the 12 men who told researchers that they had been taking prescribed antipsychotic medication on a regular basis prior to their arrest, 10 were identified by the prison screens as taking this medication and 7 were given a continuing prescription of antipsychotics by the prison medical officer within fourteen days of reception.

Six of the 12 men who told researchers they had been taking antipsychotic medication were acutely psychotic. Four of these men were given a continuing prescription of antipsychotic medication by the prison medical officer, the prison reception screen of another did not record that he was taking antipsychotic drugs and he was not prescribed these, and in the last man did not disclose to prison staff he was taking medication and he subsequently refused all treatment offered.

When antipsychotic medication was prescribed the prisoner was often given a different drug to that which he had been taking prior to his imprisonment. The antipsychotic most commonly prescribed by the prison medical officers in this circumstance was Thioridazine. Rather than being prescribed in equivalent antipsychotic doses this was invariably given in smaller quantities used to treat agitation.

Nine of the 33 men who told researchers they had been taking prescribed antidepressant medication (excluding the subject taking anti psychotics as well), had this prescription continued by the prison medical officer within the first two weeks of reception. The remaining 24 men did not receive any antidepressant medication during this time. In 13 cases their prison screens recorded that they were taking antidepressant medication but this was not prescribed by the prison medical officer, whilst in the remaining 11 subjects no mention of antidepressant medication was made in their prison health screen.

Of the 7 men suffering from major depression for whom researchers judged a continuing prescription of antidepressant medication to be particularly important, 3 received this and 4 did not despite the current prescription of this medication being recorded in 3 of these men's prison screens.

The inmate who told researchers he had been taking antidepressant and antipsychotic medication, and who was judged to need at least antidepressants

for his current episode of major depression, was prescribed both medications by the prison doctor.

Detoxification regimes

As described previously, researchers judged that a detoxification programme should have been considered for 197 men. This included 113 subjects thought to require a reducing course of benzodiazepines to withdraw from benzodiazepines or alcohol. Just 6 men (5%) received this, starting shortly after reception, although a further 5 men were prescribed benzodiazepines for other reasons. Forty-two subjects were judged by researchers to require methadone detoxification, of whom 15 (36%) received it; 3 men were given benzodiazepines instead. A further 42 individuals potentially required detoxification with both benzodiazepines and methadone, 10 (24%) of whom received this; 9 (21%) were given methadone alone and 4 (9%) were prescribed just benzodiazepines. Those who did receive a detoxification course were prescribed accelerated regimes in accordance with unpublished Home Office guidelines. For opiate dependent prisoners this meant that methadone courses lasted from five to seven days. In no case was detoxification associated with further psychotherapeutic input.

VARIABLES ASSOCIATED WITH MENTAL DISORDER AND THE IMPLICATIONS FOR SCREENING

Fourteen variables were chosen for investigation of a possible association with a current diagnosis of mental illness. These variables along with the odds ratios, 95% confidence intervals and P-values obtained from the individual logistic regression models are listed in Table 13. Nine variables demonstrated a significant association with current mental illness ($p < 0.2$), seven of which were covered by questions on form F2169, but a history of homelessness (sleeping rough) and significant life events in the past six months were not. The prescription of opiates prior to remand and the most serious charge being dishonesty, violence, sexual, or arson did not display a statistically significant relationship with current mental illness and were therefore excluded from further analysis.

The final model shown in Table 14 is comprised of a subset of four variables: a history of self harm, a past history of psychiatric care, a charge of homicide, and the prescription of antidepressants prior to remand. Each of these variables was individually predictive of mental illness when considered alongside the others; those variables discarded from the final model added no extra predictive power to those retained. All four variables in the final model are covered by form F2169.

The logistic regression model was created in order to select a group of prisoners at high risk of suffering from a current mental illness. There are two ways that a prisoner could be misclassified: he could be identified as having a high risk of mental illness when he does not (a false positive), or he could be identified as being of low risk when in fact he has a current diagnosis of mental illness (a false negative). The relative sizes of the false positive and false negative rates will depend on whether selection is based on a prisoner scoring positively on *any* of the four variables (which will increase the false positives), or scoring positively on *all* of the four variables (which will increase false negatives). In this context, it was considered important to minimise the number of false negatives, and thus a classification was used in which the presence of *any* of the four variables resulted in the subject screening positively for being at high risk of having mental illness.

According to the data collected by researchers, 205 (38%) of the 546 prisoners had a positive response to one or more of the 4 variables used in the final model (Table 15). This group included 79 (76%) of the 104 men who were mentally ill at reception and 28 (82%) of the 34 inmates with severe mental illness (psychoses and major mood disorders). The remaining 126 individuals were identified as being at high risk but were not currently mentally ill (although 23 of these “false positive” men had a past history of mental illness, which was of a severe nature in 19 cases, including 13 with psychotic disorders). Of the 341 men identified as low risk by the model, 25 (7%) (who represented 24% of those

with current mental illness) had current mental illnesses and were therefore false negatives.

Because form F2169 records information on past psychiatric history, previous self harm, prescribed medication and charge, it was possible to evaluate the screening model using information elicited by the health care workers (Table 16). According to the information recorded by health care workers, 165 men were identified as positive for one of the four relevant variables. Amongst these men were 64 (62%) of the mentally ill and 23 (68%) of the severely mentally ill.

CHAPTER 7

RESULTS III - FOLLOW-UP

Twenty-six of the 569 subjects were remanded twice and one man three times on separate charges during the initial screening stage of the study. These second and subsequent remands were included in the follow up, with the result that a total of 597 remand periods were studied.

TIME ON REMAND AND OUTCOME

The duration of unconvicted remand periods studied ranged from 1 to 419 days, with a mean value of 61 days (S.D. = 83). The most frequent remand period imposed by the courts was one week (7 days was the modal value, present in 62 cases), and 50% of remands lasted 28 days or less.

When comparing the duration of unconvicted remands served by those judged by researchers to be suffering from mental disorder at reception into prison (mean duration of remand = 63 days, S.D. = 90) with those served by the remainder of the study population (mean duration of remand = 59 days, S.D. = 78), no significant difference was found (Mann Whitney U test, $p = 0.418$). There was however, a highly significant difference between the time spent on remand by those who were referred for what ever reason to psychiatric services (mean

duration of remand = 127 days, S.D. = 125) and that served by the remaining subjects (mean duration of remand = 53 days, S.D. = 70) (Mann Whitney U test, $p < 0.0001$). This difference was not explained by the nature of the charge in general, nor by murder and manslaughter charges in particular which are accompanied by long remands and an automatic referral for psychiatric assessment because of the charge; the difference persisted when subjects charged with murder or manslaughter were excluded from the calculation (Mann Whitney U test, $p = 0.0004$).

Table 17 summarises the outcomes of the 597 remands according to the presence or absence of mental disorder at the time of reception into prison. A discharge at court included the following outcomes: bail, a not guilty verdict, case discontinued and conviction followed by non-custodial disposal. An outcome of convicted and imprisoned was recorded when a subject was convicted at court and returned directly to prison.

When outcome according to whether individuals were discharged at court, convicted and imprisoned, or "other" (which includes hospital and prison transfer, deportation and suicide), was compared between subjects with and without mental disorder identified by the research assessment, it was found that while rates of conviction followed by imprisonment were similar for both groups, those with mental disorder had a lower rate of discharge at court and a higher rate of transfer elsewhere (chi square = 10.72, $p = 0.047$, d.f. = 2).

During the follow-up stage of the study, no subjects were disposed of under the provisions of section 37 of the Mental Health Act (a Hospital Order).

FOLLOW-UP OF SUBJECTS IDENTIFIED AT RECEPTION BY RESEARCHERS AS HAVING PSYCHIATRIC TREATMENT NEEDS

Of the 168 prisoners who were identified at reception by researchers as having psychiatric treatment needs, just 40 (24%) were referred for psychiatric assessment during their time on remand; 35 of these men were seen.

Outcomes for the 16 men judged by researchers to require immediate transfer to psychiatric hospital are shown in Figure 6. Of the 4 men who were referred, all were psychotic, but in just 2 cases was the referral made because of abnormalities detected at prison reception screening. None of those who were referred were transferred to hospital: two were successfully managed in the prison health care centre after they agreed to take medication, while the other two, both also housed in the prison health care centre, were released from prison by the courts before they could be assessed and were lost to follow up.

A further 2 subjects, both acutely psychotic, were already known to forensic psychiatric services and were dealt with by forensic community psychiatric nurses shortly after reception: one was transferred to medium secure psychiatric facilities 33 days after reception, while the other was discharged at court (after a

14 day period on remand) before his transfer could be arranged. He was subsequently seen in the community by forensic psychiatric services.

The remaining 10 men who were judged to require immediate transfer to psychiatric hospital were not identified by the prison reception screen and were not referred to psychiatric services. They were remanded for between 2 and 143 days (mean remand period = 50 days). Nine of these men spent their entire remand periods housed on normal location within the prison; the other, following an episode of self harm, was moved to the prison health care centre for a short period, but a psychiatric opinion was not sought. Following his release this man was remanded a second time, but the prison screen again failed to detect mental disorder and he was returned to normal location.

Figure 7 shows the outcomes for the 5 men judged by researchers to require further assessment in the prison health care centre with a view to hospital transfer. Three were referred and all were subsequently transferred to secure psychiatric facilities under the provisions of section 48 of the Mental Health Act (one of these men had been referred during a previous remand but was discharged at court before he could be seen on that occasion). Of the two men who were not referred, one spent time in the prison health care centre because of concerns about self harm, while the other was housed on normal location throughout his remand.

Twelve (41%) of the 29 men who researchers judged to require treatment in the prison health care centre were referred to psychiatric services. Ten of these referrals were seen and 9 men were subsequently managed in the health care centre. Although following psychiatric assessment it was also recommended that the remaining subject should also be moved to the health care centre with a view to transfer to secure psychiatric facilities, he was discharged at court the following day and lost to follow-up.

Of the 118 subjects who were judged by researchers to require outpatient management, the prison doctors referred 21 (18%); seven of the 118 men served two separate remands, but none of these were referred during either remand. Eighteen of the 21 psychiatric referrals were seen and all were managed by psychiatric services within the confines of the prison. Seven of those in whom researchers identified a need for psychiatric outpatient care had an F2052SH file (at risk of self harm/suicide) opened during their time on remand, but they were not referred to psychiatric services. One other subject who was not referred was subsequently transferred to a psychiatric hospital under the provisions of section 35 of the Mental Health Act 1983 as a result of a psychiatric report commissioned by his defence.

THE NATURE OF REFERRALS TO PSYCHIATRIC SERVICES AND THE FINDINGS OF THE PSYCHIATRIC ASSESSMENTS PERFORMED

Sixty-three (11%) of the 569 subjects were referred to psychiatric services during the follow up period of the study (one subject was referred twice during separate remands, making 64 new referrals). In addition, as mentioned above, a further two subjects known to forensic psychiatric services in Newcastle were dealt with shortly after reception by forensic community psychiatric nurses who did not wait to receive a formal referral from one of the prison medical officers.

Of the 63 men who were referred to psychiatric services 40 (63%) were identified at reception by the research assessment as being in need of some form of psychiatric input.

Twenty-eight (44%) of the 64 referrals were judged to have arisen as a result of prison reception screening. In each case the referral was made within one week of reception into prison and the reason for referral corresponded directly with information elicited by prison health care staff during the reception screen.

The remaining 36 referrals, made between 1 and 120 days after reception, were judged to have arisen for other reasons. Although 25 of these referrals included reference to symptoms of mental disorder, abnormal behaviour possibly arising as a result of mental disorder, self harm, threats of self harm, or a combination of these factors on the referral form, many also included a request for a court report

because of the nature of the charge, and in such cases it was unclear whether a psychiatric opinion would have been requested had a court report not been required. The remaining 11 referrals made no mention of psychiatric morbidity and were almost exclusively routine requests for court reports because of the nature of the charge.

The 63 subjects between them generated 78 referrals. Ten men were referred more than once during the same remand period and one subject was referred in two separate remand periods. As no new diagnoses or management issues resulted from psychiatric assessments arising from second and subsequent referrals during the same remand period, only the first referral in any one remand was studied (64 referrals arising from 63 men).

Fifty of the 64 referrals resulted in a psychiatric assessment: 6 men refused to attend, 4 were discharged at court before being assessed, and a reason for the lack of assessment could not be determined in 4 cases.

Although 6 of the 64 referrals were urgent (to be seen within 2 days), two of these subjects were never seen because they were discharged at court in the meantime; one was not seen until twelve days after referral. The remaining 58 referrals were non-urgent (to be seen within 14 days), of whom 46 were seen, 41 (89%) within two weeks of referral. Forty-nine of the initial psychiatric assessments arising from all referrals were performed by psychiatrists and one was carried out by a community psychiatric nurse. The findings of the 52

psychiatric assessments performed (50 arising from referrals and 2 intercepted by community psychiatric nurses) are summarised in **Table 18**. Only half of these referrals resulted in a diagnosis of current mental disorder, one quarter were judged to have solely drug and alcohol related problems, and the remaining 25% received no psychiatric diagnosis.

When comparing the findings of the psychiatric assessments with those of the earlier research screen, differences were found in 12 cases (23%). In 4 cases it was clear that a *new* mental disorder had developed during imprisonment (major depression in 3 cases, and a severe adjustment disorder in one), in one case a disorder present at reception had resolved by the time the subject was assessed, in one case a subject who refused to be interviewed by researchers was subsequently found to be suffering from a psychotic disorder, and one case involved a man who appeared to researchers to be acutely psychotic at reception, had a diagnosis of schizophrenia confirmed by the assessing psychiatrist, but no signs of acute psychosis were found (and he was therefore not judged to be *currently* mentally disordered). The remaining five cases involved disagreement in relation to minor mental health problems involving anxiety and dysthymia, although in one case the research assessment did not detect a case of post traumatic stress disorder.

MANAGEMENT OF THOSE WHO RECEIVED A PSYCHIATRIC ASSESSMENT

During the study a total of 260 prison psychiatric appointments were made for subjects remanded between 1 October 1995 and 30 April 1996, of which 63 (24%) were not kept. Attendance at court and receiving special visits were the most frequent reasons why prisoners did not attend appointments.

Fifteen subjects were discharged back into the care of the prison doctors after an initial assessment because they were not deemed to require psychiatric care, while 4 men were transferred to secure psychiatric facilities under the provisions of section 48 of the Mental Health Act 1983 and did not return to prison (Table 19). The remaining 33 subjects were managed within the prison by forensic psychiatric services. Hospital transfer was considered for 5 of these men: in 2 cases there was an improvement in mental state so that transfer did not prove necessary, but the other 3 men were discharged at court whilst still undergoing psychiatric assessment.

The outcome of psychiatric treatment received by the 33 subjects who were managed within the prison is summarised in Figure 8. Psychiatric input reached a natural conclusion prior to release from prison in 13 cases (40%). Another 10 subjects (30%) who continued to receive psychiatric input after conviction were still receiving this when the follow up stage of the study ended on 30 April 1997. Psychiatric input for the remaining 10 mentally disordered remand prisoners

(30%) ended prematurely: in 2 instances when prisoners were transferred to another prison, and in 8 cases when they were discharged at court whilst still undergoing assessment or treatment. Follow up in the community was arranged for 3 of these men, of whom 2 actually made contact with local services. Follow up was deemed necessary in a further 4 cases, but proved impossible to arrange, while no mention was made of follow up arrangements in 3 cases.

CHAPTER 8

DISCUSSION

PREVALENCE AND PATTERNS OF MENTAL DISORDER AND SUBSTANCE MISUSE

The results from stage one of this study show that over one quarter of unconvicted men remanded to Durham prison have psychiatric diagnoses at reception. A high proportion of these men are mentally ill, and amongst these individuals there is a disproportionate number with serious mental illness; the 4% prevalence of psychotic illness in this group is ten times greater than that found in adults living in private households in Great Britain (Meltzer *et al*, 1995).

The high rate of psychiatric morbidity in the remand population at Durham prison created a significant need for prison and mental health services to meet. Thirty percent of subjects at Durham were judged to require some form of psychiatric intervention, nine percent of whom required urgent psychiatric care, such that had they presented in the community immediate admission to hospital would have been indicated.

Substance misuse was widespread. Prior to reception into Durham prison, over 70% of unconvicted remand prisoners reported use of illicit drugs, regular

consumption of excessive amounts of alcohol, or both. Amounts of drugs and alcohol consumed were often substantial, reflected by 56% of the population having one or more current substance abuse or dependency diagnosis. Multiple substance use was also common. Although cannabis was the most commonly reported drug used and few problems were reported in association with it, 75% of those using cannabis were also using other illicit drugs, most frequently combinations of amphetamines, benzodiazepines and opiates. These drugs were not only more likely to be associated with abuse or dependence, but were also associated with substantial psychiatric morbidity.

Co-morbidity of mental disorder and substance misuse was common to the point where current substance use was more frequently reported by mentally disordered subjects than those free from mental disorder. Certain classes of substance were associated with different forms of mental disorder. The observed associations between amphetamine and benzodiazepine use and a lifetime diagnosis of psychosis may have had a number of causes. The ability of amphetamine to precipitate and exacerbate psychosis is well known (Janowsky, 1976), and this could explain the intense and persistent paranoid ideation, and in some cases short lived psychotic experiences, described by our subjects which did not reach a threshold for a diagnosis of mental disorder. It is also possible that individuals with psychosis were self-medicating, using benzodiazepines and amphetamines to relieve symptoms of mental illness or medication induced side-effects. The association of alcohol dependency with mood and anxiety disorders

may similarly be attributed to alcohol both inducing these disorders, and being used in preference to other substances as a form of self-medication.

Alcohol abuse and dependence and the abuse of amphetamines and benzodiazepines were also all associated with a diagnosis of personality disorder. Because substance misuse is a diagnostic feature of certain personality disorders this result must be interpreted with caution, but it is interesting to note that opiate use, the scale of which was on a par with amphetamine and benzodiazepine use, was not associated with personality disorder, or for that matter any other mental disorder diagnoses.

PRISON RECEPTION HEALTH SCREENING

Prison reception screening failed to identify over three-quarters of men entering Durham prison on remand who were suffering from mental disorder. Mental disorder was no more readily recognised in those with severe forms of psychiatric illness. Because the prison screen failed to identify the bulk of psychiatric morbidity in new remands, many of these individuals were placed in ordinary cells on the prison wings and did not obtain the psychiatric intervention they required. Furthermore, many of the subjects studied had had little or no recent contact with health care services in the community, and prior to remand about a third of those with mental disorder had been either sleeping rough or living in temporary accommodation. Missed by the health screen, an opportunity

to engage these men with community psychiatric services was lost. Why should this have been the case?

Only in the broadest sense did the structure of reception health screening at Durham prison comply with the requirements set out in *Health Care Standards for Prisons in England and Wales*. All newly received prisoners saw a health care worker on the day of reception when an initial health screen was carried out using the standard questionnaire (form F2169), and a prison medical officer saw all new prisoners the following day. There in most cases the similarity with prison *Health Care Standards* ended.

According to *Health Care Standards*, the health care worker performing the initial health screen should be “*fully trained in health care reception procedures, assessment methods and counselling skills*”, and the assessment given “*sufficient time, in privacy to facilitate one-to-one contact between the prisoner and health care worker. An average of 10 minutes per screening to be allowed*”. However, four permanent vacancies meant that during the study period the screening work (along with other health care duties) was distributed between 16, instead of 20, health care workers. Two of these were ‘E’ grade nurses, seven were prison officers with National Health Service nursing qualifications, and seven were prison officers who held only a certificate from a Home Office six month nursing course which became obsolete five years ago. The number of health care staff available for screening on any particular day varied, but staffing levels were

reported as being critically low most of the time. One major reason for this was the high level of sick leave amongst health care workers.

The manner in which new prisoners were processed and the conditions under which the reception and induction procedures took place at Durham prison were less than ideal for health screening to be effective. The medical officer assessments carried out on day two took place in equally unsatisfactory conditions and assessments were often cursory, some lasting as little as 15 seconds. Although sufficient time needs to be allowed for an adequate mental health assessment to be performed, time taken is not the most important factor in determining whether psychiatric morbidity is identified. Marks *et al*, (1979) in a study of general practice consultations (and many part-time prison medical officers are general practitioners) have shown that doctors who hurry interviews are no worse at detecting psychiatric illness than those who take longer over their consultations. Instead, Marks *et al* found that it was the way in which the patient was interviewed that was fundamentally important, and doctors who were rated as empathic and interested, and who maintained a psychiatric focus during their consultations were best at identifying mental health problems amongst their patients. Conversely Davenport *et al* (1987) have shown that general practitioners who are poor at identifying psychiatric disorders have a tendency to suppress their patients' expression of verbal and vocal cues by avoiding eye contact during the initial stage of the interview, not clarifying the patient's complaint and asking closed questions about physical symptoms.

In addition to the detrimental effect of the unsatisfactory manner in which the doctor's assessment of new inmates at Durham prison took place, the detection of psychiatric morbidity was further hampered by the conditions in which these interviews were conducted. The door of the interview room was often left open during the assessment so that the prisoner was within earshot of other inmates. Inmates were sometimes made to stand in front of the doctor, and a lack of eye contact and apparent indifference on the part of the medical officer were frequent complaints from prisoners undergoing screening.

The role of postgraduate training in helping to improve a doctor's ability to identify mental health problems is well recognised, and Joukamma *et al* (1995) have demonstrated that general practitioners who have postgraduate training in psychiatry or a qualification as a specialist in general practice are significantly better at identifying psychiatric morbidity than those who have no such training and qualifications.

One of the two prison medical officers at Durham who was interviewed held Membership of the Royal College of General Practitioners, but neither had post graduate psychiatric qualifications. Both doctors, however, held the view that experience in working in prisons was more important than formal training or qualifications. They agreed that one of the main purposes of the prison reception screen was to detect mental disorder, but both believed that much of the psychiatric morbidity they encountered amongst prisoners was the product of personality disorder. Pressure of time and prisoners deliberately withholding

information were highlighted by the doctors as main factors which hampered their work, but both believed that screening was still worthwhile and effective, and that substantial changes were not required. Prison policies and guidelines were seen by the medical officers as the key to the management of mentally disordered prisoners, and psychiatric services were viewed as being responsible for the care of those who were referred to this service. These views were not unique to the prison doctors, and similar views were held by other prison health care staff. Consequently from an external perspective prison screening and health care procedures seemed rather rigid and inflexible and they appeared to focus on the requirement to execute procedure rather than the need to identify and meet prisoners' health care needs.

Reception health screening at Durham prison was inefficient in other ways. The initial screen administered by a prison health care worker and the second screen carried out by the medical officer are designed to complement one another, yet at Durham this was clearly not the case. Judging by the number of instances in which the medical assessment recorded a negative finding when the health care worker had earlier documented an important positive finding, it seemed that in many cases the doctors were not inspecting the initial reception screen. As **Figure 3** illustrates the health care workers were in fact better at eliciting information relating to mental health and substance use than the doctors. Unfortunately, most of the health care workers lacked the training which might have enabled them to recognise the importance and the relevance of the information they elicited. As this job was not being done well by the doctors, in

many cases even though clear risk factors were detected by one or both of the prison screens mental disorder remained unrecognised.

Although the conditions at Durham prison, the role played by prison staff involved in health assessments, and the effect of prison health care policies under which all prison health care staff operated were all important factors in determining the effectiveness of the screening of new prisoners for health problems, the prisoners themselves had a considerable influence on the outcome of screening assessments, and their attitudes towards screening and prison staff were especially important.

The Chief Inspector of Prisons in his report into suicide and self harm in prison emphasises the importance that inmates attach to the attitudes of prison staff conducting reception. He states "*the importance of sensitivity and kindness was magnified in the minds of inmates at this particular time*" (H.M. Chief Inspector of Prisons, 1990). Leech (1993), himself a prisoner for more than 20 years in over 60 different prisons in the United Kingdom, also highlights the importance of the relationship between prisoner and prison staff and how the quality of this may determine whether a prisoner discloses confidential information about his health.

The prisoners I interviewed tended to have a low opinion of prison health screening and their criticisms were by no means confined to Durham prison. Nearly all had prior knowledge of prison health care, in most cases gained

through personal experience of imprisonment and in others gleaned from friends and relatives who had spent time in prison. Inmates felt that prison health care staff did not have their best interests at heart, and a considerable number told us that because of such perceptions they did not volunteer information, and often deliberately withheld it during prison screening assessments.

Prisoners familiar with the health screening procedure, as many were, said they usually decided prior to being screened how much they needed to disclose to prison health care staff so as not to arouse their suspicions. Even when recognising that they suffered from significant mental health problems, some said that they would rather take their chances on the wings rather than disclose their problems in the belief that their difficulties would be ignored, prejudice their positions, or delay their release. Many also feared being placed in strip cells.

The small number of new remands at Durham prison who had no prior knowledge of prison reception and induction processes were in some cases so disorientated by these procedures that during the short time available to them during their health assessments they felt unable to bring health problems to the attention of prison health care staff.

Ultimately the prison environment, and the attitudes of prison health care staff and of prisoners acted together to impair seriously the effectiveness of prison reception screening for mental disorder. This in turn resulted in large numbers of

mentally disordered prisoners failing to receive the prompt psychiatric intervention they required.

In addition to the comparatively low rates of psychiatric morbidity identified by the combined prison screens, the number of new remands in whom prison reception screening identified drug and alcohol problems was similarly low, and comparatively few detoxification regimes were prescribed. We found that whilst over one third of all new remand receptions ought to be considered for detoxification, only about one in four of these men received treatment to help manage withdrawal from drugs and alcohol.

There are a number of reasons for this low rate of treatment. Clinical assessment of substance use at reception relies to a large extent on what inmates say they are using. Our experience was that when questioned by prison staff many inmates minimised the extent of their substance use, only disclosing what they thought necessary. Those using larger amounts and larger numbers of substances, however, were more likely to be identified. Whilst this may in some cases have been because objective signs of drug use were more apparent, it also seemed linked to a prisoner's belief that the possibility of him receiving help outweighed the negative consequences of disclosure. The preferential identification and detoxification of opiate addicts compared to those dependent upon other substances probably reflects the priority given to opiates and, knowing this, opiate users may also be more likely to ask for help.

When detoxification programmes were prescribed they were low dose, accelerated regimes which probably offered inadequate cover for the withdrawal period. Such treatment programmes, although based on unpublished Home Office guidelines, have been criticised (Ross *et al*, 1994). Gossop *et al* (1989), who studied opiate addicts in the community found that those who underwent brief detoxification (lasting ten days) reported significantly higher peak withdrawal scores on the Opiate Withdrawal Scale and had a significantly higher rate of treatment drop out immediately post detoxification than addicts who were assigned to a longer detoxification programme (over twenty-one days). Many substance dependent prisoners are aware of the response they are likely to encounter in prison if they disclose their drug taking habits. They also know that treatment if offered will be basic. Consequently they take these things into account before volunteering information about their drug or alcohol consumption.

Because illicit drugs are readily available in prison, new prisoners who are addicted to drugs may decide to continue their drug use in prison. When a prisoner identified as having a drug dependency problem has no intention to reduce or stop his illicit drug use, or he refuses help with this, then a doctor is justified in not prescribing medication for detoxification which is likely to be abused.

The situation for alcohol dependent prisoners is somewhat different. In prison alcohol is not freely available in the same quantities as illicit drugs, and

consequently those newly received into prison who are physiologically dependent on alcohol will without medical intervention face withdrawal symptoms. Severe and untreated alcohol withdrawal (delirium tremens) can cause fits and death. Failure to provide detoxification for any new prisoner who is identified as alcohol dependent is, therefore, unethical and such practice could be considered negligent.

PROVISION FOR PRISONERS WITH PSYCHIATRIC TREATMENT NEEDS

At Durham prison, fewer than one quarter of the subjects identified at reception by the research assessment as requiring psychiatric intervention were subsequently referred to psychiatric services during their time on remand, and just over one fifth actually progressed to an initial psychiatric assessment.

The findings and management plans recorded by psychiatric services for those who were referred were similar to those of the research exercise, particularly where severe mental disorder was present. Where circumstances permitted psychiatric services usually responded promptly to referrals, and those who were seen were managed effectively. However, the prison regime, and in particular prisoners being discharged at court, caused considerable interference with the delivery of psychiatric care. In some cases (illustrated by case examples 1 and 2, appendix 2), individuals who suffered from severe forms of mental disorder were released suddenly and unpredictably from prison, which meant they never saw a

psychiatrist, or psychiatric assessment and treatment ended prematurely. Once released into the community, these men, especially if homeless and without established medical contacts outside prison, proved difficult to follow up.

Those who were referred to psychiatric services spent a longer time on remand, but the reasons for this are unclear. Although the effect of medical intervention, as found by Robertson *et al* (1994), may have delayed release from custody, the lack of communication between prison health care services and the courts, and the lack of any hospital orders under Section 37 of the Mental Health Act made during the study, suggest that this was probably not a major influence here. As those with mental disorder had not committed more serious offences, this too was unlikely to have resulted in longer remands. Lacking a permanent address prior to remand (a factor associated with mental disorder) was also not statistically associated with spending longer on remand.

More than three-quarters of prisoners with psychiatric needs did not come to the attention of psychiatric services during their time on remand. Prisoners whose treatment needs were not detected by prison reception health screening were usually housed on normal location. Once located on the prison wings the chances of mental disorder being identified and the prisoner being referred to psychiatric services were slim, even in the case of those who were acutely psychotic (see case example 3, appendix 2).

Only one of the 16 men judged to require immediate transfer to psychiatric hospital actually received this. In total, four subjects were transferred to secure psychiatric hospitals under the provisions of section 48 of the Mental Health Act; included amongst these men was one subject who refused a research interview, but in whom serious mental disorder was considered likely. He was later identified by psychiatric services as suffering from psychosis and transferred to one of the special hospitals (case example 4, appendix 2). As previously mentioned none of the periods of unconvicted remand ended in disposal to a psychiatric hospital under the provisions of section 37 of the Mental Health Act 1983 (a Hospital Order).

The implications of failing to detect and adequately treat mental disorder in prison are not limited to the institution itself. With more than 50% of remands lasting less than one month and over 40% of those found to be mentally disordered at reception being ultimately discharged at court, a significant number of remand prisoners with untreated mental health needs were being returned to the community with no effective psychiatric intervention after relatively short periods in custody. In addition because psychiatric assessment and treatment in prison was not infrequently brought to an abrupt and premature end when subjects were unexpectedly released, men for whom follow up in the community proved difficult to arrange were left in a similar position without psychiatric care

GENERALISABILITY OF FINDINGS

Prevalence of mental disorder and psychiatric treatment needs

Research of this nature, particularly that relating to the follow-up stage of the Durham study has not previously been undertaken in England and Wales. There are, therefore, no similar findings at other prisons with which the Durham Remand Study can be directly compared. Some comparison can be made with the recent national point prevalence study of mental disorder and psychiatric treatment in male remands carried out by Brooke *et al* (1996).

The screening instruments used by Brooke *et al* were broadly similar to those employed in the Durham Remand Study, however, it must be borne in mind that in Brooke *et al* subjects were screened at different stages in their unconvicted remand period. A rate for mental disorder and substance misuse combined of 62% in new receptions into Durham is very similar to the point prevalence figure of 63% found by Brooke *et al* (1996) in their national sample. The prevalence of psychosis in the two studies is also comparable (4% at Durham and 5% nationally). Brooke *et al* reported rates for overall treatment need (55%) and transfer to an National Health Service bed (9%) which were considerably higher than similar levels of treatment need in the population at Durham (30% and 3% respectively), but Brooke's study was biased towards those serving longer remands, and in addition researchers at Durham probably made more conservative management recommendations.

Prison health screening

The reception and induction processes, and the health screening which forms part of these procedures at Durham prison were carried out in accordance with national prison policy. Many of the problems identified in the screening process at Durham prison have also been identified at other prisons in England and Wales (H.M. Chief Inspector of Prisons, 1990; Mitchison *et al*, 1994), and this is confirmed by the views of prisoners at Durham who described their experiences of screening at other prisons. Visits to other prisons in England and Wales and inspections of screening forms completed at these establishments also suggests that reception health screening in many prisons is not particularly effective.

Provision of psychiatric treatment

The detection of psychiatric and substance related morbidity and the pattern of psychiatric referrals at each individual prison will be dependent to a large extent on the health care staff there. Deficits in this area undoubtedly contributed to the overall lack of psychiatric care at Durham prison, but Durham is not unique in this respect; training and standards of prison health care staff are national concerns (Bluglass, 1990b; British Medical Journal, 1990), and as the account of the development of prison medical services contained in chapter 2 illustrates, such problems have been endemic in the Prison Medical Service for centuries. All employees of the Prison Health Service have to contend with loyalty divided

between their patients and the Prison Service, and prisoners were usually of the opinion that the primary allegiance of prison health care staff was to the latter.

TOWARDS BETTER IDENTIFICATION AND MANAGEMENT OF MENTAL DISORDER IN PRISON

Improving prison reception health screening

The rate of serious mental illness in this population is approximately ten times that found in the general population (Meltzer *et al*, 1995). As many of the subjects studied at Durham prison who were found to suffer from mental illness reported having had little or no contact with health care services in the community prior to their arrest, screening prisoners for mental health problems and psychiatric treatment needs at reception into prison should uncover a considerable amount of untreated psychiatric morbidity. Of course, whether such screening is worthwhile depends upon how the procedure is conducted and what action is taken in response to a positive finding. In respect of general practice, Joukamma *et al*(1995) point out, “...mere detection of mental disorder is not the most important issue in helping patients with mental problems. What happens to the patient after that is much more important. The detection of mental disorder by a GP does not always mean that adequate psychiatric care will be provided for the patient”. This statement is equally applicable to the primary health care, and most especially the reception screening, carried out by prison medical officers (many of whom are part-time general practitioners).

This study has identified a number of factors which act to reduce the effectiveness of prison reception health screening. Each of these needs to be addressed. To begin with, there is an unrealistic expectation placed on those doing the screening. If the prison doctor were to follow the guidelines laid down in *Health Standard 1.2*, he or she would in effect be carrying out full physical and psychiatric examinations on all new remands, a procedure that would probably require at least three quarters of an hour per inmate, and would in any case make redundant the earlier assessment carried out by the health care worker. At Durham prison we found the health care worker's screen to be almost invariably more informative and accurate than the subsequent medical officer's assessment.

Whilst the purpose of this initial reception screen is not to make accurate psychiatric diagnoses, it should allow certain individuals to be selected out for a more in depth assessment of their mental health. Although limiting the number of "false positives" in this respect is important, more crucial is to ensure that "false negatives" are kept to a minimum. Analysing the data on prison reception screening collected from subjects in this study shows that a small number of questions that are covered by form F2169 discriminate a higher risk group. Concentrating on this group of prisoners alone would reduce the size of the population for further assessment by 60% while correctly identifying over three-quarters of those with mental illness and four out of five with serious mental illness. Focusing on areas covered by these questions (albeit with some

modification of the specific information sought), and training health care workers so that they can elicit the relevant information reliably, should improve markedly the first stage of the screening process.

A major role of the health care workers' screen is to collect information which can be used to alert the medical officer to the potential presence of mental disorder. There seems little to be gained by the prison medical officer duplicating the questions already asked by the health care worker as happens at the present time. Instead, it would be more efficient if the second stage of screening for mental health problems were to be carried out by a community psychiatric nurse who would not only have more time than a prison doctor to make a proper mental health assessment, but who would also have the appropriate training and skills to be able to identify those who need further input, and to decide whether this should be provided by a psychiatrist, psychologist, or psychiatric nurse.

By removing the need for mental health assessment from the prison doctor, he or she would be able to focus more on physical health problems, fulfilling the statutory requirement for every prisoner to see a doctor on entry into custody.

In addition to the specific changes to the structure of the screening process proposed above, there are wider issues relating to the prison environment, prison staff and most especially the relationship between prisoners and prison staff which need to be addressed if health screening is to be made more effective.

- Attention needs to be paid to the surroundings in which assessments take place, and a greater emphasis on privacy and confidentiality is required.
- Information elicited during screening assessments should be recorded systematically, in a way that makes it accessible and useful to clinical practice.
- Prison health care staff involved in health screening need to be familiar with the screening instrument they are using and they should have some understanding of the relevance of the questions they are asking. Basic health care qualifications and in-service training for prison health care staff are important in this respect.
- Understaffing, unsatisfactory working conditions and difficult prisoners are among the many things that lead prison staff to become demoralised, effecting their attitude towards their job, their colleagues and the prisoners in their care. Efforts should be made to boost and maintain staff morale. The role that prison health care staff play needs to be valued, and the status and career prospects of a job in the Prison Health Service need to be improved.
- Prisons place a considerable emphasis on security, control and procedure. Whilst such conditions can make it difficult for staff to respond appropriately to individuals with health care needs, every effort should be made to ensure that when a prisoner's health care needs are not being met this is not because

staff attitudes preclude him from being treated as a patient. For prison health care staff this is a particularly pertinent issue and during health screening they have to regard every new prisoner as a potential patient. Attention must be given to fostering good relationships between prison staff and the prisoners in their care, and the importance of the therapeutic relationship in the prison health care setting needs to be emphasised.

Subsequent identification and management of mentally disordered prisoners

Improving reception health screening is an important factor in reducing psychiatric morbidity in prisons, but this alone will not suffice. Other methods must be relied upon to detect the mentally disordered who pass unidentified through even the most comprehensive of reception screens as well as prisoners who are healthy on reception but who develop mental health problems at a later stage of imprisonment. Once identified, important findings must be documented, and appropriate action taken to ensure that the prisoner's health care needs are addressed.

Because the vast majority of prisoners are housed on ordinary prison wings and, after reception, many will have no further contact with prison health care services, other members of prison staff, especially prison officers can play an important role in bringing mentally disordered prisoners to the attention of prison health care staff. Unfortunately, the disturbed behaviour of mentally disordered prisoners is too often tolerated or ignored on the prison wings, and segregation is

used when such behaviour can not be managed on normal location. The standard response to disruptive behaviour is to isolate, contain and if necessary punish. Perhaps behavioural disturbance due to mental disorder tends to be treated in the same manner because the possibility of an underlying mental disorder is not considered. Whilst prison officers can not be expected to have a detailed knowledge of psychiatry, training at a very basic level sufficient to allow them to be better able to recognise signs and symptoms of mental disorder should allow better recognition and management of mental health problems.

Behavioural disturbance which does come to the attention of prison health care staff may be interpreted as manipulative or trouble making behaviour. Because the perception is that such behaviour is often due to personality or drug related problems, an acutely psychotic prisoner who presents with disturbed behaviour may not be recognised as suffering from mental illness, and consequently he may not be referred to psychiatric services. Although more psychiatric referrals would be generated, if less emphasis was placed on diagnostic labeling and more on psychiatric assessment in these circumstances, a greater number of acutely psychotic individuals would be recognised. In addition, for those not deemed to be ill, useful advice on management could be obtained.

Communication between health care services in prison and the courts is poor. In the case of prisoners who are mentally ill and undergoing assessment and treatment by psychiatric services, it is important that the courts are made aware of the situation so that wherever possible the needs of the individual are

accommodated. When mentally disordered prisoners are released prison medical services should try and ensure continuity of care by informing the general practitioner, and if necessary, arranging follow-up with psychiatric services. For vulnerable individuals with serious mental illness this especially important.

THE PROSPECT FOR CHANGE

The prison system in England and Wales has always been and probably will always be strictly regulated by policy and procedure. Managing mental disorder under these conditions is difficult, but in recent years improvements in certain aspects of prison health care have occurred. An example of one area in which changes have been made is the management of prisoners deemed to be at risk of deliberate self harm and suicide. The training of prisoners as listeners, the promotion of suicide awareness and “demedicalising” suicidal behaviour are all positive steps in this respect. There are also better procedures in place for monitoring suicide risk and acting accordingly. There is, however, a danger that opening an F2052SH file on a suicidal prisoner, or for that matter filling out any other health care paperwork, can simply become a procedural response and nothing more. Such practices are not conducive to good health care, but in institutions such as prisons they are liable to develop and persist. Once this occurs the exercise may simply become a labour intensive waste of time.

Audit is actively encouraged within the National Health Service, the aim of this being to evaluate current practice and improve standards accordingly. Audit is

not a routine feature of prison health care, nor is internal research. External investigators and researchers may be seen as people who lack an understanding of prison culture and have little appreciation of the difficulties encountered by prison staff in their every day work. Findings may not be acted upon, and recommendations may not be pursued. Even if policy is altered there may be little change in practice.

Financial restraints and lack of resources are often blamed when prison health care is found to be sub-standard, but as the results of this study serve to underline there are plenty of other reasons besides these. According to Squires & Strobl (1997), although a political will for change now exists, prison health care staff need to re-orientate themselves towards health promotion. The whole setting of the prison, its regimes and conditions, must be addressed if prisons are to become healthier places (Squires, 1996). This, of course, would represent a major undertaking, but one which is well worthwhile.

TABLES**Table 1 - Demographic details of 569 unconvicted remand prisoners**

Variable	Value	Number(%) of subjects
Age		
Range	21-70 years	562 (99)
Mean (S.D.)	28 years (7.7)	
Median	26 years	
I.Q.		
Range	45-120	441 (78)
Mean (S.D.)	83 (12)	
Score 70 or less		57 (13)
Ethnic Origin		
	Caucasian	542 (95)
	Asian	7 (1)
	Afro-Caribbean	4 (1)
	Other	12 (2)
	No information	4 (1)
Social Class		
	1 & 2	6 (1)
	3, 4 & 5	86 (15)
	Unemployed	359 (63)
	Incapacity/Invalidity Benefit	93 (16)
	Other	5 (1)
	No information	20 (4)
Most serious charge		
	Dishonesty	273 (48)
	Violence	224 (39)
	Sexual	29 (5)
	Homicide	15 (3)
	Arson	9 (2)
	No information	19 (3)

Table 2 - Prevalence of current mental disorder (excluding substance misuse) in 569 unconvicted remand prisoners

Diagnosis	Number (%) of subjects
Psychotic disorders	
Schizophrenia and other psychotic disorders	20 (4)
Affective psychoses	4 (1)
Non psychotic mood disorders	
Major mood disorders	13 (2)
Dysthymic disorder	14 (3)
Anxiety disorders	34 (6)
Adjustment disorders	17 (3)
Personality disorder	38 (7)
Mental retardation	6 (1)
Other disorders	
Intermittent explosive disorder	3 (1)
Paedophilia	2 (0)
Cognitive Disorder	1 (0)
Total number of subjects with current mental disorder	148 (26)*

* 4 subjects with DSM IV axis 2 mental disorder (3 with personality disorders and 1 with mental retardation) also had current axis 1 mental disorder.

Table 3 - Prevalence of lifetime mental disorder (excluding substance misuse) in 569 unconvicted remand prisoners

Diagnosis	Number(%) of subjects
Psychotic disorders	
Schizophrenia and other psychotic disorders	33 (6)
Affective psychoses	6 (1)
Non psychotic mood disorders	
Major mood disorders	22 (4)
Dysthymic disorder	16 (3)
Anxiety disorders	38 (7)
Adjustment disorders	21 (4)
Personality disorder	38 (7)
Mental retardation	6 (1)
Other disorders	
Intermittent explosive disorder	3 (1)
Paedophilia	2 (0)
Cognitive Disorder	1 (0)
Total number of subjects with lifetime mental disorder	
170 (30)*	

* Co-morbidity in 15 subjects. 6 with personality disorder and 3 with mental retardation each had one additional lifetime mental illness diagnosis, 2 subjects each had two separate lifetime mental illness diagnoses, and one subject had three such diagnoses.

Table 4 - Number of subjects currently using each class of illicit drug at recreational (non abusive or dependent use), DSM IV abuse and DSM IV dependence levels. (312 subjects*)

Drug	Recreational	Abuse	Dependence	Total
Amphetamine	67	25	44	136
Benzodiazepines	32	12	75	119
Cannabis	244	13	1	258
Cocaine	35	8	4	47
Hallucinogens	32	4	0	36
Opiates	13	3	84	100
Solvents	4	0	5	9
Other Substances	2	5	1	8

*Many subjects were using more than one illicit substance.

Table 5 - Number of illicit drugs used by 312 subjects

Number of drugs being used currently	Number of subjects (%)
One	108 (35)
Two	96 (31)
Three	55 (18)
Four	27 (9)
Five	17 (5)
Six	8 (3)
Seven	1 (0)

Table 6 - Current level of alcohol use in 548 subjects

Level of use	Number of subjects (%)
None	122 (22)
<21 units per week	193 (35)
>21 units per week (with no DSM IV alcohol diagnosis)	56 (10)
DSM IV Abuse	61 (11)
DSM IV Dependence	116 (21)

Table 7 - Association between a lifetime alcohol misuse diagnosis and lifetime history of mental illness in 548 subjects

Lifetime diagnosis	Lifetime alcohol diagnosis		
	None	Abuse	Dependence
Major depressive disorder - Yes (%)	5 (23)	5 (23)	12 (55)
- No (%)	270 (51)	112 (21)	144 (27)
Dysthymia - Yes (%)	3 (19)	5 (31)	8 (50)
- No (%)	272 (51)	112 (21)	148 (28)
Anxiety disorder - Yes (%)	13 (35)	6 (16)	18 (49)
- No (%)	262 (51)	111 (22)	138 (27)
Psychotic disorder - Yes (%)	17 (50)	5 (15)	12 (35)
- No (%)	258 (50)	112 (22)	144 (28)

Table 8 - Association between a lifetime amphetamine misuse diagnosis and lifetime history of mental illness in 548 subjects

Lifetime diagnosis	Lifetime amphetamine diagnosis		
	None	Abuse	Dependence
Major depressive disorder - Yes (%)	19 (86)	0	3 (14)
- No (%)	413 (79)	42 (8)	71 (13)
Dysthymia - Yes (%)	13 (81)	0	3 (19)
- No (%)	419 (79)	42 (8)	71 (13)
Anxiety disorder - Yes (%)	28 (76)	3 (8)	6 (16)
- No (%)	404 (79)	39 (8)	68 (13)
Psychotic disorder - Yes (%)	18 (53)	6 (18)	10 (29)
- No (%)	414 (81)	36 (7)	64 (12)

Table 9 - Association between a lifetime benzodiazepine misuse diagnosis and lifetime history of mental illness in 548 subjects

Lifetime diagnosis	Lifetime benzodiazepine diagnosis		
	None	Abuse	Dependence
Major depressive disorder - Yes (%)	16 (73)	1 (5)	5 (23)
- No (%)	424 (81)	20 (4)	82 (16)
Dysthymia - Yes (%)	10 (63)	1 (6)	5 (31)
- No (%)	430 (81)	20 (4)	82 (15)
Anxiety disorder - Yes (%)	28 (76)	1 (3)	8 (22)
- No (%)	412 (81)	20 (4)	79 (15)
Psychotic disorder - Yes (%)	23 (68)	0	11 (32)
- No (%)	417 (81)	21 (4)	76 (15)

Table 10 - Association between personality disorder and lifetime substance misuse diagnosis in 548 subjects

Lifetime substance diagnosis		Personality disorder	
		No (%)	Yes (%)
Alcohol	- None	270 (53)	5 (14)
	- Abuse	106 (21)	11 (30)
	- Dependence	135 (26)	21 (57)
Amphetamine	- None	410 (80)	22 (60)
	- Abuse	33 (6)	9 (24)
	- Dependence	68 (13)	6 (16)
Benzodiazepine	- None	414 (81)	26 (70)
	- Abuse	16 (3)	5 (14)
	- Dependence	81 (16)	6 (16)
Opiate	- None	429 (84)	32 (87)
	- Abuse	3 (1)	0
	- Dependence	79 (16)	5 (14)

Table 11 - Psychiatric management required in 569 subjects

Initial management	Number (%) of subjects
None	386 (68)
Outpatient referral (within prison setting)	
General and Forensic psychiatry	99 (17)
Request specialist psychiatric opinion (e.g. mental retardation, sex offending)	19 (3)
Prison health care centre	
Manage in health care centre	29 (5)
Assess in health care centre, transfer to psychiatric hospital probably required	5 (1)
Immediate transfer to psychiatric hospital	16 (3)
Inadequate information (refusers)	15 (3)

Table 12 - Numbers* identified by health care officers' screening according to their level of use of the four most frequently encountered illicit drugs

Drug	Level of use according to research screening	Use identified by health care worker	
		No	Yes
Cannabis	Not used	118	6
	"Recreational"	191	45
	Abuse/Dependence	10	4
Amphetamines	Not used	234	4**
	"Recreational"	58	7
	Abuse/Dependence	45	23
Benzodiazepines	Not used	256	2**
	"Recreational"	33	3
	Abuse/Dependence	61	22
Opiates	Not used	274	4**
	"Recreational"	11	0
	Abuse/Dependence	25	57

*The subjects studied for each class of drug included those identified by researchers as currently using the drug who had also been screened for its use by the health care worker, and a small number of subjects in whom the drug's use was only identified by the health care worker.

**All of these subjects were identified by us as currently using other "non-cannabis" illicit drugs.

Table 13 - Factors considered as possible predictors of current mental illness together with the odds ratio, 95% confidence interval and P-value from individual logistic regression models

Factor		Odds Ratio	95% Confidence interval	P-value
A history of self harm	No	1		
	Yes	3.79	2.42 - 5.97	< 0.001
A history of homelessness	No	1		
	Yes	1.87	1.22 - 2.88	0.004
A past history of psychiatric care (outpatient or an inpatient care as an adult)	No	1		
	Yes	5.80	3.67 - 9.18	< 0.001
A family history of mental health problems	No	1		
	Yes	1.38	0.89 - 2.13	0.151
Significant life event(s) in the past six months	No	1		
	Yes	1.73	1.12 - 2.69	0.014
Nature of most serious charge is dishonesty	No	1		
	Yes	0.84	0.55 - 1.29	0.43
Nature of most serious charge is violence	No	1		
	Yes	0.76	0.49 - 1.18	0.225
Nature of most serious charge is sexual	No	1		
	Yes	1.38	0.57 - 3.32	0.48
Nature of most serious charge is homicide	No	1		
	Yes	11.65	3.58 - 37.94	< 0.001
Nature of most serious charge is arson	No	1		
	Yes	1.22	0.25 - 5.95	0.244
Prescribed antidepressants prior to remand	No	1		
	Yes	8.35	4.02 - 17.33	< 0.001
Prescribed antipsychotics prior to remand	No	1		
	Yes	10.37	3.13 - 34.39	< 0.001
Prescribed benzodiazepines prior to remand	No	1		
	Yes	2.15	1.21 - 3.84	0.009
Prescribed opiates (methadone) prior to remand	No	1		
	Yes	1.29	0.64 - 2.63	0.476

Table 14 - The final logistic regression model

Factor		Odds Ratio	95% Confidence interval
A history of self harm	No	1	
	Yes	2.3	1.4 to 4.0
A past history of psychiatric care (outpatient or inpatient care as an adult)	No	1	
	Yes	3.5	2.0 to 5.9
Nature of most serious charge is homicide	No	1	
	Yes	10.5	2.8 to 39.3
Prescribed antidepressants prior to remand	No	1	
	Yes	4.0	1.8 to 9.2

Table 15 - Performance of the logistic regression model according to research screen findings. A prisoner is deemed to be high risk if any of the factors in Table 14 are present

	<i>Classification</i>			
		Low Risk	High Risk	Total
Mentally ill at reception (judged by researchers)	No	316	126	442
	Yes	25	79	104
	Total	341	205	546

Sensitivity = 75.96%

Specificity = 71.49%

Negative predictive value = 92.67%

Positive predictive value = 38.54%

Table 16 - Performance of the logistic regression model according to health care workers' findings. A prisoner is deemed to be high risk if any of the factors in Table 14 are present

	<i>Classification</i>			
		Low Risk	High Risk	Total
Mentally ill at reception (judged by researchers)	No	341	101	442
	Yes	40	64	104
	Total	381	165	546

Sensitivity = 61.54%

Specificity = 77.15%

Negative predictive value = 89.50%

Positive predictive value = 38.79%

Table 17 - The outcome of 597 remands in 569 subjects according to the presence or absence of mental disorder at reception into prison

Outcome	Total subjects (%)	Mental disorder at reception*	
		Absent (%)	Present(%)
Discharged at court	268 (45)	197 (47)	64 (41)
Convicted and imprisoned	314 (53)	221 (52)	84 (54)
Transfer to another prison	8 (1)	4 (1)	4 (1)
Transfer to hospital (section 48)	4 (1)	0	3 (1)
Transfer to hospital (section 35)	1 (0)	0	1 (0)
Deported	1 (0)	0	1 (0)
Suicide	1 (0)	1 (0)	0

* Does not include 17 subjects who refused to be interviewed by researchers and whose mental state at reception was unknown. One of these men was subsequently found to be psychotic and transferred to hospital under section 48 of the Mental Health Act.

Table 18 - *The findings of the 52 initial assessments performed by forensic psychiatric services*

Diagnosis	Number of subjects (%)
Psychotic disorders	
Schizophrenia and other psychotic disorders	7 (13)
Non psychotic mood disorders	
Major mood disorders	6 (12)
Dysthymic and other depressive disorders	3 (6)
Anxiety disorders	4 (8)
Adjustment disorders	2 (4)
Personality disorder*	6 (12)
Substance abuse./ dependence alone**	13 (25)
No diagnosis	13 (25)

*2 of the 6 subjects with personality disorder each had an additional current diagnosis.

**Including 2 cases of drug withdrawal.

Table 19 - Subjects transferred to hospital under the provisions of section 48 of the Mental Health Act 1983

Diagnosis	Time interval (days) between							Security of receiving hospital
	Reception and referral	Referral and first assessment	Assessment and transfer advised	Transfer advised to transfer request	Transfer request and hospital transfer	Total time on remand		
Psychotic Disorder	20	2	0	41	3	66	special hospital	
Psychotic Disorder	not referred	(intercepted by CPN)	1	1	4	33	medium security	
Psychotic Disorder	0	3	2	55	1	61	medium security	
Psychotic Disorder	2	3	0	1	0	6	low security	

FIGURES

Figure 1 - Number of prisoners transferred each year between 1985 and 1995 to psychiatric hospitals under the provisions of section 48 of the Mental Health Act.

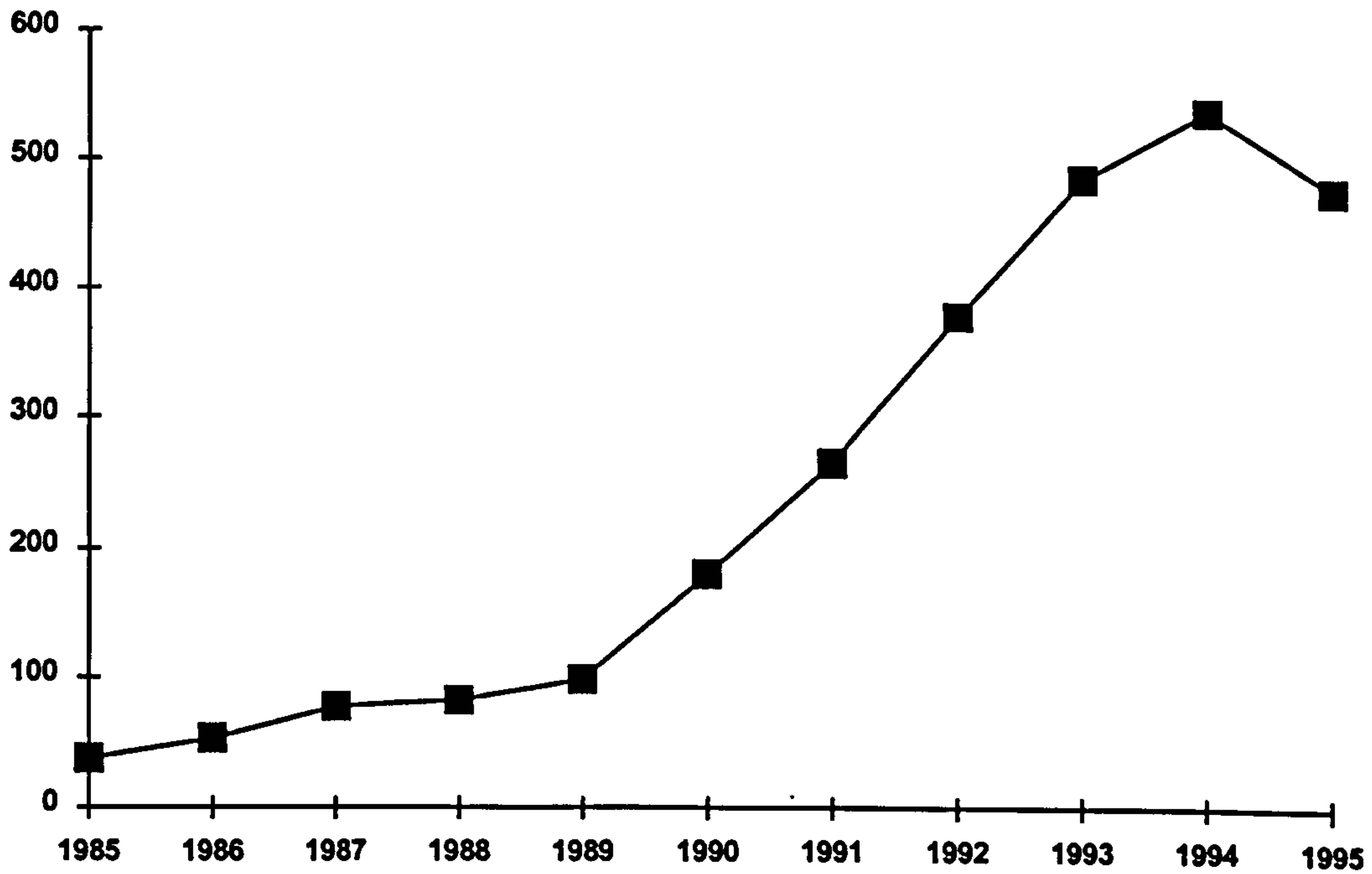


Figure 2 - *Primary psychiatric diagnosis in 148 mentally disordered subjects*

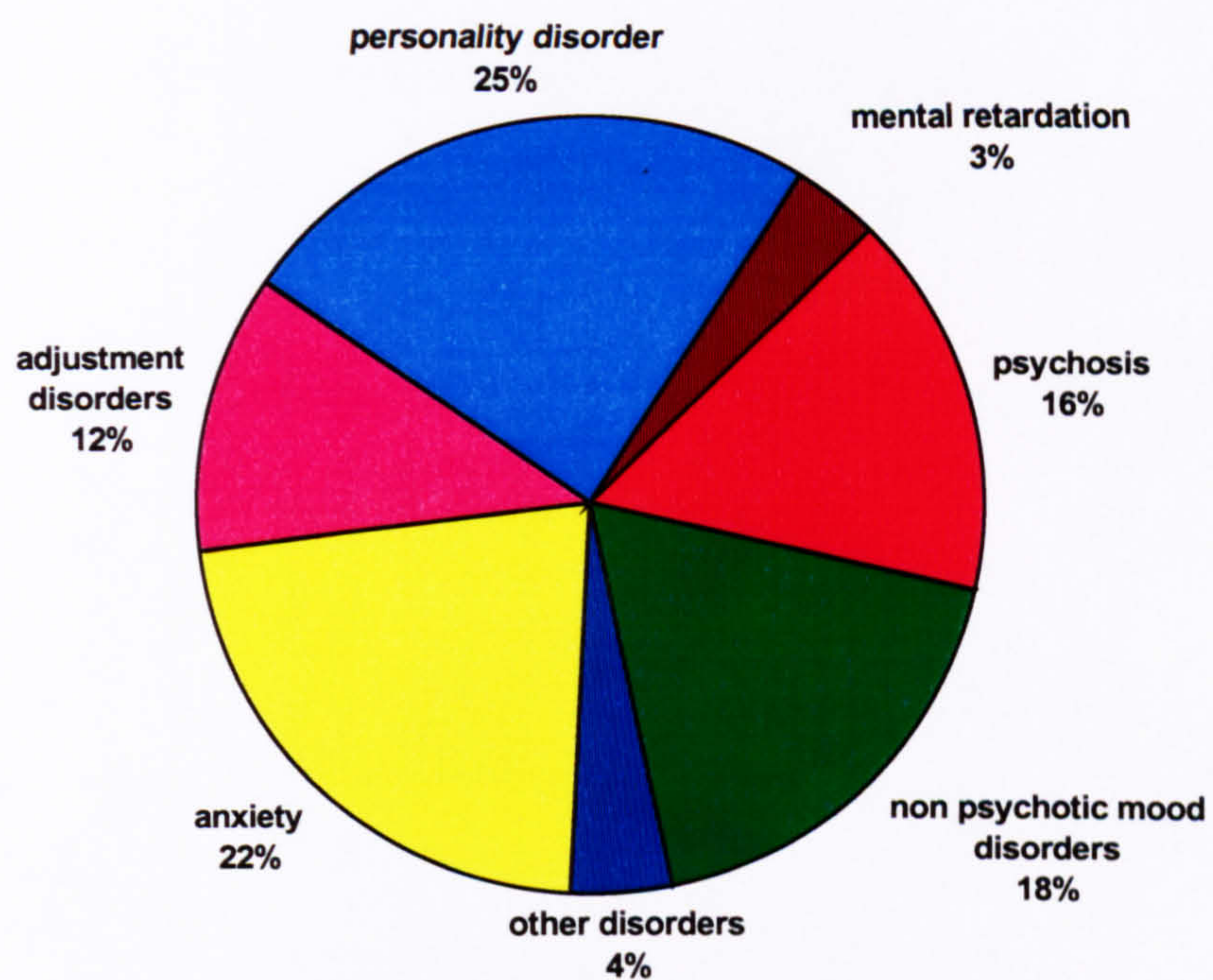


Figure 3 - Information elicited by prison health care worker screen, prison medical officer health assessment, and research screen administered to the same 546 remand prisoners at their reception into prison.

Numbers with positive findings for each of the following

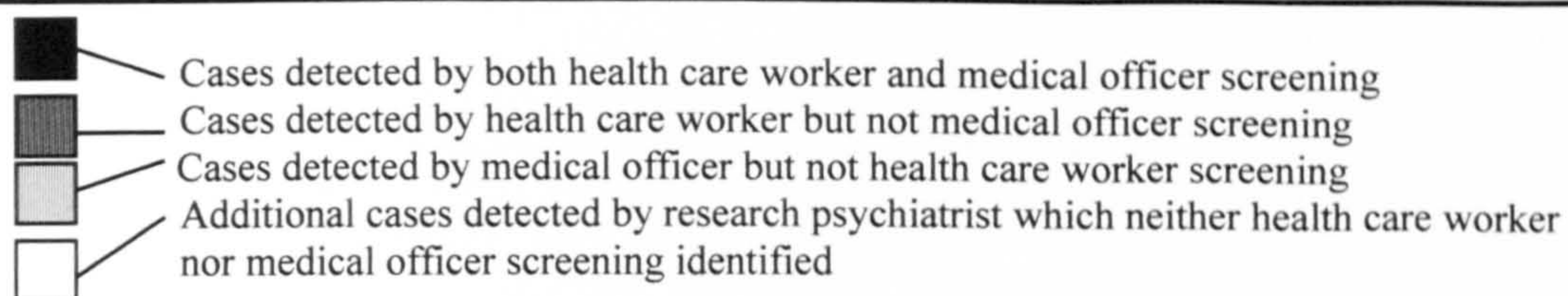
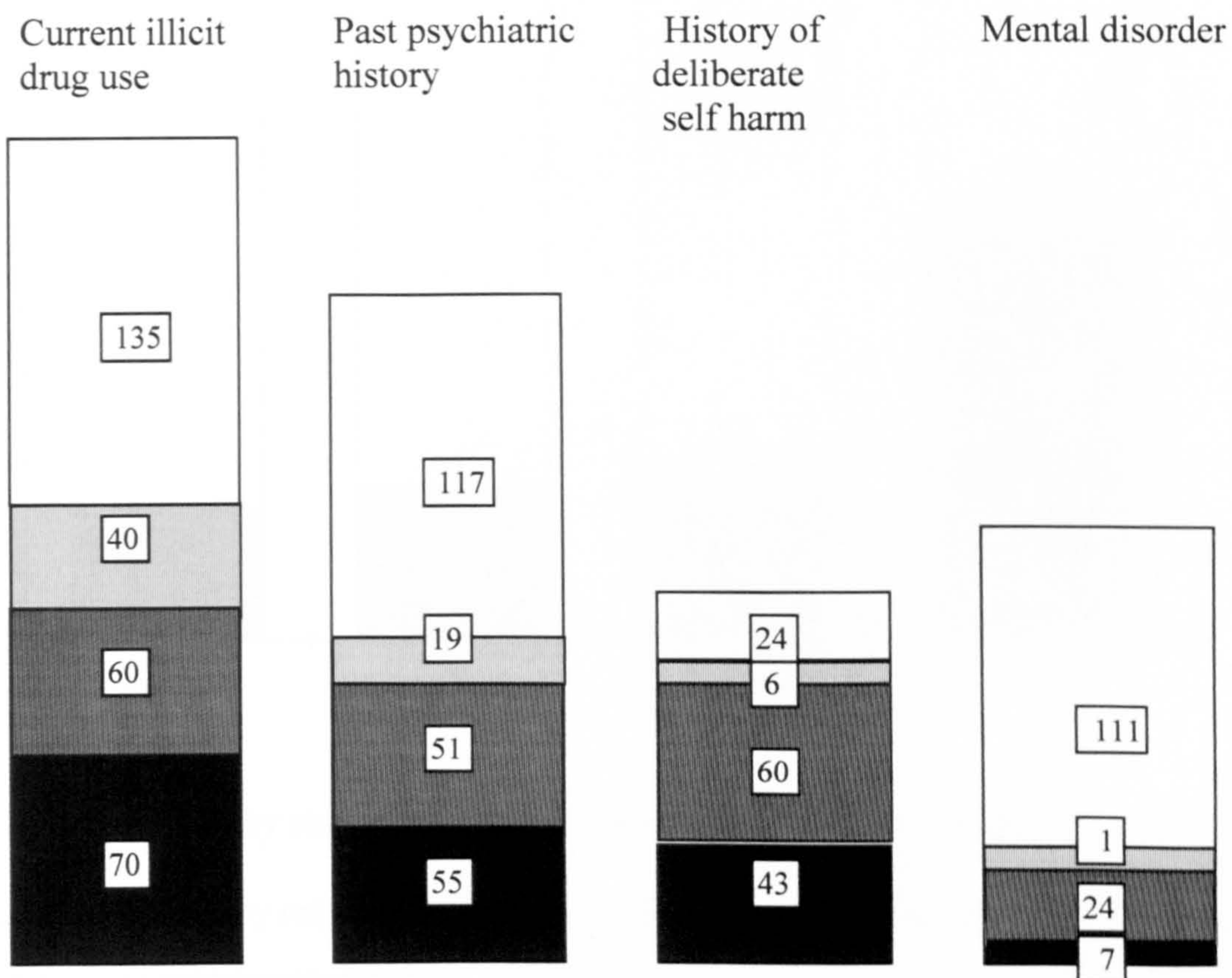
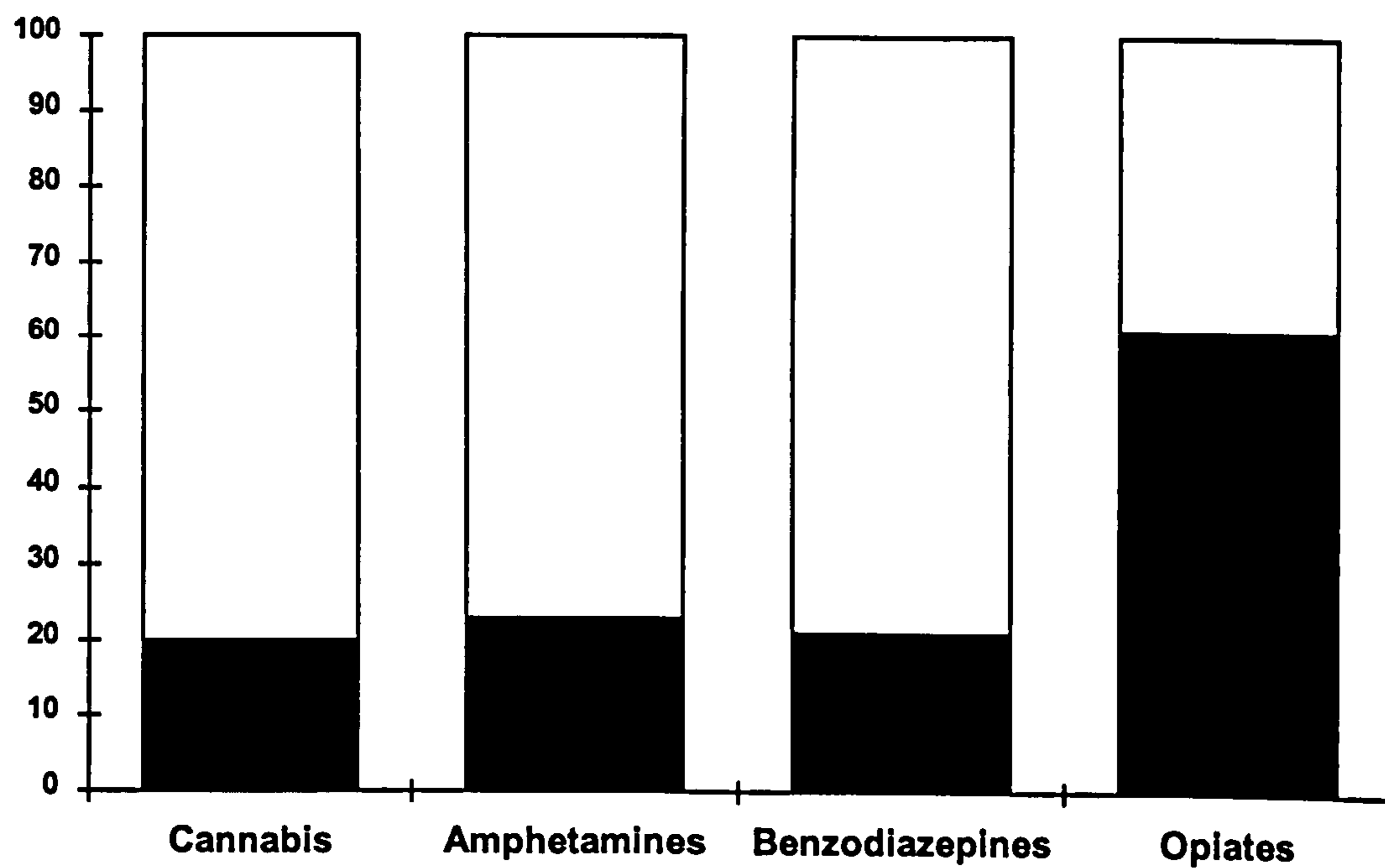


Figure 4 - Percentage of cases of illicit drug use identified by health care worker screen and research screen according to drug type.

Percent



■ Cases identified by research screen and detected by health care workers

□ Cases identified by research screen but not detected by health care workers

Figure 5 - Prison location of the 50 subjects judged by researchers to require immediate psychiatric intervention following reception into prison

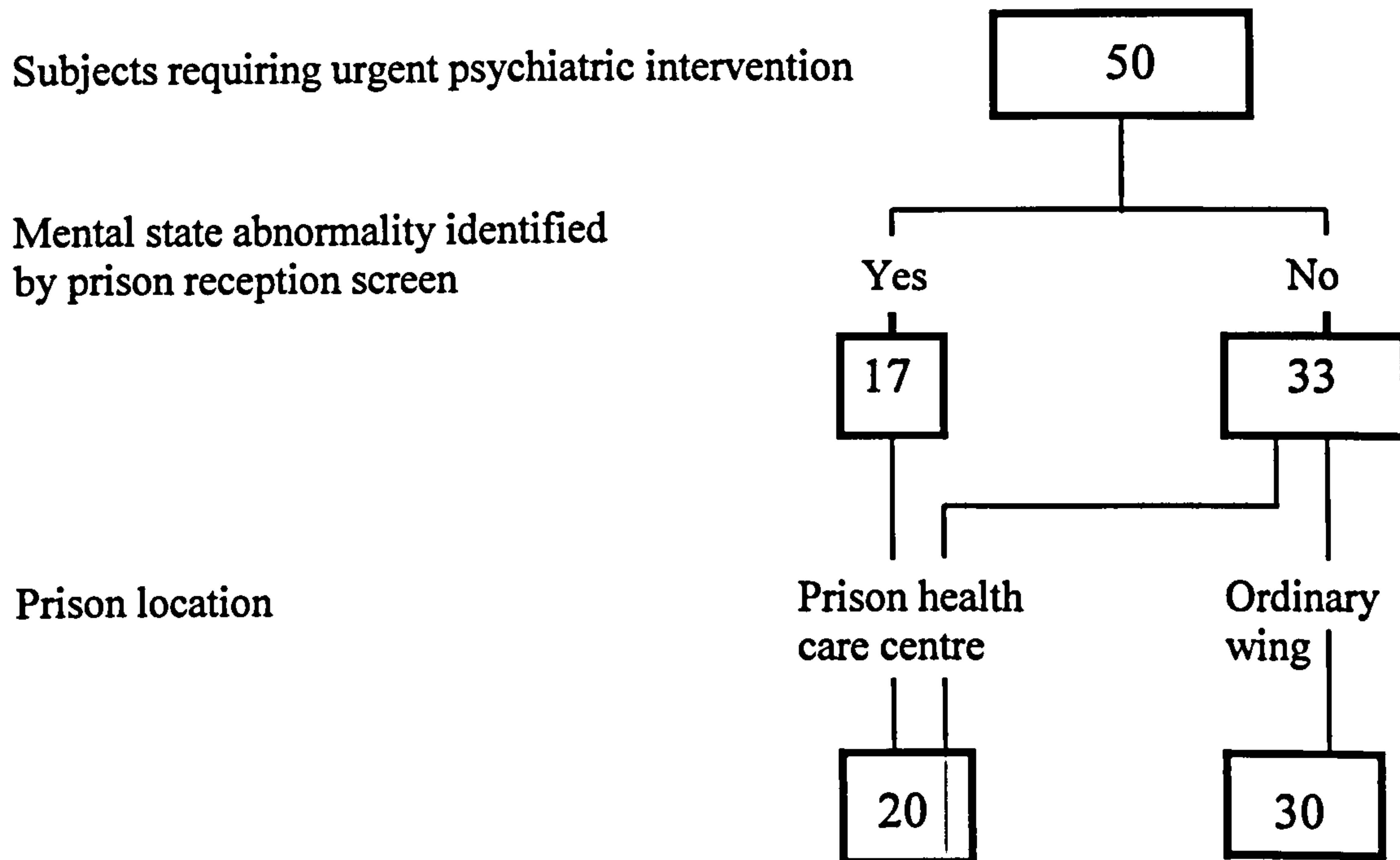


Figure 6 - Outcomes for 16 subjects judged by researchers to need immediate transfer to psychiatric hospital.

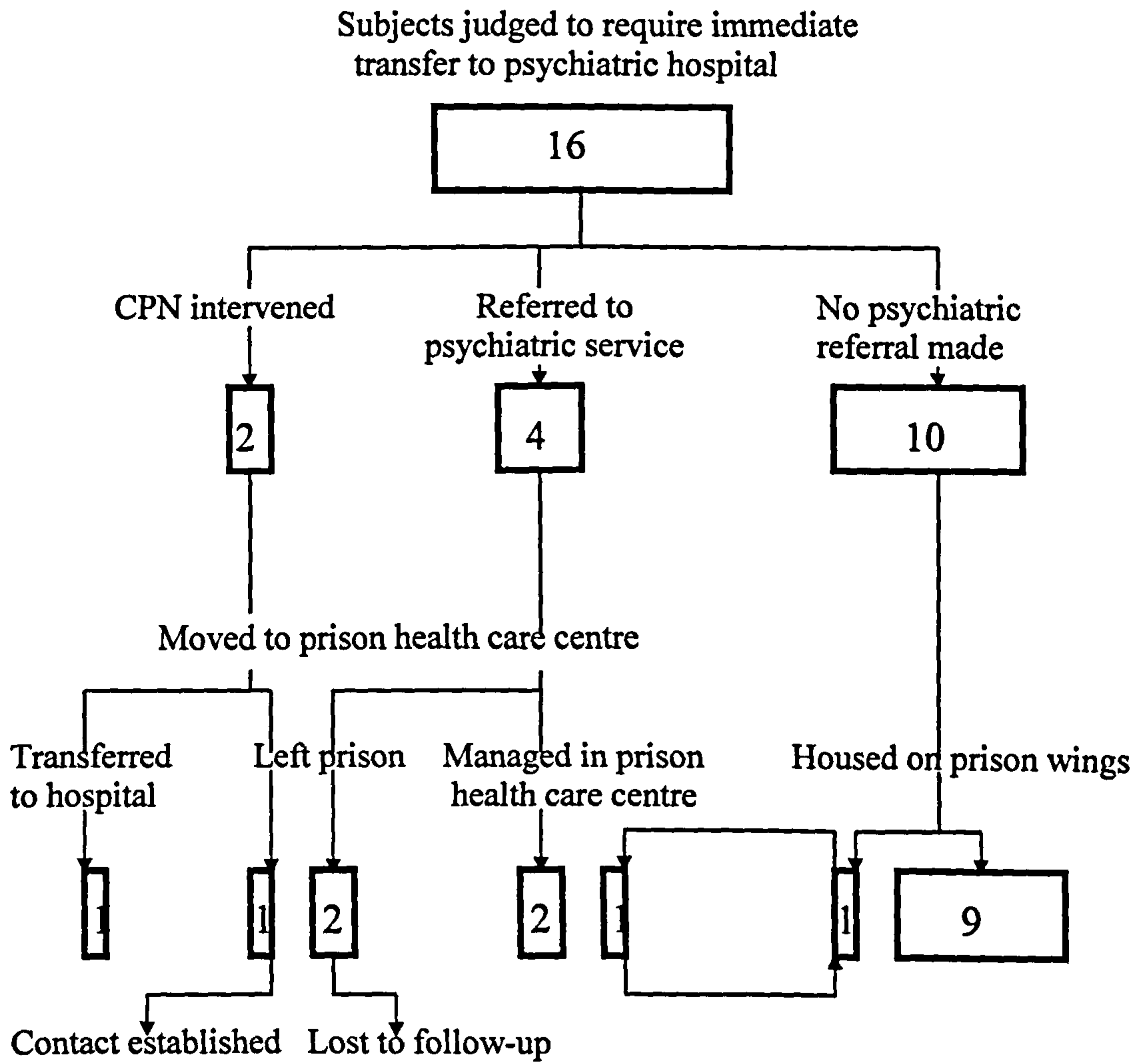


Figure 7 - Outcomes for 5 subjects judged by researchers to need further assessment in the prison health care centre with a view to transfer to psychiatric hospital.

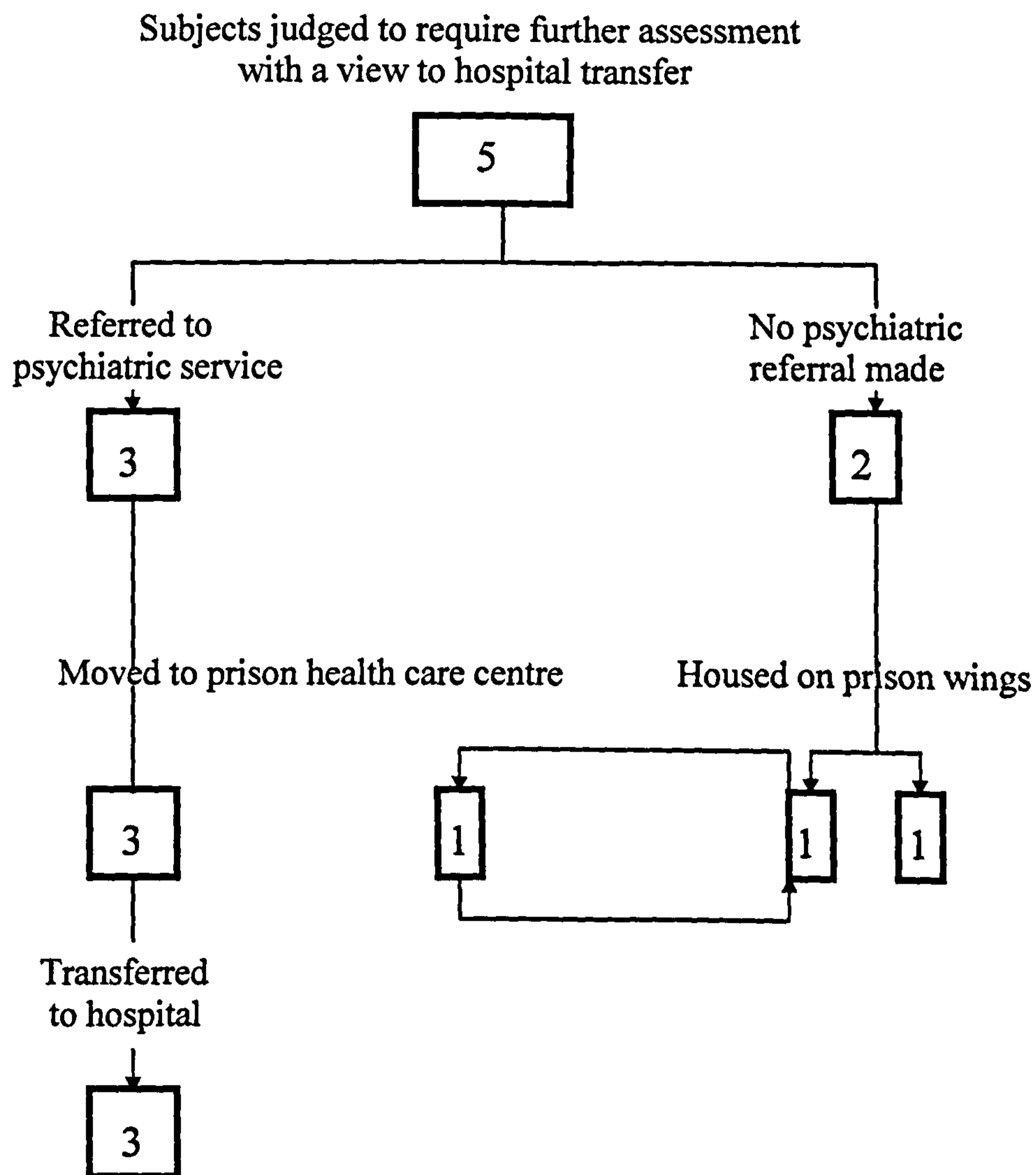
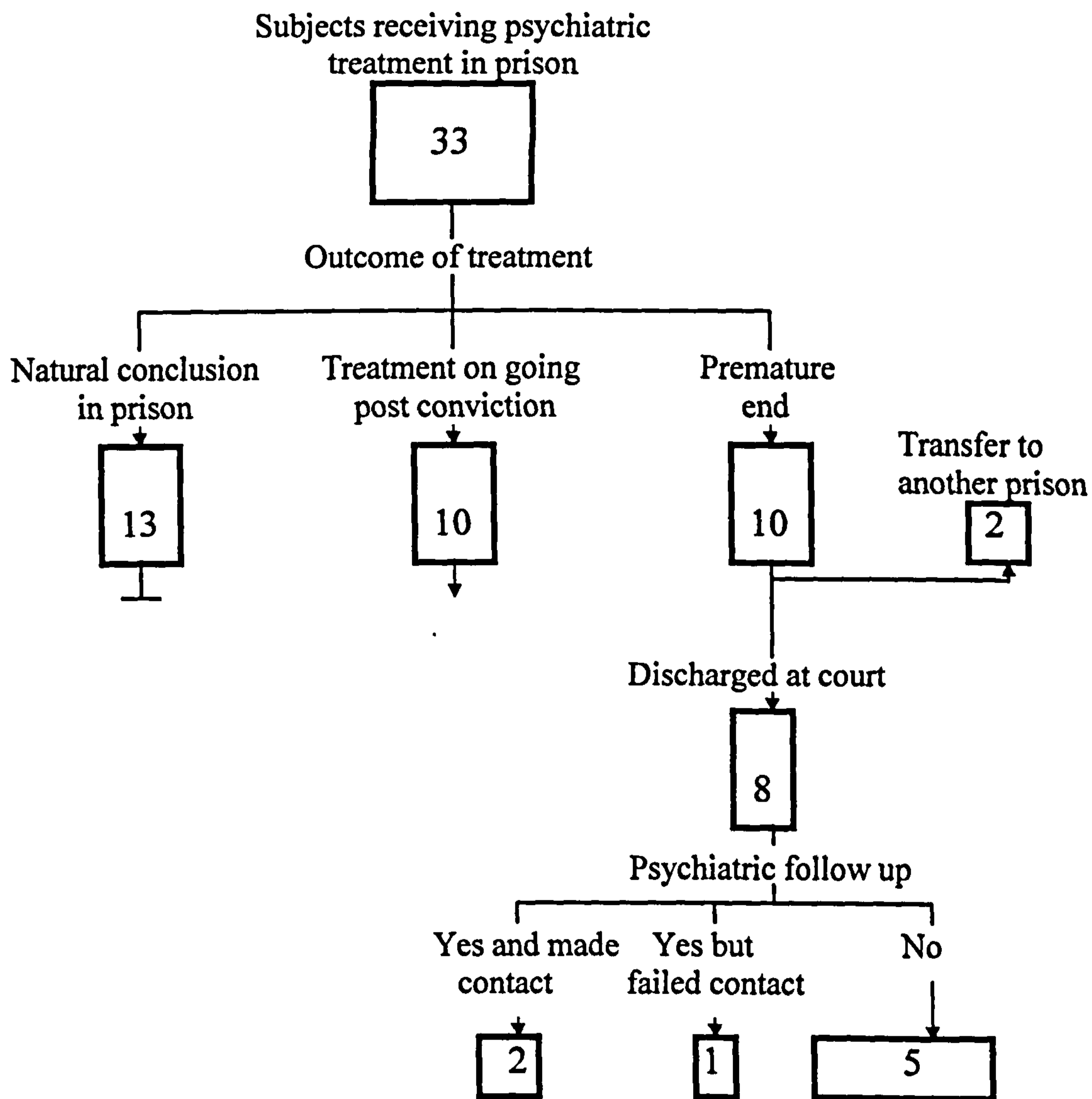


Figure 8 - The outcome of psychiatric intervention in 33 subjects treated within the prison setting.



APPENDIX 1**RESEARCH SCREENING INSTRUMENT**

Research Number _____

HMP DURHAM HEALTH SURVEY

Prison Number _____

CRO Number _____

Date of Birth ___ / ___ / ___

Age _____

Last Known Address

Postcode _____

General Practitioner Name _____

Address

Date of reception ___ / ___ / ___

Date of Interview ___ / ___ / ___

Interviewed by
1 - LB
2 - DM
3 - Other (Specify) _____

Location in Prison

- 1 - Ordinary - wing
- 2 - Hospital
- 3 - Segregation Unit
- 4 - Rule 43
- 5 - Other (specify) _____

Reason if not ordinary

- 1 - Physical Health 99- Not Applicable
- 2 - Mental Health
- 3 - Behaviour
- 4 - Nature Of Charge
- 5 - Other vulnerability

Place of Birth

- 1 - UK
- 2 - Eire
- 3 - Europe
- 4 - Indian subcontinent
- 5 - Caribbean
- 6 - Africa
- 7 - SE Asia
- 8 - Other (specify) _____

Ethnic Origin

- 1 - Caucasian
- 2 - Asian
- 3 - Afro-Caribbean
- 4 - Other (specify) _____

BACKGROUND DETAILS

Take a brief personal history including where relevant details on the following :

Family and Childhood

Separations

Relationships with family and peers

Fighting a lot

Lying

Running away

Taken into care

Solvent use

Theft / vandalism

Fire setting

Juvenile court

School

Special schooling

Attendance

Truancy

Disruptive behaviour

Suspensions/Expulsions

Bullying (victim or perpetrator)

Achievement

Post School

Education/Schemes/Work

Stability

Achievements

Relationships

Sexual partners/Friends

Stability

Responsibility (including for own
children if any)

General

Interests/Hobbies, Debt, Temper,

Mood, Paranoia, Gambling

Evidence of adverse experiences in childhood or adolescence.

0 - No

1 - Yes

Number of life events in past six months _____ (and specify)

Were you working when you were arrested? What work were you doing?

- 1 - Social Class I
- 2 - Social Class II
- 3 - Social Class III
- 4 - Social Class IV
- 5 - Social Class V
- 6 - Unemployed
- 7 - Sickness / Invalidity benefit
- 8 - Student

Occupation _____

Are you married, or were you living with someone for a long time before your arrest?

- 1 - Single
- 2 - Married / Cohabiting
- 3 - Separated / divorced
- 4 - Widowed

Were you living in your own home before you were arrested?

- 1 - Own home / with family
- 2 - Unsettled e.g. B&B
- 3 - NFA
- 4 - Hospital

Have you ever been homeless?

- 0 - No
- 1 - Yes

ALCOHOL AND DRUG USE

I would like to ask you some questions about your alcohol and drug use.

Do you smoke?

- 0 - No
- Yes - Code number of cigarettes per day _____

How much alcohol do you drink ?
Take brief alcohol history

Have you ever thought you should cut down on your drinking ? Y = 1 / N = 0

Have you ever felt annoyed about things that family or friends have said about your drinking ? Y = 1 / N = 0

Have you ever felt guilty about your drinking ? Y = 1 / N = 0

Have you ever had a morning drink as an eye opener ? Y = 1 / N = 0

In the last year, how much alcohol have you drunk in an average week ?
 (Refer to sheet 1, criteria for abuse/dependence if necessary)

0 – None

1 - Use within 'safe' limits (< 21 units/week)

2 - Use in excess of 'safe' limits (> 21 units/week),but not abusive or dependant

3 - Abuse

4 - Dependency non physiological

5 - Dependency physiological

Were you taking any drugs or medicines prescribed by a doctor before you came into prison ?

	No	Yes	
Benzodiazepines -	0	1	
Opiates -	0	1	
Antidepressants -	0	1	(specify _____)
Antipsychotics -	0	1	(specify _____)
Other -	0	1	(specify _____ _____ _____)

Have you ever taken illegal drugs ?

0 - No If no and not taking prescribed benzodiazepines or opiates, go to hepatitis B question page 8 (coding questions in between as 99 - Not Applicable)

1 - Yes

Which of these drugs did you use in the year before coming into prison this time ?

(Include prescribed benzodiazepines and opiates. Code using criteria below with guidance from Sheet 1, abuse and dependency criteria)

Cannabis	_____	}	0 - Not used
Amphetamines	_____		1 - Occasional use (less than once/week)
Benzodiazepines	_____		2 - Regular use (once/week or more)
Hallucinogens	_____		3 - Abuse
Opiates	_____		4 - Dependence - Non Physiological
Cocaine	_____		5 - Dependence - Physiological
Solvents	_____		99 - Not Applicable (i.e. never taken drugs)
Other (specify)	_____		

Take details of recent and past drug use for later DSM coding.

(For the purposes of later DSM coding, a diagnosis of Substance Abuse is superseded by the diagnosis of Substance Dependence the individual's pattern of use has ever met the criteria for Dependence for that class of substances).

Recent use;

Past Abuse;
Specify

Past Dependence - non physiological ;
Specify

Past Dependence - physiological;
Specify

If has used stimulants, benzodiazepines, or opiates (including prescribed drugs) in past year, then do severity of dependence scales, over: if not go to intravenous use page 8.

SEVERITY OF DEPENDENCE SCALE

For each substance group; stimulant, benzo's and opiates ask the following five questions and score total for each drug group.

Please think of your amphetamine / cocaine / valium / heroin use during the period just before you came into prison this time.

1. *Did you think your use of _____ was out of control ?*
Never/Almost Never (0) Sometimes (1) Often (2) Always/Nearly Always (3)
2. *Did the prospect of missing a dose make you very anxious or worried ?*
Never/Almost Never (0) Sometimes (1) Often (2) Always/Nearly Always (3)
3. *Did you worry about your use of _____ ?*
Never/Almost Never (0) Sometimes (1) Often (2) Always/Nearly Always (3)
4. *Did you wish you could stop ?*
Never/Almost Never (0) Sometimes (1) Often (2) Always/Nearly Always (3)
5. *How difficult would you find it to stop or go without _____ ?*
Impossible (3) Very difficult (2) Quite difficult (1) Not difficult (0)

SODS Score - Stimulants

Q1 ____ Q2 ____ Q3 ____ Q4 ____ Q5 ____ Total _____

SODS Score - Benzodiazepines

Q1 ____ Q2 ____ Q3 ____ Q4 ____ Q5 ____ Total _____

SODS Score - Opiates

Q1 ____ Q2 ____ Q3 ____ Q4 ____ Q5 ____ Total _____

Have you ever injected any of these drugs ?

- | | |
|-------------------------|---|
| 0 - No | 99 - Not Applicable |
| 1 - Yes, Clean Needles | (Never used potentially injectable drugs) |
| 2 - Yes, Shared Needles | |

Have you ever been tested for Hepatitis B ?

- 0 - No
- 1 - Negative
- 2 - Test Positive in _____ year
- 3 - Refused to answer

Have you ever had an AIDS test ?

- 0 - No
- 1 - Negative
- 2 - Test Positive in _____ year
- 3 - Refused to answer

Ideally, what treatment here in prison would you like for your alcohol / drug use ?

- | | |
|---|---------------------|
| 0 - No treatment | 99 - Not Applicable |
| 1 - Clean drugs eg. injectable heroin, tranquillisers | (Not abusing |
| 2 - Oral methadone maintenance | or dependant) |
| 3 - Pharmacological treatment to help withdrawal | |
| 4 - Talking treatment | |
| 5 - AA / NA groups | |
| 6 - Other (specify _____) | |
| 7 - Multiple (specify _____) | |

If there was a drug free wing here in the prison would you want to be on it ?

- 0 - No
- 1 - Yes
- 2 - No particular preference

MEDICAL HISTORY

Do you now or have you ever had any serious problems with you physical health like diabetes, high blood pressure, epilepsy or asthma ?

0 - No

1 - Yes (and note details)

Has anyone in your family had serious problems with their health or their nerves or committed suicide ?(also include drug and alcohol related problems)

0 - No

1 - Yes, mental health problem (specify who and what)

X - Yes, physical health problem (specify who and what)
(This answer is not coded)

Have you ever seen a psychiatrist ?

- 0 - No
- 1 - Yes - for report only
- 2 - Child guidance only
- 3 - Out patient only
- 4 - Inpatient < 5 times
- 5 - Inpatient > 5 times

If yes note details

<u>Year</u>	<u>Problem</u>	<u>Management</u>	<u>Hospital</u>
-------------	----------------	-------------------	-----------------

SADS - L

Have you had any problems with your nerves recently ?

Take brief history of salient details

Evidence (subjective or objective) of a level of 'distress' which is out of proportion to recent events or current circumstances ?

- 0 - No
- 1 - Yes
- 2 - Don't know/Insufficient information

MAJOR DEPRESSIVE SYNDROME

1. *Did you ever have a period that lasted at least two weeks when you were bothered by feeling depressed, sad, blue, hopeless, down in the dumps, that you didn't care anymore or didn't enjoy anything ?*

Tick - No - Skip questions 2 and 3 below and code 0 - No to criteria for both Major and Minor depressive disorders at the bottom of the page.
 - Yes - Ask :

2. *During that time did you seek help from anyone like a doctor, minister or even a friend, or did anyone suggest that you seek help ? Did you take any medication ? Did you act differently with people, your family or at work ?*

Tick - No - Skip questions 2 and 3 below and code 0 - No to criteria for both Major and Minor depressive disorders at the bottom of the page.
 - Yes - Ask :

3. *During the most severe period were you bothered by :-*

- poor appetite or weight loss
- trouble sleeping or sleeping too much
- loss of energy, easily fatigued or feeling tired
- loss of interest or pleasure in your usual activities or sex
- feeling guilty or down on yourself
- trouble concentrating, thinking or making decisions
- thinking about death or suicide
(did you attempt suicide)
- being unable to sit still and having to keep moving or the opposite -
feeling slowed down and having trouble moving

(need 4 if current, 3 if past)

meets all criteria 1,2 and 3	0 - No 1 - Yes* - Go to Sheet 2, Major Depressive syndrome
meets criteria 1 and 2 but not 3	0 - No 1 - Yes*- Go to Sheet 3, Minor Depressive Disorder

*If mood disturbance clearly has an organic basis (substance induced or related to a physical health problem as enquired about earlier),this will be coded in subsequent summary and diagnosis sections ,but still complete the relevant sheet specified above.

DYSTHYMIC DISORDER

Have you been bothered by feeling depressed or low much of the time for the past two years? How much of the time have you felt this way?

0 - No

1 - Yes*

If yes, feels depressed much of the time with periods of hours to weeks of normal mood go to **Sheet 4, Dysthymic Disorder.**

MANIC SYNDROME / HYPOMANIA

Did you ever have a period when you felt extremely good or high - clearly different from your normal self? Did friends or your family think that this was more than just feeling good?

What about periods when you felt irritable or easily annoyed?

0 - No

1 - Yes, lasting at least 2 days, but does not meet criteria for 2

Go to Sheet 5 Hypomania*

2 - Yes, lasted at least 1 week (or less if hospitalised)

Go to Sheet 6 Manic syndrome*

If has had single episode of manic syndrome at some point check for any hypomanic episode(s) (i.e. bipolar disorder)

Have you ever had any other periods when you felt extremely good, high or irritable - but were not as severe as the other episodes we have discussed? Did it last at least 2 days?

If yes tick box and go to **Sheet 5 Hypomania***

*If mood disturbance clearly has an organic basis (substance induced or related to a physical health problem as enquired about earlier), this will be coded in subsequent summary and diagnosis sections, but still complete the relevant sheet specified above.

PANIC DISORDER

Have you ever had panic attacks or anxiety attacks when you suddenly felt very frightened and had physical symptoms like: shortness of breath, palpitations, chest pain, choking feelings, dizziness, pins and needles, sweating, faintness, trembling, fear of dying?

0 - No

1 - Yes*

If yes go to **Sheet 7, Panic disorder.**

GENERALISED ANXIETY DISORDER

Have you ever had periods of at least two weeks when you felt anxious, tense, nervous or uptight most of the time ?

0 - No

1 - Yes*

If yes go to **Sheet 8 Generalised anxiety disorder.**

OBSESSIVE COMPULSIVE DISORDER

Have you ever been bothered by thoughts that kept coming back to you, that didn't make sense, that you couldn't get rid of or put out of your mind ?

Have you ever had to repeat some act over and over which you could not resist repeating - like constantly washing your hands, counting things or checking things ?

0 - No

1 - Yes*

If yes go to **Sheet 9 Obsessive compulsive disorder.**

PHOBIC DISORDER

Have there been times when you were afraid of something or some particular situation like crowds, certain animals, heights, being closed in, going out alone, certain ways of travelling ? (do you go out of your way to avoid this ?)

0 - No

1 - Yes*

If yes go to **Sheet 10, Phobic disorder.**

***If Anxiety Disorder clearly has an organic basis (substance induced or related to a physical health problem as enquired about earlier), this will be coded in subsequent summary and diagnosis sections ,but still complete the relevant sheet specified above.**

NON-AFFECTIVE / NON-ORGANIC PSYCHOSIS

If no episodes of depression or mania, ask:-
(Tick box if present)

Has there been a time when ...

- you heard voices ?*
- you had visions or saw things that were not visible to other people ?*
- you had strange feelings in your body ?*
- you had beliefs or ideas that you later found out were not true -
like people being out to get you or talking about you behind your back ?*
- you did something to call attention to yourself - like dressing in some odd way
or doing something strange ?*
- people had trouble understanding what you were saying because your speech was
mixed up, or because you didn't make sense in the way you were talking ?*

If has had episodes of depression or mania, ask:-

*Have there been times other than when you were depressed / manic that you heard
voices, had strange experiences, felt people were against you ?*

Meets screening criteria for Psychotic Disorder (as defined by the presence of any of
the above).

- 0 - No
- 1 - Yes*

*If Psychotic Disorder clearly has an organic basis (substance induced or related to a
physical health problem as enquired about earlier), this will be coded in subsequent
summary and diagnosis sections ,but still complete the relevant sheet specified above.

END OF SADS

DELIBERATE SELF HARM

Have you ever tried to kill yourself or done any harm to yourself, such as taking an overdose, cutting your wrists or repeatedly cutting yourself when you felt tense ?

- 0 - Never
- 1 - Once
- 2 - Between 2 and 5 times
- 3 - More than 5 times

If self harmer take brief history eg. when, why, how

Overall rating for DSH

- 1 - This remand only
- 2 - Occasional, stress related
- 3 - Occasional, prison only
- 4 - Occasional, no reason given
- 5 - Multiple
- 6 - Other
- 99 - Not Applicable

Method(s)

- 1 - Cutting
- 2 - Hanging / strangulation
- 3 - Overdose
- 4 - Fire
- 5 - Other (specify _____)
- 6 - Combination
- 99 - Not Applicable

Would you like any treatment for you nervous problems at present ?

(Do not include drug and alcohol problems here, unless they feel that in addition, they have a 'nervous problem' too.)

0 - No desire for treatment

1 - No desire but would accept if offered

2 - Ambivalent

3 - Wants treatment

99 - Not Applicable

(Denies or has no 'nervous problem')

Assess if subjects expectations of treatment are realistic

1 - Realistic

2 - Too high

3 - Too low

4 - Lacks knowledge

99 - Not Applicable

(No mental disorder)

Court from which remanded

1 - Alnwick

2 - Appleby

3 - Ashington

4 - Bedlington

5 - Berwick

6 - Blyth

7 - Carlisle Magistrates

8 - Chester le Street

9 - Consett

10 - Durham Magistrates

11 - Gateshead

12 - Hexham

13 - Morpeth

14 - Newcastle Magistrates

15 - North Shields

16 - Workington

17 - Whitehaven

18 - Wigton

19 - Carlisle Crown

20 - Durham Crown

21 - Newcastle Crown

22 - Other (Specify _____)

Charge(s)

Details of Alleged Offence

Code nature of 2 most serious alleged offences (If only 1 charge code 99 - Not Applicable to charge 2)

Charge 1 _____ 1 - Dishonesty
 Charge 2 _____ 2 - Violence
 3 - Sexual
 4 - Homicide
 5 - Arson

Do you think there is any connection between your current charge and your nerves ?*
 (Subjective opinion.* Also include alcohol and drugs, if they think they have a problem with either of these.)

0 - No 99 - Not Applicable
 1 - Yes (Give details)

Objective opinion of possible connection between current charge and mental disorder
 (Include drug and alcohol related problems)

0 - No 99 - Not Applicable
 1 - Yes (Give details)

Past Convictions (Record Number of convictions in each group)

Dishonesty _____
 Violence _____
 Sexual Violence _____
 Homicide _____
 Arson _____

Previous Prison terms

No. of previous sentences _____
 No. of previous remands _____
 Longest sentence _____ (Code in months, code 999 if not applicable)

SUMMARY

Evidence to suggest the following:		No	Yes	Not Applicable	
Mental Illness	- Current	0	1	}	
	- Past	0	1		
Alcohol Abuse/Dependency*	- Current	0	1		
	- Past	0	1		
Drug Abuse/Dependency*	- Current	0	1		
	- Past	0	1		
Major causal factor is alcohol use	- Current	0	1		99
	- Past	0	1		99
Major causal factor is drug use	- Current	0	1		99
	- Past	0	1		99
Likely other organic causation	- Current	0	1	99	
	- Past	0	1	99	
Personality disorder		0	1		
Personality vulnerabilities (Not severe enough to warrant a diagnosis of Personality Disorder)		0	1		
Problems related to low I.Q. (include borderline range)		0	1		

Brief formulation of problems:

* For Dependency, if currently abstinent or virtually so for 1 year or more, without the need for a protected environment or medication to remain so, score 'current' as 0 (No) and 'past' as 1 (Yes).(i.e. not as they would be coded by DSM criteria, current but in remission.)

DIAGNOSIS

(Code 99 - Not Applicable if no diagnosis)

	DSM IV Diagnoses	Value*
(1)	_____	_____
(2)	_____	_____
(3)	_____	_____
(4)	_____	_____
(5)	_____	_____
(6)	_____	_____

	DSM Code	ICD Code	Current ?
(1)	_____. ____	_____. ____	0 - No 1 - Yes
(2)	_____. ____	_____. ____	0 - No 1 - Yes
(3)	_____. ____	_____. ____	0 - No 1 - Yes
(4)	_____. ____	_____. ____	0 - No 1 - Yes
(5)	_____. ____	_____. ____	0 - No 1 - Yes
(6)	_____. ____	_____. ____	0 - No 1 - Yes

*The value and not the actual DSM IV Diagnosis is what will be coded(as follows):

- | | |
|------------------------------|--------------------------|
| 1 - Mental Retardation | 6 - Mood Disorder |
| 2 - Cognitive Disorder | 7 - Anxiety Disorder |
| 3 - Alcohol abuse/dependence | 8 - Personality Disorder |
| 4 - Drug abuse/dependence | 9 - Other Disorder |
| 5 - Psychotic Disorder | 99 - Not Applicable |

Completed Interview ?

- 0 - Refused
- 1 - Yes
- 2 - Language barrier
- 3 - Partly completed
- 4 - Refused but evidence of mental abnormality

What role for prison psychiatric service ?

- 0 - None
- 1 - Monitor
- 2 - "Outpatient" medication / support / psychotherapy
- 3 - Inpatient - prison hospital
- 4 - Inpatient - psychiatric hospital (see below)
- 5 - Refer to specialist drug, alcohol, sex offender service
- 6 - Refer to mental handicap services
- 7 - Other (specify _____)

If transfer to hospital considered necessary, what level of security is needed ?

- 1 - Open ward
- 2 - Low security
- 3 - Medium security
- 4 - High security
- 99 - Not Applicable

Requires follow up after release from prison ?

- 0 - No
- 1 - Yes

Any significant concerns that the information obtained at interview may be inaccurate ?

- 0 - No
- 1 - Yes (Specify why _____)

Case of significant interest ? (remember tattoos)

- 0 - No
- 1 - Yes (Specify why below)

Research Number _____

HMP DURHAM HEALTH SURVEY
INFORMATION AND CONSENT FORM

Newcastle City Health are carrying out a health survey at this prison. This will involve a short interview with a doctor to collect information about your health. This information will be confidential and will not be given to the prison authorities. The information will be used to improve health care for prisoners. You do not have to take part in the study and your medical care will not suffer if you refuse.

I,.....agree to take part in this study, details of which have been explained to me.

.....
signature of participant

.....
signature of researcher

.....
date

APPENDIX 2

CASE EXAMPLE 1

A, a man in his twenties from Tyneside, was remanded on charges of affray. His research screen identified a lengthy history of disorderly conduct, previous episodes of deliberate self harm, several periods of inpatient psychiatric care and multiple illicit drug use. His mental state was grossly abnormal; he was extremely agitated and paranoid, he showed signs of thought disorder and he appeared to be responding to auditory hallucinations. Although he had a history of illicit drug use and his presentation precluded a full screening assessment, sufficient information was available to indicate that he was probably suffering from an acute functional psychiatric disorder, and a DSM diagnosis of psychotic disorder not otherwise specified was made. He was judged to require placement in the prison health care centre for further observation and assessment, however, it was deemed likely that he would ultimately require transfer to secure psychiatric facilities for treatment. An urgent referral to psychiatric services was merited.

A's prison reception health screening identified his past psychiatric history and previous episodes of self harm. He was placed in the prison health care centre where because of disturbed behaviour he was housed in an unfurnished observation room (a 'strip cell'). He refused medication. Five days after reception, whilst still in seclusion, he attempted to hang himself. Prison staff intervened, an F2052SH was raised, and the following day a psychiatric referral was made requesting "urgent assessment and advice". The referral form did not make reference to his attempted hanging. Entries in his inmate medical record

made no mention of his manifest psychotic symptomatology, but the opinion expressed in his notes was that his behaviour was the result of personality disorder. A did not receive a psychiatric assessment because the day following his referral he was returned to court and discharged.

Several weeks later A was remanded again on new charges of a public order offence. His presentation at reception was virtually identical to that following his previous remand. He received the same research DSM diagnosis and psychiatric treatment recommendations as before. He refused to comply with prison reception screening on this occasion, and was placed in an unfurnished observation room in the prison health care centre before being moved to a 'special cell' in the segregation unit. A psychiatric referral requesting "assessment and advice" was made and he was seen two days later. Following this assessment, which identified him as suffering from a psychotic disorder, he was transferred promptly on a section 48 to secure psychiatric facilities.

CASE EXAMPLE 2

B was a single man in his mid thirties and of no fixed abode. He was remanded on charges of "taking and driving away". He gave a very vague history, and his account of how he had come to be remanded to prison made little sense. He denied any past psychiatric history and said that he was not on medication, but he did admit to drinking a considerable quantity of alcohol on a regular basis. He looked physically and mentally unwell. He appeared cachexic, poor self care over a prolonged period was evident, and he appeared to be responding to auditory hallucinations. His speech was vague and circumstantial and this reflected an underlying disorder of thought. Although he denied hearing voices he did describe thoughts being beamed into his head via the television; when questioned further about this he became suspicious and would say no more. Physical signs of alcohol withdrawal were not evident.

Diagnoses of psychotic disorder and alcohol dependency were recorded. He was deemed to require a reducing course of benzodiazepines for alcohol detoxification, placement in the prison health care centre for further observation, and referral to psychiatric services for assessment.

B's prison reception health screen identified "Bizarre behaviour, ? hallucinating" and he was placed in the prison health care centre. The next day a psychiatric assessment was requested and he was seen the following day. Although B maintained he had not had any previous contact with psychiatric services, the assessing psychiatrist was of the opinion that he probably had a chronic

psychotic illness and concern was expressed that B was masking signs of acute psychosis. Arrangements were made for review in one week, but B did not keep this appointment because in the mean time he was discharged at court and lost to follow up.

CASE EXAMPLE 3

C was charged with theft of a hand bag. Prior to remand he had been living in bed and breakfast accommodation on Tyneside. He was aged 43, single, unemployed and he had had no recent contact with health services. According to the history he gave his lifestyle was disorganised and unsettled, and he constantly moved from place to place. He stated that he had had a number of relationships with different women over the years all of which had broken down and he was estranged from his eight children. C said that he had attended a psychiatric outpatient clinic many years ago because of problems stemming from the break up of a relationship, but he denied ever suffering from significant mental health problems.

At interview C was markedly overactive and distractible. He gave a rambling history of doubtful validity. He easily lost the thread of the conversation and his responses to questions tended to be lengthy and tangential. His mood was elevated and expansive and the content of his thoughts were grandiose. He described himself as an "intelligent fool" who needed to work night and day, he talked about his special powers which enabled him to beat the bookmakers and he volunteered that he was hearing voices which were hovering above his head. He considered himself to be fit and well, behaving rationally and not in need of any help or treatment.

C was assessed by both researchers. A diagnosis of bipolar disorder, current manic episode with psychotic features was recorded in each case and researchers

were in agreement in recommending his immediate transfer to psychiatric hospital.

C's prison health screening recorded no evidence of mental health problems past or present, and his mental state was recorded as "satisfactory". Following reception he was housed on ordinary location on the prison wings. He spent twenty days on remand awaiting trial. During this time his mental health problems remained unrecognised and he was not referred to psychiatric services. He was subsequently convicted and he returned to Durham to serve a prison sentence.

CASE EXAMPLE 4

D a man in his mid thirties and of middle eastern origin faced charges of indecent assault and threats to kill. At reception into prison the health care officer noted that he was anxious, but no other specific abnormalities were detected and he was subsequently placed on ordinary location in the prison. The following day he attended the induction programme, but he refused to see the prison medical officer and he declined to be interviewed by a researcher, saying that he spoke little English. Because of his manner, most especially his agitation and undue suspicion, serious mental disorder was suspected. When prison staff from the wing on which he was housed were consulted, however, they expressed no concerns about him. No psychiatric diagnosis could be made, but it was felt appropriate for him to be placed in the prison health care centre.

Three weeks after his reception D was referred for a psychiatric assessment. He had been moved to the segregation unit because of his refusal to eat; he had taken no food and very little fluid for eight days. The referring doctor stated that D was protesting against the actions of the police and the charges against him.

Two days later D was assessed by a psychiatrist who found him to be suspicious and guarded in conversation. D harboured systematised paranoid delusional beliefs regarding the sexual exploitation of his wife and daughter and his own persecution. No other psychotic symptoms were apparent and his command of English was in fact good. D's refusal to eat and drink was thought to be directly related to his psychotic state.

On the advice of the assessing psychiatrist D was moved to the prison health care centre where his fluid intake was monitored. Although D maintained an adequate diet and fluid intake, he refused treatment with antipsychotic medication and arrangements were made for transfer him to a psychiatric hospital. Six weeks later, after serving sixty six days on remand, D was transferred on a section 48 to a special hospital.

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