
MID WALES HEALTHCARE STUDY

Report

for Welsh Government

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Welsh Institute for Health and Social Care · University of South Wales

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There are a number of people, groups and organisations that we feel it is important to mention at the outset.

Most importantly we are immensely grateful to members of the public across Mid Wales who engaged fully with the aims of the study. Many of these people had direct personal experience of the challenges of delivering and receiving healthcare in Mid Wales, and their passion for sharing those stories and making a positive change to the status quo was and is palpable. There are many local groups and people who have thought about these issues for many years and we are especially grateful to them for dealing with the study team courteously, respecting the Terms of Reference and the independence of the study team at all times.

We are also extremely indebted to the large numbers of local clinicians – whether doctors, nurses, therapists, pharmacists, technicians – and general managers and other administrators who very forthrightly shared their views and evidence on the current situation, and were entirely helpful in allowing us a frontline perspective on the challenges facing them.

The study team have worked closely with, and received support throughout from, the three Health Boards that serve this part of Wales: Hywel Dda University Health Board, Powys teaching Health Board and Betsi Cadwaladr University Health Board. We are particularly grateful for the very hard work of those who have brought data to us on which much of this report is based.

There are a number of others from outside Wales that we should also acknowledge. The study team have drawn extensively upon the experience of colleagues in Scotland in particular where the challenges facing Mid Wales find a real parallel. Their time was offered freely, and they were open to sharing documentation and insights that have proved crucial in shaping the conclusions we come to herein. A number of other organisations also took the time to engage with the study, and again we are thankful for this. These ranged from Royal Colleges to Town Councils, and across a variety of different interests – whether in respect of medical conditions or demographic groups.

We are also indebted to the Welsh Government for commissioning us to do this work, and we trust that this contribution not only meets the Terms of Reference, but also makes a significant and lasting impact on the future provision of healthcare services across Mid Wales.

It should be noted that this report is entirely the work of the study team and the conclusions we have come to have been arrived at independently of any outside influence. We commend it to you.

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Welsh Institute for Health and Social Care (WIHSC) · September 2014

FOREWORD

People in Mid Wales want a health service that delivers high quality, safe and accessible services that are sustainable. In this respect, they are no different from their fellow citizens elsewhere. They appreciate that it is not practicable to have every conceivable specialised service on their doorstep, but two expectations come across loud and clear in this study: that core health services in Mid Wales should be just as good as those elsewhere; and that their needs should be just as important to the NHS as those in the more populous parts of the country.

This study looks at how these expectations can be met. There are clearly major challenges facing services in Mid Wales. The solutions require some new thinking about how to deliver care in rural settings; they require people to sit together and work through the details; and they require focus and determination. This is not about special treatment: it is about finding different solutions to different problems, without compromising the quality of care.

This study has proved to be oddly inspiring. In an era of public apathy and disengagement, we have been moved by people's passion and commitment to a service which really matters to them, and by the seriousness with which they have thought about the issues. Nearly 1,000 people have contributed to the study in a variety of ways over the last eight months. In every quarter – among community and patient groups, clinicians and managers, right across Mid Wales - we have been lucky enough to work with people who care deeply about the future of their NHS, can see the real dangers facing it, and genuinely want to find new ways of addressing them. We thank them for their enthusiastic help. Mid Wales now needs some leadership to dispel the suspicion and mistrust that has coloured some of the public debate, and to implement some practical solutions to these problems.

The encouraging news is that care in Mid Wales is still in good health: patients are not getting second class treatment. But it won't stay this way unless some things change. The report concludes with twelve recommendations which should help begin to restore people's confidence in the future of their health service.



A handwritten signature in blue ink, appearing to read 'M. Longley'.

Professor Marcus Longley

Mid Wales Healthcare Study Director

Director of the Welsh Institute for Health and Social Care (WIHSC) and Professor of Applied Health Policy, University of South Wales

EXECUTIVE SUMMARY

The Welsh Government commissioned the Welsh Institute for Health and Social Care (WIHSC) to explore the options for the provision of high quality and sustainable healthcare service in Mid Wales. The different needs of rural communities, and the cross-boundary challenges of this region, suggested the need for a review of the system.

The study team has spent eight months listening to people right across Mid Wales, working intensively with clinicians, Health Boards, professional bodies and many others, and reviewing the lessons from elsewhere in the UK and internationally where similar challenges have been addressed.

PRIMARY AND COMMUNITY SERVICES

Healthcare out of hospital in Mid Wales, as elsewhere, is in the middle of a strategic re-alignment. Among other things, it needs to develop new roles in the management of long-term conditions, the boundaries between primary and secondary care and health and social care need to be re-thought, and there needs to be a substantial and continuing development of the infrastructure of care outside hospitals. In the meantime, there are acute recruitment and financing issues to be addressed. The new national Primary Care Plan is an important part of the way forward. Locally, there is scope for closer working between practices, the development of the concept of a 'rural GP', an expansion of salaried GPs, and a fresh look at how to generate additional paid opportunities for GPs. Considerable thought is being given to the need to rejuvenate the GP vocational training scheme, and the role of community hospitals in supporting wider community care. There is a recognition that Health Boards have a crucial role in stimulating and informing much of this thinking, and in working with primary and community care to implement change. Local groupings of GPs and other staff are accepted as the prime vehicle for this re-shaping of provision, and they have developed at different speeds across the three Health Board areas. The best are pooling resources, thinking creatively, and exerting their influence on other aspects of the care system. Much more remains to be done, for example in sharing risk, pooling resources, meeting required levels of staffing, exploring new roles, and improving the estate.

SECONDARY CARE SERVICES

Mid Wales currently looks to services based in two general hospitals – in Aberystwyth and Shrewsbury - for the majority of its secondary care, with important links to a number of other hospitals further afield. This study has focused particularly on the pattern of secondary care based on Bronglais General Hospital. Further work will need to be carried out by the Powys teaching Health Board to shape the impending reorganisation of services provided by England – particularly in and from Shropshire – which serve a large part of the east of Mid Wales. Planned reorganisation of some services in England are relevant here; it is also possible that Bronglais (and others) may develop service models that are particularly attractive to GPs and patients in eastern Mid Wales. However, it is difficult at present to envisage a dramatic shift in patient flows from England to Bronglais.

As far as Bronglais General Hospital is concerned, six key service criteria should shape its future:

- Senior staff should not be expected to work in relative professional isolation;
- There should always be sufficient, appropriate staff readily available;
- Cover must be provided for key staff when they are away;
- Good quality facilities must be available to deal with the unpredictable;
- Staff should not be expected to work outside their areas of expertise; and

- It must be possible to sustain the service into the foreseeable future.

There are several helpful developments taking place in the rest of the NHS, which offer a new way of thinking about the six service criteria. This needs to be complemented by detailed local discussions, involving clinicians in Bronglais and elsewhere in their clinical networks. In cardiology, the review commissioned from the Royal College of Physicians does not offer a satisfactory basis on which to proceed with the re-organisation of services across Hywel Dda. Discussions organised as part of this study demonstrated how many of the practical obstacles to meeting the six service criteria can be addressed. A further session is being held in October to start the discussions on surgery; further work is needed on the future of maternity and obstetric services.

The development of clinical networks is one obvious way to address all six of the service criteria. There are excellent examples of such networks working well for Mid Wales and Bronglais in particular; but there are also examples where the arrangements have struggled. There is a need for greater clarity about patient pathways, and on which hospitals are 'hubs' and which 'spokes', based on what is best for the patient rather than what is perceived by some as being an administrative convenience.

The Health Boards clearly have a key role to play in all these future discussions. We discuss below how to strengthen the collective efforts of the three Health Boards; but in addition to this, Hywel Dda will need to manage its secondary services in such a way that the needs of the population it serves (from all three Health Boards) are best met. We had considerable concern expressed to us from clinicians, the public and other stakeholders, about the perceived intentions of Hywel Dda University Health Board in regard to Bronglais General Hospital, and about their difficulties in engaging with the Board on these and other matters. Many local clinicians, and some external professional bodies, expressed their concern and frustration to us that the Board had not effectively managed some aspects of current service provision and had not tackled some of the problems which are evident with sufficient vigour, for example in making current clinical networks work effectively. The lack of a clear view about the future of Bronglais further compounded these perceptions, and allowed people's fears to multiply.

In this context, the submission at the end of the work of this study from the executive team of Hywel Dda University Health Board working in close collaboration with senior clinicians, *Outline comments from Hywel Dda University Health Board to support the Mid Wales Study: Planning rural healthcare services for Mid Wales*, is particularly welcome. It addresses more than just the provision of secondary services, and makes very helpful statements about their expectations for the future, especially in relation to Bronglais General Hospital. This will provide a sound basis for a period of intensive engagement with all stakeholders, particularly local clinicians and the professional bodies.

SECONDARY CARE STAFFING

Bronglais General Hospital uses an unusual medical staffing model, with high levels of consultant and non-training staff input. It often requires demanding on-call rotas, unusual working patterns, competence in a wider than normal range of clinical skills, and very restricted access to the pool of doctors in training upon whom most hospitals rely. The impact has been felt in harder recruitment of staff. There is uncertainty about whether it will be possible to continue recruiting to such a model.

The answer is a twin-track approach, to explore every possible way of targeting recruitment towards likely candidates, while at the same time creating a credible and optimistic view of the future of service delivery. There has been very positive engagement from the Postgraduate Deanery and the Medical School, as well as the relevant Royal Colleges, the South Wales Health Collaborative and local clinicians in this study, which bodes well for the future.

Any discussion about staffing difficulties is inevitably dominated by the need to recruit and retain sufficient doctors, but other staff groups face challenges too. Concern was expressed about the future

viability of nurse training, for example, focusing in particular on the need to ensure that future nurses are recruited from Mid Wales and can undergo the bulk of their training there, to encourage them to remain in the region after qualification.

IMPROVING ACCESS

The geography of Mid Wales speaks for itself. The Health Boards need to redouble their efforts to eradicate any unnecessary journeys for patients by:

- Ensuring that those elements of the patient pathway which can be delivered locally are so delivered;
- Organising clinics and other services to recognise the difficulties of transport;
- Giving the patient a choice when deciding on the location of their specialised care;
- Providing patients and their families with up-to-date and detailed information on issues such as public transport, suitable overnight accommodation for visitors; and
- Much greater use of telehealth – this is significantly under-utilised in Mid Wales.

The ambulance service has a major role to play in assessing patients' needs before taking them to hospital, and development of these advanced skills in the service has obvious benefits for rural areas. The development of an Emergency Medical Retrieval and Treatment Service for Wales is welcomed, but it will not significantly affect the overall pattern of care in Mid Wales for the foreseeable future.

The needs of people with 'protected characteristics' should run through all of these considerations. In particular, the NHS in Mid Wales struggles to ensure that people wishing to access services in Welsh are easily able to do so.

MENTAL HEALTH SERVICES

Considerable progress has been made in developing mental health services across the region, but some elements – particularly access to urgent care in North Powys, access to inpatient facilities across the region, and the provision of care for people in the later stages of dementia – require more work.

MAKING CHANGE HAPPEN

The current arrangements for strategic planning and coordinated delivery across Mid Wales are quite complex, and no single body 'owns' the issue. Mid Wales constitutes part of the responsibility of three Health Boards, in two cases – Betsi Cadwaladr and Hywel Dda – only a relatively small proportion of their total populations, and patient flows, frequently cross administrative boundaries. There is currently no effective mechanism for ensuring that the three Health Boards - together with their ambulance and English NHS partners – coordinate their planning. They need a high-powered planning and clinical capacity to tackle the various tasks described in this report, including to:

- Provide some thought leadership for rural health, to think through new models of care appropriate to the needs of Mid Wales, in primary/community and secondary care, and across the health and social care divide, and how they might be delivered, drawing on experience from elsewhere;
- Address the various training, recruitment and retention issues which will otherwise undermine provision, leading discussion on these topics with bodies such as the Royal Colleges and the Postgraduate Deanery, and exploring innovative methods to make Mid Wales more attractive to good candidates;
- Get the clinical networks to work properly, and monitor their performance for Mid Wales against relevant, outcomes-based criteria;

- Ensure that all elements of the system locally work well together across Mid Wales – including primary/community and secondary healthcare (Wales and England), local government, the third and independent sectors, and transport providers;
- Lead a serious engagement process with the public and with staff, which establishes trust and easy communication, creates an opportunity for shared decision-making, addresses information and knowledge gaps, and capitalises on the considerable resources of civil society; and
- Provide visible, accessible and local leadership that restores people’s confidence that their NHS is acting in their best interests.

In short, the NHS bodies need to build trust, and they need to create a service model that works in this part of Wales. The two are interdependent.

The region needs a body with greater influence, stronger accountability and more visibility, which has the resources and the membership for the tasks outlined above (working title: **The Mid Wales Healthcare Collaborative**). It should shape the Mid Wales commissioning intentions of the three Health Boards, and be held accountable for its work by the Minister for Health and Social Services or the Deputy Minister for Health. Its constitution requires some detailed consideration, but one good model would be a joint Committee of the three Health Boards, including the Chair and Chief Executive of each, and an independent Chair for the Committee appointed by the Minister. It would have local lay membership, a strong role for the GP/community clusters serving Mid Wales, and representation from the local authorities, third sector and the Welsh Ambulance Services Trust. Equally important will be representation from the Royal Colleges, the Postgraduate Deanery and the research community. Accountability should be to the three Health Boards and also to Welsh Government and to the scrutiny mechanisms in local government.

NEXT STEPS

In many parts of the region we encountered a near-dysfunctional level of mistrust, misunderstanding and concern with Health Boards’ plans for the future of healthcare service, and particularly in relation to Bronglais. Many people – especially in the Hywel Dda and Betsi Cadwaladr areas – felt ‘orphaned’ by the powers-that-be. It appeared to them that none of the bodies responsible for their care had either the willingness or the capability to bring about a solution that met their needs.

Addressing this situation must be a high priority for the new Mid Wales Healthcare Collaborative. We outline the key elements of a different approach:

In summary:

- **Primary care in Mid Wales already faces serious challenges**, which may get worse without a combination of local and national action
- **Bronglais General Hospital should remain a key centre** for secondary care for the foreseeable future, but significant changes are required in ways of working
- Health Boards can do more to **reduce the impact of travel on patients**
- New leadership, **bringing together the three Health Boards and others**, is now required to drive forward this complex set of changes, and to restore public confidence in the future of services.

RECOMMENDATIONS

These recommendations are deliberately few in number, but require leadership, major effort, and real pace:

1. The three Health Boards should establish a joint governance mechanism (working title: **The Mid Wales Healthcare Collaborative**) as described in the report, in order to implement many of the recommendations below.
2. **Public engagement** in Mid Wales should be established on a new basis, and coordinated by The Mid Wales Healthcare Collaborative.
3. The three Health Boards should re-double their efforts to address the pressures facing **local primary care**, developing complementary services, creating new models, sharing functions and providing business support, looking at new organisational models for general practice, and where possible providing targeted financial support. There is traction to be gained by the Boards coordinating their efforts to meet the specific circumstances of Mid Wales, and considering shared solutions where appropriate.
4. The Welsh Government **national Primary Care Plan** should address the many common and systemic challenges facing primary care, which lie beyond the scope of the Health Boards.
5. Hywel Dda University Health Board, supported by the other two Boards, should confirm publicly its vision of the **future strategic role of Bronglais General Hospital** and the strategic direction that it intends to pursue. The Health Board's submission to this study (Appendix 13) provides a good basis for such a vision. It will require subsequent detailed consideration of pathway and service options, but should be sufficiently specific to reassure potential and current staff and the public that the hospital will remain an acute centre, and that urgent and non-urgent provision will address the challenges of remoteness. It should state explicitly the criteria that must be met, based on the Six Key Service Criteria set out in this report (see Table F3.1, Section F).
6. Clinical staff in all the specialties should now be actively engaged in **clinical discussions** with their colleagues about how services should develop. This process will require active leadership and facilitation by the Hywel Dda University Health Board, working on behalf of the Mid Wales Healthcare Collaborative. It must address the difficulties in the relationships between the hospitals, and should include representatives from primary care, the Royal Colleges, the Deanery and service providers from Scotland and elsewhere who have successfully addressed some aspects of rural acute care provision. This process, including reviews by professional bodies, should address the specialty-specific issues (see below), but also their interdependencies, and the linkages with pre-hospital care and between hospitals, along the patient pathways. It is important that the medical Royal Colleges are all engaged in this work, along with the learned bodies drawn from the other professions.
7. A further examination of the options for providing **cardiology** services in Bronglais General Hospital should now be started, which takes full account of the broad range of presenting conditions at this hospital, and evaluates alternative ways of constructing the sort of clinical network support that is needed. This should build upon the initial discussions held as part of this study, and the submission to this study from the Royal College of Physicians (see Appendix 14), both of which offer some grounds for optimism that alternative solutions are worth exploring.
8. A similar process should take place in relation to **general surgery**, building on the discussions initiated by this Study and scheduled for October 2014, and for **maternity and obstetric** services in Bronglais General Hospital.
9. **Unnecessary journeys to access care** should be eliminated, with a coordinated and comprehensive examination of relevant pathways to ensure care is actually provided closer to home, clinics and

other provision is organised to reflect travel difficulties, patient's are encouraged to choose options which suit their needs, and patients and visitors are provided with information to help them access remote services. This will require a coordinated effort crossing hospital and Health Board boundaries.

10. Plans to develop more **advanced skills in the ambulance service** in Mid Wales should be supported and expedited.
11. There should be a coordinated effort by all three Health Boards to identify the opportunities for much greater use of **telehealth** capacity and a determined drive to hasten its implementation.
12. The three Health Boards, working with local universities and others, should develop and support a **centre of excellence in rural healthcare**, with a particular focus on research, development and dissemination of evidence in health service research which addresses the particular challenges of Mid Wales. This has great potential to carry out work of relevance internationally. A high-profile **conference** on Mid Wales healthcare as described in the report should be organised immediately.

A. INTRODUCTION AND METHODOLOGY

We feel that it is important that this report starts with a definition of the area under consideration, the nature of the system that we are studying, and provides an accurate picture of the research processes that were undertaken over the course of the study.

1. WHERE IS 'MID WALES'?

Our Terms of Reference did not define Mid Wales for us and we have not subsequently set out a definition. This was partly because we didn't feel this was our job – to declare areas in or out of scope – and neither did we want to dismiss or exclude any comments or submissions from those who had something relevant to say simply because of their postcode.

We also realise that it is and will remain a topic for discussion, particularly when it comes to designing and delivering solutions to the challenges that are described in this document.

Surprisingly, during this work very few people asked 'where is Mid Wales?' Not unexpectedly, there seems to be a consensus about certain areas being unquestionably Mid Wales (Aberystwyth, Machynlleth, Welshpool, and Llandrindod Wells). But it is at the extremities of the area that lines become more blurred (Brecon, Carmarthen, Blaenau Ffestiniog).

When looking for comparable models of service delivery for this report we had to look at the key characteristics of the area and most seem to agree that it is essentially a rural area. The rurality of the area is important because it is this that leads to so many of the particular challenges, those of isolation, transport demands, lack of critical mass etc. And yet even the term 'rural' is hotly contested.

The Welsh Government's own guidance¹ states clearly that:

"While the question is simple the answer has many facets. There are many sensible ways to consider rurality." "There is no single definition that applies for all purposes. There are many options, which may be more or less appropriate in different circumstances."

The guidance goes on to discuss characteristics of sparsity of population, land use, access to services and settlement sizes as ways of helping to define whether an area is rural. Indeed, some of these factors are used within this report, particularly to give some idea of comparison between areas outside of Wales and the area that we are discussing. But we do not use a particular definition of 'rural' in this report because this is not a study of rural Wales, as it is a study focusing on Mid Wales. As such, it could well be that many of the examples of innovation discussed within these pages are relevant to rural areas of Wales that fall outside of the Mid Wales area. Others have tried to define the area before this report and, indeed, for this report. A number of respondents have offered their own definitions and maps to us, which have all proved useful contributions.

However, a former formally recognised description of Mid Wales is the one that we have decided to adopt for the purposes of this study. During the first National Assembly for Wales there was a 'Mid Wales Regional Committee'.² The Committee defined Mid Wales as an area which: *"covers Ceredigion, Powys and the area of Gwynedd comprising the former district of Meirionnydd"*

Defining any region or area will always be subject to debate, but knowing where Mid Wales actually is

¹ <http://wales.gov.uk/docs/statistics/2008/080313sb102008en.pdf>

² <http://www.assemblywales.org/en/bus-home/archive-business/bus-second-assembly/2-mwr/Pages/bus-committees-second-mwr-committee.aspx>

will assume an increasing importance as this work is taken forward. What this means is that Mid Wales, according to this definition and for the purposes of this study, is a large geographical area, served by three different Health Boards:

- Hywel Dda University Health Board
- Powys teaching Health Board; and
- Betsi Cadwaladr University Health Board.

This is important context for what will follow, and as a research participant from Scotland said in an interview for this study, “if you aren’t specific about where it is you’re talking about, how can you be sure about who is responsible for the actions that need to be taken?”

2. CHALLENGES OF DELIVERING HEALTHCARE IN RURAL SETTINGS

There are many challenges impacting on the delivery of healthcare in rural communities. This section echoes themes that emerged in the literature review and consideration of the rural health policy documentation.

First, populations in rural towns and villages are relatively small compared with the larger cities and towns of Wales and the road and rail links between them are sometimes difficult. This poses challenges both for those delivering services and for those accessing them in respect of the distances from fixed centres or the travel times to patients at home.

As an example of this, one of the suggested measures of rurality in the Welsh Government’s guidance³ was to consider access to services. The figures below show the numbers of registered patients in some of the Mid Wales areas who have to travel more than 15 minutes by car just to see a GP. In Powys 19.4% of patients (almost one in five) have to travel over 15 minutes but the problem is far more acute in the north of the county (22.6% of registered patients) than in the south (11.9%). Figures for Meirionnydd and Ceredigion are similar, 17.4% and 16.8% respectively, with no real difference between North and South Ceredigion.

TABLE A2.1 · TRAVEL TIMES TO SEE GENERAL PRACTITIONERS, MID WALES

Source: Public Health Wales Observatory, GP Cluster Profiles, 2013⁴

Health Board	Area	Total number of registered patients	Patients >15 minutes from their GP	
			Number	Percentage
Powys	North Powys	64,690	14,650	22.6%
	Mid Powys	28,730	6,290	21.9%
	South Powys	42,250	5,390	11.9%
Betsi Cadwaladr	Meirionnydd	32,090	5,580	17.4%
Hywel Dda	North Ceredigion	48,080	8,120	16.9%
	South Ceredigion	48,050	8,030	16.7%
TOTALS		263,890	48,060	18.2%

³ <http://wales.gov.uk/docs/statistics/2008/080313sb102008en.pdf>

⁴ <http://www.wales.nhs.uk/sitesplus/922/page/67714>. Table B1.3 below provides further information on car ownership in Powys.

In total, there are over 48,000 registered patients in these Mid Wales areas that would have to travel more than thirty minutes simply to attend a GP appointment and to return home. Waiting time and the time spent with the Doctor would also need to be factored in, to get a more accurate idea of the time commitment necessary to see a GP. Neither do we know from these statistics whether access to a car is readily available. This obviously has potential consequences in that this travel and time commitment becomes a factor in a patient actually seeking an appointment and, therefore, the potential of not seeking early intervention.

Second, retaining or acquiring the necessary skilled staff often means persuading GPs, consultants, midwives, nurses (hospital, practice and community), radiographers and others to see the benefits of a rural lifestyle. In many cases this increasingly requires such staff to move from larger conurbations where they now are trained, and with which they and their families have some affinity. Professionally too, it has been repeatedly stressed to us that for many professions the advantages and disadvantages of more independent professional practice within such communities are perceived differently by clinicians tempted to contemplate swapping busy urban practice for the different challenges of more remote communities.

Third, the scale of operation in rural settings is inevitably geared to the size of the populations concerned and this means that services do not have the resilience in depth in the event that skilled staff leave or are absent for periods of ill health, training or personal development.

Fourth, as discussed later in this report, developments in the way that some parts of the medical profession view the best way to deliver hospital care impact directly on the ability of the NHS to maintain acute hospital care. Simply put, in the main surgical and medical hospital specialties, the trend over the past 20 years has been one of increasing specialisation. For example, the general orthopaedic surgeons of 30 years ago have divided into knee, hip, shoulder, hand and spinal experts. In general surgery too, colorectal, breast, thoracic and other sub specialisms have emerged. Such a concentration of expertise has improved the quality of the surgery and thus outcomes for patients who actually get to receive such services (reduced mortality and morbidity rates) but, in the limited time available for this study, WIHSC has not been able to assess how such developments have impacted upon outcomes across the whole of the system of care. However, WIHSC has not yet observed any evidence that the changes made to the recruitment, training and development of medical staff - especially in hospital practice in the medical and surgical specialties - have been made after considering their total impact across the whole of the care system.

Such specialisation results in each specialist needing to serve a far larger population than the previous generalist. The days of the 300 bedded District General Hospital looking after 200,000 people with three general surgeons, three physicians and a couple of orthopaedic surgeons are but a distant memory. Now, several sub specialists seek to work together but such a cluster of skills demands a much larger catchment population. Further, the complexity of some care requires other clinical expertise – in anaesthetic and diagnostic support – if the full benefits of skilled expertise are to be realised. Increasing specialisation inevitably tends to result in more and more hospital services being concentrated onto fewer and fewer hospital sites that, in turn, tend to be set within the larger towns and cities of Wales.

For rural communities this has the effect of driving many hospital services out of long-standing local hospitals, placing them many miles away. As indicated above, there are two broad policy responses to this trend – if it is assumed that such pressures from within the medical profession cannot be resisted or be adapted to meet the needs of rural communities. One is to accept that rural populations, for specialist care, will have to travel greater distances to where that specialist care is based. Another is to explore whether those specialist skills can be retained in, or brought to, rural locations by a variety of changes in the way that medical staff are trained, deployed and refreshed professionally. This might be by the increased use of telemedicine and rotating or flying clinical teams, and by planned periodic

sessions of up-skilling of rural-based clinical teams by attachments at larger hospitals.

Fifth, as the geographical distances increase between hospital-based staff and community-based health staff, there is less likelihood that health staff from both traditions will mix socially and professionally. This reduces avenues for exchange and the building of trust and understanding between them.

Sixth, patients with minor injuries or illnesses are accustomed to call into local facilities for out-of-hours treatment, even when those facilities are not designed to deliver such care. Community hospitals in particular are still seen by residents as places where such care is available and responding to these demands in a safe way has proved to be a challenge.

2.1 INTERDEPENDENCIES WITHIN THE HEALTHCARE SYSTEM

The delivery of good healthcare relies upon a complex set of clinical and other interdependencies being in place across the whole system. This section briefly outlines the main ones.

BETWEEN PRIMARY AND SECONDARY CARE

Since 1948, the NHS has relied upon a professional relationship between primary care (general practitioners and other services in the community) and secondary care (hospitals) – initially between the doctors and more lately between the wider sets of professional staff working in both settings such as district and practice nurses and rehabilitation staff. Family doctor services deliver most of the ongoing care that patients need, including advice on keeping healthy, screening and vaccination programmes, undertaking prescribing and routine consultations, and also dealing with out-of-hours emergencies. Often general practitioners will decide that their patients need the services of hospital staff, either to diagnose or treat particular conditions or to advise the GP on their ongoing care of a patient.

A key element in good general practice is the ability to recognise not only when hospital services are indicated, but which parts of that service are required. Often, arranging for patients access to the diagnostic services of a hospital such as outpatient, X-ray and pathology facilities can be planned as part of a deliberate plan to diagnose what is causing the patient concern. Sometimes access has to be hurriedly arranged for those seriously ill and in need of urgent skilled attention.

The hospital service relies upon GPs to arrange the care that they offer to their patients so that demands upon hospital services are kept to an appropriate level. Both under-referral and over-referral for secondary care may have adverse consequences for the patient and the hospital service. This requires both that patients needing hospital care are recognised speedily and directed to the correct hospital department, whilst those whose condition ought to be managed within primary care feel reassured that troubling hospital staff is unnecessary. Further, the care of patients returning home after hospital care - perhaps for long term management of a chronic or terminal condition - is also an important part of general practice.

WITHIN SECONDARY CARE

Whether patients are referred electively for a consultant opinion on the care a GP has in mind, or for a diagnosis, or for some likely day case/inpatient investigative or treatment procedure, it is often the case that good hospital care draws upon the skills of several clinical specialties. If diagnostic tests are required, this might need the diagnostic and interpretive skills of pathology services (technicians and doctors in biochemistry, haematology, virology for example), or upon the many scanning and other techniques deployed by the radiology department.

GPs might refer in good faith to consultant colleagues in one of the branches of medicine (cardiology, chest disease, rehabilitation, diabetes etc) only to find that detailed diagnostic tests require the patient to be transferred to the care of another physician or surgeon – or for two (or more) consultant

colleagues to combine their skills to meet the particular needs of the patient. This occurs sometimes for patients with several pre-existing conditions in need of treatment for a new condition or injury. Medical management, in some cases, benefits from the availability of experienced pharmacy colleagues who are able to help craft regimes for patients with multiple medication needs.

Where surgery is required, surgeons and anaesthetists have to work together to give the best outcomes – sometimes demanding the availability of particular anaesthetic skills and techniques (for example in the care of pregnant women, or where major surgery is necessary and needs to be followed by intensive post operative care and management). In meeting all the different care needs of patients – through diagnostic procedures and especially where inpatient care is required – the skills and experience of nursing staff is crucial to patient recovery and wellbeing. Having a cadre of experienced nurses well versed in the management of patients with complex and/or high dependency or intensive care needs is a requirement of modern hospital life.

Finally, discharge from hospital will often need some planning and follow-up care by the GP, rehabilitation staff or social workers – especially if changes have to be made to the patient's home to help him/her cope with everyday living.

GPs may also be involved in sending patients to hospital urgently, usually because patients have been seen in the surgery, or have been visited at home, and the GP decides that hospital care is needed. Whilst the GP may have some notion of the patient's diagnosis, sometimes this can only be tentative and thus the wide range of skills at the hospital are called upon. Where the GP has to arrange for the urgent admission of a patient it is often the case that extensive diagnostic tests are not possible beforehand and sometimes the patient's full medical history is also not available.

SECONDARY AND TERTIARY CARE

Much hospital care can be given by the local hospital. However in some circumstances the presenting condition is such that care is best offered from a regionally (or even nationally) based service, often termed a tertiary service. Such services are often accessed only by consultants who have already had some role in the diagnosis of the patient's condition. For example, patients with suspected heart disease will often be referred by their GP to the local cardiologist for further examination. If heart surgery is indicated, that consultant would refer to one of the heart surgery centres able to do whichever procedure is indicated – with post-operative care remaining with the GP, primary care team, and local consultant to arrange and deliver.

EMERGENCY SERVICES

For some patients, the emergency services have a vital role to play in delivering good outcomes. About half of the patients undergoing surgical procedures do so as urgent cases. For some, surgery is needed to address the consequences of accidents arising on roads, farms, in the home, or whilst pursuing leisure activities such as hill walking. For others, surgery might be required to address some immediate failure of, or problem with, a major organ. Patients with medical conditions who have to be admitted to hospital for care almost always come as emergency admissions.

In most unplanned events that result in hospital-delivered medical or surgical intervention, the part played by the ambulance services (road and air) and other emergency services such as coastguard, mountain rescue, police, and fire and rescue is crucial. Arrival at the scene, stabilising the patient, extricating the patient, re-assuring the patient, assessing whether and what hospital skills are needed, deciding where those skills are readily available that day, and delivering the patient as swiftly and comfortably as possible, all contribute to the likely outcome for the patient.

Not all urgent patients end up being admitted to hospital. Some will be assessed in an accident

department or medical assessment/clinical assessment unit and then returned home (or to another care setting) with a diagnosis made and a care treatment plan in place. However, for such patients, access to the range of diagnostic/assessment skills currently found in larger acute hospitals that are able to craft good care and discharge plans remains essential.

Thus a key element in understanding how the care system is meant to function in rural areas is the relationship between those meeting with the patient first and the extent to which they can carry out adequate assessment processes. If detailed diagnostic assessments are to be done mainly in acute large hospitals that are some distance from the scene, then clearly travel times from the incident to that hospital become critical. Further, it is preferable if the hospital undertaking the assessment is also capable of carrying out any treatment – for transferring patients who have already endured one long journey to another hospital some distance away is clearly undesirable.

SOCIAL CARE

Good social care can play an important part both in keeping people safe at home so that demands upon medical services are minimised. It can also facilitate speedy discharge from hospital once patients are well enough to leave hospital care. Social care includes the assessment of what is needed on discharge – especially in the first few weeks to help with tasks of daily living and personal care – and might also involve arranging adaptations to the patient's home so that the patient's environment is safe. On rare occasions, a new home setting is needed.

3. APPROACH TO THE STUDY

The study team at WIHSC was issued with draft aims and objectives after the Minister's written statement of 24th January 2014.⁵ We then opened those draft Terms of Reference up for comment, and received 145 responses. After submitting a report to Welsh Government on the substance of that feedback,⁶ the final Terms of Reference were issued to the study team on 17th March 2014, accompanied by a Ministerial written statement.⁷ The Terms of Reference for the study are as follows:

Mid Wales Healthcare Study – Final Terms of Reference

Aim and Objectives

To identify the issues and potential solutions (including models) for providing accessible, high quality, safe, and sustainable healthcare services, which are best suited to meet the specific needs of those living in Mid Wales which is characterised by its predominantly rural and remote nature. This will include how best to develop service delivery models across primary and community care, the secondary care provided at Bronglais Hospital, and mental healthcare services. The study will set out what could be done now and in the future, specifically considering:

- health needs and public expectation – including: preferences for care to be delivered close to home; tackling health inequalities; Welsh language service provision; and evidence of the effect of wider determinants of health (e.g. physical and social isolation, access to transport, lower than average earnings, demographic characteristics) observed in the population of Mid Wales;
- workforce models addressing all groups within the workforce – including profile, recruitment and retention, professional standards, service implications (quality and configuration) and future models (e.g. plans for developing the rural practitioner role, generalists, buddying arrangements with tertiary centres, outreach clinics and emergency medical retrieval services etc.);

⁵ <http://wales.gov.uk/about/cabinet/cabinetstatements/2014/healthcaremidwales/?skip=1&lang=en>

⁶ An account of this process can be found within the report at <http://wihsc.southwales.ac.uk/documents/download/63/>

⁷ See: <http://wales.gov.uk/about/cabinet/cabinetstatements/2014/midhealthcarestudy/?skip=1&lang=en>

- service organisation models, funding, and sustainability – including plans and perspectives on the configuration best suited for delivering optimal healthcare for patients in Mid Wales. This should include identification of obstacles to coherent planning and collaborative working along with some identified solutions;
- innovation and application of new models – including, the extent to which there are firm proposals, or wider opportunities, for the utilisation of health technologies and telemedicine, telehealth, Skype, phone, e mail and other digital technology to improve accessibility and service quality;
- service integration – opportunities for strengthening partnership working, particularly the health and social care interface and voluntary sector and independent providers; and
- any issues presenting along the England and Wales border including future relationships with English healthcare providers.

Method

The first phase of the work lasted 4 weeks and involved initial discussions with key stakeholders to explore the issues, develop an appropriate methodology, and timetable for the study.

For the second stage of the work, WIHSC will determine a methodology that delivers a rigorous and objective analysis of the evidence relating to the Terms of Reference and will ensure all perspectives are taken into account. It is anticipated that the study will include:

- distilling the current evidence on the specific pressures facing service delivery in Mid Wales, including published literature, the Rural Health Plan (including underpinning studies), and the work of the Rural Health Plan Implementation Group;
- a review of the published literature and other evidence on models of service delivery that are resulting in improved outcomes for people living in sparsely populated and predominantly rural areas;
- analysing the Medium Term Plans in development (including the available underpinning research/analysis), with a focus on their consideration of the specific and cross cutting issues facing service delivery in Mid Wales. This should include a consideration of recent developments underway in each Health Board; and
- engagement with all stakeholders with an interest, including local community members and groups, health and social care professionals, lead managers, professional and representative bodies (including Royal Colleges and Deanery) voluntary and independent sectors that all have an interest in taking action to improve the health and wellbeing of people living in Mid Wales. This should not be constrained to those working for NHS Wales.

Timetable of Events

The engagement phase is now complete and the full work programme will start immediately and will be completed by the end of September this year.

Output

The outputs from the first stage included an engagement phase report along with revised terms of reference, a clear methodology and timetable. The output from the second stage will be a concise report addressing the requirements set out above. It is important that healthcare services constantly adapt and improve and it is envisaged that this study will provide clarity and a firm foundation upon which to develop a strengthened approach to the joint planning of health services in this area.

In order to address the Terms of Reference above, the study team developed a methodology that was constituted of a number of elements, which are expounded in the chapters below. There were three principal elements to the method.

3.1 DOCUMENTARY ANALYSIS

There were a large number of documents for the team to assess and appraise. The results of this work are to be found in Chapter B (Context) below. This included a review of the academic and grey literature and allowed us at a very early stage of the work to get a grasp of what issues were cross-cutting and therefore which might have been faced and potentially addressed by others from different parts of the UK and across the world. This phase of work also included gathering a set of demographic and other data (much of which is reported in Chapter C - The Challenges and Opportunities of Rural Healthcare).

3.2 GATHERING EVIDENCE FROM ELSEWHERE

A second crucial aspect of the method was to gather together a body of evidence on other service models operating in a similar context to that of Mid Wales. This involved an international search for comparable cases – both in terms of the type of healthcare system, and in terms of geography and demography. Within the UK, our attention focused on Scotland and parts of England in the main, but we also looked overseas to New Zealand, Canada, the USA and other countries for evidence of effective models of care.

This work was a combination of secondary data analysis and desk research, with a number of interviews – undertaken primarily via telephone or Skype – with key informants both national and international. Given its comparability Scotland proved to be an excellent source of such material, and the outcomes of this work are reported in Chapter E (Rural Healthcare Systems Outside of Wales).

3.3 ENGAGING DIRECTLY WITH THOSE IN MID WALES

By far and away the most significant element of the method was the third phase of work which centred on engaging with those in Mid Wales most specifically affected by the study – whether members of the public, patients, clinical staff, managers and administrators, or other stakeholders. This was an important and very productive element of the study, which took the team on more than 20 trips across the whole of Mid Wales to hear directly from people about what mattered most to them. Table A3.1 provides an overview of the number of times different groups of people or individuals contacted us during the substantive data collection phase of the study. This work had a number of strands.

TABLE A3.1 · CONTRIBUTORS TO THE MID WALES HEALTHCARE STUDY

Source: Study Team

Type of contributor ⁸	Number
Member of the public	494
Professionals	244
Groups	191
TOTAL	929

⁸ These three categories do not provide a perfect typology for the people that were engaged by and in the study, but they hopefully provide a common sense way of breaking the number down. Members of the public were individuals who attended meetings, sent us emails or otherwise contributed their evidence to us. Professionals relates to healthcare workers across all specialties and sectors who spoke to us during the course of the study, or who wrote papers from which we gathered important insights. In addition to this were lay people who had formed into groups or organisations who then invited us to meet them or submitted evidence to the study team. Twenty-five such groups were involved in the process.

MEMBERS OF THE PUBLIC AND PATIENTS

The team initiated an 'open call' for information from members of the public and patients and were very open from the start that all forms of evidence – from stories and experiences of the impact of receiving or indeed not receiving services in Mid Wales had for them or others, through to more quantitative forms of data – were welcome as part of our work. The number and quality of the responses that we received, from March through to September, did not disappoint us.

In addition to the spontaneous responses of members of the public, the team facilitated two public meetings in early July at which people were invited to present their data. These evidence-gathering sessions were popular and well attended, with the Aberystwyth event attracting 111 people to attend, and 48 at the equivalent meeting in Llanidloes. The team were also invited to a number of other meetings held by others directly to contribute to the study – of especial note in this regard were engagements in Tywyn, Blaenau Ffestiniog and Aberystwyth. The Community Health Councils across Mid Wales were also fully engaged in the study and contributed evidence either as individual members or in a specially arranged meeting in July in Carno. We were also fortunate that in Welshpool the Town Council proactively approached the study team to suggest that they collect data pertaining to our Terms of Reference. A large consultation programme was launched (with 417 local respondents) and the findings from this work feature strongly in the report.

These activities were so significant that we felt it only appropriate to account for them in depth in a separate section of the report and Chapter D (The Views of the Public in Mid Wales) provides a detailed exposition of this important dataset. All of the evidence was thematically analysed and the key findings therein can therefore be relied upon as an important and robust contribution to the overall report.

CLINICIANS

The team were also invited to hear directly from a number of clinicians – across the whole of the Mid Wales healthcare system – about their fears, aspirations and solutions to the challenges of providing healthcare in this part of Wales. We interviewed, received papers from and otherwise engaged with clinicians across both primary and secondary care, and also across a wide variety of specialties.

Their evidence underpins many of the findings and discussion in Chapter F (Delivering Healthcare in Mid Wales), and a number of the senior clinicians were important contributors to the two sessions bringing together the local physicians and surgeons with their corresponding Royal College representatives and the Wales Deanery. These sessions are described in detail below but were a crucial part of our study in bringing together the key people to discuss, challenge and provoke in order to think through the sustainability of services in Mid Wales.

HEALTH BOARDS

The three Health Boards themselves along with the Welsh Ambulance Services Trust were very important partners in the study and our role in engaging with them throughout should not be underestimated. It was important at the outset that they were afforded the opportunity to contribute to the draft Terms of Reference and all did so.

There were also occasions – either as groups or one a more one-to-one basis – where we have engaged with them on matters pertaining to the study. They also played a crucial role in providing us with much of the data that the report draws upon.⁹

⁹ At the outset it should be noted that the data tables in this report have either been produced from publicly available sources, or by directly asking the Health Boards and others for this information. The source of the information is disclosed next to each of the data tables, either in the body of the report or the Appendix.

OTHER STAKEHOLDERS

There are a number of other groups and organisations that whilst may not be based in Mid Wales, nevertheless have a central role to play in the healthcare system of Mid Wales – like the Older People’s Commissioner, the Welsh Language Commissioner, and a range of condition specific groups – made representations to us.

There were, as noted above, two important meetings during the study when three crucial stakeholders were brought together for a ‘Chatham House’ discussion on the future of healthcare services in Mid Wales. The three parties – the local clinicians (whether physicians or surgeons), their respective Royal College and the Wales Deanery – met in Mid Wales and the outcomes of those discussions have been instrumental in moving the agenda forward locally.

4. NATURE OF THE REPORT

The structure of the report is laid out above and Chapters B to F essentially represent the ‘findings’ from our work. The two chapters that follow – Conclusions (Chapter G) and Recommendations (Chapter H) – reflect on all of the evidence of the previous sections and in it we provide the reader with our understanding of the current position. It will be for others to judge, but we feel that these Chapters taken together address the Terms of Reference for the study in an entirely objective and independent way. The Conclusions and Recommendations that we reach are ours and ours alone, and as such we hope that readers feel that they represent an honest assessment and identification of the current issues, and some of the possible solutions for providing accessible, high quality, safe, and sustainable healthcare services, which are best suited to meet the specific needs of those living in Mid Wales.

B. CONTEXT

There are a number of facets that can provide an excellent context for this study, which are provided in this chapter.

1. DEMOGRAPHICS

The first challenge in providing any relevant health or demographic statistics for Mid Wales is that the area is undefined. As noted above we are taking the area covered by the counties of Ceredigion, Powys and Meirionnydd as our working definition of Mid Wales. The contextual data should be viewed with the caveats that it is not intended to create a robust evidence base for the Mid Wales area. Neither is it without problems such as skewing created by the inclusion of areas that would clearly sit outside of any definition of Mid Wales i.e. the northern parts of Gwynedd. But rather to provide demographic context for the discussion that will follow later in this report.

1.1 CEREDIGION

Ceredigion sits within the Hywel Dda University Health Board area and is much smaller than Powys, both in terms of geography (1,795km²) and its permanent resident population (76,000). However, it is worth noting that the population is swelled by millions of visiting tourists each year (2.7 million in 2011).¹⁰ There are also significant numbers of students that become resident in Ceredigion each year. More than 11,000 study at Aberystwyth University with a further 1,000 at University of Wales Trinity Saint David, Lampeter.¹¹ As with Powys, Ceredigion has a slightly higher population of older people than the national average. It is worth noting though that the information below is based on people aged 65 and over, whereas the table for Powys uses 75 and over as a category.

TABLE B1.1 · DEMOGRAPHIC DATA, CEREDIGION

Sources: Office for National Statistics and Welsh Government via Infobase Cymru¹²

Data category	Ceredigion	Wales
Population aged 65+	22%	19.5%
Life expectancy – Men	79.9	78.2
Life expectancy – Women	83.9	82.2
Current smoker population	20%	23%
People with a limiting long-term illness	20.7%	23.3%
Households with no car or van	19.5%	26%
Residents who travel to work by car or van	61.9%	70.2%
Residents who travel to work by public transport	3.1%	6.6%

¹⁰ <http://www.ceredigion.gov.uk/public%2Dit/tourism/stats/steam/CerRepRR11.pdf>

¹¹ Higher Education Statistics Agency, 2012/13.

¹² <http://www.infobasecymru.net/IAS/profiles/profile?profileId=169&geoTypeId=#iasProfileSection1> and <http://wales.gov.uk/docs/statistics/2014/140716-local-area-summary-ceredigion-en.pdf>

The health indicators for Ceredigion differ from the national averages by a few percentage points here and there – life expectancy for men and women slightly higher than the national average but slightly fewer smokers or people with a limiting long term illness. However, as might be expected with an essentially rural community, the transport data is significantly different. Only 19.5% of households have no car or van, compared to a national average of 26%, and only 3.1% travel to work by public transport compared to 6.6% nationally. Again, the Hywel Dda University Health Board area encompasses parts of what might be considered Mid Wales (Ceredigion) as well as areas that many would consider outside of the area (Pembrokeshire or Carmarthenshire), and the data that follows needs to be seen in that context.

TABLE B1.2 · HEALTH DATA, HYWEL DDA UNIVERSITY HEALTH BOARD

Sources: Public Health Wales Observatory¹³

Data category	Hywel Dda University Health Board	Wales
Total population	383,900	3,082,400
Population aged 75 and over	10.1%	8.8%
Life expectancy at birth - males	77.9 years	77.2 years
Life expectancy at birth - females	82.1 years	81.6 years
Adults who are overweight or obese	57%	58%
Adults who smoke	21.3%	22.8%
Adults who drink above guidelines	39%	42.9%
MMR uptake	93.7%	94.6%
Live births per 1000 women aged 15-44	60.4	61.2%
Emergency hospital admissions (European age standardised rate per 1,000 population aged under 75)	61.3	65.9

Of note is the slightly older population (10.1% of population over the age of 75, compared to 8.8% of the national population); fewer people who drink over the guideline amounts (39% compared to 42.9% nationally) and lower emergency hospital admissions (61.3 people per thousand aged under 75 compared to 65.9 per thousand nationally).

Figure AP7.1 (Appendix 7) gives more detailed population data showing projections to 2036 within 7 age bands. Figure AP7.2 (Appendix 7) presents population data comparing the percentages of the total populations of the Hywel Dda area and Wales - by male and female - in 18 age bands.

1.2 POWYS

Along with Ceredigion, this is an area that is without question part of ‘Mid Wales’. At 5,179km² it is geographically the largest single recognised local authority and Health Board area in consideration for this piece of work, constituting approximately 25% of the land area of Wales. Despite this, it is populated by just over 4% of the population of Wales. Table AP7.14 (Appendix 7) shows the projected populations of the three localities within Powys up to 2020 with the largest increase in projected population being in North Powys.

¹³ <http://www.wales.nhs.uk/sitesplus/922/home>

From comparing the tables below, we can see that Powys has a higher population of people over the age of 75 than the Wales average (11.1% and 8.8% respectively), with a slightly higher life expectation for both men and women (79.5 years and 83.2 years compared to a national average of 77.2 years and 81.6 years). Across other health indicators such as obesity rates, number of births, number of smokers or those who drink above the guideline amounts, Powys remains roughly in line with the Wales averages (give or take a few percentage points). However, it does have a far lower number of emergency hospital admissions than the national average – 52.1 per 1000 population aged under 75 compared with 65.9.

The population of Powys are also more likely to own a car than the Welsh average (only 17.5% of households in Powys don't own a car or van compared to 26% of Welsh households) and are far less likely to use public transport than the rest of Wales (1.6% of the population travel to work by public transport compared to 6.6% of the national population).¹⁴

Interestingly, Powys also has a lower than national average number of people travelling to work by car or van (62.5% in Powys compared to 70.2% nationally). Previous data produced by the National Assembly for Wales in 2008¹⁵ suggests no explanation for this in terms employment rates, so it might point to people working within quite localised areas.

TABLE B1.3 · DEMOGRAPHIC AND HEALTH DATA, POWYS

Sources: Public Health Wales Observatory and Office for National Statistics via Infobase Cymru¹⁶

Data category	Powys	Wales
Total population	132,700	3,082,400
Population aged 75 and over	11.1%	8.8%
Life expectancy at birth - males	79.5 years	77.2 years
Life expectancy at birth - females	83.2 years	81.6 years
Adults who are overweight or obese	54.6%	58%
Adults who smoke	21.4%	22.8%
Adults who drink above guidelines	39.4%	42.9%
MMR uptake	93.4%	94.6%
Live births per 1000 women aged 15-44	58.5%	61.2%
Emergency hospital admissions (European age standardised rate per 1,000 population aged under 75)	52.1	65.9
Households with no car or van	17.5%	26%
Residents who travel to work by car or van	62.5%	70.2%
Residents who travel to work by public transport	1.6%	6.6%

¹⁴ <http://www.infobasecymru.net/IAS/profiles/profile?profileId=169&geoTypId=>

¹⁵ <http://www.assemblywales.org/powys.pdf>

¹⁶ <http://www.wales.nhs.uk/sitesplus/922/home> and <http://www.infobasecymru.net/IAS/profiles/profile?profileId=169&geoTypId=>

1.3 GWYNEDD

At the other end of the Mid Wales area is Gwynedd. The historic county of Meirionnydd in the southern part of Gwynedd, containing towns such as Dolgellau and Blaenau Ffestiniog would, according to the definition being used for this study, naturally fit into an area that might be called Mid Wales, but the Arfon and Dwyfor areas of Gwynedd, including such towns as Bangor and Caernarfon, would not. However it has not been possible to disaggregate the data below so we proceed on the basis of Gwynedd as a whole, and as such the total population of Gwynedd is 121,911 covering an area of just over 2,500 km².^{17,18}

TABLE B1.4 · DEMOGRAPHIC DATA, GWYNEDD

Sources: Betsi Cadwaladr University Health Board

Data category	Gwynedd	Wales
Population aged 0-15	17.2%	18%
Population aged 65+	21.9%	19.5%
Life expectancy – Men	78.8	78.2
Life expectancy – Women	83.1	82.2
Current smoker population	22%	23%
People with a limiting long-term illness	20.6%	23.3%
Households with no car or van	23.9%	26%
Residents who travel to work by car or van	63.3%	70.2%
Residents who travel to work by public transport	4.7%	6.6%

As with the other areas discussed above, there are only a few notable differences between the data for Gwynedd and the national averages. A slightly higher percentage of older people (21.9% compared to a national average of 19.5%) and less people with a limiting long-term illness (20.6% compared to 23.3% national average).

Similar to others, there are lower numbers of people than the national average travelling to work (63.3% travelling to work by car or van compared to 70.2% national average; 4.7% travelling to work on public transport compared to 6.6% national average), but households with car ownership is only marginally below the national average (23.9% of households in the area don't own a car or van compared to 26% of households nationally who don't own a car or van).

Gwynedd, both north and south, sits within the Betsi Cadwaladr University Health Board area. However, the area stretches across the whole of North Wales over to the border with England, taking in rural areas such as Denbighshire and Flintshire as well as areas such as Wrexham. Again, the figures show only slight variations from the national averages.

¹⁷ <http://www.infobasecymru.net/IAS/profiles/profile?profileId=169&geoTypeld=>

¹⁸ <http://wales.gov.uk/docs/statistics/2014/140716-local-area-summary-gwynedd-en.pdf>

TABLE B1.5 · HEALTH DATA, BETSI CADWALADR UNIVERSITY HEALTH BOARDSources: Public Health Wales Observatory¹⁹

Data category	Betsi Cadwaladr University Health Board	Wales
Total population	692,000	3,082,400
Population aged 75 and over	9.6%	8.8%
Life expectancy at birth - males	77.6 years	77.2 years
Life expectancy at birth - females	81.7 years	81.6 years
Adults who are overweight or obese	55.8%	58%
Adults who smoke	23.1%	22.8%
Adults who drink above guidelines	42.9%	42.9%
MMR uptake	95.8%	94.6%
Live births per 1000 women aged 15-44	64.8	61.2%
Emergency hospital admissions (European age standardised rate per 1,000 population aged under 75)	61.8	65.9

2. LITERATURE REVIEW

A review of the published literature and other relevant sources was carried out in order to establish the extent and breadth of the current research evidence pertaining to the issues affecting service delivery in Mid Wales. The search strategy was constructed using terms reflecting the rural and remote nature of Mid Wales and was designed to identify the challenges inherent in providing services to such populations as well as any examples of evidence-based good practice in service planning, service delivery and community involvement.

It should be noted though that Humphreys²⁰ has concerns regarding the suitability of systematic review methods when applied to rural/remote settings, suggesting that rural and other health services are highly complex and researching them is akin to dealing with "wicked" problems.

2.1 GENERIC PROBLEMS FACING RURAL COMMUNITIES

It is widely recognized that some of the major determinants of health such as physical and social isolation, access to transport services, poor housing and lower than average earnings, impact disproportionately on rural communities.²¹ Coupled with this is the fact that there is often a cost premium for providing services in rural areas.²²

The ageing population is increasing faster in rural authorities than in urban authorities, compounded by outward migration of young people and inward migration of older people. Evidence suggests that the traditional informal support structures are eroding due to in and out migration leading to changes in the

¹⁹ <http://www.wales.nhs.uk/sitesplus/922/home>

²⁰ Humphreys et al (2009)

²¹ Scottish Government (2010)

²² Asthana and Halliday (2004)

structure of rural communities.²³ As age increases, older people tend to become more susceptible to bereavement, loss of independent transport, lack of mobility and loneliness. These are exacerbated in rural areas by a poor public transport infrastructure and isolation. Rural dwelling and older age are both associated with a higher risk of social exclusion, with accessibility identified as having an important facilitating role.²⁴

Mental illness has a lower prevalence in rural areas than in urban areas. However, with an increasing older population, the number of people with dementia in rural areas is likely to increase and the evidence indicates that rural areas are not well equipped to deal with these increasing numbers.²⁵

2.2 ACCESS

People living in rural areas are shown to have wide ranging disadvantages when it comes to geographical access to services. Research shows that the utilisation of services is inversely related to the distance of the patient from the hospital; the so-called 'distance decay'.²⁶ Extensive travel time to specialist services is financially, emotionally and physically costly. Drive times to district general hospitals in Wales tend to be over 40 minutes, and people living close to the border use hospitals in England as they are closer.²⁷ The Department for Transport estimates that people in rural areas of England and Wales travel approximately 40% further than people in most urban areas and almost all of this extra distance travelled by rural residents is by car.²⁸

The car-dependent nature of travel in many rural areas means that there is a rising risk of mobility-related exclusion particularly amongst the oldest and those with health needs. The Rural health plan highlights the fact that 11% of households in rural Wales do not own or have the use of a motor vehicle with people on low incomes and people over the age of 65 years making up a high proportion of this category.²⁹ In a society built around the assumption of high mobility, impediments to access and mobility have the potential to affect all the other drivers of exclusion.³⁰

As well as the greater travel time and financial costs of rural living, transport linked quality of life effects in terms of both physical and mental health outcomes have also been identified. There is evidence that rural-dwellers experience poorer outcomes than their urban counterparts for conditions such as diabetes and asthma as a result of people seeking diagnosis later in their illnesses.³¹ The longer the distance to a GP the poorer the prognosis and survival rates in certain cancers, again partly as a result of mobility constraints.³² In the most rural parts of Mid Wales travel time to a GP can be > 21 minutes.³³

In a review of rural healthcare models in Australia, the issues of access and mobility are viewed as central. Health care systems servicing rural populations cannot be seen apart from the transport system that either takes services to the people or brings patients to those services.³⁴ Health transport may be

²³ Burholt and Dobbs (2012)

²⁴ Doheny and Milbourne (2013)

²⁵ Chichlowska and Carnes (2013)

²⁶ Shergold and Parkhurst (2012)

²⁷ Welsh Assembly Government (2009)

²⁸ Department for Transport (2010)

²⁹ Welsh Assembly Government (2009)

³⁰ Kenyon, Rafferty and Lyons (2003)

³¹ Deaville (2001)

³² Rural Health Implementation Group (2011d)

³³ Wales Centre for Health (2007)

³⁴ Humphreys, Wakerman and Wells (2006)

required at different points within the healthcare system at the point of entry (such as facilitating attendance at primary medical care); at the interface of different parts of the healthcare system (such as transferring patients between institutions); where continuing patient access is required (such as rehabilitation, day care, care of the chronically ill); and for the maintenance of social and psychological health (including access to social, cultural and recreational amenities).

2.3 SERVICE DELIVERY

PRIMARY CARE

Countries with strong primary healthcare systems have demonstrably more efficient, effective, and equitable healthcare³⁵ and there has been a drive to identify replicable models of good practice. There have been several reviews of 'innovative primary healthcare models' in recent years. Some have compared primary healthcare models across countries³⁶ and within countries,^{37,38} whilst others have focussed upon international primary healthcare reform.^{39,40} Wakerman et al concentrate specifically on primary care models in rural and remote communities.⁴¹

There is a general agreement that 'one size does not fit all' and that there is no one model capable of servicing the diverse needs of all communities. A number of model typologies have emerged. All have in common the discrete, stand-alone GP model, but they diverge along the axes of level of integration, financing mechanisms and level of community involvement. Whilst these models are not directly comparable they share some key themes. These identify a number of common enablers including the need for adequate funding and appropriate financing mechanisms; multidisciplinary practice; community participation; improved health information systems; and vision or leadership.

The essential elements of these enablers are further deconstructed by some authors. Weatherill distinguished between *foundational elements* (primary healthcare teams, information infrastructure, knowledge gathering and diffusion) and *transformational elements* (leadership, putting citizens at the centre of their care and a focus on health outcomes).⁴² In his review of effective primary care models in rural communities in Australia, Wakerman et al also made a distinction between a number of *essential environmental enablers* (appropriate policy, compatible Commonwealth and State relations, and community readiness) and *essential service requirements* (funding, workforce, governance/management/leadership, infrastructure and linkages).⁴³

Lack of quality and depth of management are also significant problems that limit the effectiveness of rural and remote health services.^{44,45} Population size and distribution are also critical factors in designing primary healthcare services – 'successful' models have invariably addressed diseconomies of scale by aggregating a critical population mass, whether it is a discrete population in a country town or a

³⁵ Starfield, Shi, and Macinko (2005)

³⁶ Marriott and Mable (2000)

³⁷ Weatherill (2007)

³⁸ Lamarche et al (2003)

³⁹ Naccarella et al (2006)

⁴⁰ McDonald et al (2006)

⁴¹ Wakerman et al (2006)

⁴² Weatherill (2007)

⁴³ Wakerman et al (2006)

⁴⁴ Weymouth, Davey, and Wright (2007)

⁴⁵ Wakerman and Davey (2008)

dispersed population across a region.⁴⁶

INTEGRATING SERVICES

Another approach supported by the literature is one that balances economies of scale with economies of scope by integrating services. The drive to adopt integrated care models and approaches is central to the strategic development of health services and there is a growing body of research in this area.⁴⁷ Again no single organisational model or approach has been identified but an evaluation by the Kings Fund suggests that taking a population management approach (as opposed to disease management strategies) that is designed to look holistically at the priority needs of local communities tends to produce better results for patients.⁴⁸ Other recommendations include avoiding a top-down policy that requires structural or organisational mergers and remove barriers that make it more difficult for localities to integrate care, such as differences in financing and eligibility. Several studies advocate locality-based teams that are grouped around primary care and/or natural geographies, offering 24/7 services as standard, and complemented by highly flexible and responsive community and social care services.⁴⁹

MULTIDISCIPLINARY PRACTICE

A key component underpinning effective regional models is multidisciplinary practice. The notion of agencies working in collaboration as essential for optimal rural health servicing is central to the principles promoted by Fuller et al who argue that when there are problems with teamwork capacity between local services, this creates disconnection in the local service system, limiting service access and continuity of care.⁵⁰ Successful collaboration relies upon agreed goals; confidence in other service providers and understanding of the roles played by the different partners. Another, sometimes overlooked, feature is investment in change management and the need for ongoing support through the change process.⁵¹

COMMUNITY INVOLVEMENT

Although rural areas share some commonality, health inequalities vary considerably, requiring locally targeted responses that align with local population health need.⁵² Accordingly, international policy is increasingly focusing on the role of communities in healthcare planning, design, delivery and evaluation to avoid an ineffective 'one size fits all' approach.⁵³

Current policy context in the UK promotes the 'co-production' of health and care services – with service users and providers working in partnership. However, Kenny et al argue the assumption that all individuals and communities have the personal resources, skills and willingness to get involved in co-produced services may have implications for social and geographical equity of access to health and care services.⁵⁴ Community involvement has been found to be a key environmental enabler in establishing effective primary healthcare models in rural and remote settings as has appropriate community

⁴⁶ Goodwin et al (2014)

⁴⁷ Gareth (2013)

⁴⁸ Edwards (2014)

⁴⁹ Munoz (2013)

⁵⁰ Fuller et al (2004)

⁵¹ Zwarenstein, Goldman and Reeves (2009)

⁵² Farmer, Prior and Taylor (2012)

⁵³ Kenny et al (2013)

⁵⁴ Ibid.

participation in governance for the purpose of enhanced self-management.⁵⁵

DECENTRALISING SERVICES

'Localism' is regarded as a key determinant of behavior especially in rural areas and designing services around a 'coherent geography' is vital. The cost advantages of centralising health services, in particular secondary and tertiary healthcare, need to be balanced against the drive to bring services closer to rural communities and to reduce the demand on overstretched general hospitals.

Community Hospitals are an integral part of healthcare provision in many rural areas. A review by Heaney NHS of the place of community hospitals in a modernising NHS concluded that there is no single view of where community hospitals should sit in the continuum of care.⁵⁶ Community hospitals appear capable of functioning as a truly intermediate care site, providing care packages that are too complex for a patient to remain at home, but can also act as a location for patients who no longer require specialised care in the acute sector. However there is little evidence concerning the effectiveness of community hospitals. The studies that exist report limited evidence of differences with specialised hospital care and outcomes for selected patient groups; sample sizes are small, comparisons are often limited and adjustments for case mix not clear. Heaney argues that the absence of robust research reflects the lack of planned and systematic evaluation as well as uncertainty about the aims and role of the community hospitals. This in turn stems from the lack of planning and rather ad-hoc development of community hospitals in general.⁵⁷

Community Hospitals invariably score highly on measures of patient satisfaction, and the Welsh Government acknowledges the affection that the public hold towards such facilities. It is suggested that in many areas there has been a lack of aspiration and ambition for community hospitals and community services. The paper states that the driving principle should be that district general hospitals provide only those services that cannot be effectively and safely delivered in communities, rather than community services being aspects of care that are devolved from the "centre", thus replacing the current push model with one that actively pulls patients towards high quality organised services closer to home.⁵⁸

Some support for this principle can be found within the Cochrane review of specialist outreach clinics in primary care and rural hospital settings. Evidence suggests that are some improvements for patients in terms of access, outcomes and service use, especially when delivered as part of a multifaceted intervention. However the review concluded that the benefits of simple outreach models in urban non-disadvantaged settings were small and likely to be costly.⁵⁹

2.4 WORKFORCE ISSUES

Recruitment and retention of staff to rural areas have been recognised in the literature as a pervasive issue, with many individual and environmental factors acknowledged as being influential including wide scope of practice, lack of professional support, heavy workloads, professional isolation, limited resources and lack of infrastructure for families.⁶⁰

Consequently a number of strategies have been adopted and evaluated. A number of these have been shown to positively influence retention including introducing rural medicine as a defined specialty at

⁵⁵ Wakerman et al (2006)

⁵⁶ Weatherill (2007)

⁵⁷ Heaney et al (2006)

⁵⁸ Rural Health Implementation Group (2011d)

⁵⁹ Gruen et al (2003)

⁶⁰ Buykx et al (2010)

undergraduate level, improving access to on-going education, career development pathways, rural placements, creating rural medicine specialty posts and providing peer support networks. In terms of intrinsic incentives, autonomy, community connectedness, rural lifestyle and diverse caseloads were the most frequently cited.^{61,62}

In recent years there has been a move towards expanding the roles of clinical practitioners working in rural settings. Reviews generally suggest more research and evaluation is needed, as there is a clear lack of consensus on what such roles should encompass and how they should be coordinated. One of the difficulties reported for example with the assistant practitioner roles in rural areas is that small, dispersed workforces provide only limited room for changes to skill mix. Where people are working on their own in rural settings supervision can prove challenging and a registered practitioner may be the most cost-effective and flexible option for an employer.⁶³

The importance of networks has also been underlined. Informality is identified as a key factor in facilitating rural networks, with relationships often based upon long established personal connections and familiarity. This is a strength in so far as it promotes communication and collaboration and enables flexibility to respond to policy and funding changes. A network that relies on social relationships can build strong ties between rural health professionals and help to socially embed these professionals into the local community, features that have been found to promote rural workforce retention. Paradoxically, however, an informal network will be weakened when there is staff turnover, as informal networks are built on trust and reciprocity between staff rather than on formal procedures, and so this trust and reciprocity has to be re-established in the network when there are new recruits.

3. POLICY AND PRACTICE CONTEXT

In addition to the papers, report and policy documents referred to above, there are four important areas that need to be addressed at the outset. These concern the future role of the medical workforce and how it will be trained, the function of both the hospital and primary care, and the current policy context for rural healthcare in Wales.

3.1 MEDICAL TRAINING

As described above, the medical profession has, for many years, followed a path of increasing sub-specialisation. While this may have improved standards in specialised care, there was growing concern that it did not well serve the needs of patients with complex co-morbidities. During 2013, an independent review – *Shape of Training* – was conducted to put in place a structure that will produce doctors who are able to work in general areas of their specialties.⁶⁴ Greenaway et al found that patient needs should drive how doctors in the future are trained. Patients and the public need more doctors who are capable of providing general care in broad specialties across a range of different settings, due to a growing number of people with multiple co-morbidities, an ageing population, health inequalities, and increasing patient expectations. The balance between specialists and generalists is changing, requiring doctors to be trained in more specialist areas to meet local patient and workforce needs.

In their report, Greenaway et al describe an approach to medical training in the future that will produce more broadly trained specialists. There are a number of key milestones in this new training approach. Full registration should happen at the point of graduation from medical school and following graduation,

⁶¹ Grobler et al (2009)

⁶² Wilson et al (2009)

⁶³ Thiel et al (2013)

⁶⁴ Greenaway et al (2013)

doctors will undertake the two-year Foundation Programme, with opportunities to support and follow patients through their entire care pathway. After the Foundation Programme, doctors will enter broad based specialty training. Specialties or areas of practice will be grouped together, according to patient care themes (such as women's health, child health, and mental health), and will be defined by the dynamic and interconnected relationships between the specialties.

Across all specialty training, doctors will develop generic capabilities that reinforce professionalism in their medical practice and broad based specialty training after Foundation Programme will last 4-6 years depending on specialty requirements, as well as how individuals progress through the curricula. When changing specialties within or between specialty groups, doctors will be able to transfer relevant competencies acquired in one specialty to their new area of practice without having to repeat the same learning in the new speciality. Nationally funded clinical academic training will be a flexible training pathway, where doctors would be able to focus their academic training in their academic or research area, while also undertaking broad based training.

The exit point of postgraduate training will be the Certificate of Specialty Training, marking the point at which doctors are able to practise in their identified scope of practice, with no clinical supervision. Most doctors will work in the general area of their broad specialty, based on patient and workforce needs throughout their careers. They will be expected to maintain and develop their skills in their specialty area and their generic capabilities through continuing professional development, and to meet the requirements of revalidation. Doctors may want to enhance their career by gaining additional expertise in special interest areas and subspecialty training through formal and quality assured training programmes, leading to a credential in that area.

Based on the review findings, Greenaway et al made 19 recommendations for future medical training, of which the following are most pertinent in this context:

- More ways of involving patients in educating and training doctors must be identified;
- Medical schools, along with other appropriate organisations, must make sure medical graduates at the point of registration can work safely in a clinical role suitable to their competence level, and have experience of and insight into patient needs;
- A generic capabilities framework for curricula must be introduced for postgraduate training based on Good Medical Practice that covers;
- Longer placements for doctors in training to work in teams and with supervisors must be introduced;
- Training should be limited to places that provide high quality training and supervision, and that are approved and quality assured by the GMC;
- All doctors must be able to manage acutely ill patients with multiple co-morbidities within their broad specialty areas, and most doctors will continue to maintain these skills in their future careers; and
- How training arrangements will be coordinated to meet local needs while maintaining UK-wide standards must be considered.

The report argues that the implementation of these recommendations must be carefully planned on a UK-wide basis and phased in, allowing the stability of the overall system to be maintained while reforms are being made.

3.2 HOSPITALS

The Future Hospital Commission was established in 2012 by the Royal College of Physicians. The report,

Future Hospital: caring for medical patients, sets out the Commission's vision for hospital services structured around the needs of patients, focusing on the care of acutely ill medical patients, the organisation of medical services, and the role of physicians and doctors in training across the medical specialties in England and Wales.⁶⁵ The report recommended that future hospital services must be designed around the following 11 core principles.

1. Fundamental standards of care must always be met;
2. Patient experience is valued as much as clinical effectiveness;
3. Responsibility for each patient's care is clear and communicated;
4. Patients have effective and timely access to care, including appointments, tests, treatment and moves out of hospital;
5. Patients do not move wards unless this is necessary for their clinical care;
6. Robust arrangements for transferring of care are in place;
7. Good communication with and about patients is the norm;
8. Care is designed to facilitate self-care and health promotion;
9. Services are tailored to meet the needs of individual patients, including vulnerable patients;
10. All patients have a care plan that reflects their individual clinical and support needs; and
11. Staff are supported to deliver safe, compassionate care, and committed to improving quality.

In order to achieve the Commission's vision for hospital services, radical changes are required in terms of hospital structure and ways of working for staff.

NEW PRINCIPLES AND MODELS OF CARE

The Commission set out a radical new model of care designed to encourage collective responsibility for the care of patients across professions and healthcare teams. New ways of working across the hospital and between hospital and the community are recommended, supported by financial and management arrangements that give greater priority to caring for patients with urgent medical needs. Care should come to patients and be coordinated around their medical and support needs. In addition, effective care for older people with dementia will help set a care standard of relevance to vulnerable adults. Each hospital needs to establish the following new structures to coordinate care for patients.

- The *Medical Division* will be responsible for all medical services across the hospital working closely with partners in primary, community, and social care services to deliver specialist medical services across the health economy, and led by the chief of medicine (see Figure AP1.1, Appendix 1);
- An *Acute Care Hub* will bring together the clinical areas of the Medical Division focusing on the initial assessment and stabilisation of acutely ill medical patients, supported by a Clinical Coordination Centre;
- The *Clinical Coordination Centre* will be the operational command centre for the hospital site and Medical Division, providing healthcare staff with the information they need to care for patients effectively, holding detailed, real-time information on patients' care needs and clinical status and coordinating staff and services.

SEVEN-DAY CARE DELIVERED WHERE PATIENTS NEED IT

Due to advances in medical science, an increasing number of patients are admitted to hospital with multiple illnesses and a range of support needs, and the report acknowledges that hospitals need to

⁶⁵ Royal College of Physicians (2013) – a more Welsh focused version of this report is due to be published in the Autumn.

change the way they operate in order to adequately address these needs. Amongst other things, in practice this will mean that:

- Specialist medical teams will work not only in specialist wards, but across the hospital and the community, with GPs and social care to contribute to generalist care;
- Once admitted to hospital, patients will not move beds unless their clinical needs demand it;
- Patients should receive a single initial assessment and ongoing care by a single team;
- Acutely ill medical patients in hospital should have the same access to medical care on the weekend as on a week day, with ward care prioritised in doctors' job plans;
- Patients can be empowered to prevent and recover from ill health through effective communication, shared decision-making, and self-management; and
- Doctors will assume clinical leadership for safety, clinical outcomes, and patients' experience, and there will be mechanisms for measuring patients' experience of care.

EDUCATION, TRAINING AND DEVELOPMENT OF DOCTORS

Medical education and training will develop doctors' knowledge and skills to manage the current and future demographic of patients. Across the overall physician workforce, there will be the mix of skills to deliver appropriate specialist care, intensive care, and coordination of care. In order to achieve the mix of skills required to deliver appropriate patient care, a greater proportion of doctors will be trained and deployed to deliver expert internal medicine care. The contribution of medical registrars will be valued and supported by increased participation in acute services and ward-level care across all medical trainers and consultants, and enhanced consultant presence across seven days.

3.3 PRIMARY CARE

This section draws upon the recent *Primary Care in Wales* report⁶⁶, which provides evidence for successful models and the direction of policy thinking informing future primary care elements of healthcare systems in Wales.

Primary care is defined as the first contact, continuous, comprehensive, and coordinated care provided to individuals and populations undifferentiated by age, gender, disease, and organ systems. The core primary care workforce includes medical, primary and community nursing, midwifery and health visiting, dentistry, optometry, pharmacy, therapy and diagnostic services, NHS direct, health promotion services, and the relevant managerial and support staff, as well as GP out-of-hours services.

In Wales, there still remains some unacceptable variation in the provision and quality of primary care services, although a very good primary healthcare system is already in place. Some of the common issues include difficulties in access to services and an unsustainable imbalance between workload and capacity.

The review promotes a model which argues that the structure (governance, economic conditions, and workforce development), process (access, continuity of care, coordination of care, and comprehensiveness of care), and outcomes (quality of care, efficiency of care, and equity in health) need to be evaluated to assess the effectiveness of any primary care policy, programme, or service model (see Table B3.1 below).

The report concludes that current models are not sustainable. A shift to primary care and population-based approaches is advocated as the way forward, along with the fact that primary care teams should include a wider range of members. Clear outcomes should be the focus of any new model or policy, and

⁶⁶ NHS Wales (2014)

TABLE B3.1 · KEY FACETS OF PRIMARY CARE SYSTEMS⁶⁷

<p>STRUCTURE How the system is run</p>	<p>PROCESS How the system is provided</p>	<p>OUTCOMES How the system is effective</p>
<p>Resource allocation should shift from the current misdirection into high cost late stage interventions, towards the neglected potential of primary prevention and health promotion.</p> <p>There is consensus that planning and provision of primary care should be at a small population meso-level based on healthcare needs.</p> <p>Public ownership at this level is a positive influence on service design, delivery, and accountability.</p> <p>There is an identified need to develop leadership roles for those in primary care to drive policy and delivery changes.</p> <p>There is consensus that more centralised governance systems tend to drive up quality and help to address variation in both quality and outcomes.</p> <p>There are few models in the primary care literature of integration with social care, although policy thinking cites this as a high priority.</p>	<p>Be proactive to improve the health and well being of populations, not just those registered and attending, through greater collaboration with partners.</p> <p>Primary care teams should scale up to be able to deliver more consistently at a population level. Models include super-partnerships, federations, community health organisations, family care networks, and other formal and informal groupings.</p> <p>There is potential to widen the membership of primary care teams to include allied health professionals, more generalist roles (e.g. paediatricians), or new roles such as community health workers, or to consider direct employment of community staff such as district nurses.</p> <p>There is no single ideal model of employment, and a greater variety of options could be explored.</p> <p>Primary care should shift from the gatekeeper role towards a coordinator/navigator role, with wider services wrapped around the primary care teams.</p> <p>Need for more seamless models across in and out of hours, with less fragmentation of providers.</p> <p>Despite the multitude of international models of service provision, there is no single model that emerges, other than that of the generic small team supporting the patient that is a feature of most high quality health systems.</p>	<p>Countries with strong primary care systems tend to have better health outcomes, but higher health spending and a slower growth in spend, which is likely to become more important in meeting future changing needs.</p> <p>There is a consensus that primary care in the UK has too much unexplained and unwarranted variation, and that it should be delivered at a more “industrial scale” which prioritises reducing variation in quality and outcomes.</p> <p>Key issues are improving performance measurement, developing more systematic approaches to quality improvement and quality assurance, and transparent reporting.</p> <p>Citizen empowerment and engagement is cited as a driver for improving quality through accountability.</p>

⁶⁷ Ibid.

models of provision characterised by community-oriented principles and citizen engagement are likely to be the most transferable to the Welsh context. Some of the key characteristics of an excellent primary care system in Wales are recommended, as follows:

1. Primary care will be delivered by small familiar teams;
2. Primary care providers will be organised into clusters or networks;
3. Clusters will be the delivery level of community oriented primary healthcare;
4. Commissioning and planning of health services from prevention to end of life care will be informed by needs and assets;
5. Clusters will be commissioned by Health Boards and will be reimbursed on agreed outcomes;
6. Clusters will be transparent and accountable; and
7. Clusters will be made up of primary care units such as general practices.

3.4 RURAL HEALTH CARE IN WALES

Rural health needs should be considered within the wide context of social, economic, transport, housing and social care matters. The number of older people in the UK is growing, many with multiple conditions requiring more medical interventions. Moreover, the ageing population in rural authorities increase faster than that in urban authorities, with outward migration of young people and inward migration of older people.⁶⁸ This change of demographics has a significant impact on local service needs and support system across health and social care in rural communities. In 2009, the Welsh Government developed a strategy, the *Rural Health Plan*,⁶⁹ setting up a template for translating the delivery of all Wales health strategies into meaningful service delivery mechanisms tailored more specifically to the meet the future health needs of rural communities.

KEY ISSUES AROUND RURAL HEALTH CARE

Key issues around three main areas (access, integration, and community cohesion and engagement) are identified in the Rural Health Plan. Although not exclusive to rurality, these issues are deeply affected by the prevailing conditions in rural life.

Accessing services is the foundation of health. Distance from services and support can have a great impact on rural health, which is generally good in comparison to urban. In terms of getting timely services to people and getting people to services across primary, community, secondary/specialist and social care, access needs to be improved across the spectrum, from emergency survival to the convenient delivery of routine services. More creative and flexible solutions will be necessary to ensure that the needs of rural populations are met in the most appropriate way, as well as strengthening existing developments, such as telehealth and telecare. Transport plays an essential part in rural health. Regional Transport Plans being prepared by the Regional Transport Consortium will set out transport priorities and planned interventions.

Integrated service models, workforce planning and systems are necessary to improve future provision and ensure the effective use of all resources and skills within communities. This will necessitate a vastly improved cohesion across organisational/professional and business boundaries and between NHS, local government, and third sector services.

The sustainability of smaller community hospitals is not specifically a rural issue, nevertheless, their crucial role in the life of the countryside gives them greater significance and importance than would be

⁶⁸ Rural Health Implementation Group (2011d, 2013)

⁶⁹ Welsh Assembly Government (2009)

the case in urban areas. Cost is a relevant factor for all services and a balance is needed between quality, critical mass, access, and costs to ensure that the needs of local people are met safely and effectively. However, in the context of rurality, critical mass should not be the ultimate determinant. The balance and allocation of financial provision requires further analysis and consideration.

Remoteness of rural communities places greater emphasis on community cohesion, although it is also an important resource and a factor of immense potential to urban settings. Community cohesion, engagement, and ownership need to be actively supported and nourished within mainstream service planning and in supporting services delivered locally, with the third sector having an important role to play in this. Trust and support of local communities will be essential, as will the part they have to play in enabling the plan to happen.

A MODEL OF RURAL HEALTH CARE SERVICES

It is recommended that the delivery of more complex healthcare may need to be centralised in a small number of specialist centres where the expertise is concentrated to provide best possible health outcomes. Such models require people to travel to access services; however, core services and less specialist care should be accessible in local communities, especially in rural areas (see Figure AP2.1, Appendix 2).

This model requires a different workforce of multi disciplinary teams with generic and flexible competencies, as well as access to enhanced specialist skills. As outlined in the Greenaway report, a move towards a medical workforce with a broader approach to patient care means more doctors will be capable of working in rural and remote areas. The Remote and Rural Healthcare Educational Alliance has worked hard to develop an NHS workforce to care for people in rural and isolated communities in Scotland. Positive feedback on this programme has been received, and many doctors appreciated the excellent training opportunities they had received, which had a strong focus on communication and teamwork.

The improvements may involve re-thinking of existing plans or policies or better links between them. The challenges of distance and resources will always prove difficult, but by working together and pooling knowledge, resources and skills more effectively, efficient and appropriate services can be delivered to the most rural of communities.

DELIVERING RURAL HEALTH CARE SERVICES

Followed by the publishing of the Rural Health Plan, the Rural Health Implementation Group (RHIG) developed a working paper, *Delivering Rural Health Care Services*, to inform the development of new service models and professional roles as illustrated in the Rural Health Plan.⁷⁰ Recommendations were made in five broad areas in terms of engagement and ownership, access to services, reinvigoration of community hospital and community based services, workforce development, and exploiting new technologies.

1. Engaging communities and establishing a local “ownership” of rural services

Access, integration, and community cohesion and engagement are the driving principles of rural health development. Service planning needs a careful focus on, and consideration of, the particular needs and services available to each community, recognising the variation that exists in rural Wales. Local communities should be fully engaged in service planning, with the interagency locality leadership teams, providing the community interface between Health Boards, LAs, primary care, independent contractors, and the third sector.

⁷⁰ Rural Health Implementation Group (2011d)

2. The matter of “access” - balancing quality of service with distance of travel to services

In recent decades, the NHS has tended to centralise services around larger hospitals, on the basis that larger units may be more cost effective, have higher quality, and achieve a critical mass. However, the outcomes from these advantages are reduced by long travelling times, a feature known as “distance decay”. A rural community’s travel time to services should be an integral factor in the planning of services in the care sector. There is a “balance point” between those services that should be provided centrally at larger General Hospitals and those services that can be provided more locally. This balance point will vary depending of the circumstances of the particular community. A mature healthcare planning system will understand and have mapped out these balance points for their services and communities.

3. A reinvigoration of community hospital and community based services

Given the wide variation in need and current pattern of services throughout Wales, it is neither possible nor appropriate to stipulate the model of care that should be provided in any particular rural community. Some of the underlying principles that should be used in any re-design of service are outlined as follows, with descriptions of the potential for improvements.

- The needs of rural populations differ from those in urban areas, which should be recognised and responded to;
- In many areas, there has been a lack of aspiration and ambition for community hospitals and community services. Highly valued by rural communities, these services could be developed to provide high quality, effective care;
- A local focus and priority on the planning and management of rural community-based services is needed, with the driving principle that district general hospitals provide only those services that cannot be effectively and safely delivered in communities, rather than community services being aspects of care that are devolved from the “centre”; and
- It is crucial that a better coordination and integration of services are delivered to rural communities, with proper and timely communications between and within organisations.

4. Rural proofing workforce development

NHS Wales is developing new ways of working and flexible working practices with educational and professional support and workforce development matters being addressed nationally. However, there are added responsibilities inherent in working in rural communities. In building on existing human resource policies, there needs to be a “rural proofing” which reflects the added duties and responsibilities. A policy of integrated working across the care sector in communities continues to be supported, with a competency-based team approach to workforce development, and both Rural Medicine and Rural Health were given the attention and focus that reflected the needs of Wales.

Rural Medicine

A more active promotion of Rural Medical Practice and Rural Medical Careers is needed, with rural medicine forming part of the medical undergraduate curriculum and the foundation programme, and some specialty training posts in the major disciplines created with a rural medicine emphasis. The additional competencies of specialty working within rural hospitals and competencies at the generalist-specialist paradigm for both hospital and community responsibilities should be defined and agreed in collaboration with specialty training committees and Royal Colleges. This work should consider how patient experience and access could be balanced against clinical standards that serve to provide the best possible outcomes, rather than the current outcomes that are expressed in terms of given numbers of procedures or operations.

For General Practice training, it was recommended that the Minister for Health and Social Services considers a Vocational Training Scheme (VTS) for General Practice that is badged and focussed as a rural training scheme, reasonable proportion of extended posts after vocational training, and reasonable proportion of junior doctors and medical students being located in rural Wales.

Rural Health

For the professional development of nursing and the other healthcare professions, the Welsh Government continues to work with Higher Education Institutions in developing competency-based training and accreditation in ways that are flexible and accessible to those working in isolated areas.

Advanced practice should be a component feature of Rural Health Practice. Clinical learning placements are increased in rural settings for pre-registration and post-graduate programmes across the professional groups, in order to recruit and attract the workforce of the future into rural areas. Health Boards should work with the Royal Colleges and educational institutions to deliver professional development support in innovative and flexible ways, particularly to the more isolated practitioners, maximising the use of information technology.

5. Exploiting new technologies

It is recommended that the benefits of telemedicine, telehealth, and telecare should be exploited, as the use of technology in the NHS has the potential to improve the quality, delivery, and efficiency of healthcare services.⁷¹ This includes the provision of healthcare to patients at a distance using technologies, such as mobile phones, internet services, digital televisions, video-conferencing, and self-monitoring equipment. This can also involve consultation between a patient and a clinician at different locations using video-conferencing; a clinician diagnosing a patient's condition remotely using images transmitted electronically, such as a scan or a digital photograph; and using technology to monitor patients with long-term conditions at home. Broadly speaking this means much greater use of telemedicine, as discussed later in this report.

When planning or commissioning services, Health Boards should consider the use of technology to provide improved support for patients and deliver more efficient services. It is recommended that a national all-Wales approach be developed in relation to telemedicine to help avoid the pitfalls of piecemeal development and inconsistency across Health Boards.

4. PLANS OF THE HEALTH BOARDS IN MID WALES

The people living in Mid Wales have their healthcare needs met by a number of bodies. Three Health Boards cover this locality, Hywel Dda, Powys and Betsi Cadwaladr. For some treatments patients may need to travel to services provided by other Welsh Health Boards in North or South Wales or to England. The Wales Ambulance Service Trust provides both emergency and non-urgent patient transport, the former encompassing highly trained assessment and intervention skilled staff. The Wales Air Ambulance is also available.

Hywel Dda plans and operates the full range of NHS care across the care system with the exception of ambulance care, as does Betsi Cadwaladr. Within the Powys area that covers the rest of Mid Wales are delivered mainly primary care based services complemented by nine community hospitals, some of which offer X-ray, outpatient, endoscopy, renal, and day surgery services. Powys 'commissions' secondary care services from eleven English and Welsh hospitals/health bodies that surround it and also accesses tertiary care for its residents via the specialist services all-Wales commissioner.

⁷¹ Rural Health Implementation Group (2013)

The concerns that have arisen in respect of Mid Wales, in addition to the financial challenges common to all public services, may be distilled into three related areas:

- First, there has been public debate about the continued availability of secondary hospital care from Bronglais General Hospital, Aberystwyth;
- Second, the future resilience of primary care services - especially General Practitioner services in parts of Mid Wales, is an issue; and
- Third, the need to ensure access to appropriate healthcare is a high priority for such a rural area and this brings to the fore the role of the Wales Ambulance service (and the Wales Air Ambulance), public transport, and aspects of telemedicine – especially when delivering a timely and effective health response for unplanned events.

4.1 HYWEL DDA

Hywel Dda University Health Board has, since 2009, grappled with the challenges before it in seeking to play its part in the Wales-wide review of secondary care. In 2010 it undertook an extensive listening and engagement exercise with clinicians and stakeholders to find out what needed to be done locally to meet those challenges - getting good health outcomes for all the population, providing care for people, and crafting a sustainable healthcare service – in the face of an ageing population, difficulties in recruiting and retaining clinical staff, and providing value for money.

In *Your Health: Your Future* the Health Board undertook a major review of service delivery for a number of conurbations served by major hospitals at Llanelli, Carmarthen, Aberystwyth and Haverfordwest. There were some concerns that such conurbations cannot provide a level of throughput judged able to sustain increasingly specialised hospital clinical teams that rely upon large populations for sufficient casework to feed them. Thus the Board considered how to locate complementary sustainable clinical services in each of the four general hospitals, taking account of foreseeable staffing issues – including those arising from the training requirements of medical staff.

The Board also considered how it might reduce the demands upon acute hospital services by better anticipatory care and community-based care that allows patients safely to leave hospital as soon as treatment is completed. In terms of the main clinical specialities the disposition of acute surgical and medical assessment and inpatient facilities were to change so that Prince Philip Hospital had a more elective focus. The options for providing resilient emergency services (initial assessment and then competent intervention) had been the subject of much discussion and initial proposals had been modified in the light of professional and public feedback so that, for example, a proposed reduction in the range of services offered from Bronglais General Hospital was modified.

Inpatient mental illness services would be concentrated at Carmarthen with more specialist services provided outside of the Board's area; Community mental health teams would carry the main load. For cancer services reliance would be placed on external sources and the cancer network; only breast and colorectal care was to be delivered locally (at Prince Philip Hospital) although outpatient clinics and chemotherapy would be delivered locally.

The proposed way forward for obstetrics and paediatrics was to remove the Special Care Baby Units from Glangwili and Withybush and to replace these with a neonatal high dependency unit at Glangwili complemented by a paediatric high dependency unit. The debate about obstetric/paediatric services mirrored the discussion about both emergency surgery and medicine except that whilst the Board seeks to reduce demands upon hospitals from patients with medical and (some) surgical conditions, this approach is clearly not appropriate for many pregnant women (and the newborn). In considering options for maternity, obstetrics, and paediatric services, 2,500 births is said to be a minimum number to enable doctors in training to gain sufficient experience.

SURGICAL SERVICES

The technical document produced in August 2012 set out the evidence considered when proposed surgical services – especially emergency out-of-hours surgery – were crafted. These were agreed by senior clinical staff and assessed using five, weighted criteria (relating to safety, workforce issues, patient accessibility, deliverability, strategic fit and impact).

The technical paper did consider concentrating emergency admissions at only one hospital – either Prince Philip, Bronglais, Glangwili or Withybush. From this emerged a consensus that Glangwili would be the one site in Hywel Dda to which all emergency surgery should go. The balance of advantage was clearly seen to lie in utilising the resources of Glangwili Hospital and countering the increased travel times for patients from north and south west of Carmarthen by improving transport arrangements.

The Board's technical paper made a powerful case – on grounds of quality and safety – for centralising services at only one receiving hospital and after evaluating the criteria by which the four options were judged, Glangwili clearly emerged as the preferred option. However, as a result of the wider engagement with the public and others the Board changed its preferred proposal and agreed to continue delivering emergency surgical work (excluding major trauma) from three hospitals – Withybush, Bronglais and Glangwili.

MEDICAL SERVICES

The proposals in respect of medicine and medical specialties reflect in many ways those for the surgical specialties. Like surgery, the Board initially drew up a number of options. These were tested against weighted criteria similar to those used for surgical services. The Board shortlisted two options: Option 1 – strengthened community services relating to three hospital inpatient services at Bronglais, Glangwili, and Withybush; Option 2 – strengthened community services relating to inpatient services at Bronglais, Prince Philip and Glangwili. Option 1 was clearly the stronger option based on the Board's criteria and analysis.

However, as in surgery, once that option was tested more widely during the full public engagement process, it did not command sufficient support. The Board therefore concluded that the status quo should be its preferred option so that emergency medical admissions (presumably undifferentiated and as they arise in each of the localities served) would be directed to all four main hospitals.

The technical document cited factors which the Royal College of Physicians deemed important when providing high quality care for medically ill patients. It noted that Hywel Dda's then current four-site approach "results in a number of services running with single-handed consultants which is a safety and quality risk". The short listed options that emerged for public consultation after an assessment of options by the clinical and other experts were only those that were "clinically safe and operationally deliverable".

The data on medical emergency admissions shows that admissions to both Glangwili and Prince Philip hospitals increased between 2010/11 and 2011/12 from 10,948 to 11,874, and at Withybush hospital they increased from 5,236 to 6,060. However, at Bronglais they decreased from 2,788 to 2,547. Bronglais was admitting about half of the load carried by the other three hospitals. Of those 2,547 admissions, 900 are people from outside the Board's area. Further, the pattern of admissions to Bronglais is reported as being different from that of the other three hospitals, for unlike Withybush, Prince Philip and Glangwili, Bronglais General Hospital has only 1% of its emergency admissions reported as coming from GPs (compared with 17%-27% in the Board's other hospitals); 94% of its admissions were either 999 or self referral cases, compared with 69% for Withybush.

However, the number of admissions is not the whole story when considering the role of a receiving hospital. Most attendees could need the assessment capability of such a hospital in order to confirm any

provisional diagnosis, help plan the care needed, and decide whether that care can be provided at settings other than an acute hospital and thus avoiding admission to a main acute hospital. Hence the number of medical attendances, rather than admissions, has to be factored into any analysis of care options given that all such attendees will need some level of clinical assessment - whether from hospital staff or, if care arrangements are changed, from some other equally competent clinical facility.

Indeed the total number of people attending the Accident and Emergency service, their arrival mode, and the numbers then being admitted to Bronglais (or another) hospital, or sent home after competent clinical assessment, is an important factor to take into account. Table AP7.1 (Appendix 7) shows a total of 23,764 attending this service in 2013/14 and of these 17,244 came by private transport. About 5,000 appear to have had some prior assessment by ambulance or other clinical input. Table AP7.2 (Appendix 7) then shows that of the 17,244 attending by private transport, 2,533 required admission. The Accident and Emergency service appears therefore to be acting as a first port of call for about 330 people each week seeking medical attention of whom about 50 each week need admission. If the level and quality of road and air support improves as the Board intends, it may well be that patients from Mid Wales could be assessed by other clinical means but this is likely to be a number well in excess of 2,500 if assessment and triage is carried out in non-hospitals settings (for example by mobile clinical services).

MENTAL HEALTH SERVICES AND LEARNING DISABILITY SERVICES

The proposals here are very much in line with the overall direction of travel – increased community based services with some inpatient capacity at Carmarthen for patients with poor mental health who need such a service and a new (unspecified) residential service for people with learning disabilities.

COMMUNITY HOSPITALS

Community Hospitals were eight in number but only seven have beds – 133 NHS beds in total, supplemented by ten beds for NHS use in the private sector and a further five beds in South Pembrokeshire used for social care. In 2011/12 these hospitals admitted 1,794 patients, 725 directly and 1,069 as transfers from other hospitals.

Aberaeron, Amman Valley, Cardigan, South Pembrokeshire, Tregaron and Tenby Cottage Hospitals all offer outpatient services, seeing 5,273 new and 14,008 follow up outpatients in 2011/12. Four hospitals, Aberaeron, Cardigan, South Pembrokeshire and Tregaron are bases from which both health and social care staff operate. A bed utilisation study of community hospitals was done in 2010/11, which showed that a 'high number' of patients were ready for discharge and no longer needed to be in a community hospital setting. It further showed that there was no sense of urgency in planning the discharge of patients, and there were long waits for specialist equipment/home adaptations (a social services function). However, no figures were given for a) patients who were waiting to return to their previous home b) patients who were waiting for alternative care provision (presumably somewhere other than their own home).

The Board saw community hospitals inpatient role concentrating upon rehabilitation with: Amman Valley, Llandovery, Cardigan and South Pembrokeshire hospitals having an inpatient rehabilitation focus; Mynydd Mawr closing once a new service for the frail elderly is created at Prince Phillip Hospital; and Tregaron Hospital (which the bed utilisation review said that 93% of its inpatients were ready for discharge to alternative levels of care) ceasing to have 12 inpatient beds as a consequence of developing a new joint health and social care project – Cylch Caron.

CURRENT POSITION

The implementation of Hywel Dda's plans has not been without controversy. Proposed changes affecting Prince Phillip and Withybush hospitals met substantial public opposition including a judicial

review but other changes are proceeding. With regard to Bronglais General Hospital, as noted above, the Board pondered its future for some time and appeared to change its mind during the consultation process, at the end of which it settled on seeking to maintain the status quo. The current inpatient and day-case capacity of Bronglais is shown, by specialty, in Table AP7.7 (Appendix 7). Questions over the long-term future of Bronglais General Hospital have persisted and an unwelcome degree of uncertainty prevails.

4.2 POWYS

Powys teaching Health Board is responsible for meeting the health needs of 132,000 people of much of Mid Wales. It has very different characteristics from the other Health Boards in Wales. Its main service delivery focus is based upon its primary care services, which are largely delivered by independent contractors – unlike other Health Boards which own and directly operate significant general acute hospital provision.

Powys teaching Health Board operates nine community hospitals but it relies upon surrounding acute hospital provision operated by others for much of the secondary care given to its population. Community hospitals operate at Welshpool, Machynlleth, Newtown, Llanidloes, Knighton, Llandrindod, Bronllys, Brecon and Ystradgynlais. There is a newly developed health and social care resource at Builth Wells, which superseded the town's community hospital. Close working between the Health Board and Powys County Council has been a feature of local arrangements for some time and a further strengthening of these arrangements is possible.

With the exception of its community hospitals and its community based services, Powys ensures care for its population as a contractor for both primary and secondary care rather than a direct provider - relying upon 17 main and 12 branch GP surgeries, 24 dental practices, 25 optometrists and 23 community pharmacies. Given the nature of the geography involved, Powys has to manage its contracts with 11 other Welsh and English health bodies (including the Welsh Health Specialised Services Committee) and it also has to rely on the Wales Ambulance service.

Powys operates on three geographical teams - mid, north, and south - which oversee local delivery of care and which commission all adult secondary care except mental health, children's and women's services. It seeks to develop a five-level approach to accessing care: care delivered at home, care delivered from within the neighbourhood (about 15,000 population), care delivered in the locality (about 60,000 population), county level care, and lastly care from beyond Powys itself.

Over the last decade Powys has sought to retain and develop local NHS services and it has done this in part by applying modern technology to deliver direct patient services – such as remote consultations - and indirect services that support clinical staff in their training and multi-disciplinary development and by inviting consultants and other staff from surrounding hospitals to undertake outpatient, diagnostic and surgical work in its community hospitals.

Powys faces four principal challenges:

1. It has to design and deliver services that are both clinically and financially sound in its rural environment and which are resilient to change;
2. It also has to anticipate and meet changing need;
3. Because of its geography, it has to work with five different external care systems using the tools of both commissioning and partnership whilst it also develops its local relationships with other public and third sector bodies; and
4. It strives to meet the clinical outcome requirements laid upon it by Welsh Government, within an increasingly austere financial outlook.

With regard to the last challenge, the Board's potential to realise economies is influenced by the amount of its allocation that it committed to paying for services provided for others. Its primary care services are operated by over 40 different providers, whose payment is governed by national arrangements. Similarly, most of its secondary care provision comes from four English and five Welsh providers whose cost base it can do little to influence. In short, any response to financial pressures can come mainly from reducing the amount of what is sought rather than its cost. About £57m is spent in English hospitals and £34m in Welsh hospitals based in surrounding counties, with another £27m spent on tertiary hospital care out of county.

Powys relies upon the acute hospital services of other Health Boards. It spends £6m annually with Hywel Dda University Health Board, with Abertawe Bro Morgannwg University Health Board it is £9m, and £17m with Aneurin Bevan University Health Board. Cwm Taf University Health Board and Cardiff and Vale University Health Board together total about £2m.

4.3 BETSI CADWALADR

As noted above, the definition of Mid Wales for the purposes of this study has been stated as including the historic county of Meirionnydd, part of Gwynedd. In terms of the healthcare usage patterns that arise, this part of Gwynedd, served by the Betsi Cadwaladr University Health Board, looks to the healthcare facilities of Mid Wales for its care.

The number of patients involved is not huge, but the healthcare for this part of Wales needs to be taken into account in both any management arrangements that are established to drive forward sensible service changes and when looking at the care pathways to which we have alluded.

In addition to the patients that flow from Meirionnydd towards Bronglais General Hospital for care, there is also some patient flow, from Powys in particular, to the services offered by Betsi Cadwaladr. These are costed at about £4m annually of which £3m relates to mental healthcare.

4.4 PROVISION FROM ENGLAND

Hywel Dda relies mainly upon other Welsh Health Boards for specialised services but, like other Welsh Boards, it accesses English hospitals for specialised services via the Welsh Health Specialised Services Committee. As noted earlier, much of the secondary care for the people of Mid Wales in Powys comes from English providers in South Staffs (£15m), Wyre Valley (£15m), Robert Jones and Agnes Hunt (£7m) – and Shrewsbury/Telford (£20m) where plans are afoot to relocate some services from Shrewsbury to Telford. In addition there is some tertiary work from Powys that is organised through the Welsh Health Specialised Services Committee through which it places work to the value of £27m in both Wales and England.

C. THE VIEWS OF THE PUBLIC IN MID WALES

In this section we have presented the views we received from people regarding Health Services in Mid Wales. Respondents included patients, health professionals and general members of the public. Comments were provided to us in written format and in person at meetings, and the numbers of these responses is recorded in the methodology section above.

It should be noted that we did not ask for information about the demography or geography of respondents (though some chose to share it) and so those whose views are presented here may not be a representative sample of the population of Mid Wales as a whole.

It should also be noted that we did not ask for views on any particular service. Our Terms of Reference have been available publically since the beginning of this work and, as part of the preparation for the public events we suggested that people might want to focus on three questions in particular:

- What is your assessment of the current provision of healthcare services in Mid Wales?
- What are the threats to current provision?
- What would need to happen in order to guarantee high quality, sustainable services for Mid Wales?

In writing up these responses we have tried to reflect the main issues that were raised. As some people have given us information about where they live, we have also acknowledged this within each issue.

There is no particular order to how the issues are presented other than the overwhelming main issue is covered first – concerns about Bronglais General Hospital. We have also included an ‘other’ section to give a flavour of some of the issues that were commented on but drew less attention.

We have tried to include illustrative case studies where possible (redacted as necessary to avoid individual identification), but many of the issues and comments overlap.

As an example, this single case study not only encapsulates many of the concerns that were submitted as part of the review but reminds us that each of these ‘issues’ can have a very real, and very personal effect on the quality of life of people who live in Mid Wales.

CASE STUDY

Dear Professor Longley,

Re: Mid Wales Healthcare Services - Bronglais

I spoke to you at the end of the meeting last Friday evening in Aberystwyth and here are my comments and experiences as promised:

In February this year my husband was diagnosed with advanced cancer and has been undergoing chemotherapy since then at Bronglais. During this time our son has been diagnosed with Kienbock's Disease in his left wrist. He is left handed, has Asperger's Syndrome and severe OCD. So I am expressing myself as wife, mother and carer – carer for two people and Power of Attorney for our son.

For almost 20 years we have used the services at Bronglais. Indeed it was key in our decision to accept jobs in this area. Over the last 5 years, however, we have noticed a considerable erosion of services and listened to many, many stories of difficulties relating to this considerable problem.

At the moment our world has been turned upside down due to my husband's diagnosis. He is limited in

his work. Due to this and our son's problems we now just get through each day as best we can.

We are constantly told by those in favour of centralising services to the south that 'bus services are improving', that we can drive or take the train or, even more insulting, that we have brought these difficulties on ourselves as it is our 'lifestyle choice' to live here! Most people come here to work hard, contribute to the economy and pay our taxes.

Recently I had to drive our son the 76.3 miles to Neath Port Talbot Hospital for an orthopaedic appointment which could no longer be dealt with here due to lack of expertise. I drive a 2 litre, 1 year old car and am not averse driving to the upper speed limit when safe so I would not be driving slowly.

First I took my husband to Bronglais for an early appointment. Then I left with our son at 11.45am for the 3pm appointment at Neath PT, allowing for the route planner suggested time of 2 hrs 4 min. Due to several hold ups involving traffic lights, heavy traffic and also a 'wide load' the journey took 3 hours 10 minutes. We arrived very stressed with only 5 minutes to spare to find parking etc. Fortunately the consultant was running late. After the fairly short consultation, x-ray and quick coffee we queued to get out of the hospital, queued again to get back to the M4 and drove home, arriving at 7.20pm!

From Aberystwyth our total time taken up for the hospital appointment in Neath Port Talbot took 7hrs 35min. Of that time 7% was spent seeing the consultant, having an x-ray and brief refreshment while 93% was spent travelling!

My son lost over half a day's work and although I'm retired I also lost over 7 hours of my usually very busy day, the 152.6 mile round trip cost of diesel was not welcome and our carbon footprint was considerable. Our son and I are reasonably well but the most cruel thing is that the decision makers force sick people to do these types of journeys over and over again.

What about taking an ambulance you might think? If a car journey takes a travelling time of 3 hours, then bumping sick patients along in an ambulance, calling in at villages en route to collect further sick patients is just not acceptable, but in any case, ambulances are also few and reserved for a very small number of the most needy cases.

My husband has to have an MRI scan next week which will be in Llanelli in order to achieve a better resolution - so we were told by the hospital. I will be driving my husband the 144 miles round trip for that appointment at the Prince Philip Hospital. The route advisor driving time for this is 2 hours. Out of curiosity I looked at possible bus services, bearing in mind standing waiting at bus stops, hoping to make connections in time, buses not turning up etc. A bus journey would involve a taxi time of 10 minutes to the bus station, plus a 3 hr 53 min journey consisting of taking the T1 to Carmarthen, X11 to Llanelli, then B23 to the hospital plus 7min walk if you are fit enough. Then the same in reverse later in the day. Obviously we 'passed' on taking the bus.

The decision makers suggested taking the bus, so it would be useful for them (most of whom live in the south) to do a similar journey, preferably by bus, in the rain and cold, from Morriston Hospital to Aberystwyth and back, Morriston being a common destination for Aberystwyth patients. Then they would be better able to make an informed judgement relating to the migration of our services at Aberystwyth to distant hospitals.

Due to our son's illness we are also very concerned about the erosion of Mental Health Services at Bronglais eg the closure of Afallon Ward 2 years ago.

Much more critical to our present difficulties, however, is the fact that the consultant oncologist at Bronglais, Dr S Duranni had gone back to Pakistan for one year. We had snippets of hearsay about this but thought we would be officially informed if it was likely to happen. When we arrived in the Chemo Unit last week, we discovered Dr Duranni had left the previous Friday with uncertainty attached as to whether or not he would return. The associate oncologist was doing her best to plug the gap until a

locum oncologist should be appointed but no-one could say when that would be. We understand that a radiologist consultant will be replacing Dr Duranni on September 22nd. We are concerned that this person will not be able to decide on the chemotherapy doses and that only the associate could do that. What happens if she is away for any reason? Rumours are that the chemo unit might have to close and another group of very poorly patients will have to rely on friends and relatives to transport them south. It is a reasonable conclusion to arrive at considering the present state of affairs. We don't know what is happening. Our confidence is totally sapped. My husband was looking forward to discussing his scan results at the end of the month with someone whom we felt we knew, someone who was our 'champion' who was our link with the distant surgeons we had never met. He would make suggestions to us concerning next steps, write letters to try to get good outcomes. Who will do that now? Time is of the essence for cancer sufferers. Things have to keep moving but we are just kept in the dark. Sick people do not deserve this and neither do their families.

The centralisation model being developed at present in the south might be suited to the conurbation type situation from Carmarthen to Cardiff where there are dual carriageways, a motorway and short distances between centres but it does not work in Mid Wales. We need a new plan for this area centred on Bronglais if we are to stem the tide of misery being created here in Mid Wales among vulnerable, sick people and their families. Please do not add to our already considerable burden. It is not too late. Bronglais is still functioning as a District Hospital but only just. If it becomes the glorified clinic it seems to be at times this region will cease to thrive economically.

According to HSCWB Planning Group Ed: G Toft Chap. 2 p.39 'An individual's health and the sustainability of a community are connected and share similar characteristics. The determinants of an individual's health include good housing, access to services, meaningful employment and a high quality environment.' These are inter-dependent. Therefore, without access to decent services, especially health services within our community, there will be a knock on effect and people will stop wanting to live and work here.

We are weary of our despair, weary of our travels and weary of decision makers and Board members who never attend our public meetings.

The following sections are split between seven major issues represented to us by the residents of Mid Wales.

1. CONCERNS ABOUT BRONGLAIS HOSPITAL AND A DESIRE TO UNDERLINE HOW ESSENTIAL RESPONDENTS FEEL IT IS TO THE AREA OF MID WALES

For respondents across many parts of Mid Wales, the future sustainability of Bronglais General Hospital is paramount. All of the evidence presented to us was thematically analysed and coded (using NVivo 10.0, a software package designed for the purpose). The single most frequently occurring theme in that data set, and emerging from the analysis, pertained to the fears of people losing facilities at Bronglais General Hospital.

These far outweighed comments on any other single issue. Although this work is not solely about the future of Bronglais, it is the one issue that respondents felt compelled to discuss the most. The four areas most often mentioned in respect of Bronglais are the need for a fully-functioning A&E service and concerns over mental health services, cardiac services and colorectal services. Fundamentally, the feeling of respondents is that Bronglais is a vital local facility and any planning should reflect this and demonstrate how it will be retained and developed in the future. Moreover, there is an underlying desire in the responses for this to be accepted by Hywel Dda and for them to communicate and

evidence their commitment to the facility.

CASE STUDY

I write with reference to the provision of dermatology services available within Hywel Dda University Health Board. Having endured eczema for all of my life I was referred last September to Glangwili for Phototherapy treatment. Firstly may I take this opportunity to thank the staff at Glangwili for the excellent treatment that I received last year. Unfortunately I was unable to finish my course of treatment due solely to the fact that I live in the Northern extremities of Ceredigion, my treatment required two 2 minute sessions per week (ideally three) and for this I was expected to travel 125 miles on each visit which was untenable.

This, I feel, is totally unacceptable within the Trust. Whilst eczema and psoriasis are not necessarily life threatening conditions, they can most certainly reduce a person's quality of life considerably and in my instance a simple regular session of phototherapy for around two minutes did have remarkable benefits. For this treatment my return travelling time was around three hours. This I think is absurd and unacceptable; leaves a massive carbon footprint, is dangerous in terms of road travel (not the best of roads with high accident rates) and is prohibitive and certainly unsustainable.

Luckily I was in a position of being self-employed so I managed to achieve fifteen visits to Carmarthen before being forced to cancel my treatment due to time constraints and fuel costs. I find it difficult to believe that mass employers would be so amenable.

When I had this treatment back in the early 90s there was provision at Bronglais hospital in Aberystwyth some 10 minutes from my home. I do understand (as a businessman myself) the need to cut costs in services but the centralisation of this to Carmarthen is ridiculous. Whilst I was able to access the service provision this was only possible due to my own circumstances and commitment to do so I feel very strongly that there are a lot of people in North Ceredigion and Gwynedd that are now unable to use this facility. I doubt that people in full time employment could get released for regular time off work 2-3 times per week to undergo a course of treatment in Glangwili and may struggle to afford the commute to Carmarthen. Also bear in mind that older people may not be able to undertake such a journey due to health limitations

*I find it astonishing that several million pounds has recently been invested at Bronglais in a new A&E and day unit but a simple phototherapy unit costing **comparably** very little has been removed thus excluding people in need of this simple cheap clinically proven treatment. Hywel Dda has a dermatology clinic set up at Borth surgery in North Ceredigion so why not install a phototherapy unit there or reinstate the service at Bronglais thus improving the quality of life of local people and reducing reliance on steroidal treatments.*

Out of interest fact and figures, if I had continued to completion my treatment at Glangwili, it would have entailed around 30 visits which equates to roughly 3600 miles of travel, using approximately 100 gallons of diesel and roughly around 15 full working days spent on the road. If I had been in need of the ambulance service to travel for treatment how much would this cost the Health Board?

Respondents not only voice concerns but also make a number of suggestions as to how the future of the service could be achieved. These include re-drawing Health Board areas and establishing Bronglais as a centre of specialisation; developing Bronglais as a hub for Mid Wales; and ring-fencing the facility in budgetary and planning terms. Implicit, and often explicit, in many responses from across Ceredigion is the feeling that services in the area, and in Bronglais in particular, are being run-down. Respondents see a pattern of service-removal, which, to many, feels like a deliberate strategy as opposed to a sequence of un-related events:

“The current provision of healthcare is poorer than in 1979 when I started at BGH. We have lost at least half our medical, surgical, orthopaedic and gynaecology beds causing a constant struggle by nurses to cope with rushed discharges, bed and patient moving, bed cleaning etc, none of which helps patient care. Care of the Elderly wards no longer exist but now patients remain in hospital waiting for care home beds on acute wards. Dermatology, mental health and ENT are no longer local...We now must keep our core 'functionalities', otherwise the hospital cannot exist in any form other than a 'holding pen' for transfers to Carmarthen, which is fairly obviously the plan.”

Respondents in Ceredigion also express concerns that removal of A&E and other emergency care services from Bronglais will, in their opinions, compromise patient safety:

“The alternative trip to Carmarthen is not acceptable, the journey is too long (over the 'golden hour') and there are too often delays or closures on the road. “

“We already have an inadequate ambulance service which could be put under yet more strain and in an emergency situation this can, quite literally, be a matter of life and death.”

“Of course I am unable to say whether the outcome of healthy baby, healthy mother would have been any different had the obstetrician not been readily available and I'd had to undertake a stressful and painful 80-90 minute journey to Carmarthen on bumpy windy roads, but I very much doubt it.”

It is a similar story amongst respondents from Powys, where the most commonly suggested solution for retaining a sustainable service for Mid Wales is the retention, and if possible expansion, of services at Bronglais General Hospital. Respondents from Gwynedd make the point that Bronglais suffers from being a 'spoke' and instead should be seen as a 'hub' for Mid Wales (which is clearly how it is seen by the majority of respondents across all the areas): *“Bronglais needs to be centre of Mid Wales Trust, providing a full range of specialist services, which will serve the communities of Ceredigion, Powys, and Gwynedd, rather than continuing to downgrade the area to facilitate the urban models that Betsi Cadwaladr and Hywel Dda are implementing at present.”*

Similarly, those who did not provide us with their own location voice a huge amount of support for the care experienced at Bronglais General Hospital. Many respondents call for the retention of current services, whilst others would like to see an increase in available services. A consistent question is asked about the investment in A&E and the services necessary to support the patients arriving and being processed through this facility: *“So much money has been spent to improve the A and E Unit, yet back up services to support it may be removed. Where is the logic in that? What is the point of having a General Hospital, well placed to serve Ceredigion, West Powys and South Gwynedd and then close major specialist units?”*

2. THE AMOUNT OF TRAVEL THAT PATIENTS ARE ASKED TO DO IS DRAINING FOR THEM AND FOR THEIR FAMILIES, AND IS OFTEN IMPRACTICAL BECAUSE TRAVEL IN RURAL AREAS IS RARELY 'AS PER THE MAP'. NARROW ROADS THAT REQUIRE EXTRA CARE WHEN DRIVING, ACCIDENTS AND POOR WEATHER CAN INCREASE TRAVEL TIMES SIGNIFICANTLY

It is probably not surprising that amongst remote and rural communities the discussion about access to services that are available at fixed points, focuses largely on the issue of travel and its effects: *“There is a general sense within Ceredigion that healthcare services are becoming harder to access and can be variable in quality. Waiting lists have been lengthening and distances to travel are increasing. This leads to many voices articulating concerns of inequitable levels of NHS provision within Ceredigion.”*

Worryingly, some respondents actually question whether they would be able to access services at all if

the circumstances of travel worked against them:

“There are no services for me to be able to get to Withybush or Murryston by myself, for an appointment. I am not in the category to be able to get free transport, and a taxi would be too expensive to afford. So how would I get there – and back?”

CASE STUDY

Six weeks ago, my aunt was admitted to hospital and later transferred to a mental health ward in Withybush Hospital, Haverfordwest.

As my uncle is her official next of kin (following the death of my father), he had been in discussions with the ward about her condition, but due to confidentiality, very little was disclosed; however he was asked to pop down some clothes, toiletries and money for her.

This request, albeit reasonable is also ridiculous, when considering the travelling involved.

My uncle, who is 74 years old suffers from a cardiac condition and doesn't drive outside of his village near Aberystwyth. The notion of this request in such circumstances is unbelievable and sad.

Using up an annual leave day, I drove him down to visit his sister at St Caradog Ward, Withybush Hospital, an enterprise that took up the whole day. Had he had used the public transport system, incorporating the various changes required, the journey alone would have taken him 3 ½ hours one way.

A story such as this suggests a lack of understanding, and therefore need for training, for staff about the potential circumstances of those living in a remote and rural area. A number of respondents use the term 'endure' to describe the travel that patients and families have to do. It's a word that links the necessity of the travel with wider implications of suffering. It also suggests a stoicism that is reflected by other respondents, but this is not without limits:

“The emotional distress of having a loved one so far away, suffering, in pain, being critically ill, receiving life saving treatment is a feeling that words to describe our situation fail me at this point... But, in a strange way, because of the care and treatment required, an element of acceptance regarding this was endured.”

“...not saying for a moment that we should expect to duplicate tertiary services here in Mid Wales. I am saying we have a right to a reasonable, humane service even here in Mid Wales.”

Respondents in the South of Ceredigion area also voice frustration about the realities of travel in a rural area and frustration that the convenience of the patients doesn't seem to be at the forefront of the minds of those scheduling or planning services:

“Public transport is inconvenient and expensive and subject to the winter weather. Many families depend on buses which they can ill-afford.”

“Hywel Dda keep telling us that the downgrading of Bronglais hospital is to make treatment safer for us. How can this be true? The journey from Aberystwyth to Carmarthen is at least 90 minutes along narrow tortuous roads.”

Respondents in Powys share this frustration about the amount of travel being asked of them in order to access services, particularly when the appointments were routine or dealt with very quickly:

“I have spent this year alone, over 20 hours travelling to hospital appointments only to be seen for short periods with the staff, this travelling was for 4 appointments.”

“In Llanidloes we desperately need access to the hospitals in England for major illnesses, as the journey along the Severn Valley does not involve driving over mountain ranges. My husband does not drive and to travel to South Wales is nigh impossible when you have to rely on friends and public transport to get to hospital appointments, some of which only lasted for 10 minutes.”

Other respondents from the same area question whether the requirement to travel could work in the other direction: *“Asking patients to travel from the north and south to the Centre of Wales for non emergency attention is obviously the same as sending patients from the centre to the north or south but only by doing this can you have the expertise in place to cover the needs of Accident and Emergency.”*

Many respondents make the point that travel to appointments is the responsibility of the patient and, they felt, not something that seems to matter or occur to those planning services:

“Transport for most hospital appointments and visits are the responsibility of the patients; we have an increasingly elderly population who cannot manage long drives safely, especially after dark and when they may also not be feeling well. Public transport is infrequent even where it exists, and non-existent at night.”

Respondents in Powys also recognise the strain that these travel demands put on patient families who may need to juggle visiting with maintaining their own jobs or rural businesses (such as farms). Local services such as GPs and the local Community Hospitals are praised but concerns are soon raised about the accessibility of treatments that necessitated travel and, in particular, how these options are simply presented to patients as the only choice. As a respondent from Powys puts it:

“The cost of travelling for this patient and his wife is already nearly £1000 with further procedures to be undertaken.

“The patient and his wife had no choice where this treatment would be carried out, just a telephone message to stay that it would have to be carried out at Haverfordwest.”

The theme of travel and its implications for patient safety continues in responses from those who did not identify their location. They also question whether or not anyone is actually specifically considering their interests:

“We understand both the economic realities of healthcare provision, and the issues relating to thresholds as regards the number of cases that specialists need to deal with in order to maintain their skills. But we believe that this is a stick which is being used to beat the most vulnerable people in Mid Wales, and is seeing the shrinkage in the range of services at many smaller DGHs to little more than cottage hospitals.”

“The question has to be asked, as to why we in Mid Wales are apparently being undervalued and ignored.”

“In urban areas outreach into the community is often dismissed by the claim that the patients can easily come into a central location. ... In rural areas, the time delay for the patient in making the journey to a central location is often troublesome and sometimes punitive since distances can be great. Care closer to home is of greater importance in rural areas than in more urban ones. A rural Health Board must therefore respond by introducing an ethos of locality self-sufficiency with multi-disciplinary services to match.”

“If rural health needs are to be met, the health service has to outreach to the rural dweller and not plan on the rural dweller being able to reach healthcare facilities in a ‘nearby’ population centre.”

3. WHEN SERVICES ARE MOVED OUT OF THE AREA IT INCREASES TRAVEL TIME SIGNIFICANTLY FOR PATIENTS AND AMBULANCE STAFF THAT ALREADY FACE TRAVEL CHALLENGES

Access and travel are felt by respondents to be a two-pronged problem – where attention is time critical there is a fear that the services could be too far away, and where they are not time critical there is a fear that they could be even further away: *“Travelling to receive specialist care isn’t the argument...It is the extended travelling to receive non-specialist/general healthcare services at a DGH that is the issue, when it is removed from your local hospital.”*

In many cases respondents have examples of difficult experiences, however there are also plenty of respondents who are expressing concern on behalf of others who may have to access services. This points to a need to communicate not just with existing or future patients but also potential patients and the wider public: *“Mentally ill and distressed patients from Mid Wales are being transported around the country like livestock going to market. How can we claim to be a civilised society when we treat vulnerable people like this?”*

CASE STUDY

I was diagnosed with Cushings Disease and have had treatment in Cardiff. I don't have a problem with going to Cardiff for neurosurgery treatment – I had excellent service in the Heath, and continue to have good care from excellent GPs and Bronglais locally – but I had bad experiences getting referred from the 4 different hospitals. I was referred from Bronglais to Glangwili – and told I was on a waiting list, despite my consultant Endocrinologist having put me as needing to be seen to urgently. This points to the fact that a consultant from other hospitals, is able to override the decision of a Bronglais Hospital consultant, and it follows then that patients from Mid Wales will not be given the same priority as patients from Carmarthen etc. Secondly, I sent a letter to Glangwili in Welsh, but I was told because my letter was in Welsh it would take a week to get translated as there was no in-house translator. I was then told that the notes from the previous hospital appointments had not followed to my hospital appointment at another hospital. When I was called for an operation in the Heath, it was at 5.30 on a Sunday night for the following day. If I did not have the support of the family, I would not have been able to attend due to lack of public transport to get there. What would elderly and sick patients be able to do in a similar situation?

Respondents are overwhelmingly positive about their experience of services but they do have concerns about overall quality of service. There is a clear feeling from respondents that the health service in Mid Wales is deteriorating due to the subsequent withdrawal of individual service after individual service: *“...the consolidation of services always seems to be in one direction, such that services and staff are drawn out of Mid Wales. “*

As with elsewhere, respondents from Meirionnydd also make the point about travel times and how they are worried about any increase in these by services being moved away from Bronglais: *“It seems grossly unfair to subject us to taking very long journeys down small roads with poor access to public transport, with small chance of emergency transportation meeting the Welsh Government guidelines. “*

Respondents voice concern about the strain on, and the suitability of the ambulance service:

“There is simply no comparison between operating an Ambulance Service in an urban conurbation and one in a vast rural area. Distances are compounded by narrow roads and poor communication systems.”

“Thoughts of having to be transferred to Carmarthen in an emergency (or at any time), are very scary as I have made the trip down there in an ambulance, and it was a long and uncomfortable journey, proven by the fact that the driver had to stop half way for the nurse who was travelling with us to be sick!”

“The Air Ambulance, which has been much quoted at previous meetings by Hywel Dda as the means of overcoming the extra travel times, does not fly in some of the severe winter weather experienced in parts of the Bronglais hospital catchment area.”

4. ANY DISCUSSION ON SAFETY SHOULD INCLUDE AN ASSESSMENT OF A WIDER PATIENT WELL-BEING AND NOT JUST FOCUS ON THE RESULTS OR RECURRENCE OF PROCEDURES

This is a persistent theme amongst responses from all across Mid Wales, the question of what a ‘reasonable’ service might look like, both in terms of demand and patient wellbeing. However, there is also a sense that services that the respondents feel entitled to are being withdrawn or reduced:

“...another price we as the rural population are expected to pay.”

“...detrimental effect on the health and welfare of residents of Mid Wales who make the same contributions as everyone else, but seem destined to receive inferior services.”

“...it has become clear that the people of Mid-Wales no longer have a Health Service of a standard they deserve and which they pay for.”

Many respondents make the point that ‘care’ is not just about the appointment but it is a wider sense of wellbeing. They point to those who are isolated from visitors or support by distance (particularly those who are vulnerable either by age or condition) or those who may need follow-up support in the hours, days or weeks following an appointment.

Even though there is the occasional acceptance of the need to reconfigure services, the wider wellbeing point comes through again and again when respondents talk about the effects of travelling. They question, repeatedly, whether thought has been given to the patient or just to the appointment – is the person being made to feel well or is the condition being treated at a specific moment? As voiced by this respondent from Ceredigion: *“We can see the logic of addressing some of the issues of patient safety by consolidating some surgical activities, but it is easy to over-extend this argument, thereby reducing overall patient safety by forcing ill people and stressed relatives to travel longer distances, depriving patients of visitors, and increasing the difficulties of completing effective discharges back home.”*

Respondents don’t question the quality of the service that they will receive after travelling but their responses raise the question of the definition of ‘quality’. They repeatedly refer to a quality, and a safety aspect, of the whole experience of treatment – including travel – rather than just the interaction with the service at the point of treatment: *“It follows that Bronglais must remain capable of providing this cover. Now, what is required to do this? It must include a surgical team capable of coping with medical emergencies, major road accidents – all too frequent on our dangerous roads – and suddenly-worsening maternity cases, and also heart-attack care and stroke treatment. And yet all of these seem under threat because it is said that so-called “safe care” cannot be maintained, and can only be provided in Glangwili, an hour and a half from Aberystwyth and 2½ hours from Tywyn or Dolgellau. Care is never safe if it cannot be accessed in time! Standards of safety really do need to be assessed in context. Would Glangwili be being strengthened if it were the responsibility of the same Board as Morriston, only half an hour down the motorway?”*

5. SOME DECISIONS BY THOSE PLANNING, SETTING STANDARDS AND RECONFIGURING SERVICES SUGGEST A LACK OF EMPATHY WITH THE LIVED EXPERIENCE OF THE MID WALES POPULATION

Respondents don't feel that a lack of transport access to services is entirely the fault of the Health Boards. They recognise that part of the blame lies in poor public transport and a road network that all too easily becomes congested. However, they do question whether those planning health services are sympathetic to these known challenges.

The natural extension of this is that some, such as this respondent from Ceredigion, go on to question whether the planners really have an affinity with the area that they serve because these actions don't appear to demonstrate one: *"We need a Health Board of people who have the intelligence to recognise the challenges of living in this location. We hope that they have the integrity to take the trouble to learn and develop an understanding of the area's needs."* Many respondents make the link between the 'golden hour' and the local understanding of travel conditions.

It is clear that respondents have concerns about the sustainability of the service in Mid Wales. They see centralisation as something that is happening but they do not see it as a viable option for the area and the geographic challenges that it presents for patients:

"There are distinct problems for Ceredigion in relation to centralisation, it is not ready for centralised model without better infrastructure."

"No change is indeed not an option, as the NHS argues, but Mid Wales needs change in a different direction from the one proposed for Wales in recent years. Otherwise safety and equity will not be achieved and a crisis on the North [sic] Staffs scale will be risked, not in relation to hospital care but to accessibility."

As before, the suggestion is that these challenges are so self-evident to the local population that they lead respondents to question whether or not there is an understanding of their circumstances by the Health Boards that currently serve the area.

Many respondents across the areas of Mid Wales comment on the imposition of 'one-size-fits-all' standards: *"In addition to cost it must be understood that clinical quotas to maintain healthcare professionals' skill base which are currently set by the GMC based in large urban areas are not sustainable in rural practice. This means that specialisations may not be supportable but does not mean that no provision at all is acceptable. More general types of medical expertise should be recognised and encouraged."* The point is made on a number of occasions that the particular needs and circumstances of rural life and communities need to be recognised and accommodated by those who are setting any standards.

Respondents also question whether there is an unresolved clash between the way in which the standards of the medical profession are organised and the needs of a rural population. This from a respondent in Powys: *"The medical schools, Royal Colleges and the training Deaneries will, no doubt, seek to ensure that medical staff are educated, trained and qualified to the highest standards in order that patients are served appropriately. Subspecialisation has become a fundamental principle within the overall delivery of care. However, all these things are predicated on a range of services being available at a small number of large hospitals. Large hospitals require large populations in order to function. These can be found only in large urban centres, conurbations and cities. Thus an "urban mind set" appears to prevail. This "mind set" appears unable, perhaps unwilling to consider how health services can be organised, staffed and delivered safely in rural areas, with their small dispersed populations, reliant on a small acute general hospital such as Bronglais General Hospital, Aberystwyth."*

6. OTHER DECISIONS DO NOT SEEM TO SUGGEST A COHERENT STRATEGIC APPROACH TO THE DELIVERY OF HEALTHCARE, THE SPENDING OF PUBLIC MONEY OR ANY EFFECTIVE PUBLIC ENGAGEMENT

Those who have experienced the need to travel, and subsequently realised the amount of travel involved in processing samples/results etc, also begin to question the efficiency of the service. This undermines confidence in the Health Boards and raises questions about efficient use of funds. As a respondent from Ceredigion put it: *“Under the present system, all cytology and histology specimens are transported daily by private courier to Llanelli/Carmarthen for processing and reporting. In addition to this ridiculous amount of specimen travel, one must add the transportation of corpses for all Post-mortem examinations from the area covered by Bronglais, all the way to Carmarthen and then back again for local burial. There will be several of these a week. How efficient is this?”*

In other words, it is not just the personal cost for patients and families that is a concern; there is a concern for the service itself and the effect of costly travel arrangements.

Many respondents feel that they are almost being punished for living in a sparsely populated area by being provided with public services that are not of an adequate standard.

One particular frustration voiced by respondents in Powys is that there is a lack of communication and a feeling of being cut-off:

“Feel we live in a black hole – long way from large hospitals – basically A55 and M4 corridor – here we are with nothing more than Bronglais here to serve us and it’s under threat. “

“One of the difficulties we’ve experienced locally – difficult if not impossible to know what’s happening in Bronglais hospital – no list of services etc advertising what they do there. Hospitals in Wales don’t have websites – all you’ll find is visiting hours and car parking information. It’s serious that people don’t know what goes on in an institution that spends millions of pounds. Most people rely on the judgment of their GPs for operations but not knowing what goes on does affect our freedom of choice. How do we know as a public what the Health Boards tell us is happening in Bronglais is happening? “

“A ‘strategic health planning group for Mid Wales’ representing the three boards was set up in 2013 in response to local campaigns and is led by Powys teaching Health Board. However the group has not produced any apparent improvements and has not shared information on its activities with monitoring organisations or with the community generally.”

A particular issue from respondents in the Blaenau Ffestiniog area is the issue of whether health service planning is looking not just at current demand but at potential future demands on the service – pointing to the increase in outdoor sports in the area as a local regeneration strategy that will need to be complemented by health service planning in order to be successful.

Many respondents from this particular area voice concern and confusion over plans for the area, citing the closure of the local minor injuries unit and the associated costs of replacing that service via other means e.g. the air ambulance, as an example. There is clearly a desire for more communication and dialogue: *“Public Health Wales does not publish separate population health profiles for each rural area. With the merger of local Health Boards and trusts into the current mega Health Boards, the last vestiges of detailed health needs assessment and responsive commissioning disappeared in Wales. The management of care pathway provision from need to patient discharge appears non-existent. The focus of Health Boards appears to have been more about containing expenditure within budget than about meeting the health needs of its population.”*

CASE STUDY

Over the past few years there has been a steady decline in services and facilities and these are listed below.

- 1. The [Blaenau] practice is now down to 2 whole time equivalent GPs with an extra locum doctor helping out, but only for a few weeks. This was foreseen by the practice and was predicted to be a consequence of hospital closure with subsequent loss of income. Betsi Cadwaladr were informed of these concerns in a letter from the practice at the time, but chose to ignore them.*
- 2. There is now no branch surgery in Llan Ffestiniog and the building is up for sale. Should the practice return to their usual complement of 4 GP's - where would they then hold their surgery in the village? The branch surgery in Dolwyddelan has been reduced to 1 per week. It is hardly surprising therefore that residents in these two villages and their surrounding extreme rural areas, consider that their healthcare provision has deteriorated significantly. With greater demand for appointments in the Health Centre it is also not surprising that waiting times for appointments have lengthened significantly for all practice patients there being only 2 GP's and an occasional locum to provide services for them.*
- 3. Since closure of the community hospital the GP's continue to do their best to treat minor injuries, but I doubt that they are now able to carry out the same range of services as previously. As you may know a downhill biking centre, a zip-wire facility and underground trampoline centre have recently been opened in the town with the potential for frequent minor and occasional serious injury. We consider that the loss of the MIU shows a lack of foresight on behalf of Betsi Cadwaladr. Injuries which cannot be treated at the surgery, for whatever reason, will have to go to Alltwn 14 miles away from the Health Centre and often on to YG 30 miles away.*
- 4. Closure of the X-ray department has resulted in all requests for x-ray investigations being sent to Alltwn Hospital 14 miles away with consequent travel implications for patients of a 28 mile round trip for local residents in Blaenau, or 40 miles for those in Dolwyddelan.*
- 5. Reduction in Physiotherapy sessions in Blaenau have resulted in much longer waiting times for treatment for those unable to travel to Alltwn and a substantial increase in attendances at Alltwn; again resulting in the long journey there and back.*

In summary local residents contend that healthcare facilities in this rural area have been declining and will continue to decline if their voices are not heard. We now find ourselves in a situation where we have no in-patient beds, no specialized MIU and no X-ray facilities in the town. Betsi Cadwaladr are determined to go ahead with plans for a resource centre in the Community Hospital building, rather than a hospital.

An Enhanced Care at Home plan, is said to be a substitute for the in-patient beds lost, and is for patients who previously would have needed admission. This Enhanced Care at Home, however, is only available for 2 practice patients at any one time, for a period of up to 2 weeks. This in my view is a poor substitute for full time nursing care in a community hospital, and I believe most local residents would agree.

It is likely, in my opinion, to result in patients from the Blaenau practice being sent to YG or YGC for initial treatment and then on to Alltwn for any convalescence or rehabilitation. This results in care from unfamiliar doctors and nurses and in unfamiliar surroundings which is contrary to the "Setting the Direction" and the "Rural Health Plan" publications.

In view of the losses itemised here we feel that we have been discriminated against when compared to neighbouring smaller towns such as Dolgellau and Tywyn who have retained their hospital beds, MIU and X-ray facilities.

7. TREATMENT IS GENERALLY PRAISED, BUT PEOPLE ARE WORRIED ABOUT THE SUSTAINABILITY OF THE SERVICE

Respondents are, on the whole, generally very positive about the service they receive at the point of care. Much praise and thanks are given to the staff themselves and to the work of individual services, such as colorectal: *"The consultant, who was standing beside me put his hand on my shoulder, a gesture I will never forget"*

The good performance of services in comparison to others outside Wales is recognised and mentioned, but so are problems. Some of these are deemed to be as the result of changes to the system e.g. the withdrawal of mental health services.

As mentioned, there are a host of positive comments about individual GPs but many concerns about whether the primary care infrastructure is fit for purpose. Most respondents think that the GPs are doing the best that they can but there are worries that the availability of appointments is decreasing, as is the number of GPs willing to replace those who retire or move away: *"...our GP surgeries seem to be manned by part time Drs making continuity of care with one Dr very difficult."*

The quality of GP services in Ceredigion is recognised, but so is the pressure that these services are under. Respondents are aware of not only the difficulty in getting appointments but they have also seen the problems that some practices have had in trying to recruit and the link to the role of Bronglais as a training route for GPs:

"Growing workloads, declining resources and an overstretched workforce are placing huge strain on services that remain the first point of contact with the health service for most of the people in Wales."

"I can quote one current example in our own GP practice. This year two GPs have retired, advertising 2 vacancies produced no response whatsoever, not even a tentative enquiry. We have been extremely lucky in the past to have recruited two partners to the practice who were trained at Bronglais. The present vacancies have fortunately been filled by two doctors who had been in the practice as locums in the past. There are so many practices that simply cannot fill vacancies caused by retirements."

The consequence of these pressures on GPs in Powys is also seen to put pressure elsewhere in the system. However, GPs are also seen as a potential resource to relieve some of that pressure:

"Too often non-urgent care is being provided in hospitals, at great expense, when most people want to be looked after in their local community"

"Increase the GP budget in order to reverse the decline in resources and improve the quality and variety of care provided to patients (thus enabling some non-urgent and investigative procedures - for example ultra sound - to be brought closer to the community)"

There is a sense from the respondents that they consider services currently to be fragile: *"The delivery of greater volumes of healthcare in the community increases the focus and reliance on general practitioner (GPs) services amongst other things to co-ordinate, manage and deliver medical services. This has worked successfully in the main. However, the age structure of the current GP population in Powys and the UK wide difficulties in recruiting and retaining GPs may begin to impact on the service delivery in the not too distant future."*

Others from Blaenau Ffestiniog make specific complaints about the standards of service that patients are receiving. These include relatives of patients and people working within the system itself. These comments feel more extreme than those in other areas who are describing a fragile service; here the situation that the particular respondents describe feels more urgent:

"Since the closure of the Memorial hospital we have found a great decline in care standards for the

people mentioned above [vulnerable adults and palliative care patients] and even though we work closely with other professionals, district nurse, doctors etc it has obviously had an effect all round. Doctors and nurses are stretched to the limit. Vulnerable patients and the families feel there is no local support and find it very difficult, costly and sometimes impossible to travel great distances to receive treatment, appointments and other services.”

8. OTHER ISSUES

There is clearly an issue of **trust** in some of the responses. Some feel that past efforts to engage with the public have been cursory or simply a matter of an authority ‘going through the motions’.

Whilst there are comments specifically voicing fears about any changes to services in Bronglais, respondents in parts of Ceredigion also voice annoyance about the change in services at **Cardigan Hospital** – not just that the services there have changed but the nature of how the change took place and was communicated.

Poor **communication** is an issue raised by a number of respondents, both in terms of failing to communicate adequately with individual patients and their families; and in terms of poor communications between the Health Boards and their rural constituencies - representatives of the Boards are not visible within the communities and public communications via the press are critical or criticised.

Poor administration and the ability of services to work together is raised repeatedly and raises questions about **the ability to co-ordinate services**:

“The transport to and from the respective clinics is a problem. Even door-to-door with one’s own transport it takes at least 2 hours, but using hospital transport it hours much longer, as it pick up from other areas en route, say Lampeter, Newcastle Emlyn etc, then dropping off some patients at Glangwili, before going to Morriston, & sometimes to Singleton as well. The transport is scheduled to arrive at approx. 10.00am or 2.00pm but it is impossible for it to be in three places on time. I’ve been scheduled to have day-surgery in Morriston, which the transport ETA was 10.00-10.30am and the surgeons have been waiting for me, with an empty theatre. I arrive, in hospital 11.30am, finally getting to theatre at 12.00, with transport ready to go back at 1.30pm when I’m still in post-op. Another time, for afternoon appointment an ambulance arrived at 11.30am to take me to Carmarthen via drop offs from Aberystwyth clinics, and pick-ups en route, arriving in Glangwili around 1.00pm. After consultation, a minor operation was performed after the clinic had ended, so the transport had to wait until I was fit to travel back, and I got home around 6.00pm. One check-up in Morriston picked me up 7.30am and I got back 6.30pm having seen the consultant for less than 10 minutes.

“As more departments are under threat in Bronglais and being centralised in Carmarthen and other South Wales hospitals the problem is going to get worse. With rural areas unless one has a car, one has to rely on hospital transport, but the Ambulance service is very busy already. Non-emergency transport (which includes transport to clinics) is under threat, as there are not enough ambulances/taxis etc., and it costs a lot to provide. There is not public transport for patients to use.

“The clinics in Carmarthen, and probably Morriston, are already finding it hard to accommodate more patients. Rather than closing clinics in Bronglais, because there is not enough cases to keep doctors up to date with training etc., there might be an option of increasing specialist departments, and having patients travel from south of Ceredigion and Powys to be treated in Aberystwyth, rather than centralising even more in South Wales. Bronglais will find it harder and harder to recruit good staff, as the departments are reduced, and training prospects become fewer and fewer. Mid Wales health could provide another centre of excellence set-up, rather than an area where doctors don’t want to work.”

“...we call on the Welsh Assembly to re-establish its Mid Wales Committee to provide a focus for developing innovative strategies for the region, and to assist in overcoming the sense of isolation and marginalisation that is increasingly evident here.”

Communication issues are also raised in relation to concerns that patients attending in different places for related conditions are being let down by a lack of information sharing.

Some respondents raised the issue of the **Welsh language**: *“...about 40% of the population of Mid Wales, and so much of the catchment population of Bronlais Hospital, around 50%, is bilingual, it should be a significant aspect of the services in the region.”*

It was suggested to us that the role of being able to communicate in a language that you both think and feel in is not only a right that people should expect to receive on the grounds of equality, but it is fundamental to better understanding the links between health and culture. This enhanced notion of the role that culture and language plays in our choices to receive (or not receive) certain health services is not well understood, and much could be done to address this. It was reported to us that all of this would presuppose a healthcare system that allowed for people being actively encouraged to communicate in Welsh (or other languages of their choosing) because in doing so they would be enhancing their sense of health and well-being.

A fair number of respondents voice concerns about **this enquiry**. Some feel that the Terms of Reference are too narrow and so ruled out some options (such as Health Board reconfiguration) before the work even began. Questions are raised about whether or not everyone who would want to contribute had a chance. Views were expressed that respondents would have welcomed more public events to enable more submissions. Others point out that requiring written submissions immediately disenfranchised those who would find this a barrier to participation.

That said, this did not stop many respondents commenting on the current arrangements of Health Boards across Wales and whether the existing configuration enabled their concerns and circumstances to be represented and addressed.

Respondents point to the fact that no one group of people has **responsibility** for delivering health services to an area that is often referred to singularly – Mid Wales – and which shares a particular geography and set of challenges: *“Bro Ddyfi is on the “tectonic plates” where the boundaries of three Health Boards and three local authorities meet. Many people here live in a different county from their health service provider and most have to use services from at least two Health Boards. If the recommendation of the Williams Commission that there should be no major redrawing of public service boundaries in Wales is implemented, this situation could remain for the foreseeable future.”*

A solution to this that is mentioned by a number of respondents is for a new Health Board with a specific Mid Wales remit:

“What isn’t in your face can easily get ignored.”

“There are 2 threats to current provision...money, or lack of, and the lack of a local Health Board.”

Some don’t go this far but do agree that the current arrangements simply are not designed in a way that serves the needs of this particular population. Other suggestions include Memoranda of Understanding between the Health Boards and the re-drawing of Health Board boundaries

Respondents point out that the border between **England and Wales** is in danger of creating a false divide. These respondents don’t want to see their options limited by only being able to turn to the West for treatment and travel.

However, although many also recognise that receiving treatment in England, under a different NHS regime is not without complications, it is seen as an issue of social justice: *“Essentially, what must be appreciated is that the cost of secondary healthcare in less populated areas is always - on a per capita basis - going to be more expensive than in the major cities. But while NHS healthcare maintains its belief in universal*

provision, patients everywhere have an absolute right to equal quality of treatment, and this should not be done by shifting the burden of such costs from the providers to the patients.”

An important contribution both to this section of the report and the study as a whole was made by Welshpool Town Council. The Town Council approached the study team about proactively engaging with its residents and gathering their experiences entirely independently. 417 residents of Montgomeryshire were asked about their experiences of healthcare and the report of that work has now been published.⁷² What follows provides an overview of their most important findings.

INDEPENDENT CONTRIBUTION TO THE STUDY – Welshpool Town Council

Along with all the responses from meetings and submissions from individuals we were also approached by representatives from **Welshpool Town Council** who, knowing from their personal experience the importance of the design of local health services to the area, wanted to take a proactive role in seeking views to inform this work also approached us.

They set about surveying residents in Welshpool and surrounding areas to gain their views, which were then interpreted into a set of recommendations. The methodology of the survey was agreed with WIHSC in order to gain most value from the findings. They organised their data collection via an online survey, drop-in centres and focus groups. Respondents were self-selecting.

The information gathered showed that people had a huge variation in their satisfaction with first-point-of-contact administration. Getting the first contact right (or wrong) seemed to set a standard for the rest of the patient experience.

Concerns were raised about transport, echoing the experiences described by other members of the public elsewhere in this document. There were very few complaints about ambulance response times; however there was repeated complaint about the amount of time people had to wait to get an appointment with a specific GP. There were also concerns that not enough NHS funding was getting to front-line services.

One of the key issues that marked out this work from other responses was the focus on cross-border issues. There is a great deal of concern about the way in which services are organised in Shropshire and what this means for travel times and accessibility. The difference in waiting times and access to treatments in England and Wales is also starkly obvious to these respondents. This also seemed to heighten a potential breakdown of administration and communication, which patients were left to rectify themselves.

Two further points raised were concerns about the lack of service provision for MS patients and that the public in the area felt ‘surveyed out’ when it came to the health service.

Below is a summary of their recommendations. The full report can be found here:

<http://www.welshpooltowncouncil.gov.uk>

1. **Shrewsbury Hospital** - A & E and support services are retained at Shrewsbury until at least there is proper Mid Wales provision
2. **Funding of the NHS** - funding of the NHS in Wales needs to be re-addressed with more funding going direct from the Welsh Government to service delivery.
3. **Travel times and location of treatment** - A Hospital Transport Scheme needs to be introduced, to support the lack of public transport to points of care at Shrewsbury and Telford hospitals.
4. **Administration and first point of contact** – details must be checked and correct on first point of

⁷² See: <http://www.welshpooltowncouncil.gov.uk/downloads/0000/1890/HEALTHREPORTENGLISHPUBLISHED.pdf>

contact; patients should be able to make follow up appointments before leaving the point of care; consultants, doctors and staff treating the same patients must communicate more effectively.

5. **Medical Care** - The system of ward management of 'Matrons' should be re-introduced to raise the standards of care.
6. **Local Care delivery** - a system of minor operations and consultant appointments be developed so that it can be delivered locally.
7. **MS Nurse provision** - a part time MS nurse is appointed urgently to work out of Shrewsbury serving home visits in Montgomeryshire.
8. **Cross border** - provision of services cross border needs to be on a level playing field with services offered to English residents being the same as Welsh Residents. There should only be one 'National' Health Service.
9. **Local Doctors Surgery** – an increase in GPs to alleviate waiting times and to provide a telemedicine service for minor ailments.
10. **Chronic Illness** - information packs for those with chronic illness should be available at GP practices.
11. **Computer links** - computer systems across the UK must be compatible enough to share information easily and efficiently.

D. RURAL HEALTHCARE SYSTEMS OUTSIDE OF WALES

1. RURAL HEALTHCARE IN SCOTLAND

Whilst we have taken a brief look at examples of how rural health challenges are being tackled around the world elsewhere in this document, one area that has drawn much of our attention is Scotland. In this section we will consider not only some of the solutions that they have put in place to meet these challenges, but also the strategies that have led to those solutions.

In the Scottish Government's Health Survey from 2012⁷³, 74% of adults consider their health to be good or very good; a quarter of men and 18% of women drink at hazardous or harmful levels; 62% of adults meet physical activity guideline (150 minutes of moderate activity or 75 minutes of vigorous physical activity per week); just under two-thirds (64.3%) of adults are overweight or obese and 46% of adults report having a long-term condition. Audit Scotland in their 'Health Inequalities in Scotland'⁷⁴ report (Dec 2012), suggests that there are lower levels of deprivation in rural areas, leading to slightly higher life expectancy (2 to 3 years).

The Scottish Government's over-arching strategic vision for healthcare is their *2020 Vision for Healthcare in Scotland*.⁷⁵ The vision statement has a number of supporting documents, including a Quality Strategy and Route Map, but in essence it is this:

"Our vision is that by 2020 everyone is able to live longer healthier lives at home, or in a homely setting. "We will have a healthcare system where we have integrated health and social care, a focus on prevention, anticipation and supported self-management. When hospital treatment is required, and cannot be provided in a community setting, day case treatment will be the norm. Whatever the setting, care will be provided to the highest standards of quality and safety, with the person at the centre of all decisions. There will be a focus on ensuring that people get back into their home or community environment as soon as appropriate, with minimal risk of re-admission."

According to the Scottish Government, "Rural Scotland accounts for 94% of the land mass of Scotland and nearly a fifth of the population are resident there".⁷⁶ The Scottish Government's own definition of 'rural' is settlements with a population of less than 3,000. Furthermore, they then separate these settlements into two further sub-categories – 'accessible rural' (those with a less than 30 minute drive time to the nearest settlement with a population of 10,000 or more); and 'remote rural' (those with a greater than 30 minute drive).

Scottish Government figures also show that their rural population is growing.⁷⁷ Between 2001 and 2010 the population accessible rural areas of Scotland increased by 12.1% and remote rural areas by 6.2%, compared with a 1.7% increase in the rest of Scotland. This increase is credited to a migration into the rural parts of Scotland.

The NHS in Scotland is made up of 14 regional NHS Boards and 7 Special Boards⁷⁸ who support the Regional Boards by providing specialist services e.g. Scottish Ambulance Service, NHS24 (the advice service) and NHS Education. The Boards are accountable to Scottish Ministers and are supported by the

⁷³ <http://news.scotland.gov.uk/News/The-Scottish-Health-Survey-2012-46f.aspx>

⁷⁴ http://www.audit-scotland.gov.uk/docs/health/2012/nr_121213_health_inequalities.pdf

⁷⁵ <http://www.scotland.gov.uk/Topics/Health/Policy/2020-Vision>

⁷⁶ <http://www.scotland.gov.uk/Resource/0040/00403004.pdf>

⁷⁷ *ibid* p.2

⁷⁸ <http://www.scotland.gov.uk/Topics/Health/NHS-Workforce/NHS-Boards>

Health and Social Care Directorate of the Scottish Government.⁷⁹

There are also three Regional Planning Groups⁸⁰ – North of Scotland, West of Scotland and South-East Scotland – which enable NHS Boards in these areas to plan for services which may be shared across their geographic areas. The map (see Appendix 3) shows that rurality is an issue that affects virtually all of these Boards.

In 2012 one of the Boards, NHS Highland, was invited by the Cabinet Secretary in Scotland to develop and test their own models for remote health and care services in Scotland.

A stipulation of the work was that any recommendations had to:

- Have relevance to all remote areas of Scotland;
- Reflect the new context of integrated health and social care; and
- Be suitable for testing in rural and urban areas of Scotland.

In response, the proposal put forward by NHS Highland was:

“NHS Highland proposes to use Action Research and Learning to develop and test the approach to developing new models of service. It is clear that the most sustainable solutions will be those that are locally grown with the involvement of all key stakeholders and with the involvement of the communities served. In recognition that there will be no single model that will suit all areas, our proposal is to allow a range of models to be developed and tested but with some agreed key principles.”⁸¹

The document also proposes a governance structure to oversee the work including a Programme Board to govern the initiatives and act as a research advisory group.

The conclusion of the report makes it clear that “there is much work to be done with communities, some of which are anxious about any change, particularly where a diminution of service is perceived, and their sense of being ‘safe’ is challenged. One of the key elements of success then, is to ensure that communities are involved in exploring options for the future and play a part in building solutions for sustainability of those communities in a wider sense”.⁸²

A summary of the report’s recommendations is copied below:

- There is no single model that will address the challenges and fragility in remote and rural health and care services and therefore an action research approach is being proposed;
- Solutions lie in the combined efforts of public service providers and communities themselves and therefore an inclusive, mutual approach is recommended, skilled facilitation may be required to assist this process;
- For clinical governance reasons, single handed practice should no longer be supported and where possible a locality wide model of service provision, delivered under a multi professional team based approach, based on key skills and competencies should be adopted;
- Risk management, including bench and stress testing should be integral to the development of any solution;

⁷⁹ <http://www.scotland.gov.uk/Topics/Health/About/Structure>

⁸⁰ http://www.sehd.scot.nhs.uk/mels/HDL2002_10.pdf

⁸¹ NHS Highland (2012: 23):

http://www.nhshighland.scot.nhs.uk/OurAreas/ArgyllandBute/Documents/An_Approach_to_Building_Sustainability_of_Health_and_Care_Services_in_Remote_and_Rural_Areas_FINAL_redacted.pdf

⁸² Ibid, p.27

- Community ownership and confidence in new service models is essential, ‘see and touch’ alternatives underpinned by transitional or pilot arrangements demonstrate commitment to the programme; and
- There should be an examination of cross portfolio enabling factors in Scottish Government, examples being Education, Finance, Transport and Infrastructure.

The Cabinet Secretary approved the proposal put forward in the paper in August 2013 (with a commitment of £1.5m funding).⁸³

The NHS Highland paper makes it clear that there is no ‘one size fits all’ solution to the challenges of designing and delivering a rural healthcare system, so in this section we go on to look at how providers and communities have developed some bespoke solutions. This section continues by considering the responses of localities to their challenges.

1.1 ARRAN

On the Isle of Arran, they have decided to maximise the impact of the available resources by working collaboratively:

ARRAN RESILIENCE⁸⁴

The services on Arran have formed a working partnership, along with the community, to develop and sustain services on the island. Arran is the seventh largest island in Scotland, with a population that increases from 5,000 to 25,000 over the summer months. It takes over an hour to drive from one end to the other. Whilst this is a large area for the emergency services to cover, there are several geographically diverse and committed emergency teams on Arran.

In October 2010 a liaison group was set up, comprising the leaders and deputy leaders of each team. This group formed the basis of Arran Resilience. The group now meets on a regular basis to develop ever-improving communication between the emergency teams, and look at issues such as shared training opportunities and awareness of each team’s capabilities.

The main element of Arran Resilience is the regular Liaison Meetings, held every 2-3 months. The meetings bring the leaders of each Resilience team together, to discuss issues that are relevant to multi-agency response, and the general emergency resilience of the Island.

This has not increased the amount of resources available but it is designed to ensure that they are used effectively and as efficiently as possible.

One recommendation from work undertaken by the NHS Scotland, North of Scotland Planning Group⁸⁵ was that single-handed GP practices should be discouraged, recognising the problems caused by isolation, both in terms of recruitment and workforce welfare. The Group instead proposed that delivery should be via Extended Primary Care Teams and Extended Community Care Teams:

“The EPCT should incorporate the General Practitioner (GP) (although this may be a visiting service), and include all other health and social care professionals such as the Community Health Nurse, Midwife, Care Manager, Social Workers, Support Workers and education. Each practice should receive visiting services from Community Psychiatric Nurses, Allied Health Professionals (AHPs) and Specialists

⁸³ <http://scottishgovernment.presscentre.com/News/-1-5m-for-rural-healthcare-36d.aspx>

⁸⁴ <http://www.arranresilience.org.uk>

⁸⁵ <http://www.scotland.gov.uk/Resource/Doc/222087/0059735.pdf>

*such as the Macmillan Nurse or Clinical Psychology...The wider team such as ambulance paramedics and technicians may also be based within the GP Practice and utilised to support the EPCT in undertaking anticipatory care within the community when they are not required for emergency response. The EPCT should work in partnership with other agencies. Where the wider professionals from Social Care, Housing, Education, NHS 24 and the Voluntary Sector are added to the EPCT team, this will be defined as the 'Extended Community Care Team' (ECCT). All available resource within the locality should be utilised to build 'Community Resilience'. An example of this would be the extension of the 1st responder schemes to incorporate the Coastguard, Fire Brigade and Forestry Commission.*⁸⁶

As with the example of the 'Arran Resilience' project that is mentioned earlier, the focus here is on collaboration and effective use of resources to the benefit of workforce, patients and community.

1.2 SKYE⁸⁷

The Isle of Skye has a model of 'rural practitioners' where the Broadford Hospital⁸⁸ is staffed by GPs with additional skills/training in anaesthetics and trauma. The model was developed after a consultation with the local community and the realisation that the size of their community (pop 13,000) had a need for some emergency service but could not sustain a General Hospital. Instead, the Broadford is an enhanced Community Hospital.

The role of hospitals is crucial to delivering care in the vast rural areas of Scotland, and the ethos underpinning the 2020 Vision makes it easy to see why the Scottish Government places such value on Community Hospitals as a means of delivering medical services in Scotland. Their 2012 'Community Hospitals Strategy Refresh'⁸⁹ explains that a Community Hospital can be either a hospital, unit or centre but that care is led by GPs (in liaison with consultants and other health professionals). The document goes on to explain the purpose of the Community Hospital:

"In simple terms community hospitals have three main functions. First, they support the rehabilitation and recovery of patients after a stay in an acute hospital; second, they provide the specialist end of community services, whether this be co-ordinating care around high risk patients, providing/co-locating services that patients have traditionally had to travel to bigger sites for and beds for clinical specialties (such as palliative care and mental health); third, they provide some diagnostic and outpatient services. The majority of community hospitals and the clinical services they provide will see patients in most of these categories."

In practice this means that, for example, the Mackinnon Memorial Hospital on the Isle of Skye serves a population of approximately 13,000 people and provides the services on site and in a visiting capacity – see Appendix 4 for a list of the services provided at this hospital and at other NHS Highland Community Hospitals.

1.3 RURAL GENERAL HOSPITALS

One of the roles of the Community Hospital is to stabilise patients prior to transfer to a specialist centre. Allied to the Community Hospital is the model of the Rural General Hospital (RGH). The role of the RGH is defined by the Scottish Government as described in the following box:

⁸⁶ Scottish Government (2008a: 40)

⁸⁷ <http://www.arranresilience.org.uk>

⁸⁸ <http://www.nhshighland.scot.nhs.uk/Services/Pages/DrMacKinnonMemorialHospitalBroadfordHospital.aspx>

⁸⁹ Scottish Government (2012)

RURAL GENERAL HOSPITALS, SCOTLAND

Larger, Rural General Hospitals will be staffed by doctors, nurses and other healthcare professionals with both general and special skills appropriate to the needs of the community. They will have more specialist diagnostic facilities than Community Hospitals and provide a range of outpatient, day case inpatient and rehabilitation services. As a minimum they will provide:

- *nurse-led care for urgent cases, managing minor injury and minor illness, with the advice of doctors and other specialists, where this is required*
- *initial management of broken bones*
- *routine and emergency surgery*
- *management of acute medical conditions*
- *management of patients who have suffered a stroke*
- *management of long-term conditions*
- *a wide range of out-patient services*
- *maternity care, led by midwives*
- *management of patients with more complicated problems before they are transferred*⁹⁰

The way in which the RGH fits with the rest of the healthcare service is described thus:

“The National Framework for Service Change (NFSC) has defined services in levels of care from level 1 - community provided services, such as General Practitioners and NHS 24, to level 4 - nationally delivered, highly specialised services. Level 2 facilities will include assessment diagnosis and treatment for routine conditions. Level 3 facilities are identified as the core admitting services, with locally available 24/7 receiving in general surgery, general medicine, and orthopaedics; with anaesthetic and radiology support. In addition, one or more of following specialities may support these on a receiving basis: paediatrics, obstetrics and gynaecology. Although the RGH does not easily fit into any of the above categories, it is best regarded as a level 2+ facility”⁹¹

The levels referred to are explained in the diagram reproduced in Figure AP5.1 (Appendix 5) and below: *“The RGH will exist in a network with larger centres. These may be District General Hospitals or Tertiary Centres. The RGH should have arrangements to refer patients appropriately to definitive care, based on robust care pathways that will sometimes by-pass the more local DGH. Formal arrangements will exist between the larger centre and the RGH to support local delivery of care, known as obligate networks.”* (Delivering for Remote and Rural Healthcare, p. 28)⁹² The report goes on to state the minimum services to be available in a RGH and the core surgical workload – see Table D1.1 overleaf.

Currently there are six RGHs in Scotland, at Gilbert Bain Hospital, Shetland; Balfour Hospital, Orkney; Western Isles Hospital, Western Isles; Caithness General Hospital, Wick; Belford Hospital, Fort William; Lorn and Isles Hospital, Oban.

1.4 ELGIN

During the course of our research for this study, it was suggested to us that the hospital serving Elgin would be a good comparator for Bronglais. Elgin is situated in Moray, approximately 2 hours from

⁹⁰ Scottish Government (2008b)

⁹¹ Scottish Government (2010: 27)

⁹² *ibid.*

TABLE D1.1 · MINIMUM SERVICES TO BE AVAILABLE IN SCOTTISH RURAL GENERAL HOSPITALS AND THE CORE SURGICAL WORKLOAD

Source: Scottish Government (2010: 30 and 32)

UNSCHEDULED	PLANNED
<p>Nurse led Urgent Care service managing minor injury and minor illness;</p> <p>Ability to resuscitate patients;</p> <p>Ability to manage acute surgical and medical admissions;</p> <p>Initial fracture management and manipulation of joints;</p> <p>Midwifery led maternity service;</p> <p>Neonatal resuscitation;</p> <p>Capability to diagnose and initially manage acutely ill or injured child;</p> <p>Capability to manage patients requiring a higher dependency of care before transfer;</p> <p>Clear and appropriate retrieval and transfer arrangements.</p>	<p>Management of patients with stroke;</p> <p>Rehabilitation and step-down;</p> <p>Post-op step down, rehabilitation and follow-up;</p> <p>Management of patients with long term conditions, including haemodialysis, and cancer care as part of a network;</p> <p>Provide ambulatory care for children within the locality;</p> <p>Routine elective surgery;</p> <p>Visiting services.</p>
DIAGNOSTIC	SUPPORT
<p>Diagnostic capability, including:</p> <p>Imaging: Digitised image capture, Ultrasound and CT scanning;</p> <p>Laboratories:</p> <p>Limited range of Biochemistry, Haematology and cross match blood.</p> <p>Endoscopy: Upper and lower GI, Cystoscopy;</p> <p>Surgical intervention: e.g. biopsy of lesion</p> <p>Cardiac Investigation including:</p> <p>Stress testing and Echocardiography.</p>	<p>Clinical decision support via e-health links to other centres;</p> <p>Pharmacy support.</p>
EMERGENCY SURGICAL WORKLOAD	PLANNED SURGERY
<p>Appendicectomy;</p> <p>Caesarean Section;</p> <p>Endoscopy (including injection of varices);</p> <p>Evacuation of retained products of conception;</p> <p>Lacerations;</p> <p>Initial fracture management and joint dislocations;</p> <p>Repair of perforated ulcer;</p> <p>Control of haemorrhage (including splenectomy);</p> <p>Resection and anastomosis of bowel;</p> <p>Ruptured ectopic pregnancy surgery;</p> <p>Chest drain;</p> <p>Drainage of pericardium injury (for cardiac tamponade) plus suturing of penetrating injury.</p>	<p>Biopsy of lesions;</p> <p>Cholecystectomy and/or exploration of common bile duct;</p> <p>Circumcision;</p> <p>Endoscopy;</p> <p>Nail bed procedures;</p> <p>Peri-anal procedures;</p> <p>Resection and anastomosis of bowel;</p> <p>Simple undescended testes repair;</p> <p>Scrotal surgery including vasectomy;</p> <p>Varicose veins surgery.</p>

Aberdeen by road and over an hour by road to Inverness. It is part of NHS Grampian, which serves a population of over 500,000⁹³ people across Moray and Aberdeenshire.

Elgin itself has a population of approximately 20,000⁹⁴ and is served by Dr Gray's District General Hospital. The majority of hospital services in the NHS Grampian area are based in Aberdeen, except for Dr Gray's and a series of smaller Community Hospitals and a specialist palliative care day-centre (also in Elgin). Dr Gray's provides a wide range of services, as the hospital underwent a £22 million redevelopment in the 1990s after a Scotland Office review of acute health services in Moray. It now provides the following:

GENERAL SURGERY	ORTHOPAEDICS	OTHER CLINICS AND SERVICES	
Urology	Hand	Anaesthetics	Oncology
Breast	Fracture	Radiology	Orthotist
VBG / Leg Ulcers	Shoulder	ENT	Dental
Colorectal	GPSI (Shoulder)	Ophthalmology	Chest
GENERAL MEDICINE	Back/Knee	Pain clinic	Orthoptist
Gastroenterology	Paeds	Dermatology	Orthodontic
Diabetic	Hip	Physiotherapy	Audiology
Endocrinology	OBSTETRICS	Occupational Therapy	Speech and Language Therapy
Geriatric	Family Planning	Dietetics	Chiroprody
Stroke	Antenatal	Psychiatry	Accident & Emergency
Cardiology	PAEDIATRICS	Renal Dialysis	
GYNAECOLOGY	Asthma	Rheumatology	
GUM	Diabetes		

1.5 RECRUITMENT AND TRAINING

The rurality of Scotland is not just a challenge for the design of delivery models; it also raises challenges for recruitment and training. To provide the services in the facilities described above there is clearly a need to staff them appropriately. However, this is not straightforward. Although the Scottish Government's statistics show a migration into rural areas it is still a lifestyle choice and commitment that will not suit all. Recruitment to medical positions in remote and rural areas can be problematic. In a conversation for this report, The Scottish Health Council highlighted the efforts on Eigg where there have been particular GP recruitment problems. As a potential solution a local GP has put forward a plan to form a network with 7 other local GPs. They would work on a rotational basis – taking turns in the more isolated practices, supporting each other and also working out of one, or more, of the Rural General Hospitals in the area covered.

The Isle of Jura has also experienced problems recruiting a GP, over a number of years. As a result, the local community council became involved to try and ensure that the advertising of the post focussed on more than the job and, instead, promoted a more holistic picture of the appeal of rural life. They even took their recruitment campaign to social media.⁹⁵

However, there is more to this challenge than selling a rural lifestyle to prospective candidates. The

⁹³ http://www.nhsgrampian.co.uk/nhsgrampian/gra_display_hospital.jsp?pContentID=65&p_applic=CCC&p_service=Content.show&

⁹⁴ <http://www.scrol.gov.uk/scrol/browser/profile.jsp?profile=Population&mainArea=Elgin&mainLevel=Locality>

⁹⁵ <https://www.facebook.com/PerfectPracticeJura>

needs of a rural community are also different, and more diverse, than those of an urban community who may have easier access to specialist facilities.

The particular needs of rural practice have been recognised for a number of years now⁹⁶ with the development of 'rural track' speciality GP training. The University of Aberdeen offers a two year 'Remote and Rural' option⁹⁷ to undergraduates, which gives them experience of working in the Rural General Hospitals across the Highlands and a placement with a GP in a remote community.

The programme is both supported and enthusiastically promoted by the North of Scotland Deanery via their website⁹⁸: *"The National Rural-track GPST Programme is a new and exciting option being offered for the first time in 2012. We anticipate high demand for this programme and will be offering it only in Round 1 of recruitment."*

The issues around bespoke training are not new to the Scottish agenda. Back in 2007 NHS Education for Scotland developed the Remote and Rural Healthcare Educational Alliance⁹⁹ (RRHEA) to provide educational assistance to remote and rural Health Boards, and to provide a link between the Boards and education providers across Scotland.

RRHEA is now working in collaboration with NHS Highland, NHS Education for Scotland, the University of the Highlands & Islands, the University of Aberdeen, the University of Stirling, NHS24 and the Scottish Centre for Telehealth and Telecare to develop the Scottish School of Rural Health and Wellbeing (SSRH and W). SSRH and W has five workstreams:¹⁰⁰

- **Workstream A** - To design and deliver evidence-based transferable remote and rural professional education, training and research for and with the Scottish health and social care workforce;
- **Workstream B** - To lead the development of education, training and research in the innovative use of technology enabled learning, teleeducation and telehealthcare to improve remote and rural health, social care and wellbeing service provision;
- **Workstream C** - To conduct remote and rural research and impact assessment to increase the evidence base upon which services can be improved redesigned and developed in response to remote and rural population requirements;
- **Workstream D** - To raise the profile of remote and rural career options and opportunities to impact on recruitment and retention of health and social care professions in remote and rural areas; and
- **Workstream E** - To link relevant industry partners to remote and rural academics, education providers and clinicians.

The *Delivering Remote and Rural Health Care for Scotland*¹⁰¹ report proposes a diagram showing how staff resources could be organised (see Figures AP6.1 and 6.2, Appendix 6). Such a diagram immediately serves two obvious purposes – firstly it demonstrates that there are career paths and opportunities in taking a rural option; and it demonstrates an empathy with the existing and potential workforce and their need to see where they fit into the bigger picture. All of the examples above demonstrate how innovation in healthcare within a general framework is being encouraged, as a way

⁹⁶ <http://careers.bmj.com/careers/advice/view-article.html?id=20006803>

⁹⁷ <http://www.abdn.ac.uk/smd/medicine/remote-rural.php>

⁹⁸ <http://www.scotmt.scot.nhs.uk/general-practice/programme-information/north-of-scotland-gp-training-programmes.aspx>

⁹⁹ <http://www.rrheal.scot.nhs.uk>

¹⁰⁰ <http://www.rrheal.scot.nhs.uk/media/194026/final%20ssrh&w%20summary%202013.pdf>

¹⁰¹ Scottish Government (2010)

of meeting the challenges of a largely rural country.

1.6 MANAGED CLINICAL NETWORKS

One final innovation worth noting is the introduction of Managed Clinical Networks (MCNs). Managed Clinical Networks are virtual entities designed to drive upwards the standards of patient care through integration of services and collaboration. The Management Executive Letter¹⁰² defined MCNs as “linked groups of health professionals and organisations from primary, secondary and tertiary care, working in a co-ordinated manner, unconstrained by existing professional and Health Board boundaries, to ensure equitable provision of high quality clinically effective services throughout Scotland.” The networks are proposed by any Board or Planning Group where they identify that access to specialist care cannot be sourced and maintained from within the resources of a single Board. An example of how the MCN can work across boundaries is seen in the objectives statement from the Scottish Congenital Cardiac Network:

The Scottish Congenital Cardiac Network (SCCN) is a National Managed Clinical Network (NMCN) established in April 2013. At designation the network has the following objectives:

To promote the continuous quality improvement of Scottish services for children and adults with congenital cardiac conditions by ensuring that a formal and representative network is in place, which links services across Scotland and has interfaces with the UK congenital cardiac agenda.

To coordinate pan-Scotland planning with NHS boards, regional planning groups, clinicians and patient representatives on:

- The development of pathways and protocols;*
- Joined up national networking (for unborn babies, neonates, children, through transition to adulthood, and for adults);*
- Clinical awareness of congenital heart conditions;*
- Emergency care for children and adults with congenital heart conditions; and*
- Pre-natal care for pregnant young people and adults with congenital heart conditions.*

*To work with services to support the continued provision of safe and sustainable paediatric and adult congenital cardiac care across NHS Scotland.*¹⁰³

The NHS Scotland review of Managed Clinical Networks in 2011 concluded that, although there were ‘anomalies’ in the structure and oversight of some networks, they certainly felt that the all-Scotland networks added considerable value to NHS Scotland. In particular they underlined the benefits for patients living in rural areas:

It was considered that the added value of MCNs that operate at an ‘all Scotland’ level is that they cut across local and regional NHS Board boundaries and facilitate the necessary structures, systems and processes to ensure equity of access to and standards of specialist care for all patients in Scotland and their carers, regardless of where they live in relation to a specialist centre. Thus a patient in a remote and rural area will have access to specialist care through a formal networked arrangement between local and specialist clinicians and services, even when the care is delivered locally.

An example of the effect of a MCN in practice is demonstrated by its role in the GEMSS project.

¹⁰² <http://www.nsd.scot.nhs.uk/%5C%5C/services/nmcn/index.html>

¹⁰³ <http://www.sccn.org.uk/about-us>

GENERATING EVIDENCE IN MULTIPLE SCLEROSIS SERVICES (GEMSS) PROJECT¹⁰⁴ - EVALUATING SPECIALIST NURSE CARE FOR PATIENTS WITH MS¹⁰⁵

The geographic areas by the GEMSS project covered include Northumbria Healthcare NHS Trust, which has a population of 316,000 and is served by two MS specialist nurses (1.8 WTE) who have a caseload of 276 patients between them; and the Western Isles Health Board, which has a population of 26,500 and is served by one MS specialist nurse (1.0 WTE) who has 92 patients on her caseload.

Prior to the introduction of the service, MS patients in these areas came under the care of the local GP and would have to travel to either Glasgow or Newcastle for specialist care. Typically a GP may only have 1 or 2 patients with the condition within their practice catchment area and so experience or knowledge of the needs of these patients may have been limited.

However, Scotland has now introduced Managed Clinical Networks¹⁰⁶ for speciality areas, working across Health Board boundaries. Patients are represented on these Networks, with representatives supported by training so that they are able to take on the advocacy role and act as a conduit with their communities. The Networks link together the specialists in the larger hospitals with local healthcare and patients. The Managed Clinical Network for Neurology in the Western Isles was the catalyst for the introduction of the specialist MS nurses. It was apparent that the specified national standard of care – that each MS patient must have an annual review with a specialist nurse – was not being met and so the introduction of the nurses was seen as a solution that both met patient needs and achieved the necessary standard.

A former GP practice nurse undertook a training course and induction provided by the MS Trust and Birmingham City University in order to take up the role. Due to the size of the area being served, previously an ad-hoc single patient visit might have taken up to a week in some of the more isolated areas. Now the Nurse is able to plan her schedule around visits and to group areas and patients together. These nurses provide specialised support and care; undertake telecare consultations with hospital-based consultants from the patient's local GP surgery or community hospital and train local services in specialist needs e.g. one nurse has been working with a local physiotherapy department, helping them to understand the specific needs of MS patients.

For the first year of the appointments, two of the three Nurses were part financed by MS-related charities. The GEMSS project has supported these services to monitor and provide data on the value of the Nurses, in order to make the case for ongoing funding. The data and the fact that prior to the introduction of the Nurses the Health Board in Scotland and the local commissioners in Northumbria were having to cover travel expenses for patients, has led to the Health Boards taking on the financing of the posts. Ongoing performance management and evaluation metrics are used not just to prove that value is being delivered, but also to analyse performance for potential improvements and to establish an acceptable workload for each of the Nurses.

The trend of an increasing rural population and the sheer proportion of Scotland that is categorised as 'rural', underlines the importance of designing a healthcare system capable of meeting the needs of this community.

The Scottish Government appear to have been prescriptive to an extent in how they expect these challenges to be met, with their desire that as much healthcare be delivered as near to home as possible. Their policy documents also appear to have reinforced the importance of Community

¹⁰⁴ <http://www.mstrust.org.uk/professionals/gemss/>

¹⁰⁵ Information taken from an interview conducted for this paper

¹⁰⁶ <http://www.nsd.scot.nhs.uk/%5C%5C/services/nmcm/index.html>

Hospitals and the Rural General Hospital model.

However, they do not appear to have been overly prescriptive. The guidance points to an acceptance of the fact that services must meet local need; that innovation must be a process of bespoke pilots and evaluation rather than an 'off-the-shelf' fix. They have also created a process that enables specialist demand to be met across Health Boards but for these structures to be created from the healthcare and patient voice upwards, rather than imposed from above.

Education, training and qualifications are also evolving that deliver a workforce prepared for, and qualified in, meeting the needs of these communities.

2. RURAL HEALTHCARE IN THE REST OF THE WORLD

When discussing policy, a question often asked is 'what makes Wales so different?' In relation to health this is easily answered – devolution has resulted in Wales walking its own path and finding its own solutions. However, the other side of this question has always been 'is anywhere else similar to Wales and, if so, what could we learn from them?'

In this section we have tried to look for examples of how just some of the issues created or faced by those living in rural areas are being addressed in other nations. To this end, we have undertaken a desk research exercise and conducted interviews with medical professionals from around the world.

It is important to note that in this section we have deliberately looked outside of Wales' borders, as much of the innovation within Wales is known to the health professional community here. Health innovation within Wales has also been reported and commented on in other papers.

Where possible we have given context to the challenges being addressed in the examples we've found, and information about the communities being served. What we have not done though, is to draw direct comparisons between the examples and the particular set of challenges in Mid Wales. Nor do we suggest that all of the examples could, or would, work as direct solutions to these challenges.

Instead, the examples are offered as illustrations of how others have applied thinking to create a solution to their own problems. It may well be that some of these solutions could provide ways of addressing challenges in Mid Wales, and that is for the planners, practitioners and public of Mid Wales to decide. It should also be noted that we would not expect any decisions on appropriateness to be made on the descriptions and information that follows in this chapter; more detail is available and would be necessary for any thorough decision-making process.

This section is arranged into two parts. In the second we provide examples of models of service and have loosely broken them down into primary care models and secondary care models. In the first we look at concepts and frameworks for addressing issues that cut across all of these areas, such as education, whole-service models, planning or transportation.

2.1 CROSS-CUTTING ISSUES, CONCEPTS AND FRAMEWORKS

In the research for this report, it became clear that there are some challenges that transcend any particular type of medicine or service.

WORKFORCE TRAINING AND RECRUITMENT

The first set of these challenges are around the workforce and, in particular the areas of training, recruitment and organisation.

As a starting point, the issue of how to attract undergraduate students into the medical professions and then how to ensure that practice in rural areas is seen as attractive has been tackled in a number

of different ways.

In the US, one initiative to tackle the problems of staffing and recruiting into rural areas is the **Public Health Service Loan Repayment**.¹⁰⁷ The scheme enables newly-qualified medical students to have their student loans repaid by the Government, *if* they commit to a three year tenure in a rural area which has been classed as medically underserved.

However, it has been suggested that one of the unintended consequences of the programme is that it is beginning to skew recruitment in favour of rural areas. There is also a suggestion that debt repayment could become the sole driver of scheme take-up.¹⁰⁸

The **University of Michigan** have been developing training that focuses specifically on delivering in a rural health context. The syllabus concentrates on primary care rather than directing students on to specialisms or research. Student residences will primarily be in family medicine and classes will be inter-disciplinary rather than subject specific.

The recruitment for this course has been purposely targeted at those living in rural communities as it was felt that these were a population that would have an understanding of, and affinity for, rural life. In this, the first year of the course, they received over 3,000 applications for the 60 available places.

Another example of an academic solution to the challenges of providing a rural workforce is the **Northern Family Medicine Education Programme**¹⁰⁹, which is based in the rural area of Goose Bay, Canada. The Labrador Centre there is a training facility of the University of Newfoundland that not only gives students and physicians an opportunity to train in a rural setting but also offers career opportunities and support to the local medical community.

So, it seems as if there are already a number of initiatives and examples of alternative thinking about how the future and current workforce can be attracted into, and supported by, academic institutions.

REMOTENESS

With geography being a constant challenge to delivering ongoing training in rural areas of the US, teleconferencing is utilised heavily as a solution. There are also attempts to deliver training closer to the healthcare community rather than centralising it in the larger towns or cities. An example of this is the **Area Health Education Centers Program**¹¹⁰, which aims to reduce travel for course participants and to satisfy a previously unmet need.

Of course, travel arrangements are not just a concern for healthcare staff in rural areas; they are also an issue for patients. In **New Zealand** patients are able to access a travel subsidy to help with the costs involved in travelling longer distances to access services.

Qualifying requirements such as 'Do you visit a specialist 6 or more times in 6 months and travel more than 50km one way for an adult?' need to be met to access the funding, but upon a successful application, the reimbursement figures then become those in the table below. This provides an alternative solution to trying to design a transport infrastructure that suits patients' needs. Detail on this is provided in Table D2.1 below.

¹⁰⁷ <http://www.acep.org/Clinical---Practice-Management/Medical-Education-Debt/Loan-Repayment-Forgiveness/>

¹⁰⁸ Interview with Dr Steven Berkshire, EdD, MHA, SPHR, FACHE; Director, Doctor Of Health Programme; University of Michigan, for this paper.
https://www.cmich.edu/colleges/CHP/hp_academics/health_sciences/faculty_staff/Pages/Steven-D.-Berkshire,-EdD,-MHA,-SPHR,-FACHE.aspx

¹⁰⁹ <http://www.lghealth.ca/index.php?pageid=42>

¹¹⁰ http://en.wikipedia.org/wiki/The_National_AHEC_Program

TABLE D2.1 · REIMBURSEMENT LEVELS FOR PATIENTS, NEW ZEALAND¹¹¹

Source: New Zealand Government

Activity type	Reimbursement level
Mileage	28c per kilometer
Accommodation	Up to NZ\$100 per night
Public transport	Actual cost
Air travel	Actual cost
Taxi	Actual cost

FINANCING

Allocation of financial assistance in rural areas is common, but is usually aimed at the service rather than the patients. The London School of Economics¹¹² recently compared how GPs are funded across Europe, and they concluded that eleven of the countries surveyed incentivise practice in underserved areas by providing additional finance.

The funding and commissioning system in the US has resulted in the prevalence of GP networks as physician practices are consolidated into larger networks, such as the **McLaren Network**¹¹³

There are clear benefits to these networks in the US, including the opportunity to share services. But it also makes on-the-job training more accessible because the larger parent group will provide cover for individual GPs when they need to take time out to undertake training.

Innovation in education and training, applying the use of technology and finance to the greatest effect are two further clear themes in this work. As is the use and creation of networks to help deliver a service and to augment the appeal and effectiveness of a rural service.

Many countries have looked at healthcare systems in operation in the US to see if there are lessons to be learnt. One of the models that has attracted a lot of attention is the one created by the **Kaiser Permanente** company. Whilst there has been much debate about whether the Kaiser Permanente results are comparable at all to systems outside of the US, there is much in the ethos that could resonate with the needs of a rural community and healthcare system, particularly the focus on prevention and minimising the need for hospital admissions. This raises a further theme of ensuring that the intention of your healthcare system is aligned with the design and available resources of that system.

From this section then, clear themes emerge from the examples:

1. The role of academia and its use in recruiting, training and supporting the workforce.
2. Ensuring training is designed to meet the needs of the workforce and that it is delivered in a way that suits their needs.
3. Travel plans that emerge from the needs of the workforce and the patients and not as a consequence of existing infrastructure;

¹¹¹ <http://www.health.govt.nz/your-health/services-and-support/health-care-services/hospitals-and-specialist-services/travel-assistance/whos-eligible-travel-assistance>

¹¹² LSE Primary Care in Europe 2009, p. 32-37:<http://ec.europa.eu/social/BlobServlet?docId=4739&langId=en>

¹¹³ <http://www.mclaren.org/NorthernMichigan/AboutUsnm.aspx>

4. The use of networking including not just the health service but also wider community assets such as education facilities can increase the appeal and effectiveness of rural services.
5. The importance of designing a system from ‘the ground up’ – making sure that resources match the purpose of the system and the importance of securing community buy-in.

KAISER PERMANENTE

When the model was first created, the novel feature of the original funding agreement was that rather than being paid per medical visit, payment would be made in the form of a fixed amount every year for each scheme member. As a result, if everyone covered by the scheme could be kept in sound health this would increase the scheme’s profits and be of benefit to the members, their families and their employers.

This project developed into Kaiser Permanente, and has retained the principle of a pre-payment of a fixed amount per member instead of a payment for medical treatment received.

As a result, the incentive for the Doctor and the system is to focus on preventative care, so that costs are kept to a minimum. The fixed rate enables KP to budget based on a clearer picture of income and provides clarity on costs for patients.

GPs are salaried but rather than owning the practices, they are members of the larger organisation that owns all the practices. Any profit made by this umbrella organisation is split 50/50 between bonuses to the staff (paid on the basis of quality performance – quality defined by outcomes for the patients) and reinvestment in the organisational infrastructure.

The organisation has predicted that future health needs are likely to revolve around chronic illnesses, so they focus heavily on early diagnosis and management in the knowledge that not taking this approach would impact heavily on profit and bonus share.

The GP retains responsibility for their patient, even though the care pathway is a collaborative process. This gives the GP a level of responsibility and authority over the whole treatment.

2.2 MODELS IN PRACTICE

In this section we examine how providers and communities have developed some bespoke solutions by looking at a range of practical models, all of which have been designed to meet specific needs and are context-appropriate. There is a cursory distinction between primary and secondary care but, as the models demonstrate, often this is a blurred line.

PRIMARY CARE MODELS

The farming community of **Cumbria** faces some specific health risks, as described in ‘Rural health and healthcare – a North West perspective’¹¹⁴, e.g. anti social schedules, hard physical conditions, stress. The demands of the job (milking schedules, harvesting etc) also make it difficult for the farming population to attend GP appointments.

Working with the Institute for Health Research at Lancaster University, Morecambe Bay PCT instigated the ‘**Farmers Health Project**’¹¹⁵ - a nurse-practitioner led outreach service. Funding was provided for two nurse-practitioners, themselves from rural backgrounds, along with support workers, to use a

¹¹⁴ <http://www.nwpho.org.uk/reports/ruralhealth.pdf>

¹¹⁵ <http://www.farm-ruralhealth.org.uk>

mobile healthcare unit to visit the range of venues where farmers meet – for example, auction marts and agricultural shows – and provide support, care and a first line for treatment. The nurse practitioners acted as a key link between patients using the service and other healthcare services. A range of diagnostic equipment was carried, and farmers soon overcame initial reticence to support the service, providing positive feedback in the evaluation. The nurse practitioners were familiar with the range of issues that were common to the target population and were trained in how to deal with them, although, if serious problems were found these would be referred on straight away at the point of contact.

This is an example of a bespoke solution being developed that has an understanding and involvement of the community as its basis.

Another aspect of the Kaiser Permanente blueprint is the use of IT to manage patients – to identify high-risk issues and groups, to manage patient flow, to identify need for resources etc. This aspect has been used in England already¹¹⁶, where one pilot in **Northumbria** has focussed on improving acute care services and the integration between primary and secondary care. They have established a single point of contact centre for patients; used bespoke software to categorise wards and patients in acute care areas, to help specifically trained nurses manage length of stays; and appointed a GP as Medical Director of the trust.

There has also been a heavy emphasis on measures to aid patients to self-manage their care and to integrate services (patient training, appointment of key workers etc).

Furthermore, they redesigned their acute services – building a new hospital¹¹⁷ to deal with emergency cases, with routine and less serious services delivered in general hospitals.

In Canada, 22% of the population are defined as ‘rural’¹¹⁸ i.e. communities with a population of less than 10,000. They have developed a model of care called **Community Health**.¹¹⁹ These are non-profit organisations with salaried staff (not fee-for-services) and Boards that include community representation. These focus on primary care and prevention and some are specifically targeted at particular underserved sections of the population e.g. have a particular linguistic service.

The **Islands Health Centre in Nova Scotia**¹²⁰ serves two island communities who would otherwise have to travel to the mainland (population approximately 1,200, with 60% aged over 65). The Centre is staffed by Nurse-Practitioners and Paramedics who have an expanded role and operate with the back-up of GP phone support (there is no GP on either island). The Centre offers both primary care and emergency services.

These models rely on certain specific conditions – the availability and use of intelligence in planning and design, and the acceptance that the final solution may not fit comfortably into existing categories and so may require acceptance of innovation or expansion of particular roles or job descriptions.

SECONDARY CARE MODELS

As mentioned above, the split between primary and secondary is not a distinct one in all cases. A case in point is the way in which rural needs are being met in Dargaville, on New Zealand’s North Island (population 4,455).

¹¹⁶ <http://www.birmingham.ac.uk/Documents/college-social-sciences/social-policy/HSMC/publications/PolicyPapers/Policy-paper-6.pdf>

¹¹⁷ <https://www.northumbria.nhs.uk/patients-and-visitors/getting-to-us/hexham-general-hospital>

¹¹⁸ http://cprn.org/documents/45652_en.pdf p.4

¹¹⁹ http://en.wikipedia.org/wiki/Community_health_centres_in_Canada

¹²⁰ http://cprn.org/documents/45652_en.pdf p.24

DARGAVILLE, NEW ZEALAND

In this model a GP practice is located on the same premises as the local hospital. Immediately obvious benefits are that the GPs have better access to the specialists and secondary care services. It has also enabled some of the GPs to develop specialist interests.

The practice makes sure that medical students come to the Hospital on placement and there is an emphasis on ensuring that these students not only have an exposure to the wide range of services they would encounter in rural practice, but that they also get to see the benefits of a rural lifestyle. The practice also provides an on-call service for the hospital, which, whilst it can provide an interesting range of challenges, would require any GPs that were recruited to buy-in to the idea.

Most of the benefits and the success of their integrated services are born of the improved and natural communications created by the co-location of primary and secondary care.

It should be noted that the maternity service at Dargaville is for care post delivery, not delivery itself.

The report on innovation in rural healthcare that this example is taken from¹²¹ comments that “There appears to be an acceptance that the current (maternity) services offered are sustainable and are of a high standard.” It is not clear if it is the professionals or the local community who have accepted the service as it now stands, however if it is the local community then it might suggest that communities are more likely to accept services if they know that they are sustainable i.e. that they can be certain that the new service is not just a stepping stone to withdrawal. This echoes one of the clear recommendations of the NHS Highland report to the Cabinet Secretary that pilots should run alongside existing services rather than replacing them, to help gain the confidence and honest appraisal of the community.

In Canada, the **Rural Hospital** model of delivery enables most or all specialist services to be provided locally but carried out by non-specialist medical staff and other healthcare providers. Often, specialist services are provided by local GPs with specific specialised training. To support this, the **Society for Rural Physicians** offers a specific training course for rural GPs in rural critical care.¹²² The rural hospitals also offer their communities access to travelling specialists. Typically, visiting physicians offer the following specialties – orthopaedics, paediatrics, general surgery, cardiology, psychiatry, obstetrics/gynaecology, geriatrics, rheumatology, nephrology, ophthalmology, rehabilitation, neurology and internal medicine. However, some of the issues experienced by patients using these Hospitals include the regularity of the appointments, as these are often based on contracts with the local provider; and concerns over continuity of care, as it may not necessarily be the same specialist returning for each visit.

Closer to home are the following examples from England.

WEST CORNWALL HOSPITAL, PENZANCE

The population of Penzance is approximately 21,000. This is swollen in the summer months by visitor numbers, sometimes increasing the population by up to ten times.¹

The service had encountered a number of familiar issues, including vociferous local support for a service

¹²¹ <http://www.nzirh.org.nz/wp-content/uploads/2011/12/Report-on-a-study-of-innovation-models-of-rural-health-care-Final.pdf>, p.15

¹²² <http://www.srpc.ca/Rcc/index.html>

*felt to be under threat, difficulties in attracting staff to the area and a lack of feeling of involvement amongst the local GP community in how services were configured and delivered. As a result, a new model of **24-hour doctor-led urgent care provision** was introduced. The basis is an urgent care centre, which has replaced the casualty department. Four GPs who are experienced in urgent and emergency care work at the centre on a part-time basis while continuing to practise locally.*

Two doctors are on duty during the afternoon with at least one at other times. Those running the pilot feel that it is particularly appealing to GPs who “tend to be more geographically fixed and are encouraged to have portfolio careers”. Only low risk patients are currently admitted to the West Cornwall’s wards at weekends following concern from some consultants that it was a contravention of Royal College of Physicians guidelines for a consultant not to see patients within 24 hours of their admission. Work is being done on governance to address this with the ambition of admitting higher risk patients at weekends, too. (Health Service Journal, 9 Oct 2012)¹²³

NORTHERN DEVON HEALTHCARE NHS TRUST EARLY SUPPORTED DISCHARGE SERVICE (ESD)¹²⁴

The population served by Trust is 483,900, including large areas of rural deprivation and an ageing demographic. By 2030 the ONS predicts that 31% of the North Devon population will be age 65 or over.¹²⁵ The service aims to get people who have suffered a stroke back into their homes as soon as possible. This is seen as particularly important in such a rural area as, alongside the recuperative benefits for the patient, it also reduces the amount of travelling time for visiting relatives.

Prior to the introduction of the service, a typical hospital stay would be about 16-18 weeks per patient. Patients are now moved back to their homes as soon as the patient is medically stable and the support services are available. The ESD teams consist of various therapists who visit and work with patients in their homes to a personalised plan. Patients are also offered the Vista service – a weekly programme of exercise, dietary and lifestyle advice provided in one of the hospitals, which aims to both help prevent further strokes and to enable patients to socialise with a support network of other stroke sufferers.

The services has seen 13% more patients return directly home than before it was introduced, the average length of hospital stay reduce by 6 days and savings of £450,000. It is currently being reviewed following the initial pilot.

Again, with these models we see the development of a solution that requires innovative thinking about exactly what the problem is and how it should best be solved.

The solutions have clear benefits for patients but also for the workforce, who, in each case, are willing to seize the opportunity created by the proposals. New Zealand uses a model of a Rural General Hospital as a means of addressing some of the needs of the rural community.

¹²³ <http://www.hsj.co.uk/hsj-local/local-briefing/analysed-a-new-model-of-hospital-care-in-cornwall/5050243.article#.U2OcPV64kII>

¹²⁴ <http://www.northdevonhealth.nhs.uk/stroke-services/early-supported-discharge-esd-service/>

¹²⁵ <http://www.northdevonhealth.nhs.uk/about/about-the-trust/>

OAMARU HOSPITAL, NEW ZEALAND

Population served by the hospital is approximately 22,000 within a boundary area of 8,990km on the South Island of New Zealand.

This is a Rural Hospital with a small capacity for inpatient services e.g. 4 Beds dedicated to High Dependency Unit for coronary care, acute heart failure, arrhythmia, acute respiratory and surgical stabilisation; midwife led maternity unit; radiology and other services.¹²⁶

Patients are stabilised here before transfer to Dunedin for surgery – 70 miles away, or approx. an hour and a half by road. They have challenges, particularly a shortage of cover for the people providing the services. Currently their sonographer is absent from work so people are having to drive to Dunedin for scans.¹²⁷

A range of outpatient clinics (including general surgery, ophthalmology and obstetrics and gynaecology) are provided by consultants visiting from larger sites in Dunedin¹²⁸, which serves a population of 300,000 and an area of 300 km, and Timaru¹²⁹, which serves 55,000 people.

It provides a range of services¹³⁰, including emergency department, radiology, surgery, paediatric ward and intensive care unit.

A typical day at Timaru is described as:

- 35 hospital discharges*
- 45 emergency department attendances*
- 261 visits to homes and schools*
- 281 outpatient attendances*

Australia also faces the challenge of delivering healthcare to rural areas albeit that the scale of their geography is vast in comparison to Mid Wales. However, the basic challenge of delivering, often urgent, services to people spread over a wide area remains.

INTEGRATED CARDIOVASCULAR CLINICAL NETWORK COUNTRY HEALTH, SOUTH AUSTRALIA (ICCN CHSA)¹³¹

Population served is approximately 1.6 million across a geographic area of over 980,000km. In this example, acute care is provided almost entirely by primary care physicians in 66 hospitals (only 10 of which have pathology labs).

Prior to the introduction of the network, problems within cardiac services in the region included ECG interpretation, lack of timely access to cardiac marker pathology results and access to specialist advice as predominant barriers. To enable better access to evidence-based cardiac care, the iCARnet (pilot version of iCCN CHSA) model of care was designed to include the following:

- agreed clinical pathways for chest pain/ACS*

¹²⁶ <http://www.oamaruhospital.co.nz/?services>

¹²⁷ <http://www.odt.co.nz/regions/north-otago/303018/long-drives-ultrasounds>

¹²⁸ http://en.wikipedia.org/wiki/Dunedin_Public_Hospital

¹²⁹ <http://www.scdhb.health.nz/timaru-hospital.html>

¹³⁰ <http://www.scdhb.health.nz/timaru-hospital.html>

¹³¹ <http://www.iccnetsa.org.au/home.aspx>

- triage protocols
- diagnostic/risk stratification protocols
- treatment protocols
- provision of point of care testing (PoCT) for troponin to support timely risk stratification and decision making regardless of geographic location
- improved accessibility to consultant cardiologist advice
- 24 hours/7 days a week escalating paging service
- agreed response time of less than 10 minutes
- streamlined access to tertiary cardiac care for high-risk patients
- provision of comprehensive cardiac continuing medical education for the medical and nursing workforce servicing these areas.

The solutions provided include “clinical tools, resources and systems designed to support the practice of evidence-based acute cardiac care by practitioners, including remote area nurses from a diverse range of backgrounds and with varying levels of experience and training. Integral to the service is timely access to Cardiologist support, PoCT managed by clinical network scientists and continuing medical education for rural doctors and nurses.” (p.1)¹³² To test for effectiveness figures for Acute Coronary Syndrome (ACS) length of stay, time to angiography, readmissions and in-hospital deaths, pre and post introduction of iCARnet were compared and showed marked improvements in cardiac outcomes. These included:

- reduced length of stay
- reduced 30 day readmission for ACS
- reduced total length of stay for patients transferred to metropolitan hospital for invasive cardiac testing
- reduced in-hospital ACS deaths making the death rate comparable to metro hospital

Below are two further examples of provision of acute services in rural areas of England:

ABINGDON COMMUNITY HOSPITAL – EMERGENCY MULTIDISCIPLINARY UNIT¹³³

The population served by the unit is 140,000 patients (with an average age of 89) drawn from across 11 GP surgeries. The service runs from 8am to 8pm on weekdays and from 10am to 4pm on weekends. The unit was designed to deal with the problem of bed blocking. It most commonly deals with chest or bladder infections and heart failure and serves as a casualty unit exclusively for older people.

Patients can be referred to the Unit by GPs, nurses or Ambulance staff and staffing is provided by GPs, nurses, therapists, social workers etc. Assessment and diagnosis are purposely rapid, with care delivered immediately. The Unit contains a small number of beds for short term stays and a nursing team dedicated to supporting patients on a return to home.

The essence of the service is that it brings the most commonly needed specialists to the patient without need for admission to acute care (65% of patients are able to stay in their own home to recover, 17% are referred on to hospital).

¹³² http://nrha.org.au/12nrhc/wp-content/uploads/2013/06/Tideman-Philip_Tirimacco-Rosy_ppr.pdf

¹³³ <http://www.theguardian.com/healthcare-network/2013/oct/25/university-oxford-service-delivery-innovation-award-winner>

SOUTH WORCESTERSHIRE GP 999 SERVICE¹³⁴

The population served by the service is 292,000 patients from across 32 GP practices. Here, the GPs are on call to the 999 service between 12pm and 8pm, 7 days a week.

As normal, an ambulance is always despatched to the emergency but, on arrival, the crew can call out a GP if it is felt that the person can be cared for at the scene, and then at home, rather than being admitted to hospital.

In a 12 month period the GPs took 1,221 calls of which only 21% were then admitted to hospital. The service cost £20,000 per month but prevented 970 A&E admissions and 500 hospital admissions, saving £1.1m.¹³⁵

All of the above further go to reinforce the simple message that there is no ‘one size fits all’ solution, simply because they also demonstrate that there is no ‘one size’ problem.

The Kaiser Permanente model described previously also provides an emergency service for its members. However, in line with its ethos, it fundamentally tries to manage emergency demand by targeting care at high-risk groups. One scheme in Colorado¹³⁶ targeted those who had been recently discharged from hospital or identified as ‘high-risk’ upon enrolment. This ‘**chronic care co-ordination program**’ is a telephone support service aimed at helping these patients manage their condition and avoid the need for emergency care.

The service includes a weekly phone call during which any social care arrangements are identified; follow up appointments arranged and any transportation or financial assistance identified and the necessary referrals made. Results show that only 7% of those enrolled in the scheme visited the emergency department over a 12 month period.

This sort of management using algorithms and patient data to identify those who are most likely to require emergency treatments if not supported, are a common factor of the KP model. In Northern California this was used to reduce KP members use of emergency services by over a third over a period of 11 years.¹³⁷

The essence of the planning is to identify the most common causes for needing emergency care and the root causes of that need (failing to address self-care – appointments and medicines) and applying a solution to that root cause in the most cost effective manner which, in this case, is telephone support but may also include out-reach drop-in clinics or telecare appointments.

The themes from this section are:

1. It is vital to fully understand not just the issues but also the wider community, and to involve them in solutions;
2. Applying specific, relevant intelligence to planning is fundamental to success;
3. New models create new roles, which require new skills but also present new opportunities; and
4. There is no ‘one size’ solution any more than there is a ‘one size’ problem.

¹³⁴ <http://www.theguardian.com/healthcare-network/2013/oct/25/south-worcester-ccg-hospital-admissions>

¹³⁵ <http://www.southworcscg.nhs.uk/about-us/>

¹³⁶ <http://innovations.ahrq.gov/content.aspx?id=2300>

¹³⁷ http://www.commonwealthfund.org/~media/Files/Publications/Case%20Study/2009/Jun/1278_McCarthy_Kaiser_case_study_624_update.pdf : 15

2.3 SUMMARY

What we have discussed here are a number of approaches, before taking them further we would want further information about outcomes. But how then could we compare the context specific outcomes of these models to the context in Mid Wales?

We know that rural hospital medicine is a recognised specialism in, for example, New Zealand¹³⁸. But what could this mean for recruitment and career progression and the development of new roles in Wales?

What we have seen in this section is that people have provided fixes to specific challenges and that these fixes have been designed to meet the demands of those challenges.

As a fundamental principle, the models described above have been born of the question ‘what is it that we are trying to do?’ Some of the answers have been ‘create a suitably qualified workforce’; ‘recruit staff who want to be part of our community’; ‘keep people healthy and out of the healthcare system’ or ‘provide a service to a community whose work habits don’t bring them into a urban centre between 9am and 5pm daily’. Some of these challenges are short term, some are much longer term, but they are all specific.

We have identified a number of models in this section. Whether they are directly transferable remains to be tested. However, the themes that emerge from the models are certainly worth further consideration:

1. The role of academia and its use in recruiting, training and supporting the workforce;
2. Ensuring training is designed to meet the needs of the workforce and that it is delivered in a way that suits their needs;
3. Travel plans that emerge from the needs of the workforce and the patients and not as a consequence of existing infrastructure;
4. The use of networking including not just the health service but also wider community assets such as education facilities can increase the appeal and effectiveness of rural services;
5. The importance of designing a system from ‘the ground up’ – making sure that resources match the purpose of the system and the importance of securing community buy-in;
6. Understanding not just the issues but also the wider community, and involving them in solutions;
7. Applying specific, relevant intelligence to planning is fundamental to success;
8. New models create new roles, which require new skills but also present new opportunities; and
9. There is no ‘one size’ solution any more than there is a ‘one size’ problem.

¹³⁸ <http://www.rnzcgp.org.nz/what-is-rural-hospital-medicine/>

E. DELIVERING HEALTHCARE IN MID WALES

This chapter focuses on some of the pivotal services in Mid Wales. These services, and aspects of service provision, have a critical role to play in the future overall healthcare system for Mid Wales. Each is currently experiencing significant challenge. The nature of this challenge is explored here, drawing on numerous discussions with local clinicians and others and their written submissions, as well as an analysis of the available statistical data. We also focus here on the opportunities, and what might be needed to realise them.

This is not a comprehensive review of all healthcare across Mid Wales, just as this report is not a Plan for the future. Many other services – not considered here – are equally vital, and have their own challenges and opportunities. Rather, this chapter looks at those issues which now require speedy resolution if the rest of the healthcare system is to look to the future with confidence.

1. EMERGENCY RETRIEVAL/TRIAGE AND TRANSPORTATION

As has been indicated above, the delivery of good healthcare and acceptable care outcomes is best achieved where the care system as a whole operates to a considered plan that anticipates most of the likely demands that it will face, where the roles of major players are well defined and understood, and where the resources available are commensurate with the tasks to be performed. A key role in the care system is that of responding to demands for emergency care. These arise in two broad ways. First, patients who feel unwell or who suffer injuries, may bring themselves (or are brought) to hospital (or sometimes to other NHS services). Second, help is summoned, either to patients' homes or to other locations where people are in difficulty.

In Mid Wales in particular, clarity about the way that emergency demands are to be managed is essential. The people served need to know how the care system is intended to operate – especially at times of acute stress when people are in pain or injured – so that they know what to do. Further, the different services have to understand what their role is in responding to calls for help, what level of assessment, diagnosis or triage they are to attain, and what destinations are available to them that best meet the needs of the patient(s) with which they are confronted.

Both in the present and emerging scenarios, four major services can be expected to have some role in emergency retrieval and triage.

First, some patients will continue to arrive unannounced at healthcare premises (usually hospitals of some kind) that they expect will be able to offer help. These may be emergency units of general hospitals or 'casualty' units of smaller and more local hospitals. In some circumstances patients will need to be transferred at speed from these settings to more appropriate facilities. Some assessment of the patient's condition and needs will be necessary at these settings, if only to decide to summon further help. Significant – albeit reducing – numbers of patients currently appear to fall into this category at Bronglais General Hospital (see Table E1.1) – an average of about 50 per day.

Second, GPs may encounter patients with urgent care needs – either in their surgeries or when visiting patients at home – and will have a role both in making a provisional assessment or diagnosis, and in summoning further help.

Third, the Wales Ambulance Service currently has the task of getting to most of the patients in urgent need of care, deciding what further care may be needed (and from where), and then delivering the patient to that location. Often this is achieved by road vehicles, but where greater distances are involved – or where 'time to treatment' (see below) is of the essence – helicopter transport may be deployed.

TABLE E1.1 · TOTAL NEW A&E ATTENDANCES WHO SELF REFERRED – BRONGLAIS GENERAL HOSPITAL, APRIL 2011-MARCH 2014*

Source: Hywel Dda University Health Board

Date	2011-12	2012-13	2013-14
April	1,753	1,564	1,486
May	1,816	1,842	1,811
June	1,561	1,650	1,438
July	1,732	1,633	1,638
August	1,868	1,812	1,709
September	1,626	1,598	1,473
October	1,889	1,667	1,495
November	1,645	1,482	1,272
December	1,411	1,496	1,162
January	1,379	1,356	1,166
February	1,480	1,385	1,145
March	1,749	1,712	1,506
TOTALS	19,909	19,197	17,301

* Based on 'Sent by ' reasons of Self/ Self referral

Fourth, Wales Air Ambulance (and occasionally armed forces helicopters), have a role in getting to remote or off-road locations or attending accidents and other events where serious injuries are indicated and where fast transfer to hospital is needed.

1.1 TIME CRITICAL CARE – A ‘GOLDEN HOUR’?

It seems obvious in any medical condition that the quicker treatment is started the better and that must be particularly so in medical emergencies. This might mean that the nearer a patient is to a major hospital when becoming ill the better, and that could mean most of us are disadvantaged if we do not live next door to such a facility. However, that is not possible and it is not that simple. It is true to say that there will be an *optimal* time for treatment to start, and therefore a *suboptimal*, but not *critical* time that it is safe to wait. This means that, on average, patients will do best when the optimal is achieved; conversely, their chances of maximum recovery are impaired where this is not possible.

In the case of urgent and emergency situations the optimal time for treatment to start is very much condition specific. The concept of a ‘golden hour’ originated in trauma care, and even within the confines of that specialty, it is an oversimplification. Certain problems will always need immediate care e.g. a blocked airway, and this is why many paramedics are now skilled at endotracheal intubation. Major heart arrhythmias may lead to death if appropriate equipment is not available, which generally means a trip to hospital.

For urgent and emergency situations it is vital that they are recognised and the patient is then transported as fast as possible to the facility that has the experience, skills and equipment to deal with them. In most cases they will simply be transported to the local A&E department, which in the vast majority of cases will be the right thing to do. However this may become a problem if changes are made to services provided by a hospital and decisions have to be made about the appropriate facility to deal with the particular problem for an individual. Taking the patient to the wrong hospital may introduce a

delay to the time before treatment starts, taking it outside the optimal time. This is particularly important in remote areas where a patient may take a considerable time to get to hospital in the first place.

Childbirth requires particular consideration as situations threatening the life of mother or child or both that require very rapid intervention may develop during labour. The vast majority of pregnancies have a good outcome with minimal medical interference. Good antenatal care will usually identify those pregnancies that will require intervention during labour. There are now many examples of midwife-led care and units dealing with selected cases deemed unlikely to give rise to problems with excellent outcomes, but most of these are within reasonable distance of a consultant-led unit so that, if unexpected problems arise in labour, transfer is rapid and relatively easy. There is a perception that midwife-led units remote from such a consultant unit pose a risk.

Decisions concerning the provision of urgent and emergency care in remote communities must be a balance between seeing enough cases of any particular condition for staff to retain experience and skills, and the time taken to reach alternative services. In many conditions, that has also to be balanced against the increasing sophistication of treatment and equipment required and the need for cost effective use of that equipment.

There is no simple ‘rule of thumb’ that makes decisions about how much time can be allowed to occur between recognition of a medical emergency and its treatment, but there is good research evidence in some conditions. The concept of the ‘golden hour’ is therefore of very limited use, and each condition should be judged on its merits.

1.2 EMERGENCY AMBULANCE SERVICES

Provision of ambulance services to rural and remote areas faces significant logistical challenges, and it is difficult to maintain resilience of provision when the number of vehicles and staff is relatively small. This has resulted in occasions where it is not possible to transfer patients between hospitals. We were informed of several occasions when, for example, mental health patients could not be transferred in a timely fashion to in-patient units outside Mid Wales, with the result that such patients sometimes had to remain in police cells as the only local place of safety.

The service in Mid Wales struggles to achieve its emergency response targets. The expectation is that 65% of the most urgent calls should be attended within eight minutes – those where there is reason to believe that there may be an immediate threat to life, or where a healthcare professional has requested an ambulance for urgent hospital admission. Across Wales this target has proved to be elusive, as it has been in Mid Wales. For example, in June 2014, the response rates for mid-Wales were as follows (Table E1.2):

TABLE E1.2 · EMERGENCY AMBULANCE RESPONSE RATES, MID WALES - JUNE 2014

Source: Welsh Government

Locality	No. of Category A calls requiring an emergency response at scene	% of those responded to within 8 minutes
Ceredigion	303	50.8
Gwynedd	578	53.5
Powys	298	53.9

The ambulance service has a major contribution to make in ensuring the optimal use of the healthcare system for emergency care. In some parts of Wales, great progress has been made in training highly-skilled personnel who can carry out a wide range of assessments on scene, thereby avoiding some unnecessary hospital admissions. There are very few such staff currently in Mid Wales.

1.3 EMERGENCY RETRIEVAL AND TRANSFER SERVICE (EMRTS)

An emerging additional clinical service now being considered that has relevance to Mid Wales is the Emergency Retrieval and Transfer Service. The Outline Programme for this was set out in July 2014 and it is being sponsored by the seven Welsh Health Boards, the Welsh Ambulance Service Trust, Wales Air Ambulance, and the University Hospital of North Staffordshire.

The intention is to build upon the fine work of the Wales Air Ambulance voluntary group by adding additional clinical skills to its present range of services.

The outline of the service indicates two broad situations where this capability would improve the quality of the service available to patients. First, consultant level skills would be brought to the scene of accidents or incidents to better assess, stabilise and treat casualties/patients where clinically appropriate - for example intervening to stop blood loss or providing advanced airway management. Once stabilised the team would fly patients direct to a specialist centre – usually in Swansea, Cardiff, or North Staffordshire.

Second, the service would transfer patients from a local General Hospital where the condition of the patient – or for other reasons – justifies rapid access to the more specialised services of the specialist centres.

The proposal aims to blend the proposed enhanced service with the road service offered by the Welsh Ambulance Service Trust and to maintain the independence of the Wales Air Ambulance organisation. It notes that an enhanced control and management capacity would be needed to ensure that EMRTS is activated when necessary. The medium-term aim is to have a 24-hour service operating across Wales throughout the year, although this would need to be achieved over a number of years. It is also noted that the current helicopter cover provided by the armed forces is being withdrawn in 2015, which adds a further impetus to the proposals.

The proposal builds upon a number of key principles. These include the need to improve mortality and morbidity rates from selected conditions - especially the care of trauma and heart attack victims - where skilled and timely clinical management is associated with better outcomes. Coupled with other pressures, such as staffing constraints, such care is being concentrated at specialist centres some distance away from many parts of Wales so that networks of clinical skills are increasingly being used. The proposal is similar to arrangements now operating in the West of Scotland.

The service is forecast in its early stages to require £1.9m in capital costs with a recurring revenue need of £2.9m plus depreciation costs of a further £0.3m. In addition, Welsh Health Boards are expected to supply the clinical staff needed to deliver the service. WIHSC understands from the proposals that the present operating costs of Wales Air Ambulance – some £6m raised by charitable fundraising – is expected to be maintained.

The level of calls is predicted to be in excess of 3,300 per year, or about nine per day – although it is recognised that predictions can only be tentative. Further, it is noted that Mid Wales is presently less well served by the present arrangements than the rest of Wales. This new capability will need to target its resources appropriately if, as the Outline Programme notes, the present Wales Air Ambulance service experiences a high rate of aborted missions.

It is understood that the new service would expand in phases. In phase one it would operate from two

bases - Swansea and Welshpool - using both road and air means and would operate from 08.00 to 20.00. In Phase 2 the service would expand to Caernarfon and then, in later phases, be further expanded to provide 24-hour cover. It is not clear at this stage when the new arrangements would be available and whether the necessary financial and human resources have a high priority.

2. NON EMERGENCY TRANSPORT

But is not only emergency patient transport that figures in any debate about the planning of health services. How patients get to healthcare facilities in rural areas for routine care (outpatient and diagnostic services, day case treatment, or inpatient treatment) is also a major issue, as is access for family and visitors.

Where public transport is infrequent and journey times prolonged, various complementary schemes are provided, including volunteer car schemes. These provide a vital link in service provision, but are not always able to meet patients' reasonable expectations for timeliness and convenience. A submission was received from Improving Customer Access to Rural Health Services (ICARHS) – a Hywel Dda University Health Board initiated project which aims to improve the provision of non emergency patient transport. The submission showed how the approach taken by ICARHS had decreased aborted journeys, increasing efficiency for providers and patients.

The Welsh Ambulance Services Trust provides a Patient Transport Service in Mid Wales, as elsewhere. This follows Service Level Agreements with each Health Board. However journey times for patients are often extended as several patients have to be collected/deposited by the same vehicle.

People's experiences of these and other transport services are summarised earlier in this report.

3. DECISION MAKING AND PROFESSIONAL STRUCTURES

3.1 HEALTH BOARDS

Given the many agencies that are involved in delivering healthcare to the scattered populations of Mid Wales, it is inevitable that co-ordinating and decision making are complex. The challenges are compounded by the fact that patients routinely have to cross administrative boundaries to receive care (for example, from Southern Gwynedd and North West Powys to Bronglais General Hospital, or from Welshpool and Newtown to Shrewsbury).

There appears to be a widespread perception that some Health Boards – notably Hywel Dda and Betsi Cadwaladr – do not pay sufficient attention to the particular needs and challenges of healthcare provision in the Mid Wales areas of their responsibility, perhaps because they have other, larger centres of population and major hospitals elsewhere within their areas. We heard a concern from many members of the public that the financial pressures elsewhere in Health Boards were compromising care in Mid Wales. There was also a concern in many quarters that some Health Boards did not genuinely seek to understand and address the challenges of Mid Wales, seeking rather to apply models and solutions designed for more urban and concentrated populations.

Staff also reported to us their uncertainty about management and leadership structures, particularly in Ceredigion. It would appear that these structures have recently changed in Hywel Dda, and many staff reported to us that their manager was located in the south of the Health Board area, visited Ceredigion infrequently, and was not able to offer effective leadership. There was concern at the lack of visibility of senior management in Ceredigion, and a consequent inability to make decisions locally which were in the interests of local services. This contributed to a sense, as some expressed it, that they were an 'orphan' in the Health Board.

The Older People's Commissioner, in her evidence to the study, echoed the concerns expressed by many of the public that travel challenges are greater in this part of Wales than they may be in other, more urban areas, and that older people are the main users of health and social services. She points out that any reconfiguration of services must take into account that people do not live their lives via the boundaries that are drawn on maps, and so any changes to service provision must consider the effect on neighbouring services and areas. Neither should one service be considered without the effect on dependent services and 'care' should be considered from a fully integrated perspective (including third sector provision). A primary concern of the Commissioner is that changes to services do not create unintended barriers to access e.g. increased cost or travel time, which would deter older people from seeking the services they need and so create greater problems at a later date.

3.2 CLINICAL NETWORKS

Clinical networks operate across geographical areas to allow health professionals to co-ordinate the way care is given to individuals. These typically embrace a discrete area of care such as the South West Wales Cancer network that covers Bronglais, Glangwili, Prince Phillip, Withybush, Singleton, Morriston, Princess of Wales, Royal Glamorgan and Prince Charles hospitals. Similar arrangements operate in cardiac care. These straddle both care settings (primary, secondary and tertiary care), the four stages of care (prevention, diagnosis, treatment and aftercare), and different professions (doctors, nurses, therapists, etc).

Networks seek to develop geographically specific pathways through which patients move at different times and stages of their care, accompanied by other processes that seek to ensure well co-ordinated care. They also have a role in planning changes and improvements in the services offered.

Their main strength is that they support clinical decision-making for individual patients within the remit of the network. They have a major role to play in bringing together disparate hospitals and scattered staff, ensuring that patients can access the specialised care they need, providing adequate cover on all sites, and ensuring that staff work effectively with their colleagues, avoiding professional isolation.

Because of their single-specialty focus, they are sometimes less well fitted to co-ordinating the care of patients with several co-occurring needs.

3.3 'HUB AND SPOKE'

This arrangement operates where a secondary care clinical service is based in one (usually large) hospital (the hub) and supports the local delivery of some or all of that service to other locations. Often this is by consultant and other support staff conducting outpatient, day case, follow up, and some operating sessions at hospitals other than their main base. Typically, that main base would be the usual centre to which patients would go after any initial diagnosis had been made in a peripheral hospital that couldn't then complete the treatment necessary. This arrangement can ensure that as much care as possible can be delivered near to patients' homes – or if travel to a distant hospital cannot be avoided, the period of time away from home is minimised.

The hub and spoke concept guides much of the acute provision in Mid Wales, based predominantly on two main configurations. Shrewsbury and Telford hospitals provide, and link with, services delivered in North Powys. Other services, including mental health and orthopaedics, also link with other providers. Bronglais General Hospital links with hospitals to the south, notably Glangwili, Withybush and Morriston Hospitals (with some links to Cardiff and elsewhere). This is a more complicated, hybrid model, with more than one hub, and some of the spokes actually providing highly specialised care, with their staff working some sessions in a hub. These arrangements have developed in a somewhat piecemeal fashion, and in many cases have yet to settle into a form supported by all clinicians. Hywel Dda University Health

Board seeks to manage all its acute hospitals as one, dispersed whole, with elements of the hub and spoke concept. However as the discussion later in this chapter suggests, much remains to be done to ensure that this approach works well in practice.

3.4 ROLE OF THE GENERAL MEDICAL COUNCIL, THE MEDICAL ROYAL COLLEGES AND DEANERIES

The plethora of organisations involved in ensuring standards in medical care can be confusing for professionals let alone members of the public. The three most important in the context of planning services are the General Medical Council, the Royal Colleges and, in Wales, The Deanery.

THE GENERAL MEDICAL COUNCIL (GMC)

The GMC was established by the Medical Act 1858 and has been subject to further legislation over the years. It describes its function now as registering doctors to practice medicine in the UK. Its purpose is to protect, promote and maintain the health and safety of the public by ensuring proper standards in the practice of medicine. It controls entry to the medical register and sets the standards for medical schools and postgraduate education and training. It more or less sets the undergraduate curriculum for medical schools and inspects them, and has a great influence on standards in postgraduate training. No one can practice as a medical doctor in the UK, privately or in the NHS, without being registered with and licensed by the General Medical Council. They say “Our job is to protect patients.”

THE MEDICAL ROYAL COLLEGES

The remit of the Royal Colleges lies within the crafts and specialties of medical care. Its remit is narrower than the GMC’s but is hugely influential within those specialties. The Colleges determine and supervise training in specialties, within the standards for postgraduate training set by the GMC. Training posts, that deliver much day-to-day hands on medical care, must be approved by Royal Colleges. The ‘Advisory Appointments Committees’ that appoint consultants must have one member from the Royal College relevant to that specialty and their function is to determine that the candidate appointed is properly trained and accredited.

THE DEANERY

Deaneries have recently been replaced in England by Local Education and Training Boards (LETBs), but in Wales the Deanery continues to exist. It sits within a university setting and has a core function of being responsible for the Foundation Programme that is a compulsory part of a doctor’s training following graduation. During this time new graduates work in the NHS in supervised posts. The first year of the programme has to be satisfactorily completed before the participants can be registered with the GMC and the second year satisfactorily completed before entry into specialist training. Thus the Deanery is responsible for the most junior of the training posts that are involved in the delivery of care. Beyond this Foundation Programme the Deanery plays a fundamental role in continuing professional development (CPD), that is, the continuing training after formal specialist training has been completed and postgraduate qualifications obtained. Much of this goes on in Postgraduate Medical Centres and has become increasingly important now that appraisal and revalidation by the GMC has been introduced. All doctors must now demonstrate that they are undertaking CPD to be revalidated.

SHAPING THE FUTURE OF MID WALES

Although the team encountered some concern that the Deanery and Royal Colleges were seeking to impose inappropriate – essential urban – models on Mid Wales, we actually enjoyed unqualified and enthusiastic engagement with the Deanery and several of the Royal Colleges during this study.

The team has explored with them several of the key aspects of service provision relating to quality and workforce. In addition, the Royal Colleges of Physicians and GPs, together with the Deanery, took part in a workshop with local clinicians looking at opportunities for developing and sustaining services, particularly for cardiology and stroke. A further workshop, this time involving the Deanery and the Royal College of Surgeons, is scheduled for October, and will be reported separately by the team.

Each body is developing its own thinking about how to maintain good standards of care and sustainable provision in the different circumstances of rural – and therefore Mid – Wales (some of this will emerge in the near future). This is not easy, given that their remit is only partial (each addresses a small part of healthcare delivery), and they sit within a Wales and UK context. Their task is often made more difficult by the lack of data on the outcomes of care, with the result that they often have to use proxies for such measures, which tend to focus on inputs (staff, patient numbers) rather than the benefits or harms for patients. Nevertheless, the discussions held as part of this study give reasonable grounds for optimism that many of the challenges can be overcome by concerted, collective action.

4. TELEMEDICINE AND ITS USE IN WALES

4.1 TELEMEDICINE, TELEHEALTH, AND TELECARE

The terms telemedicine, telehealth, and telecare are sometimes used interchangeably. Telemedicine can be defined as the use of technology, such as interactive audio, visual, and data communications, to support delivery of healthcare at a distance including diagnosis, consultation and treatment, as well as health education and the transfer of medical data.¹³⁹ Telemedicine can be divided into three broad categories:¹⁴⁰

1. **Direct patient care** – diagnosis and treatment obtained by means of communication devices, although a doctor and a patient are geographically apart
2. **Teleconsultation** – transmitting expert knowledge to non-specialists in order to support medical care, through communication among doctors or between doctors and other related personnel
3. **Distance learning** – providing the most up-to-date information to the doctors and/or other health professionals with geographical disadvantages

Telehealth, also referred to as telemedicine, is the remote monitoring of people living with a chronic condition to support self management and delivery of care.¹⁴¹ It covers the monitoring of physiological data e.g. temperature and blood pressure that can be used by health professionals for diagnosis or disease management. Examples of telehealth devices include blood pressure monitors, pulse oximeters, spirometers, weighing scales, and blood glucometers. Telehealth also covers the use of information and communication technology for remote consultation between health professionals or between a health professional and a patient e.g. providing health advice by telephone, videoconferencing to discuss a diagnosis, or capturing and sending images for diagnosis.

Telecare is the continuous, automatic, and remote monitoring of real time emergencies and lifestyle changes over time, in order to manage the risks associated with frailty and independent living.¹⁴² It is more widely used in social care with a combination of alarms, sensors, and other equipment, usually in the home environment, to help people live more independently by monitoring for changes and warning the people themselves or raising an alert at a control centre. Examples of telecare devices include

¹³⁹ Rural Health Implementation Group (2011a, 2013a)

¹⁴⁰ Takahashi (2001)

¹⁴¹ Rural Health Implementation Group (2011a)

¹⁴² Ibid

personal alarms, fall detectors, temperature extremes sensors, carbon monoxide detectors, flood detectors, and gas detectors.

4.2 THE EFFECTS OF TELEMEDICINE

Telemedicine is a dynamic, fast developing field, with a large amount of new studies and new reviews being rapidly published. For example, PubMed database alone contained over 12,000 citations in the area of telemedicine in 2013.¹⁴³ In a review of systematic reviews of the effectiveness of telemedicine conclusions depended very much on the clinical area being considered.¹⁴⁴ Twenty-one reviews concluded that telemedicine is effective, in relation to therapeutic effects, increased efficiencies in health services, and technical usability; nineteen reviews were less confident about the effectiveness of telemedicine, suggesting that telemedicine is promising with potential, but there still requires more evidence to be able to draw firm conclusions; twenty-two reviews concluded that the evidence for the effectiveness of telemedicine is still limited and inconsistent across a wide range of areas.

As telemedicine extends into new clinical areas, it is unsurprising that reviewers give renewed accounts of limited evidence. Some areas in which there has been little research include health promotion provided through the Internet, smart homes, spiritual care, and formative evaluation for remote monitoring in hypertension. An important emerging issue from this review of reviews is the lack of knowledge and understanding of the costs of telemedicine. Although several reviewers suggested that telemedicine seemed to be cost-effective, only a few draw firm conclusions.

Another important emerging issue from this review of reviews concerns patient satisfaction with telemedicine and indications that telemedicine may change the patient-health professional relationship. In some reviews, authors reported a positive impact of telemedicine on patients/users, but suggested further large studies with good quality designs should be conducted to understand the outcomes. These technologies aim to benefit patients and professionals, but research into their impact on both needs to go hand-in-hand with product development. Ekeland et al indicate that lack of evidence does not imply lack of effectiveness and there is wide evidence of potential uses of technology to improve quality, delivery and efficiency of health services.

4.3 TELEMEDICINE IN WALES

Telemedicine has been used in Wales for more than 10 years. It is argued that the use of technology in the NHS had the potential to improve health services, including using a range of technologies, such as mobile phones, internet services, digital televisions, video-conferencing, and self-monitoring equipment, to provide healthcare to patients at a distance.¹⁴⁵ This can also involve consultation between a patient and a clinician at different locations using video-conferencing; a clinician diagnosing a patient's condition remotely using images transmitted electronically, such as a scan or a digital photograph; and using technology to monitor patients with long term conditions at home.

In April 2014, the Welsh Government announced a plan to develop a new e-Health and care strategy in conjunction with Health Boards, NHS trusts, and local authorities in Wales.¹⁴⁶ Focusing on the use of technology such as video conferencing, remote monitoring, and better use of health records, this new strategy is to ensure the Welsh population, the NHS, health and social care can take advantage of the benefits that advanced technology and information offer.

¹⁴³ American Telemedicine Association (2013)

¹⁴⁴ Ekeland et al (2010)

¹⁴⁵ Rural Health Implementation Group (2013b)

¹⁴⁶ Welsh Government (2014a)

In Wales, telemedicine was first used to support cancer multidisciplinary team meetings by using videoconferencing technology, linking Bronglais to the Cancer Centre at Singleton Hospital, Swansea.¹⁴⁷ There were a number of telemedicine applications by the time of the development of telemedicine plan in 2010. Set up by the Welsh Government in April 2010, the Rural Health Implementation Group (RHIG) identified the need to maximise the use of telecare, telehealth, and telemedicine across rural Wales, and provide an opportunity to develop current successful e-health services.¹⁴⁸ Seven aims were identified in its plan.

1. develop and expand the application of current successful domains across Hywel Dda University Health Board, Powys teaching Health Board, Betsi Cadwaladr University Health Board, and other areas as appropriate;
2. work with clinical services to identify specific targeted areas which could be supported by telemedicine, for example routine or follow-up clinics, following examples established elsewhere;
3. establish a clinical champions group to foster and pioneer developments across Wales;
4. support the development and use of telemedicine within primary care, utilising local champions;
5. support the use of video and audio conferencing for training, meetings and wider communications across rural areas;
6. identify opportunities for collaborative working with national IT developments such as Welsh Clinical Communications Gateway electronic referral, Welsh Clinical Portal, All Wales Digital Radiology System etc for use in rural areas; and
7. undertake evaluations to identify benefits and impacts of implementation.

As a result of experience in the field of oncology, telemedicine has extended the original scope of the project of developing videoconferencing to create a telemedicine service across a range of clinical areas. Through the appointment of a dedicated rural health telemedicine project manager, work has progressed within Hywel Dda, Powys, and Betsi Cadwaladr focusing on eight areas (teleneurology, teledermatology, paediatric cardiology, teleophthalmology, teleradiology, telepathology, rehabilitation services, and primary care).¹⁴⁹ The work aims to encourage the use of telemedicine in training, case conferences, and clinical diagnosis to maximise its use across rural Wales.

Between 2011 and 2013, more than 30 telemedicine projects and telemedicine service models were developed and supported in consultation with Hywel Dda, Powys, Betsi Cadwaladr, and the RHIG, as well as other Health Boards both within and outside Wales.¹⁵⁰ The projects involved linking healthcare services at 18 diverse sites throughout Wales and elsewhere in the UK, including 10 which were all-Wales projects. Various clinical specialties were influenced by the projects, including dermatology, neurology, paediatric and diabetes, and a number of different service delivery models addressed, including outpatient clinics, second opinion consultations, and multi-site rehabilitation sessions, as well as extending MDT meetings, already well established in other clinical disciplines. The benefits of telemedicine were extended to primary care by a number of projects involving clinical services in community settings.

These projects have demonstrated how telemedicine can be used successfully within the NHS in Wales and there is growing evidence about the impact of telemedicine projects undertaken in Hywel Dda, Powys, and Betsi Cadwaladr Health Boards. However, there is still considerable scope for continued

¹⁴⁷ Rural Health Implementation Group (2011b)

¹⁴⁸ Ibid (2011a)

¹⁴⁹ Ibid (2013a)

¹⁵⁰ Ibid (2013b)

development of telemedicine services and telehealth more generally across Wales to further benefit patients and NHS staff. These include:

- Supporting a shift towards more home-based or local care in the community – minimising the need to travel to hospital unless absolutely necessary;
- Increased opportunity to work collaboratively within health (between primary and community care with secondary care) and across with social care;
- Supporting improved communication between staff, including videoconferencing and sharing of timely information to support decision making;
- Empowering people to take increased responsibility for their own health; and
- Supporting efficient working practices to enable right treatment at the right time in the right place.

TELEMEDICINE IN WALES: BARRIERS TO ITS DEVELOPMENT IN RURAL AREAS

There are a number of barriers to the development of telemedicine in rural Wales. For example, despite the number of video conference equipment in many NHS hospitals across Wales, especially in rural areas, there is often a great deal of under-utilisation.¹⁵¹ This may be attributed to some key factors.

1. Accessibility to facilities

- Historically videoconferencing equipment was installed in boardrooms/meeting rooms and competes with bookings for non-videoconferencing meetings, with no priority given to videoconferencing meetings

2. Training and support

- Lack of training on the use of facilities
- Lack of available local support for the use of equipment
- Teaching establishments in Wales need to establish telemedicine in curriculum to prepare health professionals for working in a rural community

3. Attitudes and awareness

- Lack of awareness of the potential use of videoconferencing
- Reluctance to use technology
- Assumption that technology requires specialist technical skills even though, with the correct information, the equipment is now user friendly
- Many clinicians being sceptical and suspicious of technology

4. Finance

- An assumption that telemedicine equipment is extremely costly. However, this is no longer the case and the potential saving in reduced travel costs, travel time and efficiency results in significant savings.

5. Lack of evidence as to whether there is sufficient bandwidth to allow videoconferencing to be available in primary care sites.

In the short term, three identified Health Boards (Hywel Dda, Powys, and Betsi Cadwaladr Health Boards) were encouraged to: nominate a member of senior management with telehealth responsibility; identify super-users at local sites to provide assistance /troubleshooting with video

¹⁵¹ Rural Health Implementation Group (2011b)

conferencing; identify enthusiastic clinicians to become lead clinicians in telemedicine to develop solutions in conjunction with rural health telemedicine subgroup; and discuss connectivity issues - to include across border. Six key areas for development were identified in the long term:

1. There is a need to ensure that NHS staff who work in rural communities have an opportunity within their training to obtain experience of telemedicine, so that they are aware of its potential and comfortable with the technology.
2. It is essential that staff will be able to communicate and share information across distance. Academic institutions involved in training staff for the NHS need to be involved.
3. Patient awareness of telemedicine needs to be increased because, as consumers of the services, they will be important to its development. Media reporting of the successful applications of telemedicine could play a major role in public awareness.
4. Health Boards should be encouraged to include telemedicine in their strategic intent.
5. Research and evaluation of new projects and service delivery using telemedicine to confirm cost benefits, client acceptability etc.
6. Encourage closer working between telemedicine as provided by the NHS and telecare as provided by social services.

5. SELECTED SPECIALTIES

This section summarises the evidence received by the team on just some of the specialty services provided in and for Mid Wales. This is not a comprehensive appraisal of all such services – such a task was beyond our terms of reference. Rather, certain key elements of service provision are considered here, whose future is both problematic and particularly significant to the rest of the healthcare system for the region. The three Health Boards are responsible for the totality of provision, and their plans will also need to address the other elements not reviewed here.

5.1 SURGERY IN BRONGLAIS GENERAL HOSPITAL

Approximately 1,800 people are admitted each year in Bronglais General Hospital for general surgical care, about half of which are emergencies (see Table E5.1).

TABLE E5.1 · GENERAL SURGERY ADMISSIONS BY METHOD OF ADMISSION AND YEAR OF ADMISSION – BRONGLAIS GENERAL HOSPITAL

Source: Hywel Dda University Health Board

Year	Elective Inpatients	Day cases	Emergency	Other	TOTALS
2007/08	546	606	1,124	0	2,276
2008/09	487	485	1,079	0	2,051
2009/10	440	416	1,084	0	1,940
2010/11	383	252	1,131	0	1,766
2011/12	418	280	975	3	1,676
2012/13	361	510	943	6	1,820
TOTALS	2,635	2,549	6,336	9	11,529

The total has fallen by about 450 cases over the six year period 2007/8 to 2012/13, the emergency take by 181. Interestingly, on the elective side the combined elective and day case-load reduced from 1,152 in 2007/8 to 635 in 2010/11 but since then it has risen to 698 in 2011/12 and 871 in 2012/13, mainly accounted for by an increase in day surgery.

EMERGENCY GENERAL SURGERY

An important feature of emergency surgery is the assessment phase. Put simply, the majority of patients admitted for surgical investigation do not go on to receive surgery during that period in hospital. Figure E5.1 suggests that not much more than a quarter of emergency admissions in general surgery at Bronglais resulted in operations. But those patients did require assessment by a suitably qualified team with access to the necessary diagnostic facilities, before the decision could be taken not to operate.

FIGURE E5.1 · PROPORTION OF GENERAL SURGERY EMERGENCY ADMISSIONS REQUIRING SURGICAL OPERATION AND/OR PROCEDURE(S) DURING FIRST EPISODE OF CARE BY HOSPITAL SITE AND FINANCIAL YEAR – BRONGLAIS GENERAL HOSPITAL

Source: Hywel Dda University Health Board

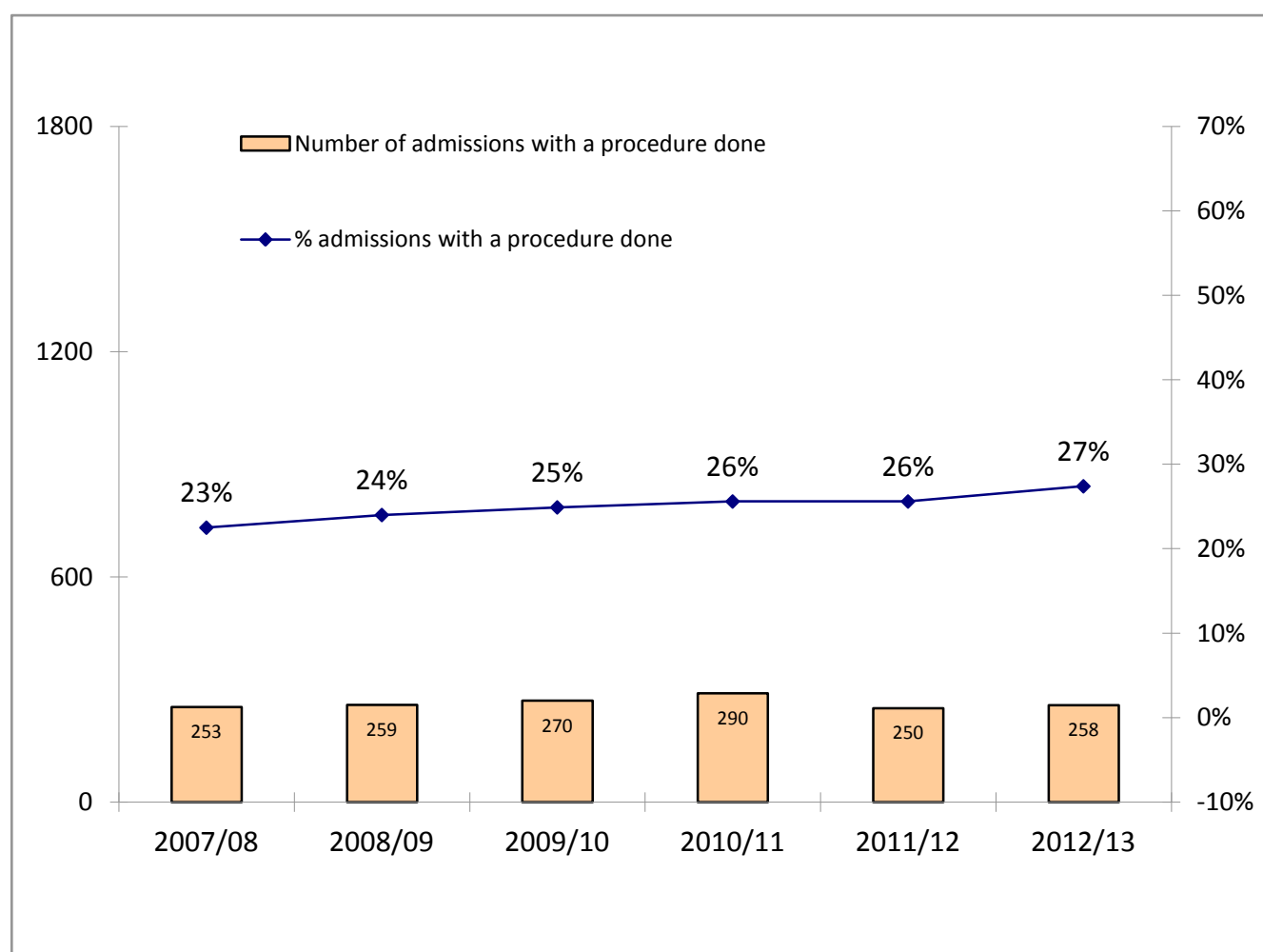


Table E5.2 (below) shows the trends by area of residence for those attending – noting that about one third of such admissions (333 in 2012/13) come from areas other than those covered by the Hywel Dda University Health Board (It is assumed that many of these will be from Powys). There is considerable daily variation in the number of emergency general surgery admissions: Table E5.3 (below) shows a two-and-a-half-fold variation in these numbers for Bronglais General Hospital. Bronglais currently accounts for about 17% of all general surgery emergency admissions for Hywel Dda.

TABLE E5.2 · EMERGENCY GENERAL SURGERY ADMISSIONS BY AREA OF RESIDENCE AND YEAR OF ADMISSION – BRONGLAIS GENERAL HOSPITAL

Source: Hywel Dda University Health Board

Year	Carmarthen-shire	Ceredigion	Pembrokeshire	All other areas	TOTALS
2007/08	10	749	1	364	1,124
2008/09	9	685		385	1,079
2009/10	5	707	5	367	1,084
2010/11	7	763	5	356	1,131
2011/12	5	621	2	347	975
2012/13	3	604	3	333	943
TOTALS	39	4129	16	2,152	6,336

TABLE E5.3 · NUMBER OF GENERAL SURGERY EMERGENCY ADMISSIONS BY HOSPITAL SITE AND WEEK OF ADMISSION, 2012/13

Source: Hywel Dda University Health Board

Number of General Surgery Emergency admissions per week	Bronglais General Hospital	Glangwili General Hospital	Prince Philip General Hospital	Withybush General Hospital	HYWEL DDA HEALTH BOARD
Maximum	29	64	3	50	140
Minimum	11	24	1	28	77
Average per week	18	50	1	39	108
Average per day	2.6	7.1	0.1	5.6	15.4
Average operations per day	0.8	2.1	0.0	1.7	4.6

WIHSC has noted submissions from the surgical staff of Bronglais General Hospital that report current audit data on emergency surgery and lodge some concerns about the proposed changes. The most common emergency procedures are incision and drainage of abscess, appendectomy, and cholecystectomy. Abdominal infections (including peritonitis) and obstructed bowel form a mixed group of cases which contribute to a majority of major operations, deaths and complications. In terms of numbers:

- 120 acute appendectomies were performed over 12 months - 20% for children and 9 for patients aged over 65 years; abnormalities were found in 85% of these with 74% having acute inflammation;
- 67 laparotomies were undertaken in 2013 for perforated bowel and acute bowel obstruction, and bleeding, with about 40 performed on patients aged over 70; crude mortality is reported as 13% (national figure cited as 25%);
- 30 patients were admitted for acute pancreatitis - with a provisional mortality rate of 6%;
- 37 cholecystectomy cases were undertaken over the year; and

- other operations included obstructed hernia and abscesses.

In total about 1,000 patients were admitted for emergency surgical care with about a third needing emergency surgery. The local view is that good practice requires much emergency surgery to be undertaken soon after diagnosis – immediately for patients who are haemorrhaging and within three hours for patients in septic shock. In 2013, 21 patients required surgery within three hours.

WIHSC has gained the impression that the clinical staff across Hywel Dda are not at one concerning the way forward and it has been stated that some clinicians feel that management is not adequately grasping the issue. There have been some attempts to evaluate the current provision of services and to explore alternatives (see below), but these seem to have stalled, and further detailed work is required.

A particular concern relates to surgical emergencies. Currently major trauma and other very major surgery (for example ruptured aortic aneurism) is taken to Morriston Hospital and all other surgery is undertaken at Bronglais with the exception of gastric surgery which is now in Withybush. Clearly, a key stage in the process is that of the assessment and diagnosis so that surgical emergencies that need active intervention can be appropriately recognised and a correctly ‘labelled’ in order that the right choice of admitting hospital can be made.

Given that patients in need of care do not arrive at Bronglais already labelled, and noting that the majority arrive apparently without any prior attention from GP or paramedic, WIHSC is not yet sufficiently clear about where in the care pathway the necessary assessment and diagnostic processes would take place if there should be a further reduction of senior clinical staff at Bronglais General Hospital (as appears to be likely in some scenarios).

From within the medical profession nationally, many drivers seem to point inexorably to further centralisation, especially in surgery. (However, it is worth noting that views appear to be changing in relation to medicine, where the Royal College is increasingly recognising that rural communities need to have services delivered in a way that recognises the different requirements that rurality brings forward). Royal College of Surgeons documents in 2012 and 2103 indicate this, as does the Deanery's approach to having a 1 in 11 on-call rota for trainees (and fewer trainees). Sir Bruce Keogh in England has also supported a move towards round-the-clock senior coverage. Further, the costs of seeking to remedy the perceived weaknesses in surgical cover are seen to be high, although there would be additional costs to expand Glangwili Hospital and equip the wider care system to manage safely the revised care pathways that are implied. Deficiencies in the current Bronglais provision have been cited by a review commissioned by Hywel Dda University Health Board. These are:

- There is no dedicated ‘CEPOD theatre’ – the reasons for deaths in the period close to operations are routinely examined by the Confidential Enquiry into Peri-Operative Deaths (CEPOD), and it is a consistent recommendation of this work that every hospital caring for surgical patients should have a dedicated, fully-equipped theatre, available at all times for patients whose condition deteriorates rapidly and needs immediate surgery, with immediate access to suitably qualified staff;
- There are not enough middle grade doctors –the need has been identified as 8, but only 5 are presently in post – with the result that such doctors are not always on site;
- There are not enough consultants; there should be a 1 in 6 rota but presently the rota is only 1 in 3 (and of these 1 is a locum, in a post not recognised by the Royal College of Surgeons);
- The volume of emergency surgery is low, which makes skill retention difficult;
- No other hospital has a single-handed colorectal surgeon: most have 3 and this allows for leave to be covered, and for some rectal procedures that need 2 surgeons in order to be undertaken safely. Post-operative cover is also better facilitated;

- Arising from attempting to cover several sites in a relatively rural Health Board, too many colorectal surgeons are said to be employed in Hywel Dda: the Association of Colo-proctology recommends that one surgeon should serve 100,000 people which would suggest 4 surgeons in Hywel Dda, but 6 are currently employed; and
- Finally, the MRI at Bronglais is not able to provide detailed pelvic structures, subsequently there is a need for certain patients to be sent to Wthybush.

These are clearly serious challenges to the safety, sustainability and cost-effectiveness of the surgical service currently provided in the hospital, which require detailed consideration. On the other hand, there is no available evidence that the current service is unsafe (and in fact the evidence cited above suggests the opposite in some cases).

In broad terms, this leaves four options:

1. Seeking to maintain the emergency surgical services that Bronglais General Hospital currently provides;
2. Centralising services on Glangwili and Bronglais;
3. Centralising services on Glangwili and Wthybush; or
4. Centralising services on Glangwili.

It is important to note that ‘centralisation’ would only generally entail a small part of the care pathway moving from Bronglais. Thus, patients might still be assessed in Bronglais, for much of the time by a surgical team that would still be based there for less complex operations, or would visit from elsewhere. Most surgery – of a less complex nature – could still take place in Bronglais, but more complex operations would typically be carried out in Glangwili or Wthybush. Some rehabilitation would then take place in Bronglais and most follow-up outpatients’ appointments would still take place in Aberystwyth, or even in local community hospitals.

Were full services not to be maintained at Bronglais General Hospital, there would be additional travel time for patients (for example to Wthybush). Some clinical opinion feels that such additional time would not be clinically critical in most cases (although for some cases e.g. testicular torsion, travel time is a factor - see also the discussion in section 1.1 of this chapter on Time Critical care above). However, in addition to issues of travel time for patients, of inconvenience and any knock on impact on road or air cover, if major and out-of-hours emergency surgery did cease at Bronglais it would be important to understand the total care pathway that would be envisaged for patients who finally undergo emergency surgery. In particular, it would be important to understand where the confirmed diagnosis would be made, and with what skills. For example, would this still occur at Bronglais, be done at the (distant) receiving hospital, be done by mobile medical or paramedical staff, or by a combination of these assisted by telemedical support? The current telelinks between Bronglais and Wthybush, which allow consultant-to-consultant links and GP opinions, operate well but are said to be not well used.

Another key issue is the working relationship between surgeons and specialists in other fields - if surgical cover were to be reduced in Bronglais other specialists have expressed their concern about the impact of this reduction on the care they are able to provide. For example, some cases may present as a problem in medicine or gynaecology, until it becomes apparent that their needs are surgical. Immediate access to a specialised surgical team then becomes critical. Some argue that this need could still be met by surgeons undertaking elective work who could still operate in Bronglais General Hospital every weekday; others point to the experience elsewhere in Wales, for example in Llanelli, where medical emergencies are received without the presence of surgical teams. However, the much greater isolation of Bronglais raises questions about the applicability of this comparison.

Detailed work is required to understand the implications of these issues, bringing together the local

specialists with the Royal Colleges, the South West Acute Care Alliance, and the Health Board, and drawing on the experience in Scotland and elsewhere, outlined earlier in this report. There is a series of complex risks and benefits to be considered, in the context of different patient pathways, and the viability of the hospital as a whole. Therefore the argument is one based on judgement – of the:

- significance of the deficiencies noted, in the context that many services fail to meet some of these *desiderata*;
- potential for mitigating the problems, perhaps through a combination of additional investment or different ways of working; and
- comparative risks and benefits of providing surgical services for the Bronglais catchment population in a radically different way, for surgical patients, and for the totality of provision.

COLORECTAL CANCER SURGERY

Colorectal cancer surgery in Bronglais exemplifies many of these issues, and has recently become a cause of great concern locally. It has been noted that bowel cancer is the fourth most common cancer in Wales and with incidence rates of 67 per 100,000 (men) and 42 per 100,000 (women). The catchment area for Bronglais is likely to produce 55 cases a year - of which about 10-15 would present as emergencies. Such cases present as high risk emergency surgery.

The reported audit data (2013) for Bronglais General Hospital gives 12 patients undergoing emergency surgery for this condition with a 30 day mortality rate of 6.7% (national average is 8.9%).

It has been suggested to WIHSC that plans to move this type of surgery from Bronglais to other locations cannot be justified on the grounds of poor outcomes in clinical terms. Further, the added pressures that would be placed upon patients and relatives by having to travel much further to access ongoing care would impact adversely upon them. Instead, it is argued that any concerns expressed by the Royal College of Surgeons about the cover for emergency surgery could be addressed by the appointment of an additional consultant. However, the recent difficulties in retaining a second surgeon, together with the other issues listed above, suggest that this option is unlikely to be viable until the other problems have been addressed.

STAFFING ISSUES

Surgery in Bronglais General Hospital has in the past relied on general surgeons with a wide experience (and different training) who are no longer being trained with such broad competence in such numbers. A Royal College of Surgeons visit to Bronglais concluded that the hospital offered a dedicated but fragile service. In part this was because vacancies at Bronglais are not attractive to many newly qualified surgeons, due in part to demanding rotas and low patient numbers. When the last vacancy occurred, advertising for a replacement was supported by the Royal College of Surgeons with a number of *caveats*:

- the post holder should not operate single handed but instead should work as part of a Hywel Dda group; and
- the post holder would have to do regular emergency work on other sites to maintain their skill sets and to ensure supervision, and thus it was intended that rotation through Carmarthen would be necessary.

Advertisement produced a poor field of applicants, and the surgeon appointed left shortly after appointment. The view of the Royal College of Surgeons is that it would not support further recruitment unless a way has been found to address the caveats it has applied. In its view only a part of the patient pathway would need to be delivered from another site, although the detail of proposed patient pathways remains to be clarified.

5.2 ANAESTHETICS IN BRONGLAIS GENERAL HOSPITAL

The service at Bronglais General Hospital is provided by 10 consultant anaesthetists supported by one associate specialist. There are no junior staff. This complement supports the provision of 24 hour resident emergency anaesthesia, intensive care, resuscitation, inter-hospital transfers, obstetric cover, and cover for all elective work. There is a second on-call tier for dealing with busy periods or when colleagues are absent on a patient transfer.

Patient transfers, by road or air, can be affected by road conditions, the hour of the day (night flights are not routine) and weather conditions. Road distances, mainly on relatively poor roads are *inter alia*: Carmarthen - 50 miles; Swansea - 70 miles; Liverpool - 101 miles; Cardiff - 110 miles; and Birmingham - 123 miles. Thus transfers needing accompanying anaesthetists can take cover away for a minimum of five hours and often much longer.

Medical cover in this specialty – as indeed in many others at Bronglais – is highly dependent on senior staff, which implies both an expensive and highly qualified level of care. Provision of safe surgical care depends upon this level of anaesthetic support. High dependency and intensive care usage has increased as the number of patients with co-morbidities increases and as high dependency care post operatively has become routine after major surgery. It has been stressed that this speciality is inevitably intertwined with the surgical services and any reduction in such services would have an automatic knock on effect for anaesthetics.

5.3 MIDWIFERY, OBSTETRICS AND GYNAECOLOGY

The key features of the obstetric service at Bronglais are that it serves a large rural and disparate locality, and has a relatively small number of deliveries a year. This complements a gynaecological service that offers oncology, urogynaecological, and termination of pregnancy services. Gynaecology clinics are offered at Machynlleth, Tywyn, Llanidloes, Cardigan and Aberaeron.

Each year, between about 520 and 570 women give birth in Bronglais General Hospital. The majority (64%) live in North Ceredigion (as defined by the location of their GP), 16% in Powys, 12% in South Ceredigion and 7% in the area covered by Betsi Cadwaladr University Health Board (source: Hywel Dda University Health Board). Of the total number of births, approximately 27% are Caesarean Sections, and a further 6% are assisted by ventouse or forceps (Table E5.4):

TABLE E5.4 · BIRTHS, BRONGLAIS GENERAL HOSPITAL

Source: Hywel Dda University Health Board

Births	Normal Deliveries*	Caesarean Sections	Ventouse Deliveries	Forceps Deliveries	TOTAL
2011	345	135	24	15	519
2012	385	156	12	16	569
2013	361	158	27	7	553
2014 (Jan-June)	153	64	14	5	236
TOTALS	1244	513	77	43	1877

* The data do not differentiate between the number of “normal births” were delivered under midwifery led care and how many were delivered under consultant led care.

The majority of women admitted to Bronglais to give birth there do so successfully. About 5% are transferred to a more specialised hospital before, or during the early stages of labour (Table E5.5). The medical staffing of the service is based on one doctor in training (a GP trainee covering essentially Monday-Friday day time), four staff grades, three consultants, and an associate specialist. A round-the-clock service is maintained and patients are cared for by senior doctors, most of whom are trained in the management of obstetric emergencies and trauma.

TABLE E5.5 · PRE- AND EARLY-LABOUR TRANSFERS, BRONGLAIS GENERAL HOSPITAL

Source: Hywel Dda University Health Board

Transfers [#]	Pre-labour		Early-labour		TOTAL
	Premature (pre 37 completed weeks of pregnancy)	Term (After 37 completed weeks of pregnancy)	Premature (pre 37 completed weeks of pregnancy)	Term (After 37 completed weeks of pregnancy)	
2011	15	5	13	3	36
2012	10	3	17	2	32
2013	17	0	14	1	32
2014 (Jan-June)	3	0	4	0	7
TOTALS	45	8	48	6	107

[#] The majority of transfers were under taken because of prematurity and the need for neonatal services.

There is a firm view among Bronglais General Hospital clinicians that this level of medical cover enables a high standard of care to be delivered which avoids maternal mortality and morbidity. It has been noted that, although many births can be assessed as 'low risk', there is always the possibility that this can change abruptly and that serious morbidity or mortality could result. Examples have been quoted of 'normal' deliveries being followed by severe blood-loss requiring fast consultant assessment and intervention, emergency surgery, and intensive post operative care. Retention of placenta is noted as a not uncommon event which occurs in low risk births.

It is recognised that the number of women for whom fast, unexpected and skilled intervention is required is small; however the potential for serious harm for the patient which may also occur (sometimes leading to high cost legal settlements) has to be acknowledged.

Powys has a well-developed midwife-led service which achieves relatively high rates of unassisted and home delivery. It has well-developed links with a variety of consultant-led services in surrounding hospitals, and works closely with the Bronglais-based service for mothers in North-West Powys. However, the Powys service reports uncertainty about precisely which mothers and which clinical conditions can always be accepted in Bronglais, and notes several instances where mothers have unexpectedly been informed late in their pregnancy that Bronglais will not, in fact, be their location of birth. Such mothers are then faced with having to go to Carmarthen, as admittance to another hospital (such as in Wrexham, which may actually be nearer than Carmarthen for some women) is not automatic. In 2013/14, 82 Powys women went to Bronglais General Hospital (although this number appears to be falling, perhaps because of uncertainty over which hospital the delivery will occur in), and of these seven were transferred to Glangwili Hospital, Carmarthen.

5.4 CARDIOLOGY IN BRONGLAIS GENERAL HOSPITAL

WIHSC has been advised that since 2008 considerable efforts have been made to ensure that patients admitted to Bronglais with heart failure are managed by the cardiology team. Between January 2009 and December 2013, 758 such patients have been recorded with over 80% of such patients being managed by the cardiology team.

Audit data has been cited for a three year period that shows 558 inpatient episodes recorded, of which 459 were managed by cardiologists and 99 managed by other physicians. Mortality rates for the former are given as 7.1% average, with 17% for the latter. National audit data for first ever admissions shows that over the last three years the average mortality rate of patients cared for by cardiologists is 7% compared with the Bronglais General Hospital figure of 6.1%. The overall mortality rate for Bronglais is given as 8.1% compared with a national figure of 9.4%.

Over 50% of admissions are for patients aged 80 years or over, with 35% being over 85. The average length of stay is 12 days - just under the national average. Follow-up of the most vulnerable patients after a hospital stay seeks to ensure that patients who cannot be managed in the community are admitted directly to the cardiology ward or to a palliative care setting. From within this service WIHSC has received some comment that management structures within Hywel Dda are hard to engage with. Further, there is said to be no cardiology lead. It is reported that teleconferenced Multi Disciplinary Teams sometimes work well, but not always, and more work on telehealth is needed. However, whilst technology is useful, it is not sufficient - people need to want to work collaboratively.

INVITED SERVICE REVIEW OF CARDIOLOGY IN HYWEL DDA UNIVERSITY HEALTH BOARD BY THE ROYAL COLLEGE OF PHYSICIANS - OCTOBER 2013

One element in the consideration of how services are to be delivered from Bronglais General Hospital was a contribution from the Royal College of Physicians (RCP). It undertook in October 2013 a review of cardiology services at the invitation of the Hywel Dda Board. Their report¹⁵² is summarised below with a particular focus on its impact upon services in Mid Wales. This invited review was prompted by a concern from within the Hywel Dda consultant body about:

- ‘anecdotal and untoward incident reports’ regarding the care of patients with acute cardiological problems;
- apparently high RAMI (Risk Adjusted Mortality Index)¹⁵³ scores within Withybush Hospital; and
- data collection systems.

Findings

The report stated that the Board area has a relatively small population (380,000). It noted the catchment population of Bronglais was only 85,000 and remarked that the (unstated) catchment population of Withybush Hospital increased by 50% in the holiday period. No similar considerations at Aberystwyth and its environs were reported. Recruitment difficulties were reported for consultant cardiologists. Further, there is no overall lead for cardiology in Hywel Dda.

On the quality of care, the report notes ‘firm examples of sub standard care’ - one from Prince Philip Hospital in Nov 2009, and three from Glangwili Hospital (paragraph 6.2), but goes on to conclude: “Overall we found it difficult to reach firm conclusions (regarding whether care was acceptable). We could find no generic evidence of poor practice”. The report does identify problems in the radiology

¹⁵² See <http://www.wales.nhs.uk/sitesplus/862/opendoc/237099>

¹⁵³ This is a statistical means of alerting hospitals to possible areas of poor care; essentially it seeks to compare the mortality rates of different hospitals having adjusted for any differences of case mix that they each have. The "expected" rate is 100.

department of Withybush Hospital and notes (paragraph 6.1) that it is not always possible for cardiologists in Withybush and Bronglais Hospitals to see cardiac admissions within the recommended 24 hour timescale. However, neither the extent of these deficiencies nor their impact is quantified.

The report does note that chest pain pathways were not generally well developed. It states that Morriston Hospital was receiving more patients than it could properly support, with long waits for transfer to the catheter laboratory. Paragraph 6.4 points out that logistics are a challenge and that patients from Bronglais General Hospital (the furthest away from Morriston) have the longest waiting times for transfer, but does not explain this phenomenon.

Procedures for reporting and addressing serious untoward incidents (SUIs) are a key element in ensuring quality care. The report notes two cardiologists from different hospitals raising concerns about the poor service that patients receive with, in addition, the South Wales Cardiac Network (May 2013) recording that 'the Board may not be aware of how poor some cardiac services in Hywel Dda University Health Board are'. The review had its attention drawn to 'a number' (unspecified) of incidents of major concern, and to anxieties about the mechanism for reporting untoward incidents. Indeed, the review states that the reporting system for SUIs seemed 'patchy' and received comment from some clinicians that management was not interested in the performance data - a comment that was rejected by the Associate Medical Director.

For reasons that were not fully explained, only one patient was interviewed and the concerns raised related to services at Morriston Hospital and the patient's subsequent return to Glangwili Hospital.

Paragraph 6.7 notes the strong concern of the RCP at the way that data was collected and used; in particular apparently high RAMI scores were being reported for Withybush Hospital. At one point the RAMI score was reported as being 120, but this then reduced to 87 when adjustments were made to include data on 6,000 cases that had been "overlooked by the initial audit". The report comments that 'despite repeated questioning we were unable to understand where and if this error of data collection occurred or indeed which figure for the RAMI (if either) is likely to be correct.' Issues with data recording and analysis have subsequently been the subject of a review by Professor Stephen Palmer.

The outcome of the visit was a recommendation (in section 7 of the report) that cardiology services for the Hywel Dda area should operate on a "hub and spoke" model with the hub being in Glangwili as 'the current situation in Bronglais and Withybush Hospitals is not tenable'. The consultant cardiologist presence at Bronglais Hospital would thus reduce to a once weekly visiting service to be 'backfilled by specialities that continue to offer dual accreditation' and by considering 'imaginative ways of encouraging new consultants, and these could be...financial, offering academic or research sessions, or offering sabbaticals.'

To support the hub and spoke approach, an enhanced helicopter service would be needed, including night cover. In addition, clearer care pathways would be needed to guide all NHS components that are involved in providing cardiac care so that the role to be played by each component is defined. The RCP commented that services had been subjected to several ongoing changes and re-organisations that had been a distraction - leading to a feeling among consultants that the Board was rudderless.

Comment on the report

Is Bronglais General Hospital offering good care?

Whilst the report provides some concerns about patient care within Withybush Hospital, it offers little evidence of poor care within Bronglais itself. The conclusion that 'patients served by these hospitals do not appear to have optimal care' is not one that, to WIHSC, has been fully justified by the evidence reported. Indeed, the only concerns about Bronglais relate to worries about, in the main, future consultant recruitment and the lower rates of revascularisation which are said to be related to the

distance of Bronglais General Hospital from the centre (Swansea). It is not immediately clear how the latter concern would be addressed by changing the centre from Swansea to Carmarthen - or indeed whether distance alone is the only impediment to be overcome.

Hub and Spoke?

If implemented as described, the model outlined in the report would have several implications for the services from Bronglais. First, it would reduce the total number of consultant physicians and would remove the cardiology cover. Second, it would impact upon the hospital's ability to properly diagnose and treat the patients who would continue to be admitted to Bronglais General Hospital with heart problems. Third, for the foreseeable future the changes would be likely to increase the time that elapses from when patients feel unwell to when they commence effective treatment.

Care pathways

The report correctly notes that there is a need to improve the clarity of the care pathways that should be followed. However, the report recognises that whilst these might be easily described for some patients, 'some patients, for instance the elderly or those with multiple co-morbidities' might be better managed locally - as would patients 'where the diagnosis is not absolutely clear'. WIHSC has two concerns with this aspect of the report.

First, it is not made clear how patients retained locally would then be managed in Bronglais if the present clinical skills are removed from the 'spoke' and positioned at the 'centre'. Second, the recommended changes do not appear to have sufficiently appreciated the different routes into the care system that patients needing cardiac care take. Specifically, there is some evidence to suggest that many unwell patients presently arrive at Bronglais General Hospital without any previous GP or paramedic involvement. The report appears to address cardiology from the narrow standpoint of consultant practice in a DGH setting, without enquiring sufficiently deeply into what, if any, pre-hospital care that might or might not confer a provisional diagnosis upon those feeling unwell (for example, being breathless, or experiencing chest pain) ought to be in place if a hub and spoke model is to work safely.

Distance and speed

Related to the issue of care pathways is the problem of distances and travel times to appropriate clinical skills. The report recommends that night time air ambulance cover should accompany the proposed hub and spoke model. From the evidence seen by WIHSC on this matter, it is unlikely that this capability will be available for a number of years.

Conclusion

This section has offered a critique of the 2013 invited review conducted by the RCP. WIHSC has a number of concerns about the approach taken by the College, and therefore the conclusions to which the review came. WIHSC is not presently persuaded that the proposed hub and spoke model a) can be safely implemented soon or b) is a response that is clearly superior to alternative options that others have proposed. WIHSC understands that those alternatives - which are alluded to in this report - are now to be given serious consideration by the relevant professional bodies.

Towards the end of the period of this study, WIHSC received a letter from the Royal College of Physicians (Wales) relating to the invited service review, which is included at Appendix 14 of this report. The analysis in this letter appears to coincide with the key elements of our own analysis as set out above. It helpfully highlights the willingness of the College to work with the Health Boards and others to look at a whole systems review of acute medicine provision for the region. This approach is explored further in the Conclusions and Recommendations below.

5.5 CANCER

As with most other services, the objective is to deliver services locally wherever possible. Centralising services should only occur when necessary - for example when expensive radiotherapy equipment is deployed. The challenge therefore is to balance efficiency with patient experience whilst also ensuring equitable access to services such as radiotherapy.

There is some evidence that patient attendance reduces where the travel time to hospital is over 45 minutes. Some services are delivered locally - for example chemotherapy is provided in Powys using a mobile Tenovus service. Concern has been expressed that patients with mild disease might opt for analgesia rather than small doses of radiotherapy if travel is difficult.

WIHSC has been advised that a peer review of some processes in the cancer network reveals some concerns about Hywel Dda. It has been suggested that 'process' standards are not being met, however there is no evidence that outcomes are worse than in other areas. This aspect may need further study however. Mortality in itself is a poor indicator of quality given that many patients die at some point; longevity and the quality of life for patient and family might be equally important.

WIHSC has been advised of persistent concerns regarding access to specialist support at Bronglais General Hospital where one consultant treats more than one tumour type and is not a full member of a Multi Disciplinary Team. There are however good telemedicine links for some services, but not for all tumour sites). Hywel Dda also is said to have gaps in some support services (e.g. pathology), and this is particularly true of Bronglais.

BREAST CANCER

The breast cancer service provided in Bronglais provides a useful illustration of the possible impact on care of local and more remote provision.

Women in the Bronglais catchment area who develop breast cancer can have almost all their investigations and most of their treatment at Bronglais General Hospital if they wish. The majority of women diagnosed at Bronglais continue with treatment in Aberystwyth, other than those requesting reconstruction. Women advised to have radiotherapy have to travel to Singleton and a few go to Shrewsbury. The unified service in Bronglais is able to offer careful coordination of care and personal support for women travelling the care pathway.

Women diagnosed in the Breast Test Wales screening service regularly transfer their care to the symptomatic service at Bronglais, especially older women living in less accessible locations. For example they may wish to avoid travelling to Llandudno and Wrexham, if they live in South Gwynedd or North Powys.

Women in Ceredigion switch initially to avoid returning to Swansea or for definitive treatment in Llanelli or Withybush. In particular, elderly women with elderly partners in poor health, those with little family support, no car, and those with various co-morbidities often do not want the added anxiety of travelling.

Specialist staff working in this service at Bronglais report that a number of women actually choose to undergo mastectomy in preference to breast conserving treatment to avoid three to five weeks of radiotherapy away from home. This includes younger women with young children.¹⁵⁴

They also report that, following the recent changes in colorectal surgery in Bronglais General Hospital, increasing numbers of women with suspected gynaecological cancer now have investigations (MRI in

¹⁵⁴ Reliable data on this are not available. However, one review of notes identified approximately five women a year opting for mastectomy for this reason. The majority were over 65 but included at least two young women in the past 18 months who had young families.

particular) and surgery in Swansea. This is because the gynaecological team in Bronglais may need the backup of the colorectal team which is no longer available.

It has not been possible to substantiate the numbers of patients affected in these ways, because this data is not routinely collected. However, an opportunity arose recently to observe the impact of temporary service relocation. State-of-the-art mammography equipment was recently installed at Bronglais to enable the screening of younger women at high risk of breast cancer, and to monitor women with conditions such as lobular neoplasia. During the installation period, which took six weeks, the hospital was unable to offer the triple assessment process to women over the age of 35 referred to the breast clinic. As a temporary alternative, these women were offered investigations in Llanelli or Witherbybush. In a typical six week period, approximately 60-70 new patients would require the relocated service. A retrospective review of clinic records suggest that during this period 17 women declined travelling to Llanelli or Witherbybush, resulting in delayed investigation, including four women from Llanidloes, seven women aged 70 and over, and one younger woman with two young children.

5.6 MENTAL HEALTH

Mental health provision across Mid Wales is predominantly community-based. It has benefited in recent years from additional investment, for example in primary mental health services, and from the development of crisis resolution services. Dementia care has also expanded.

However, significant challenges remain. In Powys, the strategy is set out in 'Hearts and Minds: Together for Mental Health' and focuses on a Primary Mental Health service, a Crisis Resolution Home Treatment team, and better integration with physical health. Current provision for Powys patients comes from three surrounding providers - nearly half travel to North Wales (Betsi Cadwaladr University Health Board), nearly half travel south to Aneurin Bevan University Health Board, with the remainder (about 8%) being cared for by Abertawe Bro Morgannwg University Health Board. It is felt that greater coordination of NHS providers, especially in-hours is needed. The Powys teaching Health Board is exploring how to increase provision in-county, without returning to the problems of small scale and professional isolation which dogged earlier services. Options are thought to include reducing dependence on inpatient provision by, for example, supported housing developments, and attracting English patients to centres of excellence, thereby supporting the development of a rehabilitation service for people with co-morbidities. These plans are some distance from realisation.

Current provision in Montgomeryshire is dependent upon a service supplied by Betsi Cadwaladr University Health Board, and also includes a small, isolated dementia assessment unit, with additional services from England. The crisis resolution team is said to be struggling to cope with demand and there is a long waiting list for psychology services. It is felt that acute inpatient units should be no more than 25 miles away, but many patients still have to travel to England. GPs report significant and persistent problems with the level of support available to their patients in the community, which can result in slow and complex access to services for patients in crisis. These issues are receiving urgent attention.

The Child and Adolescent Mental Health Service is provided by small teams spread across a large area. A Mid and West Wales network approach has been tried in the past but struggled to meet the needs of the dispersed population.

In Ceredigion, one community mental health team and consultant psychiatrist serves the population from Aberaeron to Machynlleth. Therapeutic day services and primary care mental health services have developed effectively.

Access to inpatient facilities for this team now requires use of facilities in Carmarthen since the closure of Afallon ward in Bronglais General Hospital in 2012. This withdrawal of inpatient facilities – occasioned by the unsafe level of staffing - has proved to be controversial, and the rapid withdrawal of

the service served to undermine confidence in the future of all specialised services in Bronglais. Ceredigion staff are appreciative of the good facilities and service available to inpatients in Carmarthen, but report difficulties in admitting their patients, a reluctance by patients and families to travel, and difficulties in arranging timely transport for patients detained under the Mental Health Act. This latter has led on several occasions to patients being detained in Aberystwyth police station while transport is arranged.

Accessing a remote inpatient unit also causes difficulty because beds are under pressure and admissions cannot be influenced from a distance (e.g. deciding who should be discharged in order to admit a Ceredigion patient). The presence of mental health beds in Ceredigion was felt to be a valuable service, especially in providing support for patients needing to come into hospital for a short period of support. Admissions to Carmarthen now run at between one and two per week, which some feel may be fewer than is appropriate because of the logistical challenges of getting patients there. Recruitment of medical staff has been difficult because of the perceived isolation of the service. It is difficult to provide all aspects of service provision through the medium of Welsh because of a relative shortage of Welsh-speaking staff.

Provision of dementia services in Ceredigion has developed well in recent years, particularly in the earlier and middle stages of the progression of the condition, with a memory clinic in Aberystwyth providing accessible expert help, and a growing role for the third sector. But significant gaps in service persist, especially for patients with more serious levels of cognitive impairment and with challenging behaviour. Additional residential facilities are required for such patients.

5.7 COMMUNITY HOSPITALS

There are a number of community hospitals that serve Mid Wales, offering a variety of types of health and other care. Appendix 10 details the services on offer at the community hospitals across Ceredigion within the Hywel Dda University Health Board area, and Appendix 11 provides an equivalent list for Meirionnydd within the Betsi Cadwaladr University Health Board area. Many have an inpatient capacity - mainly for older patients whose care and rehabilitation needs can be met, usually for a short while, in this setting. Some also offer a range of outpatient, diagnostic, and other services (for example renal dialysis) so that patients living within the environs of the community hospital can get many aspects of care and advice without having to travel greater distances to the larger District General Hospitals.

Within Powys itself, the Local Health Board has used a range of initiatives to seek to embed community hospitals into its healthcare architecture at the neighbourhood level. Facilities are at Welshpool, Machynlleth, Newtown, Llanidloes, Knighton, Llandrindod, Builth Wells, Bronllys, Brecon and Ysradgynlais. Surrounding Health Boards also operate facilities in Dolgellau, Mold and Tywyn and at Aberaeron, Cardigan and Tregaron. As a defined care component, community hospitals offer:

- a setting to which patients leaving District General Hospitals can be sent when they no longer need that hospital's treatment capability, but still need a period of recovery before going home;
- a means by which GPs can directly provide inpatient care for their patients where appropriate - bridging the primary/secondary care settings;
- a base at which visiting consultants from both English and Welsh hospitals provide outpatient consultations, and some day surgery at Brecon and Llandrindod;
- a base from which some diagnostic services operate – X-ray at five hospitals and endoscopy at Brecon and Llandrindod;
- a facility from which many aspects of telecare can be used;
- a minor injuries service;

- support for palliative and end-of-life care; and
- a base from which both health and social care can be (and in some cases is being) jointly planned and delivered.

Considerable controversy has surrounded recent changes to the small hospitals in Cardigan and Blaenau Ffestiniog. Both the relevant Health Boards are currently seeking to develop service models which do not include the small hospitals which have hitherto provided visible and trusted local care. It is beyond the terms of reference of this study to explore and comment on the specific needs of these two localities.

However, there is little doubt that many people living in these areas remain unconvinced that their Health Board has an acceptable plan for the future, and are very concerned that the loss of their hospital will also mean a diminution in services. Their concerns have been highlighted in the earlier chapter on public views. The problem is further complicated by the pressures facing primary care in these localities (see below), which emphasises the inter-dependence of all elements of the healthcare (and social care) system in these relatively isolated communities.

Considerable work has been carried out to clarify and rationalise the role of community hospitals and position them more clearly within the care delivery process. There is still some way to go to ensure that community hospitals can make an efficient contribution to a coherent pattern of care. The development of a multi-agency service in Builth Wells, and the plans for a shared service in Tregaron, demonstrate the potential for holistic and efficient services that shared facilities can support.

It seems clear that community hospitals will continue to be an important facility that straddles both primary and secondary healthcare and health and social care settings as financial and service pressures drive public bodies towards greater collaborative approaches to extract the most from (locally accessible) resources. Health Boards in Mid Wales are looking for opportunities to add both physical and remotely accessed health services to community hospital sites as one way of reducing the sense of relative isolation that rural communities feel. As the pathways of care relating to people being taken suddenly ill, or being injured, are refined in the future, the expectations that are then placed on some or many community hospitals for aspects of these pathways may need redefinition.

5.8 PRIMARY AND COMMUNITY CARE

The circumstances of general practice across Mid Wales vary considerably, as do views of the future. However, WIHSC was struck by a widespread and deep-rooted concern for the future, coupled in the worst cases by a feeling of hopelessness, as a series of complex and intractable problems remained unsolved. GP practices are well distributed across Mid Wales, matching the distribution of citizens. There are 19.75 Whole Time Equivalent GPs in Meirionnydd; the distribution of GPs in Powys and Ceredigion is shown in Tables E5.6 and E5.7.

Consultation rates in general practice across Wales have increased steadily for many years, as the burden of disease has changed, and more care is provided in community settings. This has not been always been matched by an equivalent number of additional whole time equivalent staff and other resources, with the result that staff work longer and harder, or increasingly opt for part time working.

Against this background, the most common cited challenge in Mid Wales was the inability to recruit new GP partners as current GPs retired – none of the last five partner vacancies had attracted any applicants. Posts were being filled in a variety of temporary ways, but this was felt to be sub-optimal and not sustainable.

TABLE E5.6 · NUMBERS OF GENERAL PRACTITIONERS (GPs) AND PRACTICES, CEREDIGION

Source: Hywel Dda University Health Board – August 2014

GP locality	Number of Practices	Number of Contracts [#]	Number of Contractors
North Ceredigion	8	8	24
South Ceredigion and Teifi*	7	8	29
CEREDIGION	15	16	53
HYWEL DDA TOTAL	55	61	217

[#] Some practices hold more than one contract with the University Health Board due to mergers and takeovers

* This locality has seen 2 practices merge, they are now considered one practice as from 1st April 2014

TABLE E5.7 · GENERAL PRACTICES AND PRACTITIONERS, POWYS

Source: Powys teaching Health Board, July 2014

GP practice	Number of GP partners	Number of salaried GPs	TOTAL
Brecon	10	3	13
Ystradgynlais	7	3	10
Haygarth	6	2	8
Crickhowell	7	-	7
Llandrindod Wells	8	-	8
Builth Wells	4	-	4
Knighton	2	1	3
Rhayader	1	-	1
Presteigne	3	-	3
BRECON AND RADNOR TOTALS	48	9	57
Newtown	7	-	7
Welshpool	7	1	8
Llanfyllin	8	-	8
Llanidloes	5	-	5
Montgomery	4	-	4
Llanfair Caereinion	5	-	5
Machynlleth	2	-	2
Cemmaes Road	3	-	3
MONTGOMERYSHIRE TOTALS	41	1	42
POWYS TOTALS	89	10	99

A significant proportion of current GPs, and other staff such as practice nurses, are likely to retire in the next few years. The Health Boards have calculated the possible impact of the age profile of staff in different ways. In North Ceredigion, it is possible, for example, that about one sixth of current GPs will wish to retire in the next three years, and more than a third of the practice nurses (Table E5.8); in Meirionnydd, perhaps a third of medical staff will have reached retirement age by 2020 (Table E5.9).

TABLE E5.8 · POTENTIAL RETIREMENT RATES OF WHOLE TIME EQUIVALENT (WTE) GENERAL PRACTITIONERS (GPs) AND PRACTICE NURSES (PNs), CEREDIGION

Source: Hywel Dda University Health Board – August 2014

GP locality	Submitted Data																	
	WTE GPs	Potential Retirement								WTE PNs	Potential Retirement							
		≤ 1yr		1 - 3 yrs		3-5yrs		TOTAL			≤ 1yr		1 - 3 yrs		3-5yrs		TOTAL	
		n	%	n	%	n	%	n	%		n	%	n	%	n	%	n	%
North Ceredigion	16.9	1.55	9.2	1.2	7.1	0	0.0	2.75	16.3	7.6	0	0.0	3	39.5	2.2	28.9	5.2	68.4
South Ceredigion & Teifi	21.25	1.7	8.0	1.75	8.2	5	23.5	8.45	39.8	10	0.9	9.0	2.4	24.0	0.4	4.0	3.7	37.0
HYWEL DDA TOTAL	168.75	8.6	5.1	14.6	8.7	26.0	15.4	11.2	29.2	77.7	3.3	4.2	9.98	12.8	9.93	12.8	8.9	29.9

TABLE E5.9 · FULL TIME EQUIVALENTS (FTEs) AND PERCENTAGE OF THOSE REACHED RETIREMENT ASSUMPTION BY STAFF GROUP AND YEAR, MEIRIONNYDD

Source: Betsi Cadwaladr University Health Board

Year	Full Time Equivalents (FTEs) of those reached Retirement Assumption		% of workforce FTE reached retirement assumption age
	Medical and Dental	Nursing and Midwifery Registered	
2014	-	16.88	27.81%
2015	0.43	17.55	29.63%
2016	0.57	24.03	40.55%
2017	0.57	26.99	45.42%
2018	0.57	33.79	56.63%
2019	0.76	39.49	66.32%
2020	0.94	41.29	69.59%

These estimates are inherently problematical, but serve to illustrate the scale of the challenge.

The most commonly cited root cause was for the recruitment difficulties in the evidence received by the study was financial – the removal of the Minimum Practice Income Guarantee (MPIG) was predicted to reduce practice income in the affected practices by 15% over the next seven years which, because there were so few other income opportunities in rural areas, would make the practices unviable. A pessimistic coping strategy was described, in which practices systematically ceased to provide services for which they were not paid over the coming years, resulting in serious deterioration in the quality and comprehensiveness of service provision, and unsustainable strain on other parts of the healthcare system. Several other causes were relevant. They included:

- difficulties in filling rural trainee places, despite repeated efforts to target recruitment and develop more attractive training packages;
- recruitment problems with primary care more generally, including both practice nurses and district nurses;
- the traditional GMS contract, although attractive to the older generation, did not find favour with many younger doctors, who were less willing to commit to an equity-based partnership; and
- deficiencies in the primary care estate, including too many small buildings, and a shortage of capital to address the problem.

WIHSC has been advised that no comprehensive plan has yet been crafted in response to the challenges facing general practice in Mid Wales, although a national plan is expected soon from Welsh Government. Locally, a wide variety of ideas have emerged from the study, most of which have the potential to ameliorate aspects of the problem in some localities, and many of which are currently being explored. They are grouped here for ease of understanding under seven headings:

1. DEVELOPMENT OF COMPLEMENTARY SERVICES

There are many examples where other elements of the healthcare system can either relieve – or, conversely, inappropriately add to - the workload of general practice, and where Health Boards can play a role in re-balancing the activity of the whole system to ease the burden on general practice. Most also result in improved quality of care:

- End-of-life care - Mid Wales has been hit by the loss of some hospice and nursing home capacity, resulting not only in a poorer service for some patients, but also increased workload for general practice;
- Specialised nursing - nurse assessment and triage in practices can result in more appropriate use of GPs' time, and the potential contribution of nurses to areas such as chronic conditions management has yet to be maximised;
- District Nursing workloads are substantial which leaves little space for the development of nursing roles which might improve patient care and reduce the inappropriate use of GPs;
- Mental health provision – difficulties in accessing specialist mental health services in North Powys are currently serious, and lead to unproductive use of GPs' time; more timely access to services such as counselling and psychotherapy has the potential to improve patient care and reduce the level of activity in general practice;
- Consultant outreach services – direct access to selected consultant services and shared clinics in GP premises have the potential to improve treatment and referral patterns, and to enhance the quality of care available; and
- Community pharmacy – further development of services such as minor ailments and medicines review would improve accessibility and quality, while reducing GP input.

Each of the Health Boards pointed to many examples where such services had expanded over recent years. Others, including for example the Hywel Dda Community Health Council and many GPs, argued that such expansion had not kept pace with the transfer of care into community settings.

There is also considerable inequity across Mid Wales in the provision of some of these services. The study was presented with evidence relating, for example, to osteoporosis – where an excellent service based on Bronglais General Hospital does not serve eastern Mid Wales – and multiple sclerosis – there are no designated MS nurses for Powys.

2. CREATIVITY IN NEW MODELS

Many of these developments can be successfully introduced by individual practice, but others benefit from some collective creativity and some help in implementation. Health Boards, using the developing, locality-based clusters have an important role to play here in bringing together the disparate resources for analysis and development work, and providing material support (for example in helping to organise staff development opportunities and the associated cover for absence). Where locality networks have been developed there is scope for these to be working out what is needed and how such needs might be met. Further, developments that have taken place in these clusters (for example with dementia, frailty, and falls) could be extended. It is vital that all these new models include all those services upon which people rely, particularly those from local government, the third and independent sectors and the NHS.

There was a view that asking GPs to take on secondary care work would be difficult – partly because clinical assistants are paid too little, and partly because there are insufficient numbers of GPs. However there was support for further development of the roles of ‘GPs with special interests’ which, although expensive, are appropriate if used where they are genuinely bridging the divide between primary and secondary care.

3. SHARED FUNCTIONS

Small practices can struggle to sustain a critical mass of support staff. There are already some examples of nearby practices sharing scarce nursing and other resources. There is also scope to develop the healthcare estate, so that premises for primary care staff are co-located with other services.

4. BUSINESS SUPPORT

Small practices can also struggle to cope with the challenges of ensuring ‘business continuity’. Health Boards and clusters can help, for example by supplying GPs for practices that are under particular strain, and helping practices to bid for delivering GP training locally (for example by enabling GPs to have time to train younger doctors). Health Boards and practices can also share risk more effectively - for example in arranging locum cover, and meeting peaks of demand. Concern was expressed, particularly in Powys, about the fact that GPs wishing to work as locums in England and Wales have to undergo separate administrative processes in both countries. Anecdotally this has led some GPs not to register for work in Wales, where the opportunities for work are less.

5. NEW ORGANISATIONAL MODELS

The respective merits of equity partnership, employment (by other GPs, or the Health Board), cooperatives or other organisational models in primary care are hotly contested, and no model commands universal support. So far, little thought appears to have been given in Mid Wales to alternatives to the conventional GP partnership which predominates.

6. FINANCIAL SUPPORT

As explained above, the abolition of MPIG was contentious for those practices affected by it. Strong

arguments were advanced against what was regarded as the threat it posed to general practice.

7. SUSTAINABILITY

Many GPs and other primary care staff reported that it was difficult to plan for different ways of organising and providing care where there was so much uncertainty about the future of local models of care, finance and staffing. Greater certainty about the future would be strongly welcomed. This issue is explored in the next section.

While General Practice is at the forefront of considerations of sustainability in primary care, significant challenges also face other elements of the service. The Royal College of Nursing pointed out in their evidence to the study, for example, that 27 % of NHS community nurses across the UK are over 50 and will have retired within the next 10 years, whilst ‘the loss of the services at Bronglais appears to have reduced the pool of nurses and their overall level of skill and experience’. The RCN suggested that telemedicine could play a greater role in addressing some of the travel challenges in the area, as long as it is supported with appropriate training and doesn’t simply shift a potential lack of resources from one area of need to another. They also endorse an effective implementation of integrated care.

6. CLARITY AND CERTAINTY

One of the most powerful and commonly shared concerns expressed to the team by both clinicians and lay people alike concerned the debilitating effect of prolonged uncertainty about the future of key elements of service provision. This was expressed most strongly in relation to Bronglais, where people reported their perception that the Health Board has been seeking to ‘run down’ the hospital over many years. The Hywel Dda Community Health Council stated in their evidence to the study that Bronglais General Hospital had been ‘incrementally dismantled’ over several years. Many people cited numerous examples of actual or rumoured change which were gradually having the effect of reducing the capacity of the hospital to cope with a full range of district general hospital services. Many felt that the approach of the Health Board had been mendacious. They regarded its (unwritten) strategy as being to reduce its overspending and meet the needs of communities to the south of Ceredigion by ‘salami slicing’ Bronglais, while justifying the approach on spurious safety, quality or staff recruitment arguments.

The Health Board strongly refuted this accusation. They pointed to numerous capital and revenue developments in Bronglais General Hospital and North Ceredigion generally over the past few years which were testimony to their attempts to address genuine challenges to the quality and sustainability of services, and reported that many of the ‘threats’ to Bronglais were based on exaggerated or inaccurate claims. Their intention was simply to ensure that the services provided by all of their establishments were safe, of good quality, and sustainable.

Regardless of the merits of the individual points of contention, there is no doubt that the persistent concern over the future of service provision is harmful. The absence over many years of a clear and comprehensive view of the future of the hospital from the Health Board has allowed these fears and suspicions to spread and become embedded.

Like other complex organisations, hospitals, GP practices and community based services rely upon there being clarity about their role and function and some certainty about their future. If concerns are regularly expressed about the resilience or appropriateness of particular services, then those working in such services may feel the need to seek other employment, and professionals considering taking up vacancies in such fields may opt for a more certain position elsewhere.

Hospitals and practices that are thought to have problems recruiting or retaining staff are attractive only to a select sub-set of doctors and nurses willing to work in such circumstances. Concerns relate not only

to the usual personal financial rewards but to wider concerns about professional satisfaction - giving good patient care, working with supportive and progressive colleagues, and having a reasonable balance between demanding clinical work and family and leisure time.

Certainty is not merely about whether the hospital or practice will exist in a few years' time. It is also about there being both clear and dependable systems of care for different kinds of patients. Clinical services that operate spasmodically throughout the year; or which depend upon a succession of locum agency or temporary staff; or which regularly change who can be cared for, when, and where, are usually less attractive to staff seeking to make a long term commitment to particular employers, locations and services.

F. CONCLUSIONS

1. THE HEART OF THE MATTER

Healthcare in Mid Wales is full of paradox. For example, people here can experience great difficulty in getting access to care, because of long distances and threadbare transport infrastructure - yet the health of the population is relatively good compared with most of Wales. Services have expanded hugely over the past few decades - in the late 1980s, for example, there were 21 consultants on the staff at Bronglais General Hospital: now there are 50 - and yet there is enormous public concern about the future of care provision, and a very real fear in many quarters that some vital services are under imminent threat. And some aspects of care provision are really difficult in these remote settings, where specialist colleagues are few in number and often many miles away – and yet care and outcomes in Mid Wales often match or exceed provision in supposedly ‘easier’ locations.

Mid Wales therefore presents an unusual set of opportunities and challenges to those trying to plan good, sustainable care for the future. While taking full account of the broader constraints and pressures on the NHS in Wales, and its inter-dependencies, services here need to be thought through from scratch, and not made to fit a model invented for others.

In practice, this has been very hard. Healthcare provision in this part of Wales has become highly contentious. Interestingly, though, we have been impressed throughout this study by what unites people rather than what divides them. Everyone we have heard from accepts that the future will be defined by the four dimensions highlighted in our terms of reference – the accessibility, quality, safety and sustainability of provision.

The differences of perspective are not, therefore, over aims, but over means. **The future of provision in Mid Wales boils down to a discussion about ‘How’ – how are we to ensure the sort of service that we all agree is desirable.** This has often been clouded in the past by the sheer complexity and inter-relatedness of issues, by inadequate or poorly shared information, and all too often by mutual distrust and lack of confidence.

We are not the first people to have considered how best to meet the healthcare needs of the people of Mid Wales, and this study has built on the thinking of a wide range of healthcare professionals, lay people, managers and planners and others who have lived the realities of service provision here throughout their professional lives. Our brief was not to prepare a ‘plan’, or to make decisions about the future – both of these are the statutory responsibilities of the three Health Boards and the other NHS bodies who cover this part of Wales. Rather, we were asked to offer ‘a firm foundation upon which to develop a strengthened approach to the joint planning of health services in this area’.

In these Conclusions, therefore, we address those aspects of the ‘How’ question that we believe lie at the heart of the matter. This is not a comprehensive plan, but it is the beginnings of one. With the huge advantage of looking at the issues with outsiders’ objectivity, we have tried to lay out for all readers where we think that further work by all parties has a real potential to unlock some of these thorny issues. This chapter therefore divides into seven parts, as follows:

1. Primary and community services
2. Secondary care services
3. Secondary care staffing
4. Improving access
5. Mental health services

6. Making change happen
7. Next steps

Mental Health services are addressed here separately because there are several distinctive challenges in their delivery. The division between primary/community, secondary and tertiary is becoming anachronistic. Across Mid Wales, for example, there are already many examples of specialised, 'secondary' care being provided in the community, often by nurses and others with advanced levels of expertise, and by GPs. Midwifery-led services in Powys are a great example of how to bring both generalist and specialist care together for women, combining safety with choice and care close to home, in a model well suited to rural communities. In the near future, technological advances, such as e-consultations, remote monitoring, teleradiology and even e-ICUs (intensive care units), will offer new opportunities to re-think the division between secondary and tertiary care. Our conclusions are rooted in the short to medium-term future, to reflect the immediacy of the challenges facing healthcare in Mid Wales, but they are also consonant with these longer-term, seismic changes which are already re-shaping healthcare everywhere.

In summary:

- **Primary care in Mid Wales already faces serious challenges**, which may get worse without a combination of local and national action
- **Bronglais General Hospital should remain a key centre** for secondary care for the foreseeable future, but significant changes are required in ways of working
- Health Boards can do more to **reduce the impact of travel on patients**
- New leadership, **bringing together the three Health Boards and others**, is now required to drive forward this complex set of changes, and to restore public confidence in the future of services.

2. PRIMARY AND COMMUNITY SERVICES

Encouragingly, there is a high level of consensus across Mid Wales about the role which primary and community services should play within the whole healthcare system, which underpins the plans of the three Health Boards, and which accords with thinking in other countries. But there is significant and widespread anxiety about the future: both about how this attractive vision is to be delivered, and more immediately, about how current services are to be sustained. Many of these anxieties are shared with other parts of Wales, but in some respects they are more acute in Mid Wales.

The vision for the future starts with the need for the healthcare system to do more to help people maintain their own health and wellbeing at home. Primary and community services will be at the forefront of this, providing much more support than they do currently, with expanded and diversified clinical teams, coordinating and navigating care rather than merely 'gatekeeping'. Unexplained and unwarranted variation in practice will be reduced, alongside more systematic approaches to quality improvement and outcome measurement, with much greater citizen empowerment in the processes of care and their planning. In the process of delivering this, the boundaries between primary and secondary care will be re-thought to ensure that people with multiple, chronic conditions are supported to achieve the outcomes they want. This vision needs some adaptation to fit the needs of rural and remote communities, where practice often has to address a wider range of needs with limited specialist support, but the fundamentals remain relevant.

The challenges lie in delivering the vision. Much good progress has been made across Mid Wales, and there are innovative plans still waiting to be delivered. For example, care for frail older people, falls prevention, identification and support of people with dementia, access to specialist nurses and other clinicians in the community, and discharge arrangements for people with complex needs, have all improved in recent years. All GP practices have improved the range of service they offer. Recent developments in providing an integrated health and social care resource in Builth Wells is another concrete example of progress towards the vision, and there are other plans (for example in Tregaron) which demonstrate similar intent.

But there is concern – in Mid Wales, as elsewhere – about the pace of these developments. Primary and community care starts from a position of relative under-investment, and the needs of the population increase every year. The demands on secondary care make the transfer of resources to the community very difficult.

In addition, there is an acute and more immediate problem facing much of primary care in Mid Wales. There is compelling evidence that general practice, at least as currently configured, has been unable to attract the staff needed to replace those who are retiring, and there is no immediate prospect of this changing. This has already resulted in considerable pressure on those practices which have lost GPs and are now having to make temporary arrangements to cover their absence. It also constrains the ability of primary care to support other parts of the system. Projections for the short to medium-term suggest that this will get worse, affecting most Mid Wales practices, and reaching a point where current services cannot be sustained. This may even result in practices re-trenching to provide only those services to which they are contractually obliged, placing greater strain on all aspects of the healthcare system.

The causes of this situation are complex, and many are shared with other areas of the country. They include the shortage of new GPs entering the specialty, a complex set of financial pressures (including the differential impact of the recent abolition of the Minimum Practice Income Guarantee), changes in GP working patterns, and a longer-term and significant increase in GP consultation rates. There is also concern about the sustainability in some areas of the equity-based model of GP partnership.

The Welsh Government intends to launch a primary care plan in the near future, which hopefully will mobilise the necessary resources to address some of the systemic issues. Locally, there are several encouraging routes which may in part alleviate the situation. These include the scope for closer working between practices (including shared staff and joint adverts for GPs), the development of the concept of a 'rural GP', and an expansion of salaried GPs, and a fresh look at how to generate additional paid opportunities for GPs. Considerable thought is being given to the need to rejuvenate the GP vocational training scheme, and the role of community hospitals in supporting wider community care.

There is a recognition that Health Boards have a crucial role in stimulating and informing much of this thinking, and in working with primary and community care to implement change. Locality clusters (groupings of GPs and other staff serving aggregate populations of approximately 50,000 people) are accepted as the prime vehicle for this re-shaping of provision, and they have developed at different speeds across the three Health Board areas. The best are pooling resources, thinking creatively, and exerting their influence on other aspects of the care system. Much more remains to be done, for example in:

1. Sharing risk – a series of practical measures which Health Boards can take, for example in helping to obtain locums, which reduces the non-clinical pressure on general practice;
2. Pooling resources – making cost effective use of (mainly non-medical) staff to meet peaks in demand and support smaller practices;
3. Meeting required levels of staffing – district nursing, for example, struggles to meet need in some areas;

4. Exploring new roles – looking at further expansion of roles for nurses, therapists and others to provide care for those who do not need to see a doctor; and
5. Improving the estate – current financial arrangements do not always support the estate development that new service models need.

All of these avenues are worthy of consideration. However, we were struck by the generally poor morale amongst many of the GPs with whom we spoke, who were struggling to generate enthusiasm for service changes which they felt were insufficient to meet the scale of the challenges they were facing. This sense of despair merits a sustained correcting response from both Health Boards and Welsh Government alike - placing primary care in Mid Wales among NHS Wales' highest priorities.

3. SECONDARY CARE SERVICES

Mid Wales currently looks to services based in two general hospitals – in Aberystwyth and Shrewsbury - for the majority of its secondary care, with important links to a number of other hospitals further afield. This pattern has operated for many decades, but the precise distribution of services has changed frequently, and will (and should) continue to do so.

This study has focused particularly on the pattern of secondary care based on Bronglais General Hospital. Further work will need to be carried out by the Powys teaching Health Board to shape the impending reorganisation of services provided by England – particularly in and from Shropshire – which serve a large part of the east of Mid Wales. The potential relocation of some hospital services eastward from Shrewsbury to Telford, together with other changes envisaged in England, may change the calculation about where parts of Mid Wales are best served. It is also possible that Bronglais (and others) may develop service models which are particularly attractive to GPs and patients in eastern Mid Wales. However, it is difficult at present to envisage a dramatic shift in patient flows from England to Bronglais. The Powys teaching Health Board is committed to developing its commissioning role, especially with English providers, to make sure that the needs of Welsh residents are met, and this will be an important piece of future planning.

There is a logic to the general hospital which still holds good, even now, half a century after the term was coined:

'In recent years there has been a trend towards greater interdependence of the various branches of medicine and also an increasing realisation of the need to bring together a wide range of the facilities required for diagnosis and treatment. Hence the concept of the district general hospital...which provides treatment and diagnostic facilities for both in-patients and out-patients...Provision is made for all other ordinary [sic] specialties, but there are a small number of specialties, such as radiotherapy, neurosurgery, plastic surgery and thoracic surgery which need a larger catchment area and would be provided only at certain hospitals' (Minister of Health, 1962, A Hospital Plan for England and Wales. London: HMSO Cmnd. 1604)

Almost all of the detail underlying this has changed. Medicine has subdivided and re-defined itself, and antibiotics for TB, antipsychotics for mental health problems, fast acting anaesthetics and minimally invasive surgery have cut the time patients have to spend in hospital. But the need to recognise the four key criteria underpinning the DGH – the inter-dependence of certain specialties, critical mass, good links between hospitals, and the general hospital embedded in the communities it serves – all points to the continuing need for general hospitals.

One example makes the point. One of the most challenging issues, in Mid Wales as elsewhere, is to ensure that emergency conditions are diagnosed in a timely fashion. A significant proportion of patients contact the NHS in emergency with distressing symptoms which could be caused by a variety of

underlying conditions. It is important that these are assessed promptly by a competent person, with access to the necessary diagnostic facilities, so that they can be placed on the appropriate pathway to definitive treatment.

So, the underlying logic, combined with the relative isolation of Mid Wales, all confirm that Bronglais General Hospital will continue to exist as a principal centre for most secondary provision for the foreseeable future.

So much for the future. But immediately there are many issues of detail to resolve. Nye Bevan famously said he ‘would rather be kept alive in the efficient if cold altruism of a large hospital than expire in a gush of warm sympathy in a small one’. However, there is no conclusive evidence that any of the current services based in Bronglais are of unacceptable quality; in fact, in several cases, Bronglais performs better than many other hospitals. But the challenges to current provision in Bronglais are real and serious. As this report has shown, there are **six key service criteria**, accepted by all those we have spoken to, which currently present a challenge in Bronglais (see Table F3.1):

TABLE F3.1 · SIX KEY SERVICE CRITERIA TO SHAPE THE FUTURE OF BRONGLAIS HOSPITAL

Key criteria	
1.	Senior staff should not be expected to work in relative professional isolation
2.	There should always be sufficient, appropriate staff readily available
3.	Cover must be provided for key staff when they are away
4.	Good quality facilities must be available to deal with the unpredictable
5.	Staff should not be expected to work outside their areas of expertise
6.	It must be possible to sustain the service into the foreseeable future

It is important to separate these proper concerns, which have a demonstrable impact on the quality and safety of patient care, from a variety of other matters which, although often raised, are in our opinion not quality indicators *per se*, but means to an end. So, issues such as ensuring that:

- standard training arrangements are always met,
- staff:patient or staff:procedure ratios conform with external norms, or
- staff rotas are comparable with those elsewhere

are important matters, but are more to do with the requirements of the healthcare system *as a whole*, than they are strictly relevant to care in Mid Wales. It would be naïve of course, to dismiss these issues as irrelevant: they may well have a material impact on the ability to recruit staff, now and in the future, or on the cost of the service. But the focus should be on finding alternative ways to meet the six service criteria above.

There are several helpful developments taking place in the rest of the NHS which offer a new way of thinking about the six service criteria. The Royal College of Physicians’ *Future Hospital* document, for example, is an excellent basis for discussion, and the current work of the College to explore the issues it raises specifically in the Welsh context is most welcome. The letter from the College to the study team on cardiology services, outlining the work it has already done, and expressing its keenness to work with

others to find solutions, is most encouraging. The work of the South Wales Health Collaborative, and its South West Acute Care Alliance, will be helpful, for example in exploring in more detail the specialty interdependencies in acute care, and how best to design surgical and other patient pathways. In particular, the extent to which medicine depends upon surgical specialities in a hospital as remote as Bronglais needs attention as the Alliance pursues its work. On a longer-term basis, the work of the Royal Colleges and others looking at the scope for 'specialist generalists' clearly has relevance for a hospital such as Bronglais.

This needs to be complemented by detailed local discussions, involving clinicians in Bronglais and elsewhere in their clinical networks, both within Hywel Dda and also from other centres such as Swansea. For example, in cardiology, the review commissioned from the Royal College of Physicians does not offer a satisfactory basis on which to proceed with the re-organisation of services across Hywel Dda, and it is to be hoped that the local discussions described above will fill this gap. The very helpful session, convened as part of this study, involving senior Bronglais physicians, the Royal College of Physicians, the Postgraduate Deanery, the Royal College of GPs, and the study team, amply demonstrated how many of the practical obstacles to meeting the six service criteria can be addressed. This one session did not, of course, resolve all of the issues. But the progress it made gives reasonable grounds for optimism that further such discussions, with appropriate support and facilitation, will make substantial progress. Following this success, the team has organised a similar session with Bronglais surgeons, the Royal College of Surgeons and the Deanery, and this will be reported as a short supplement to this report in October 2014.

Further work is also now needed as matter of urgency to discuss the future of maternity and obstetric services. The difficulties of providing a safe and acceptable service for a small and dispersed population have been considered in this report, as well as the need for clarity about what is currently provided, and what mothers may expect.

One key element in the future organisation of secondary care deserves particular mention here. The development of clinical networks is one obvious way to address all six of the service criteria. The basic concept – that specialised expertise across several hospitals should work as a coherent whole – offers a way to develop and maintain expertise of staff who are otherwise somewhat remote, to provide appropriate cover and support, and to make the roles sustainable. This approach is already working reasonably well for Hywel Dda's paediatric service. In general, though, local experience of such arrangements has been mixed, and needs to be addressed. There are excellent examples of telelinked multidisciplinary team meetings between hospitals, and senior staff having clinical sessions elsewhere to share and develop expertise. But there are also examples where the arrangements have struggled in practice – for example, colleagues have not been available when needed, and concerns have developed that not all parties were being treated equally. There is a need in some cases for greater clarity about the patient pathway, and on which hospitals are 'hubs' and which 'spokes', based on what is best for the patient rather than what is perceived by some as being an administrative convenience. The management of these networks is critical, and can be challenging in a culture of fierce independence. This significant suspicion and mistrust should be shared, explored and repaired.

The Health Boards clearly have a key role to play in all these future discussions. We discuss below how to strengthen the collective efforts of the three Health Boards; but in addition to this, Hywel Dda will need to manage its secondary services in such a way that the needs of the population it serves (from all three Health Boards) are best met. We had considerable concern expressed to us, from clinicians, the public and other stakeholders, about the perceived intentions of Hywel Dda University Health Board in regard to Bronglais General Hospital, and about their difficulties in engaging with the Board on these and other matters. Many local clinicians, and some external professional bodies, expressed their concern and frustration to us that the Board had not effectively managed some aspects of current

service provision, and had not tackled some of the problems which are evident with sufficient vigour, for example in making current clinical networks work effectively. The lack of a clear view about the future of Bronglais further compounded these perceptions, and allowed people's fears to multiply.

In this context, the submission at the end of the work of this study from the executive team of Hywel Dda University Health Board working in close collaboration with senior clinicians, *Outline comments from Hywel Dda University Health Board to support the Mid Wales Study: Planning rural healthcare services for Mid Wales* (Appendix 13), is particularly welcome. It addresses more than just the provision of secondary services, and makes very helpful statements about the Board's expectations for the future, especially in relation to Bronglais General Hospital. This will provide a sound basis for a period of intensive engagement with all stakeholders, and particularly local clinicians and the professional bodies. There is much detailed discussion to take place to resolve important matters of detail, and to ensure that Bronglais reaches out to provide the sort of service models which the region needs.

4. SECONDARY CARE STAFFING

For decades, the NHS has relied on various staff in training to keep clinical services functioning. This has inevitably meant that services have been shaped by the training requirements of the next generation of doctors. Moves to restrict junior doctors working hours to reasonable levels have therefore hit the NHS quite hard. When allied with the need to ensure that new doctors gain a good range of experience, with different work/life balance choices being made, and changes to immigration regulations, small and isolated hospitals such as Bronglais have struggled to cope. The result today is a hospital much more akin to the continental European model, where in most specialties the majority of care is provided either directly by consultants, or by a cadre of doctors who have completed their training and occupy middle grade posts.

In many respects, this is an admirable model, providing a high proportion of consultant-delivered care and a degree of staff continuity and competence which many larger hospitals would envy. But this is an unusual model, often requiring demanding on-call rotas (albeit to some extent compensated for by lower levels of activity), unusual working patterns, competence in a wider than normal range of clinical skills, and very restricted access to the pool of doctors in training, upon whom most hospitals rely. The impact has been felt in much harder recruitment of staff, and the ever-present fear that when the current post-holders leave it will be impossible to replace them with people willing and able to work in this fashion.

It is argued that it is perfectly possible to recruit the sorts of people required, since only a few of them are needed across the UK, and many successful appointments have been made. There has been a 76% increase in the number of NHS consultants since 2000, and more consultant-delivered care is the new aspiration of all hospitals, with renewed interest in the development of 'specialist generalists'. Some imagination and determination is required to overcome the difficulties until this new type of doctor becomes readily available. The counter-argument is that the supply is drying up as training becomes more uniform, 'specialist generalists' are a long way off, and that in some high-profile instances, recruitment has already proved impossible. It is argued that services cannot be allowed to fail at the point where recruitment finally proves to be impossible.

Both viewpoints are valid. The picture is further complicated by the challenges of service provision and general uncertainty about the future which, until these issues are addressed, may deter suitable candidates. The only way to resolve the conundrum is to bring all the relevant parties together to think through the detail, identify what is really required to meet the six service criteria (as opposed to the other *desiderata*), using patient pathways to test models, and then to try innovative ways to overcome the remaining difficulties. Only then will fears be separated from realities. This process needs to include

the Postgraduate Deanery and the Medical School, as well as the relevant Royal Colleges, the South Wales Health Collaborative and local clinicians. It is vital that this process is driven forward with enthusiasm and drive; we discuss below how this leadership challenge may best be met.

This process needs to happen quickly, with trust and good-will. But there are grounds for optimism - even in the preliminary discussions convened as part of this study, much progress was made, which now needs to continue. As the air of 'crisis' around Mid Wales and Bronglais General Hospital is reduced through the other measures set out here, recruitment will naturally become a little easier.

Any discussion about staffing difficulties is inevitably dominated by the need to recruit and retain sufficient doctors, but other staff groups face challenges too. Concern was expressed about the future viability of nurse training, for example, focusing in particular on the need to ensure that future nurses are recruited from Mid Wales and can undergo the bulk of their training there, to encourage them to remain in the region after qualification.

5. IMPROVING ACCESS

Patient care is often helpfully thought of in terms of the 'pathway' the patient follows, from prevention and early detection, through diagnosis, treatment (in its various forms) and return to normal life/terminal care. Different access issues apply at each stage, depending on the diagnosis and other circumstances. The evidence demonstrates that delay in getting definitive treatment sometimes leads to serious adverse consequences, and that such treatment can occur in different locations and forms, again depending on the patient's needs. But there are many exceptions to this generalisation, and each pathway should be considered on its own merits.

For lay people, by the far the greatest concern about future service provision was the fear that in future key services would be further away, and therefore more difficult to access. This would have several serious consequences:

- People would suffer, and even die, because of delays in receiving urgent treatment;
- Patients would be subject to disproportionate inconvenience (physical, psychological, financial) in receiving non-urgent treatment;
- Patients (e.g. those receiving some forms of cancer treatment) would sometimes decline treatment because of the inconvenience;
- Patients whose treatment depends on successful reintegration into the community (e.g. frail older people, mental health inpatients) would not reintegrate effectively;
- Patients' visitors would be seriously inconvenienced, leaving people struggling to visit; and
- Patients in remote units would not have visitors.

In short, people in remote and rural areas would not get equitable treatment, and the most disadvantaged would be disadvantaged most (especially for non-urgent treatment). They accepted that some services – those inpatient services which have always been 'tertiary' provision (e.g. neurosciences, cardiothoracic surgery) – should not be provided in Mid Wales. But others should be available in the region, and their working definition of the latter was essentially those services which have been there hitherto. They were worried that those responsible for planning services either did not understand the impact of greater distance, or somehow discounted it as not being a concern for the NHS.

It is clear that any future provision must take these concerns seriously, and reassure people on two main counts: that any proposed service changes will have no safety or quality of care impacts; and that real and significant steps are being taken to reduce any inconvenience – that this is a responsibility of the NHS to address successfully. These are significant requirements.

Five elements under this broad heading of 'access' require particular attention if people are to be properly reassured.

5.1 EMERGENCY RETRIEVAL

There are a small number of cases, for example major trauma, where patients need to be taken to definitive treatment in a specialised centre with the minimum of delay. In Mid Wales this often involves use of air transport – to get expert resources to the patient, and often to fly them to a specialist centre – because road journeys are too slow and uncertain. These cases caused a lot of concern to the lay people who gave evidence to the study.

The current provision for such patients is less than ideal, with a variety of resource and other constraints. It requires an all-Wales solution, and the Welsh Government is giving active consideration to an Emergency Medical Retrieval and Treatment Service for this purpose. This is welcome, but it is not a panacea. Although the detail of this service has yet to be agreed, it is unlikely to be able to cope with anything other than the most complex cases, and may not provide 24 hours a day cover. It will still be important, therefore, that all other time-critical cases can access appropriate care within the region.

If the service has a good prospect of being available within the foreseeable future for phase one - say 2015/16 – there is a strong argument for commencing the EMRTS service in Mid Wales first and linking any changes in the current locally delivered hospital services to those new arrangements. For this would ensure that high quality clinical skills get to the patient quickly and, in some cases, the patient taken to appropriate hospital facilities much more quickly than happens now. The service would also provide vital transport capacity too if patients being treated locally suddenly need an unplanned transfer to a specialist care centre. This would be seen as an enhanced service, rather than a further diminution of access.

Further, the proposed new or enhanced assessment management capability that translates information from the scene and deploys the correct resources would no doubt bring with it a further refinement of, and clarity about, the care pathways to which we have alluded in this report. This would assist the public, GPs, midwives, ambulance staff and others in understanding fully what people with various symptoms, and from various locations and settings, are meant to receive in terms of first assessment/diagnosis; immediate care/stabilisation; and transportation to an appropriate, particular acute hospital.

5.2 ROUTINE ACCESS FOR APPOINTMENTS AND VISITS

Solutions to this issue are elusive. Attention should focus on two aspects. First is the need to enhance transport links, of all types – public transport, voluntary schemes, ambulance non-urgent transport. This is a major challenge for Health Boards working with their various partners. Second, is what the NHS can do to ameliorate the impact of poor transport, and several relatively simple examples were given to us by lay people with recent experience of accessing remote services. These included:

- Ensuring that those elements of the patient pathway which can be delivered locally – in mobile units, GP practices, community hospitals, general hospitals – are so delivered. Although much progress has been made on this issue, we were given examples where relatively simple follow-up treatments still required patients to make 3-hour round trips out of the region;
- Organising clinics and other services to recognise the difficulties of transport - that access from Mid Wales may necessitate, for example, a later appointment. This may not necessarily be immediately apparent to a specialised hospital which has relatively few patients from Mid Wales;

- Giving the patient a choice when deciding on the location of their specialised care – for example, some patients may prefer to go to Wrexham or England rather than Carmarthen, even though the latter is the designated centre;
- Providing patients and their families with up-to-date and detailed information on issues such as public transport, suitable overnight accommodation for visitors; and
- Use of telehealth – see below.

5.3 AMBULANCE CAPACITY

The ambulance service could play a bigger role in the early assessment of patients, with the result that some patients will not need to be taken to hospital at all. Pilots of such schemes in Wales are encouraging, but additional highly-trained staff and other resources, as well as some service redesign, are required if this role is to have a major impact on access problems in Mid Wales.

There were some concerns about the adequacy of existing ambulance cover in parts of Mid Wales. One element of this is monitored in the routine data on response times; but there were other examples where scarce provision inconveniences patients. An example of the latter is the delays in transporting patients detained under the Mental Health Act from police stations in Mid Wales to an NHS place of safety elsewhere.

If service changes are contemplated which involve significant changes to patient flows, Health Boards will need carefully to evaluate the impact of such changes on the ambulance service, and resource it accordingly.

5.4 WELSH LANGUAGE

The ability to access services easily in the language of one's choice is a legal right and clearly affects all aspects of care from timely presentation, through efficacy of treatment, to the patient's experience of care. Services should be culturally-responsive, and the Welsh language is one marker of cultural identity. This has particular relevance in Mid Wales, where about 40% of the population is Welsh-speaking, and perhaps 50% of the Bronglais catchment population – and probably even more amongst the highest users of services. The three Health Boards recognise their responsibilities in this regard, but sometimes struggle to meet them. There is still much that can be done in staff recruitment, development and retention, with both pre and post-registration staff, and in intelligent service design, to make the best use of Welsh-language services.

5.5 TELEHEALTH

Telehealth is a broad category of technology-assisted provision, it has much to offer healthcare in Mid Wales, and this report has illustrated its potential. Take-up has been somewhat patchy, with unexplained variation between services and localities. A recent injection of new capital resources should give added impetus to its implementation. There is a clear list of barriers set out in this report which still needs to be fully overcome, including easier local access to telehealth links, additional training and support, some capital funding (the Health Technology Fund should help here), and clear evidence on benefits. As often in health policy, much of this depends upon priorities – these issues could be easily resolved if telehealth was deemed sufficiently important by providers. There has been some resistance to adoption by clinicians reluctant to change their ways of working and it has sometimes been difficult to persuade large hospitals outside the region that it is in their interests to prioritise telehealth, for a minority of their patients, and for no direct financial benefit. This is disappointing from the perspective of Mid Wales. Issues of governance in Mid Wales' healthcare are addressed later.

6. MENTAL HEALTH SERVICES

As with many other aspects of Mid Wales' healthcare, the recent history of mental health services has been one of significant progress, but persistent problems. Examples of the former include the development of a good range of primary mental health support services for those with less complex problems, crisis support services in the community (reducing the need for hospital admission), and support for people in the earlier and middle stages of dementia. But significant problems remain, including access to inpatient facilities for acutely ill patients, nursing home and other provision for people with dementia, and access to crisis support in some parts of the region (e.g. North Powys). Each Health Board has a significant plan to address these issues, to re-balance provision, to reduce unnecessary out-of-area patient flows, and to work with partners to provide a comprehensive range of support and services.

The closure of the inpatient ward in Bronglais General Hospital in 2012 remains controversial, and for some is a demonstration of the Health Board's poor faith. Serious efforts are being made here, as in the other Health Boards, to secure adequate inpatient provision within the region for adults of all ages, as there is a general acknowledgement that having to travel more than perhaps 20-30 miles for such care is less than adequate. This may have to be a mixture of NHS and private sector beds, and for Powys could be supported by an element of repatriation of service provision from England. In the meantime, the three Health Boards are addressing some of the logistical challenges of service provision, to ease access to existing services.

7. MAKING CHANGE HAPPEN

7.1 GOVERNANCE

Many of the challenges facing healthcare in Mid Wales will only be addressed by patient, persistent discussion amongst local clinicians, managers and others, together with the various other bodies which influence standards and training, and facilitated by the Health Boards. The work stimulated by this study, and many other initiatives, demonstrates that solutions can be found to many of the problems. The challenge, therefore, is to create a mechanism and a willingness to do this.

There would appear to be a need to rejuvenate some of the governance arrangements affecting this part of Wales. The current arrangements are quite complex, and no single body 'owns' the issue. Mid Wales constitutes part of the responsibility of three Health Boards, in two cases – Betsi Cadwaladr and Hywel Dda – only a relatively small proportion of their total populations. Patient flows frequently cross administrative boundaries, but there is currently no effective mechanism for ensuring that the three Health Boards - together with their ambulance and English NHS partners – coordinate their planning. Furthermore, there are significant challenges facing the provision of care in this part of Wales, which require new and significant thinking. They need a high-powered planning and clinical capacity to tackle the various tasks described in this report, including to:

- provide some thought leadership for rural health, to think through new models of care appropriate to the needs of Mid Wales, in primary/community and secondary care, and across the health and social care divide, and how they might be delivered, drawing on experience from elsewhere;
- address the various training, recruitment and retention issues which will otherwise undermine provision, leading discussion on these topics with bodies such as the Royal Colleges and the Postgraduate Deanery, and exploring innovative methods to make Mid Wales more attractive to good candidates;

- get the clinical networks to work properly, and monitor their performance for Mid Wales against relevant, outcomes-based criteria;
- ensure that all elements of the system locally work well together across Mid Wales – including primary/community and secondary healthcare (Wales and England), local government, the third and independent sectors and transport providers;
- lead a serious engagement process with the public and with staff, which establishes trust and easy communication, creates an opportunity for shared decision-making, addresses information and knowledge gaps, and capitalises on the considerable resources of civil society; and
- provide visible, accessible and local leadership that restores people’s confidence that their NHS is acting in their best interests.

In short, the NHS bodies need to build trust, and they need to create a service model which works in this part of Wales. The two are interdependent.

Many people argued for the creation of a new NHS statutory body covering Mid Wales. We understand the need for focus, but believe that the costs (financial and managerial) in creating such a body, and the difficulties of doing so, mean that this is not the best way of addressing the issue. It would be more effective to ensure that existing bodies work better together.

One possible mechanism exists in embryo – an officer-led Mid Wales Planning Board was set up by the three Health Boards to perform some elements of this task. Unfortunately, it seldom met, and is now moribund. Its membership was not drawn from the top levels of the Boards, and it was not constituted or resourced for the scale of the task described above. It did not address issues of clinical governance, it had a very low public profile, and the level of commitment from the Boards appears to have been somewhat equivocal.

A better approach would be to create a body with greater influence, stronger accountability and more visibility, which has the resources and the membership for the tasks outlined above (working title: **The Mid Wales Healthcare Collaborative**). It should shape the Mid Wales commissioning intentions of the three Health Boards, and be held accountable for its work by the Minister for Health and Social Services or the Deputy Minister for Health. Its constitution requires some detailed consideration, but one good model would be:

- a joint Committee of the three Health Boards, including the Chair and Chief Executive of each, and an independent Chair for the Committee appointed by the Minister;
- local lay membership;
- a strong role for the GP/community clusters serving Mid Wales;
- representation from the local authorities, third sector and the Welsh Ambulance Services Trust. This could be drawn largely from existing Health Boards Independent members;
- representation from the Royal Colleges, the Postgraduate Deanery and the research community (for rural health, and for public engagement); and
- accountability to the three Health Boards and also to Welsh Government and to the scrutiny mechanisms for local government.

7.2 PUBLIC ENGAGEMENT

If ever there were any doubt about the importance of public engagement in healthcare planning, one need only consider the case of Mid Wales. In many parts of the region we encountered a near-dysfunctional level of mistrust, misunderstanding and concern with Health Boards’ plans for the future of healthcare service, and particularly in relation to Bronglais. This was particularly strong amongst

those lay groups whose purpose was to campaign for particular aspects of service provision, but also included the many lay people – patients and others – who contacted us to express their views, as well as various other organisations and groups, and some of the clinicians. Their opinions have been summarised and analysed earlier in this report. Many of them – especially in the Hywel Dda and Betsi Cadwaladr areas - felt ‘orphaned’ by the powers-that-be. It appeared to them that none of the bodies responsible for their care had either the willingness or the capability to bring about a solution which met their needs, including those whose preference would be services delivered in Welsh, and those with ‘protected characteristics’ whose needs should be considered by law. In its absence, they felt neglected and forgotten, and could not identify a local leader of the NHS with whom they could easily engage.

Addressing this situation must be a high priority for the new Mid Wales Healthcare Collaborative. It is important that this issue is not glossed over, because no Health Board can hope to improve services in the teeth of public mistrust and opposition. Mid Wales is blessed with a well-developed civil society, which was keen to engage with this study, and could be a great asset to the NHS locally.

The team is grateful to Dr Shane Doheny for Appendix 12 of this report, which outlines the parameters of the issue and suggests a variety of practical approaches, used successfully elsewhere, which together match the scale of the task.

8. NEXT STEPS

There is a need now for rapid action. Many of the issues set out above will take time to resolve, but should be started now.

There are genuine grounds for optimism in the more detailed discussions which have now started, particularly involving local clinicians. These need to be taken forward immediately with support from the Health Boards and a willingness to tackle some of the entrenched issues.

The creation of a new governance mechanism would send a powerful message that the issues of Mid Wales are being tackled with new vigour. The Collaborative should also work with local universities and others to establish a Centre of Excellence in Rural Healthcare. This could take many forms, but its core purpose would be to establish a critical mass of applied research excellence, conducting new work on the healthcare challenges of Mid Wales, and working closely with local clinicians, managers and others to apply the lessons from experience elsewhere. One by-product of this will be to generate a new level of credibility in the region which should help to recruit strong candidates for local clinical posts.

There is one other aspect of this complex set which could also take place soon. The importance of new thinking and energy in tackling some of these old problems cannot be over-stated. For instance, the experiences of the much more extensive rural and remote areas of Scotland, and of many other regions and countries, summarised in Chapter D, has highlighted several developments which have *prime facie* relevance for Mid Wales, including:

- The development of cross-Board health planning groups;
- The power of small amounts of ‘seed-corn’ funding from Government to stimulate tailor-made innovation;
- The power of joint working between all public services in remote locations;
- The relevance of the community hospital, working in new ways;
- New and extended roles for a wide range of healthcare professionals;
- The development of new types of rural hospital, such as the Scottish Rural General Hospital, carving a new niche in the pattern of care, and the continuance of hospitals such as in Elgin;
- Innovative ways of recruiting and incentivising staff; and

- New educational approaches for rural areas, covering all staff groups.

All of these justify further exploration.

A high-profile conference, held in Mid Wales, which brings together leading thinkers and some of the most successful examples of solutions to rural healthcare problems from around the UK and elsewhere, would add impetus to the task. It would serve three main purposes: to learn from the best practice elsewhere; to bring interested local communities into the debate about the future of their health services; and provide a forum for some focused discussions between the local stakeholders, inspired by the 'can do' culture of the most successful teams.

G. RECOMMENDATIONS

These recommendations are deliberately few in number, but require leadership, major effort, and real pace:

1. The three Health Boards should establish a joint governance mechanism (working title: **The Mid Wales Healthcare Collaborative**) as described in the report, in order to implement many of the recommendations below.
2. **Public engagement** in Mid Wales should be established on a new basis, and coordinated by The Mid Wales Healthcare Collaborative.
3. The three Health Boards should re-double their efforts to address the pressures facing **local primary care**, developing complementary services, creating new models, sharing functions and providing business support, looking at new organisational models for general practice, and where possible providing targeted financial support. There is traction to be gained by the Boards coordinating their efforts to meet the specific circumstances of Mid Wales, and considering shared solutions where appropriate.
4. The Welsh Government **national Primary Care Plan** should address the many common and systemic challenges facing primary care, which lie beyond the scope of the Health Boards.
5. Hywel Dda University Health Board, supported by the other two Boards, should confirm publicly its vision of the **future strategic role of Bronglais General Hospital** and the strategic direction which it intends to pursue. The Health Board's submission to this study (Appendix 13) provides a good basis for such a vision. It will require subsequent detailed consideration of pathway and service options, but should be sufficiently specific to reassure potential and current staff and the public that the hospital will remain an acute centre, and that urgent and non-urgent provision will address the challenges of remoteness. It should state explicitly the criteria which must be met, based on the Six Key Service Criteria set out in this report (see Table F3.1, Section F).
6. Clinical staff in all the specialties should now be actively engaged in **clinical discussions** with their colleagues about how services should develop. This process will require active leadership and facilitation by the Hywel Dda University Health Board, working on behalf of the Mid Wales Healthcare Collaborative. It must address the difficulties in the relationships between the hospitals, and should include representatives from primary care, the Royal Colleges, the Deanery and service providers from Scotland and elsewhere who have successfully addressed some aspects of rural acute care provision. This process, including reviews by professional bodies, should address the specialty-specific issues (see below), but also their interdependencies, and the linkages with pre-hospital care and between hospitals, along the patient pathways. It is important that the medical Royal Colleges are all engaged in this work, along with the learned bodies drawn from the other professions.
7. A further examination of the options for providing **cardiology** services in Bronglais General Hospital should now be started, which takes full account of the broad range of presenting conditions at this hospital, and evaluates alternative ways of constructing the sort of clinical network support that is needed. This should build upon the initial discussions held as part of this study, and the submission to this study from the Royal College of Physicians (see Appendix 14), both of which offer some grounds for optimism that alternative solutions are worth exploring.
8. A similar process should take place in relation to **general surgery**, building on the discussions initiated by this Study and scheduled for October 2014, and for **Maternity and Obstetric** services in Bronglais General Hospital.

9. **Unnecessary journeys to access care** should be eliminated, with a coordinated and comprehensive examination of relevant pathways to ensure care is actually provided closer to home, clinics and other provision is organised to reflect travel difficulties, patient's are encouraged to choose options which suit their needs, and patients and visitors are provided with information to help them access remote services. This will require a coordinated effort crossing hospital and Health Board boundaries.
10. Plans to develop more **advanced skills in the ambulance service** in Mid Wales should be supported and expedited.
11. There should be a coordinated effort by all three Health Boards to identify the opportunities for much greater use of **telehealth** capacity and a determined drive to hasten its implementation.
12. The three Health Boards, working with local universities and others, should develop and support a **centre of excellence in rural healthcare**, with a particular focus on research, development and dissemination of evidence in health service research which addresses the particular challenges of Mid Wales. This has great potential to carry out work of relevance internationally. A high-profile **conference** on Mid Wales healthcare as described in the report should be organised immediately.

APPENDICES

APPENDIX 1 · RESPONSIBILITIES ACROSS THE HEALTHCARE SYSTEM

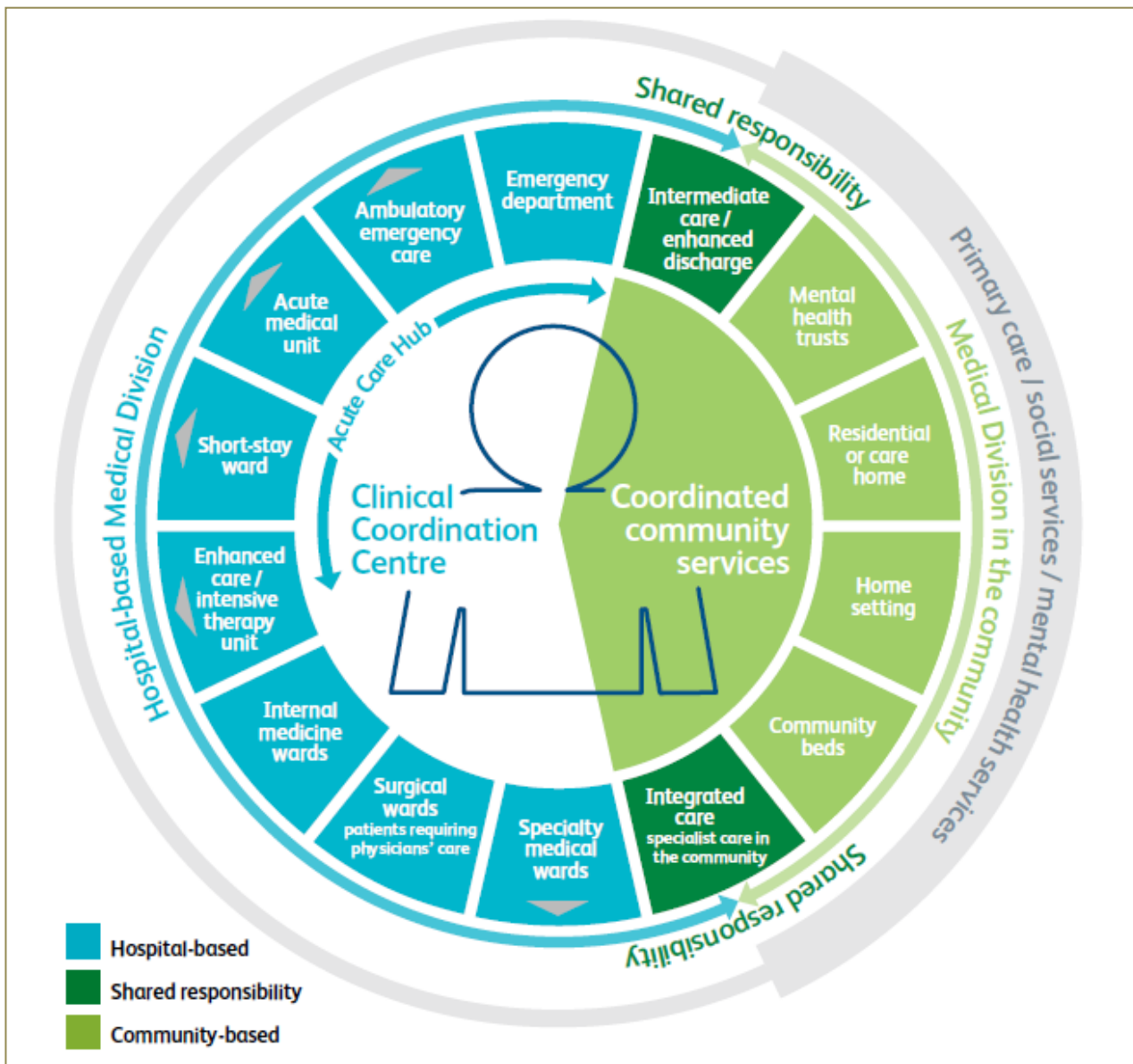


Figure AP1.1 · The Medical Division remit: circle of patient-centred care

Source: Royal College of Physicians (2013)

APPENDIX 2 · MODEL OF HEALTHCARE IN RURAL COMMUNITIES



Figure AP2.1 · Model of healthcare in rural communities

Source: Welsh Assembly Government (2009)

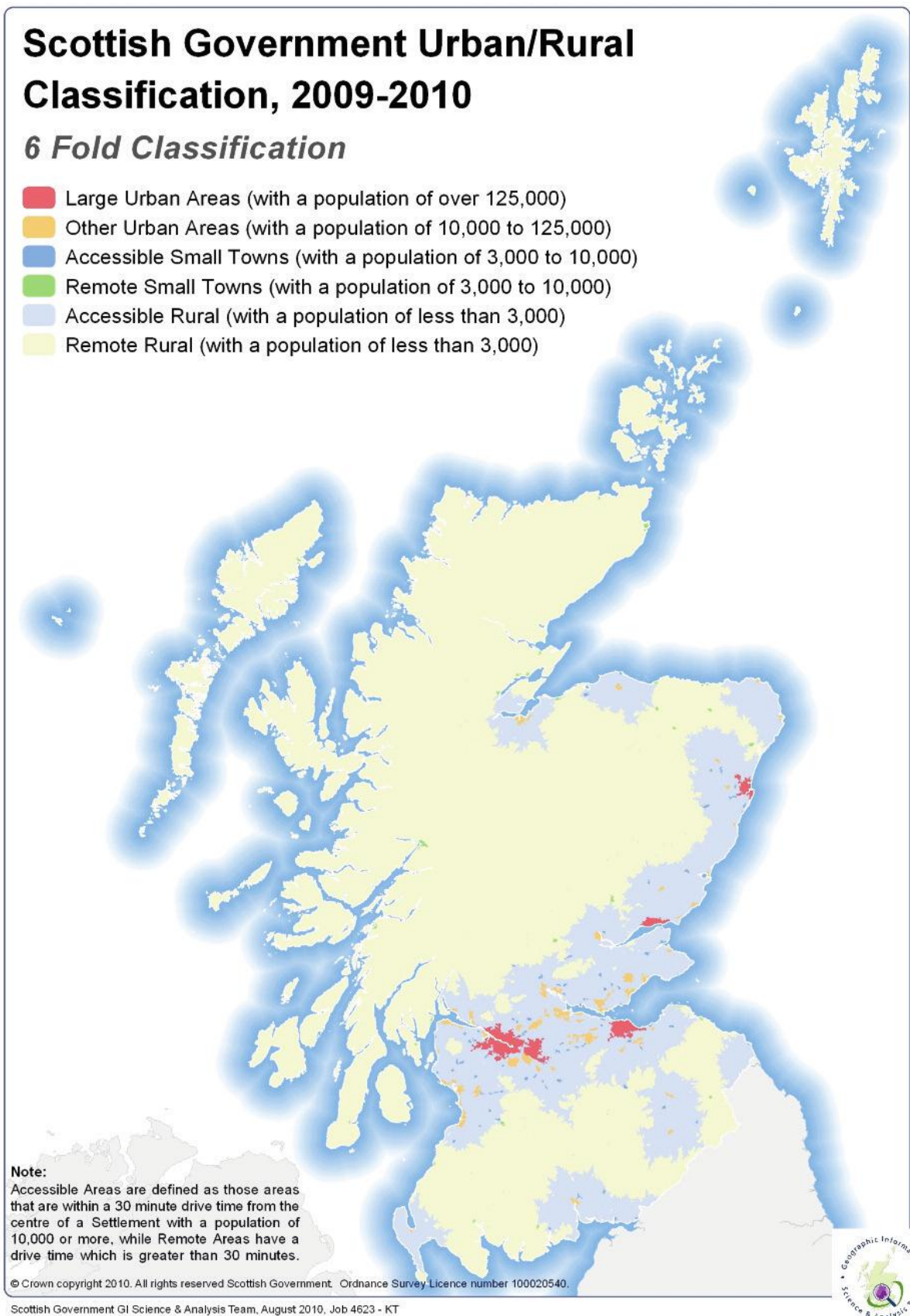


Figure AP3.1 · Scottish Government – Urban/Rural Classification

Source: Scottish Government (2012b) *Rural Scotland Key Facts 2012*: p.6

APPENDIX 4 · NHS HIGHLAND COMMUNITY HOSPITALS

Hospital	Population Served (approx.)	Services
Mackinnon Memorial Hospital (Broadford Hospital) Isle of Skye ¹⁵⁵	13,000	<p>Onsite Services</p> <ul style="list-style-type: none"> 24 hour on site medical cover 24 hour nursing cover 24 hour A&E service 24 hour radiography cover 25 Beds used for Medical Surgical and occasional Paediatric care Out of Hours treatment service for Skye and Lochalsh Temporary Place of Safety Service for Psychiatric Emergencies Inpatient alcohol detox Alcohol Liaison Service Integrated Midwifery service Diagnostic Ultrasound service Nurse led Chemotherapy service Palliative Care Terminal Care Minor Surgery Local Fracture Clinic Podiatry Physiotherapy Speech and Language Therapy Occupational Therapy 24 Hour BP monitoring Event Monitoring Opticians Clinic Community Paediatric Clinic Community Dental Service Video Conferencing Facility <p>Visiting Services</p> <ul style="list-style-type: none"> Daycase surgery Surgical Clinics Orthopaedic Clinics Orthotics Clinics

¹⁵⁵ <http://www.nhshighland.scot.nhs.uk/Services/Pages/DrMacKinnonMemorialHospitalBroadfordHospital.aspx>

		<p>ENT Clinics</p> <p>Audiology Clinics</p> <p>Eye Clinics</p> <p>Orthoptics Clinics</p> <p>General Medical Clinics</p> <p>Rehabilitation Medicine Clinics</p> <p>Paediatric Clinics</p> <p>Oncology Clinics</p> <p>Obstetric Clinics</p> <p>Gynaecology Clinics</p> <p>Radiology Service – Barium examinations and ultrasound</p> <p>Occupational Health Clinics</p> <p>Diabetic Nurse Clinics</p> <p>Dietetics advice</p> <p>Psychiatric clinics</p> <p>Clinical Psychology</p> <p>Community Psychiatric Nursing Clinics</p>
<p>Nairn Town and County Hospital Nairn</p>	12,000	<p>Onsite services (GP run)</p> <p>19 Inpatient beds</p> <p>A&E Department</p> <p>Physiotherap</p> <p>X Ray/Ultrasound facilities</p> <p>Out of Hours Primary Care Centre</p> <p>Palliative Care</p> <p>Visiting Services</p> <p>Day Hospital - 2 days per week</p> <p>Dementia Day Care – 2 days per week</p> <p>Out Patient Physiotherapy</p> <p>Out Patient Occupational Therapy</p> <p>Out Patient Speech and Language Therapy</p> <p>Stroke Services</p> <p>Methadone Clinics</p> <p>Dental Services</p> <p>Alcohol Detox</p> <p>Self Help Workers For Depression</p> <p>Intermediate Care Team</p> <p>Midwifery Services</p> <p>District Nurse Base</p>

<p>Cowal Community Hospital Dunoon</p>	<p>8,000</p>	<p>Onsite services</p> <ul style="list-style-type: none"> Casualty Out of Hours AHPs Daycase surgery Maternity beds GP beds Palliative Care <p>Visiting Services</p> <ul style="list-style-type: none"> General Surgery Orthopaedics Gynaecology Geriatric Assessment ENT Ophthalmology General Medicine General Psychiatry Dementia Respiratory Medical Paediatrics GUM Community Child Health Cardiology Rehabilitation Medicine Radiography <p>Clinics run by Nurses, AHPs</p> <ul style="list-style-type: none"> Orthoptics Dietetics Orthotist Optometrist Substance misuse Child and Adolescence Psychiatry Audiology Alcohol Outpatients Anti-Coagulant Sister Diabetic Sister Cardiac/Stroke rehab nurse Stroke Prevention Clinic CHAT Physiotherapy
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		<p>Occupational Therapist</p> <p>Radiography</p> <p>Speech & Language Therapy</p> <p>Podiatry</p>
<p>Ross Memorial Hospital Dingwall</p>	<p>5,500 (Population of Dingwall)</p> <p>54,000 (Population of Ross & Cromarty)¹⁵⁶</p>	<p>Onsite services</p> <p>9 Bed General Ward</p> <p>Casualty (9am – 6pm, Mon – Fri)</p> <p>Out of hours</p> <p>Community rehabilitation team</p> <p>Radiology (x-ray, ultrasound & DEXA scanner, inc diagnostics)</p> <p>Outpatient clinics</p> <p>Medical</p> <p>Rehabilitation</p> <p>Paediatric</p> <p>Rheumatology</p> <p>Orthopaedic</p> <p>ENT</p> <p>Orthodontic</p> <p>Stoma</p> <p>Dietetic</p> <p>Psychiatric</p> <p>Clinical Psychology</p> <p>Community Paediatric</p> <p>Speech and Language Therapy</p> <p>Community Midwives</p> <p>Medicine for the Elderly</p> <p>Audiology</p> <p>Occupational Health</p> <p>Health Visitors</p>
<p>County Community Hospital Invergordon</p>	<p>4,000 (Population of Invergordon)</p> <p>54,000 (Population of Ross & Cromarty)</p>	<p>Onsite services</p> <p>28 bed consultant-led & GP-led rehabilitation and nursing unit</p> <p>Day hospital (Tues – Fri)</p> <p>Minor injuries unit (8am – 6pm, Mon – Fri)</p> <p>Out of hours</p> <p>X-ray (9.30am – 1pm, Mon – Fri)</p> <p>Outpatients clinics</p> <p>Parkinson’s Disease</p>

¹⁵⁶ http://www.highland.gov.uk/info/695/council_information_performance_and_statistics/165/highland_profile_-_key_facts_and_figures/2

		<p>Physiotherapy Medicine for the Elderly Psychiatry Psychology Community Mental Health Team – Guided Self Help Worker, Cognitive Behavioural Therapist Community Psychiatric Nurse Maternity Assessment Unit (Monday and Thursday) Paediatrics Dietetics Orthotics Occupational Health Smoking Cessation Community Midwives Health Visitors Children’s Clinic Chiropody and Podiatry Multiple Sclerosis Specialist Nurse Clinic Alcohol Counselling Highland Sexual Health / Family Planning Clinic Pain Clinic Diabetes Nurse led Clinic</p> <p>Specialist Nurse Services Heart Failure Nurse Diabetes Nurse for East Ross</p> <p>A GP practice also operates from the hospital</p>
<p>Lawson Memorial Hospital Golspie</p>	<p>1,650 (Population of Golspie) 13,000 (Population of Sutherland)</p>	<p>Onsite services Minor injuries Out of Hours</p> <p>Associated Services Daycase surgery Clinics for particular specialties GP Led Unit Day Surgery unit Care of the Elderly Medical and Rehabilitation Unit Outpatients Department X-ray Facilities (Mon-Fri, 9-5) Physiotherapy & Occupational Therapy Services</p>

<p>Migdale Hospital Bonar Bridge</p>	<p>1,000 (Population of Bonar Bridge) 13,000 (Population of Sutherland)</p>	<p>Onsite services</p> <ul style="list-style-type: none"> Inpatient assessment Professional Advice Multi Agency Care Home Liaison Service General Medicine Palliative Care rehabilitation <p>Associated services</p> <ul style="list-style-type: none"> Physiotherapy (in/outpatient dept) Occupational Therapy Audiology Rehabilitation classes Memory clinics Outreach/liaison for elderly mentally ill patients
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APPENDIX 5 · NHS SCOTLAND – LEVELS OF UNSCHEDULED CARE

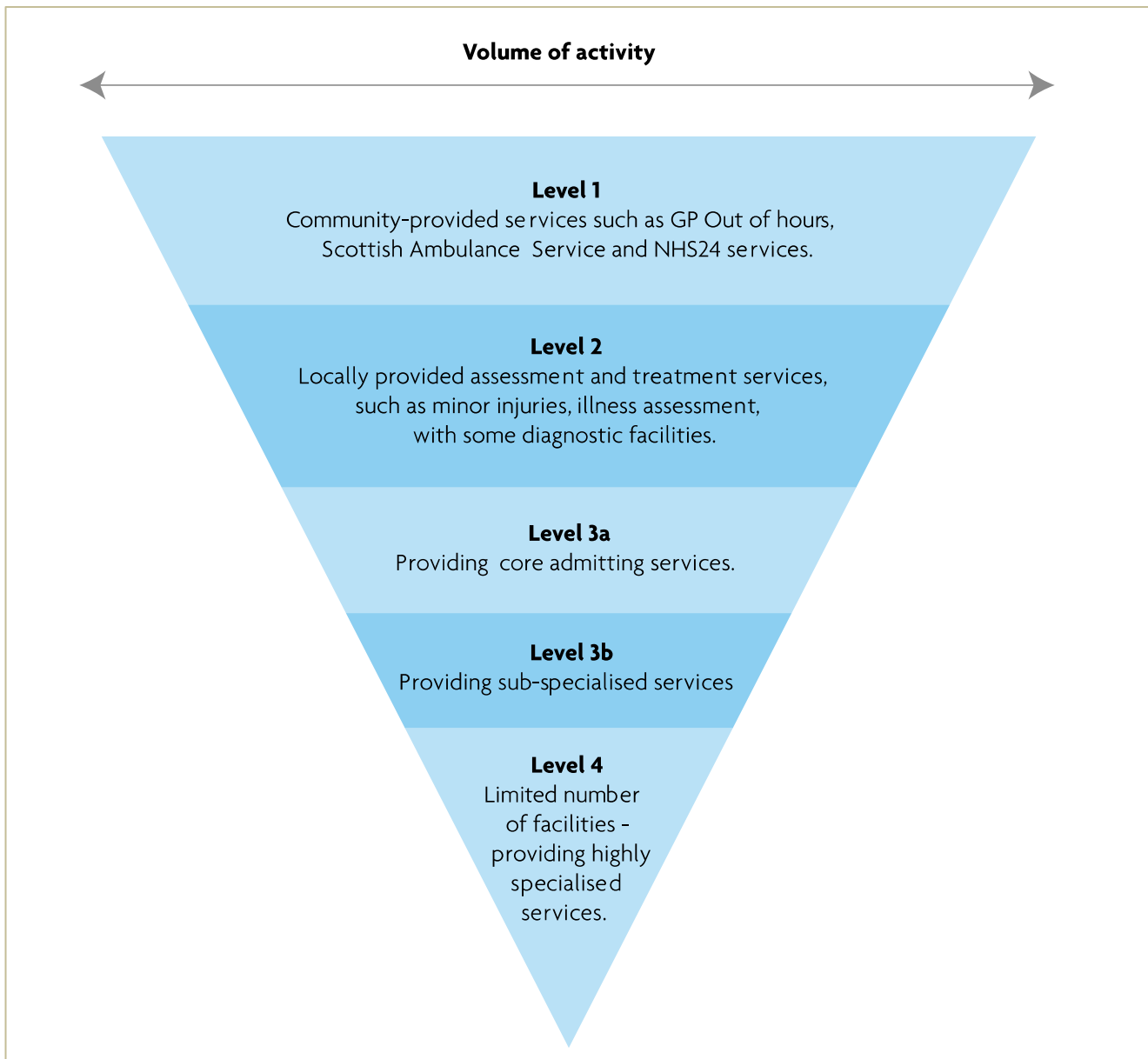
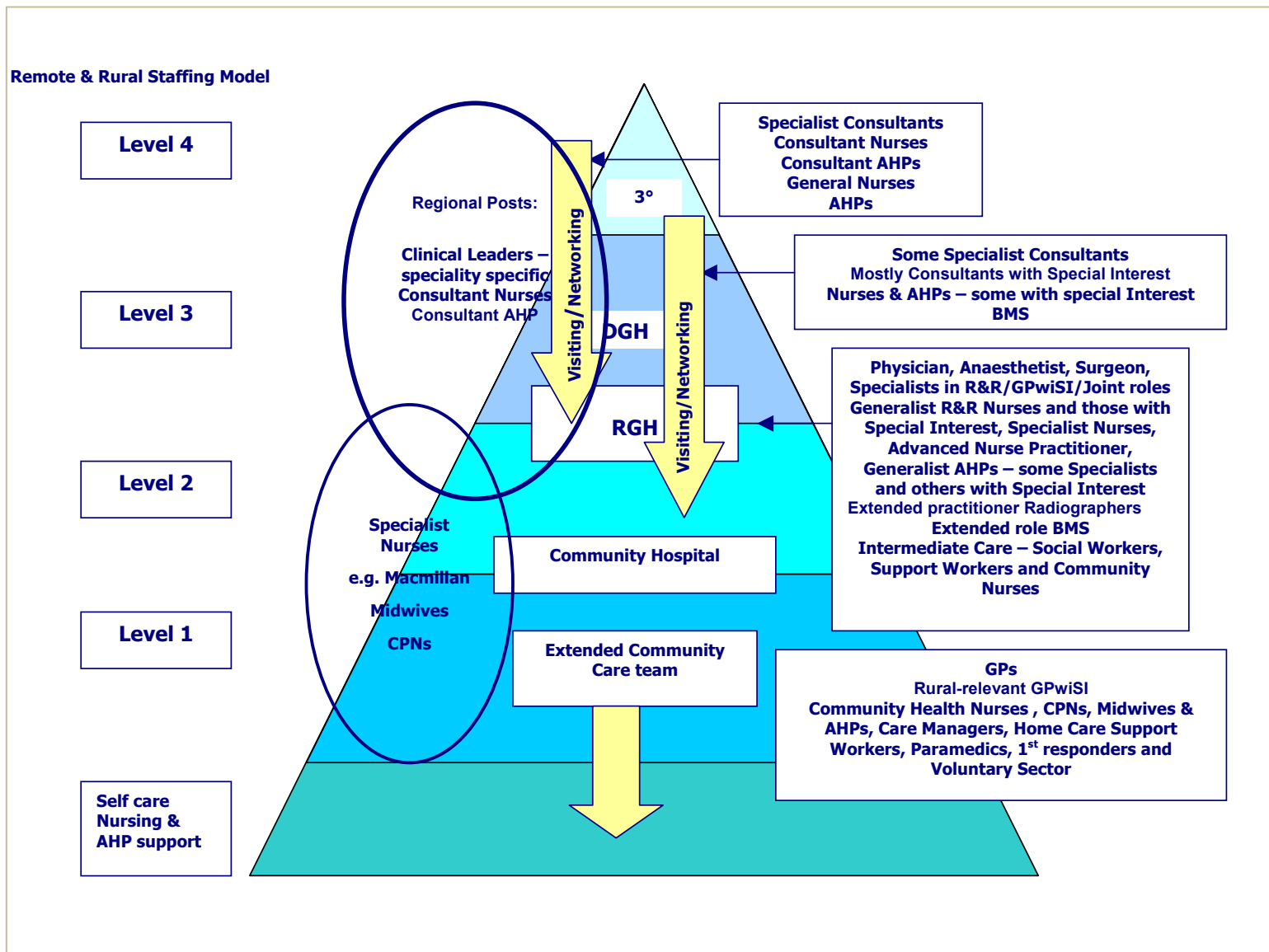


Figure AP5.1 · NHS Scotland – Levels of Unscheduled Care

Source: NHS Scotland, National Framework for Service Change, p.29

APPENDIX 6 · PROPOSED STAFF STRUCTURE FOR REMOTE AND RURAL SCOTLAND



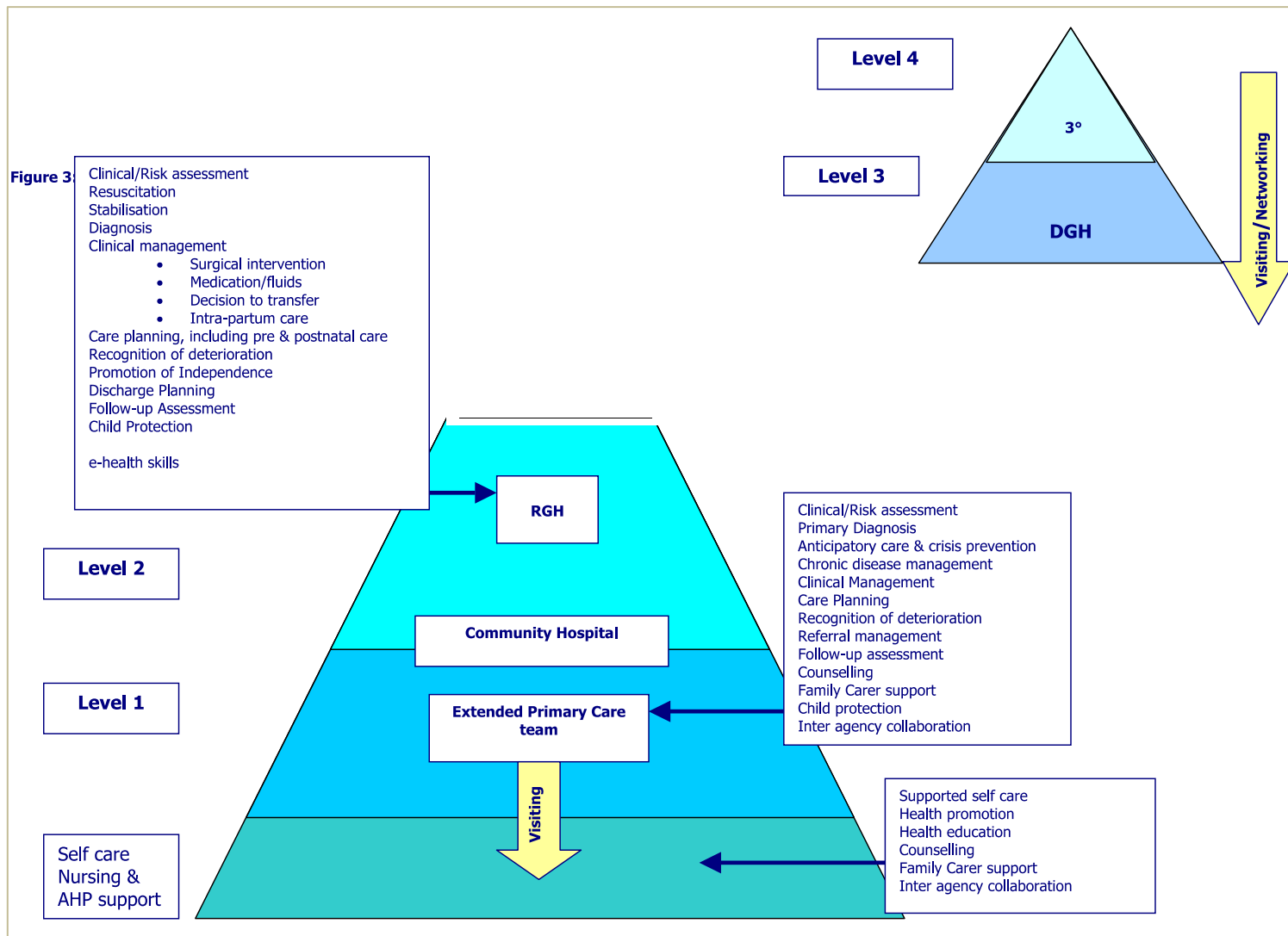


Figure AP6.1 and AP6.2 · NHS Scotland - Remote and Rural Staffing Model

Source: Scottish Government (2010: 6-7)

APPENDIX 7 · DATA TABLES AND FIGURES

FIGURE AP7.1 · PROJECTED ESTIMATES OF THE POPULATION, HYWEL DDA UHB

Source: Public Health Wales Observatory

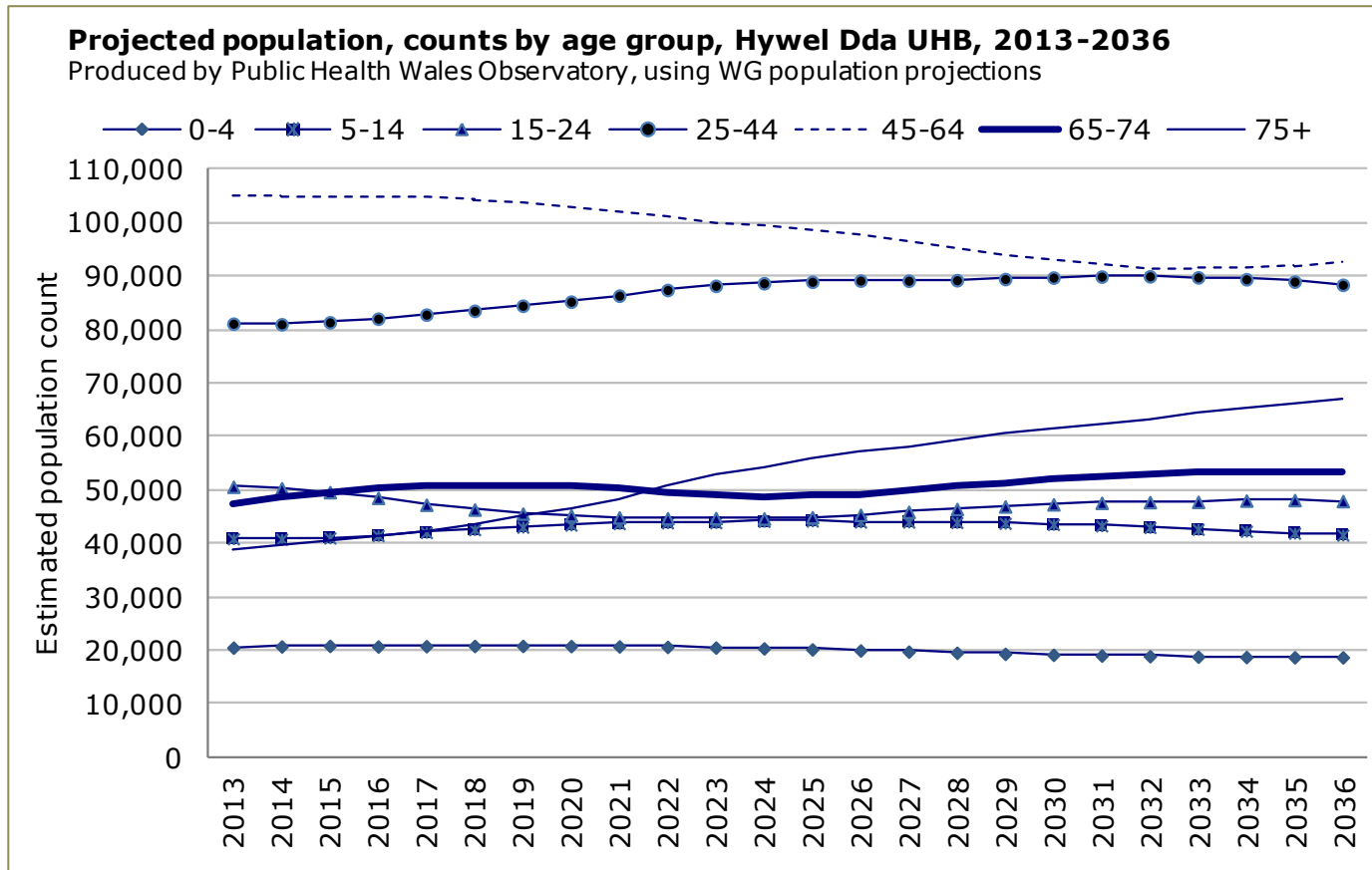


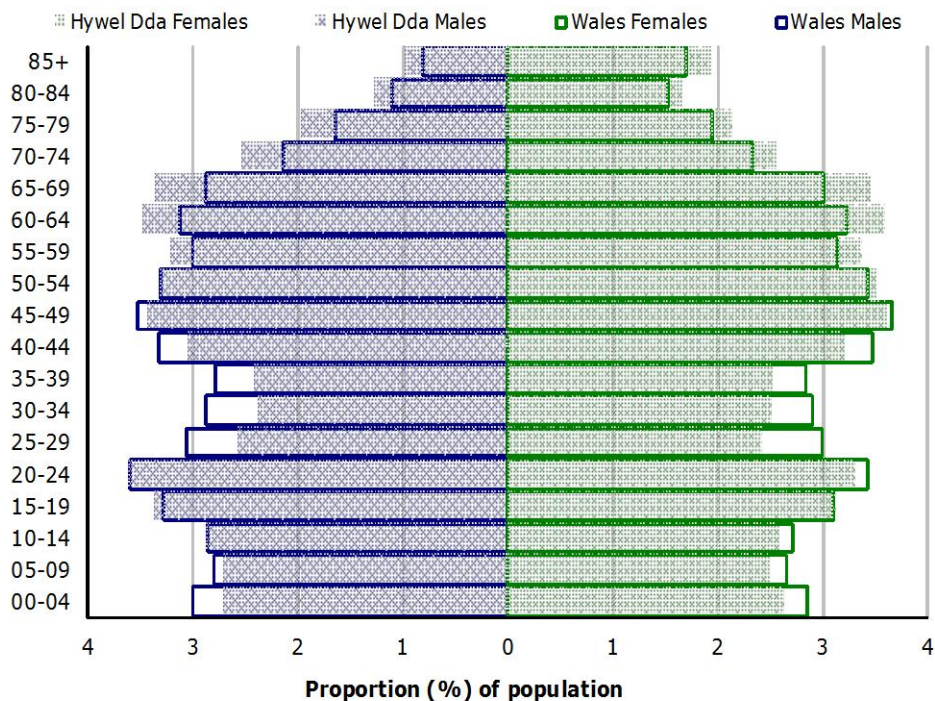
FIGURE AP7.2 · POPULATION PYRAMIDS, HYWEL DDA UHB AND WALES - 2012

Source: Public Health Wales Observatory

Count and proportion of population by five-year age band, Hywel Dda and Wales, 2012

Proportion of population by age and sex, Hywel Dda and Wales, 2012

Produced by Public Health Wales Observatory, using 2012 mid year population estimates, ONS



	% total population				Total population (thousands)			
	Hywel Dda		Wales		Hywel Dda		Wales	
	% Males	% Females	% Males	% Females	Males	Females	Males	Females
00-04	2.7	2.6	3.0	2.9	10.4	10.2	92.2	87.7
05-09	2.7	2.5	2.8	2.7	10.4	9.6	85.9	81.7
10-14	2.9	2.6	2.9	2.7	11.0	10.0	88.0	83.3
15-19	3.4	3.1	3.3	3.1	12.9	12.1	100.8	95.5
20-24	3.6	3.3	3.6	3.4	13.8	12.8	110.7	105.5
25-29	2.6	2.4	3.1	3.0	9.8	9.3	94.1	92.0
30-34	2.4	2.5	2.9	2.9	9.1	9.7	88.5	89.2
35-39	2.4	2.5	2.8	2.8	9.2	9.7	85.5	87.3
40-44	3.0	3.2	3.3	3.5	11.7	12.3	102.3	106.7
45-49	3.4	3.6	3.5	3.7	13.2	13.9	108.2	112.5
50-54	3.3	3.5	3.3	3.4	12.7	13.5	101.7	105.3
55-59	3.2	3.4	3.0	3.1	12.3	13.0	92.3	96.1
60-64	3.5	3.6	3.1	3.2	13.3	13.8	96.1	99.3
65-69	3.3	3.5	2.9	3.0	12.8	13.3	88.7	92.5
70-74	2.5	2.6	2.1	2.3	9.7	9.8	65.6	71.3
75-79	2.0	2.2	1.6	1.9	7.5	8.2	50.5	59.9
80-84	1.3	1.7	1.1	1.5	4.9	6.4	33.7	46.6
85+	1.0	1.9	0.8	1.7	3.7	7.4	25.1	51.8

Produced by Public Health Wales Observatory, using MYE (ONS)

Produced by Public Health Wales Observatory, using MYE (ONS)

TABLE AP7.1 · TOTAL NEW A&E ATTENDANCES WITH ARRIVAL MODE – BRONGLAIS GENERAL HOSPITAL, APRIL 2011-MARCH 2014

Source: Hywel Dda University Health Board

Date	999 Call	Amb'lance	Helicopter	On Foot	Other Means	Police	Private Transport	Public Transport	TOTAL*
Apr-11	178	248	-	21	27	13	1,664	4	2,155
May-11	172	256	1	17	3	17	1,765	4	2,235
Jun-11	163	269	-	23	7	24	1,466	1	1,953
Jul-11	201	239	1	23	3	20	1,579	3	2,069
Aug-11	197	241	3	20	29	21	1,764	5	2,280
Sep-11	177	263	1	19	37	20	1,516	5	2,038
Oct-11	253	270	-	68	15	18	1,695	10	2,329
Nov-11	201	235	-	66	25	29	1,500	2	2,058
Dec-11	166	244	-	42	26	8	1,286	6	1,778
Jan-12	152	289	-	44	34	21	1,242	11	1,793
Feb-12	172	229	-	54	18	24	1,349	6	1,852
Mar-12	139	285	2	64	37	15	1,631	5	2,178
2011/12	2,171	3,068	8	461	261	230	18,457	62	24,718
Apr-12	164	246	2	51	47	17	1,484	4	2,015
May-12	187	268	1	73	14	30	1,721	1	2,295
Jun-12	169	244	1	41	34	21	1,558	3	2,071
Jul-12	205	264	-	47	51	12	1,484	5	2,068
Aug-12	227	232	5	53	17	15	1,661	9	2,219
Sep-12	170	275	-	30	22	19	1,435	1	1,952
Oct-12	159	268	1	72	27	18	1,565	7	2,117
Nov-12	137	306	-	44	14	17	1,359	6	1,883
Dec-12	129	315	-	33	9	20	1,298	3	1,807
Jan-13	163	251	-	43	20	10	1,264	-	1,751
Feb-13	137	250	1	36	22	10	1,349	1	1,806
Mar-13	177	294	-	38	25	16	1,540	1	2,091
2012/13	2,024	3,213	11	561	302	205	17,718	41	24,075
Apr-13	131	280	2	45	25	5	1,410	3	1,901
May-13	229	248	1	77	58	17	1,635	3	2,268
Jun-13	123	302	-	45	11	9	1,361	14	1,865
Jul-13	241	264	-	72	31	16	1,581	24	2,229
Aug-13	263	212	1	38	15	21	1,685	16	2,251
Sep-13	190	268	-	41	10	15	1,482	13	2,019
Oct-13	149	290	3	86	18	16	1,557	19	2,138
Nov-13	114	310	-	42	1	10	1,312	16	1,805
Dec-13	123	288	-	34	11	11	1,227	7	1,701
Jan-14	148	246	-	72	11	17	1,203	25	1,722
Feb-14	124	259	-	73	16	15	1,231	6	1,724
Mar-14	184	263	-	88	14	12	1,560	20	2,141
2013/14	2,019	3,230	7	713	221	164	17,244	166	23,764

* Total is all patient outcomes excluding those of 'inpatient admission

TABLE AP7.2 · TOTAL NEW A&E ATTENDANCES WITH ARRIVAL MODE ASSESSED BUT NOT ADMITTED – BRONGLAIS GENERAL HOSPITAL, APRIL 2011-MARCH 2014

Source: Hywel Dda University Health Board

Date	999 Call	Ambulance	Helicopter	On Foot	Other Means	Police	Private Transport	Public Transport	TOTAL*
Apr-11	88	100	-	19	21	12	1,428	4	1,672
May-11	98	106	-	16	3	17	1,574	4	1,818
Jun-11	86	122	-	20	6	22	1,280	1	1,537
Jul-11	87	93	1	22	2	19	1,361	3	1,588
Aug-11	102	108	-	19	22	18	1,554	4	1,827
Sep-11	97	109	1	19	28	18	1,341	4	1,617
Oct-11	147	132	-	59	15	16	1,500	6	1,875
Nov-11	118	103	-	64	21	28	1,340	2	1,676
Dec-11	94	109	-	39	24	7	1,101	5	1,379
Jan-12	85	141	-	42	32	20	1,061	11	1,392
Feb-12	94	112	-	52	13	23	1,174	6	1,474
Mar-12	74	124	2	61	32	15	1,447	5	1,760
2011/12	1,170	1,359	4	432	219	215	16,161	55	19,615
Apr-12	87	111	-	49	38	14	1,275	3	1,577
May-12	105	126	1	69	13	30	1,501	1	1,846
Jun-12	83	101	-	41	31	20	1,336	3	1,615
Jul-12	113	120	-	43	40	11	1,287	4	1,618
Aug-12	135	108	4	52	14	15	1,445	7	1,780
Sep-12	99	116	-	29	19	19	1,265	1	1,548
Oct-12	102	143	1	65	23	17	1,366	6	1,723
Nov-12	76	141	-	43	10	14	1,182	6	1,472
Dec-12	63	151	-	31	8	18	1,097	3	1,371
Jan-13	89	124	-	42	20	10	1,076	-	1,361
Feb-13	75	115	-	36	17	9	1,159	1	1,412
Mar-13	96	129	-	36	21	15	1,350	1	1,648
2012/13	1,123	1,485	6	536	254	192	15,339	36	18,971
Apr-13	66	117	1	44	25	5	1,204	3	1,465
May-13	103	87	1	72	49	16	1,402	3	1,733
Jun-13	70	118	-	40	10	9	1,165	13	1,425
Jul-13	126	103	-	65	24	16	1,358	21	1,713
Aug-13	119	80	-	35	10	19	1,433	15	1,711
Sep-13	92	123	-	38	8	15	1,296	10	1,582
Oct-13	62	129	3	81	12	15	1,330	18	1,650
Nov-13	44	153	-	41	-	9	1,139	15	1,401
Dec-13	44	113	-	30	9	11	1,007	7	1,221
Jan-14	53	98	-	66	10	16	1,020	22	1,285
Feb-14	59	116	-	70	14	15	1,038	6	1,318
Mar-14	107	128	-	79	11	11	1,319	20	1,675
2013/14	945	1,365	5	661	182	157	14,711	153	18,179

* Total is all patient outcomes excluding those of 'inpatient admission'.

TABLE AP7.3 · BED OCCUPANCY RATES FOR CEREDIGION RESIDENTS, BRONGLAIS GENERAL HOSPITAL – APRIL 2012-MARCH 2014

Source: Hywel Dda University Health Board

Date	2012-13	2013-14
April	78.39%	81.51%
May	80.23%	77.11%
June	76.98%	80.57%
July	76.83%	82.72%
August	75.77%	76.42%
September	81.54%	80.84%
October	80.98%	74.60%
November	78.88%	77.21%
December	76.22%	76.42%
January	81.25%	86.74%
February	79.80%	87.91%
March	84.94%	86.07%
TOTALS	79.28%	80.62%

Information is for all wards and all specialties in Bronglais General Hospital

TABLE AP7.4 · DAY CASE ACTIVITY FOR CEREDIGION RESIDENTS, BRONGLAIS GENERAL HOSPITAL – APRIL 2011-MARCH 2014

Source: Hywel Dda University Health Board

Speciality	2011-12	2012-13	2013-14
100 - General Surgery	302	526	711
101 - Urology	54	55	119
110 - Trauma & Orthopaedics	472	400	373
120 - ENT	21	24	11
130 - Ophthalmology	555	559	670
142 - Paediatric Dentistry	23	16	29
300 - General Medicine	1,542	1,469	1,299
303 - Clinical Haematology	56	114	219
315 - Palliative Medicine			1
320 - Cardiology	7	1	13
370 - Medical Oncology	33	77	110
420 - Paediatrics	51	25	8
502 - Gynaecology	331	316	299
TOTALS	3,447	3,582	3,862

TABLE AP7.5 · OUTPATIENT ACTIVITY FOR CEREDIGION RESIDENTS, BRONGLAIS GENERAL HOSPITAL – APRIL 2011-MARCH 2014

Source: Hywel Dda University Health Board

Speciality	2011-12	2012-13	2013-14
100 - General Surgery	4,415	4,436	4,028
101 - Urology	1,909	2,198	2,369
110 - Trauma & Orthopaedics	10,398	9,551	9,857
120 - ENT	1,828	1,730	1,499
130 - Ophthalmology	-	-	225
140 - Oral Surgery	102	-	-
142 - Paediatric Dentistry	-	-	5
143 - Orthodontics	11	10	-
150 - Neurosurgery	49	40	45
190 - Anaesthetics	213	203	222
300 - General Medicine	5,034	5,127	4,933
301 - Gastroenterology	1,642	1,610	1,551
302 - Endocrinology	613	460	440
303 - Clinical Haematology	5,175	5,393	1,436
311 - Clinical Genetics	19	9	-
315 - Palliative Medicine	143	79	62
320 - Cardiology	3,976	3,613	3,542
330 - Dermatology	8	29	9
361 - Nephrology	447	443	405
370 - Medical Oncology	976	1,038	940
400 - Neurology	31	22	56
410 - Rheumatology	137	165	132
420 - Paediatrics	2,323	2,709	2,733
502 - Gynaecology	3,554	3,315	3,452
510 - Obstetrics (AN) (OP)	3,499	3,014	2,409
560 - Midwifery	1,212	1,560	2,099
823 - Non-Clinical Haematology	-	34	4,138
900 - Community Medicine	30	19	-
950 - Nursing	2	1	-
TOTALS	47,746	46,808	46,587

TABLE AP7.6 · ADMISSIONS TO CLINICAL DECISIONS UNIT FOR CEREDIGION RESIDENTS, BRONGLAIS GENERAL HOSPITAL – APRIL 2013-MARCH 2014

Source: Hywel Dda University Health Board

Speciality	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	TOTALS
100 - General Surgery	37	47	43	52	63	49	55	38	29	23	23	26	485
101 - Urology	-	1	-	3	-	-	1	-	-	1	-	-	6
110 - Trauma & Orthopaedics	19	20	16	27	28	17	19	15	7	12	8	10	198
300 - General Medicine	149	167	140	154	139	169	162	146	166	159	161	175	1,887
320 - Cardiology	-	2	1	2	5	3	4	-	-	1	2	3	23
370 - Medical Oncology	-	-	-	4	1	2	2	-	-	-	-	-	9
502 - Gynaecology	-	-	-	-	2	-	2	1	-	-	1	2	8
510 - Obstetrics (IP)	-	1	-	-	-	-	1	-	-	-	-	-	2
TOTALS	205	238	200	242	238	240	246	200	202	196	195	216	2,618

TABLE AP7.7 · INPATIENT BED NUMBERS, CEREDIGION HOSPITALS*

Source: Hywel Dda University Health Board – July 2014

Hospital	Ward name	Specialty	Bed complement 30.6.14		Bed complement 31.7.14		CHANGE
			Inpatient	Day case	Inpatient	Day case	
Bronglais General Hospital	Angharad	Paediatrics	6	-	6	-	-
	Cardiac Monitoring Unit	Cardiac	12	-	12	-	-
	Ceredig	Orthopaedic	15	-	15	-	-
		Surgery	14	-	14	-	-
	Clinical Decisions Unit	Medicine	8	-	8	-	-
	Gwenllian	Maternity	14	-	14	-	-
	ICU	Others	3	-	3	-	-
	Iorwerth	Medicine	17	-	17	-	-
	Meurig	Oncology	14	-	14	-	-
	Paediatric Assessment Unit	Paediatrics	4	-	4	-	-
	Rhiannon	Surgery	8	-	8	-	-
		Gynaecology	7	-	7	-	-
	Ystwyth	Medicine	18	-	18	-	-
Day Surgery Unit	-	-	-	-	-	-	
Enlli	Mental Health-POA	9	9	9	8	-1	
TOTALS			149	9	149	8	-1
Tregaron Hospital	Ward 1	-	12	-	12	-	-
TOTALS			12	-	12	-	-

* Cardigan no longer has 12 inpatient beds. This took place on the 26th February 2014. The Information Department was notified of this change 6th June 2014.

TABLE AP7.8 · GENERAL SURGERY ADMISSIONS BY METHOD OF ADMISSION AND YEAR OF ADMISSION – BRONGLAIS GENERAL HOSPITAL

Source: Hywel Dda University Health Board

Year	Elective Inpatients	Day cases	Emergency	Other	TOTALS
2007/08	546	606	1,124	0	2,276
2008/09	487	485	1,079	0	2,051
2009/10	440	416	1,084	0	1,940
2010/11	383	252	1,131	0	1,766
2011/12	418	280	975	3	1,676
2012/13	361	510	943	6	1,820
TOTALS	2,635	2,549	6,336	9	11,529

TABLE AP7.9 · EMERGENCY GENERAL SURGERY ADMISSIONS BY AREA OF RESIDENCE AND YEAR OF ADMISSION – BRONGLAIS GENERAL HOSPITAL

Source: Hywel Dda University Health Board

Year	Carmarthen-shire	Ceredigion	Pembrokeshire	All other areas	TOTALS
2007/08	10	749	1	364	1,124
2008/09	9	685		385	1,079
2009/10	5	707	5	367	1,084
2010/11	7	763	5	356	1,131
2011/12	5	621	2	347	975
2012/13	3	604	3	333	943
TOTALS	39	4,129	16	2,152	6,336

TABLE AP7.10 · TOTAL NUMBER OF OUTPATIENT ATTENDANCES (NEW & FOLLOW UP), ALL HOSPITALS, CEREDIGION - BY REGISTERED GP PRACTICE AREA

Source: Hywel Dda University Health Board (HDdHB)

Hospital	Total outpatient attendances (New and Follow up)					Increase/decrease to previous year				% Increase/decrease to previous year				% of total attendances				
	2009/ 10	2010/ 11	2011/ 12	2012/ 13	2013/ 14	2010/ 11	2011/ 12	2012/ 13	2013/ 14	2010/ 11	2011/ 12	2012/ 13	2013/ 14	2009/ 10	2010/ 11	2011/ 12	2012/ 13	2013/ 14
HDdHB - North Ceredigion	38,145	41,232	42,993	42,438	41,895	3,087	1,761	-555	-543	8.1%	4.3%	-1.3%	-1.3%	60.4%	61.6%	61.8%	62.1%	62.8%
HDdHB - South Ceredigion	10,806	10,480	11,083	12,041	12,177	-326	603	958	136	-3.0%	5.8%	8.6%	1.1%	17.1%	15.7%	15.9%	17.6%	18.3%
HDdHB - North Pembrokeshire	288	313	313	350	353	25	0	37	3	8.7%	0.0%	11.8%	0.9%	0.5%	0.5%	0.5%	0.5%	0.5%
HDdHB - South Pembrokeshire	55	59	72	85	152	4	13	13	67	7.3%	22.0%	18.1%	78.8%	0.1%	0.1%	0.1%	0.1%	0.2%
HDdHB - Taf / Towy (2Ts)	63	73	82	119	151	10	9	37	32	15.9%	12.3%	45.1%	26.9%	0.1%	0.1%	0.1%	0.2%	0.2%
HDdHB - Amman/Gwen-draeth	14	19	21	61	137	5	2	40	76	35.7%	10.5%	190.5%	124.6%	0.0%	0.0%	0.0%	0.1%	0.2%
HDdHB - Llanelli	4	11	19	48	84	7	8	29	36	175.0%	72.7%	152.6%	75.0%	0.0%	0.0%	0.0%	0.1%	0.1%
Powys teaching Health Board	6,637	7,063	7,288	7,087	7,092	426	225	-201	5	6.4%	3.2%	-2.8%	0.1%	10.5%	10.6%	10.5%	10.4%	10.6%
Betsi Cadwaladr Uni. Health Board	4,199	4,485	4,777	4,674	4,286	286	292	-103	-388	6.8%	6.5%	-2.2%	-8.3%	6.6%	6.7%	6.9%	6.8%	6.4%
Abertawe Bro Morgannwg Health Board	21	11	9	8	12	-10	-2	-1	4	-47.6%	-18.2%	-11.1%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Aneurin Bevan Health Board	10	21	21	13	18	11	0	-8	5	110.0%	0.0%	-38.1%	38.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Cardiff And Vale Health Board	26	21	29	29	13	-5	8	0	-16	-19.2%	38.1%	0.0%	-55.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Cwm Taf Health Board	11	14	11	11	12	3	-3	0	1	27.3%	-21.4%	0.0%	9.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Outside Wales	188	181	210	213	241	-7	29	3	28	-3.7%	16.0%	1.4%	13.1%	0.3%	0.3%	0.3%	0.3%	0.4%
Not Known	2,696	2,931	2,593	1,140	51	235	-338	-1,453	-1,089	8.7%	-11.5%	-56.0%	-95.5%	4.3%	4.4%	3.7%	1.7%	0.1%
GRAND TOTAL	63,163	66,914	69,521	68,317	66,674	3,751	2,607	-1,204	-1,643	5.9%	3.9%	-1.7%	-2.4%	-	-	-	-	-

TABLE AP7.11 · TOTAL NUMBER OF OUTPATIENT ATTENDANCES (NEW & FOLLOW UP), ALL HOSPITALS, CEREDIGION - BY SPECIALTY

Source: Hywel Dda University Health Board

Hospital	Total outpatient attendances (New and Follow up)					Increase/decrease to previous year				% Increase/decrease to previous year				% of total attendances				
	2009/ 10	2010/ 11	2011/ 12	2012/ 13	2013/ 14	2010/ 11	2011/ 12	2012/ 13	2013/ 14	2010/ 11	2011/ 12	2012/ 13	2013/ 14	2009/ 10	2010/ 11	2011/ 12	2012/ 13	2013/ 14
General Medicine	11,997	14,146	13,595	14,076	14,809	2,149	-551	481	733	17.9%	-3.9%	3.5%	5.2%	19.0%	21.1%	19.6%	20.6%	22.2%
Paediatrics	10,588	10,340	11,127	10,119	10,371	-248	787	-1,008	252	-2.3%	7.6%	-9.1%	2.5%	16.8%	15.5%	16.0%	14.8%	15.6%
Medical Oncology	5,548	5,230	5,037	5,020	4,356	-318	-193	-17	-664	-5.7%	-3.7%	-0.3%	-13.2%	8.8%	7.8%	7.2%	7.3%	6.5%
General Surgery	4,236	4,528	5,551	5,377	5,445	292	1,023	-174	68	6.9%	22.6%	-3.1%	1.3%	6.7%	6.8%	8.0%	7.9%	8.2%
Trauma & Orthopaedics	3,612	4,644	5,379	5,786	5,588	1,032	735	407	-198	28.6%	15.8%	7.6%	-3.4%	5.7%	6.9%	7.7%	8.5%	8.4%
Ophthalmology	3,053	4,806	5,298	5,558	5,668	1,753	492	260	110	57.4%	10.2%	4.9%	2.0%	4.8%	7.2%	7.6%	8.1%	8.5%
Gynaecology	4,120	3,736	3,852	3,605	3,734	-384	116	-247	129	-9.3%	3.1%	-6.4%	3.6%	6.5%	5.6%	5.5%	5.3%	5.6%
Obstetrics	3,851	3,541	3,772	3,303	2,594	-310	231	-469	-709	-8.0%	6.5%	-12.4%	-21.5%	6.1%	5.3%	5.4%	4.8%	3.9%
Cardiology	2,974	2,910	2,915	3,603	3,615	-64	5	688	12	-2.2%	0.2%	23.6%	0.3%	4.7%	4.3%	4.2%	5.3%	5.4%
Clinical Haematology	2,725	2,483	2,412	2,734	2,713	-242	-71	322	-21	-8.9%	-2.9%	13.3%	-0.8%	4.3%	3.7%	3.5%	4.0%	4.1%
Urology	1,745	1,602	1,834	1,751	1,512	-143	232	-83	-239	-8.2%	14.5%	-4.5%	-13.6%	2.8%	2.4%	2.6%	2.6%	2.3%
GP Other	1,273	1,456	1,676	1,768	1,554	183	220	92	-214	14.4%	15.1%	5.5%	-12.1%	2.0%	2.2%	2.4%	2.6%	2.3%
Midwifery	1,512	1,282	1,225	1,563	2,136	-230	-57	338	573	-15.2%	-4.4%	27.6%	36.7%	2.4%	1.9%	1.8%	2.3%	3.2%
Palliative Medicine	1,295	1,535	1,508	1,093	0	240	-27	-415	-1,093	18.5%	-1.8%	-27.5%	-100.0%	2.1%	2.3%	2.2%	1.6%	0.0%
Oral Surgery	692	812	976	1,039	940	120	164	63	-99	17.3%	20.2%	6.5%	-9.5%	1.1%	1.2%	1.4%	1.5%	1.4%
ENT	1,282	1,308	986	0	0	26	-322	-986	0	2.0%	-24.6%	-100.0%	-	2.0%	2.0%	1.4%	0.0%	0.0%
Paediatric Dentistry	756	742	761	584	549	-14	19	-177	-35	-1.9%	2.6%	-23.3%	-6.0%	1.2%	1.1%	1.1%	0.9%	0.8%
Dental Medicine	352	463	448	447	407	111	-15	-1	-40	31.5%	-3.2%	-0.2%	-8.9%	0.6%	0.7%	0.6%	0.7%	0.6%
GRAND TOTAL	63,163	66,914	69,521	68,317	66,674	3,751	2,607	-1,204	-1,643	5.9%	3.9%	-1.7%	-2.4%	-	-	-	-	-

TABLE AP7.11 (continued) · TOTAL NUMBER OF OUTPATIENT ATTENDANCES (NEW & FOLLOW UP), ALL HOSPITALS, CEREDIGION - BY SPECIALTY

Source: Hywel Dda University Health Board

Hospital	Total outpatient attendances (New and Follow up)					Increase/decrease to previous year				% Increase/decrease to previous year				% of total attendances				
	2009/ 10	2010/ 11	2011/ 12	2012/ 13	2013/ 14	2010/ 11	2011/ 12	2012/ 13	2013/ 14	2010/ 11	2011/ 12	2012/ 13	2013/ 14	2009/ 10	2010/ 11	2011/ 12	2012/ 13	2013/ 14
Orthodontics	775	545	293	173	50	-230	-252	-120	-123	-29.7%	-46.2%	-41.0%	-71.1%	1.2%	0.8%	0.4%	0.3%	0.1%
Anaesthetics	64	168	213	203	222	104	45	-10	19	162.5%	26.8%	-4.7%	9.4%	0.1%	0.3%	0.3%	0.3%	0.3%
Rheumatology	156	171	143	166	136	15	-28	23	-30	9.6%	-16.4%	16.1%	-18.1%	0.2%	0.3%	0.2%	0.2%	0.2%
Oral Surgery	237	288	108	0	0	51	-180	-108	0	21.5%	-62.5%	-100.0%	-	0.4%	0.4%	0.2%	0.0%	0.0%
Neurology	88	78	86	124	121	-10	8	38	-3	-11.4%	10.3%	44.2%	-2.4%	0.1%	0.1%	0.1%	0.2%	0.2%
Palliative Medicine	8	33	207	125	91	25	174	-82	-34	312.5%	527.3%	-39.6%	-27.2%	0.0%	0.0%	0.3%	0.2%	0.1%
Neurosurgery	49	44	51	40	45	-5	7	-11	5	-10.2%	15.9%	-21.6%	12.5%	0.1%	0.1%	0.1%	0.1%	0.1%
Clinical Oncology	143	0	0	0	0	-143	0	0	0	-100.0%	-	-	-	0.2%	0.0%	0.0%	0.0%	0.0%
Clinical Genetics	22	23	27	9	0	1	4	-18	-9	4.5%	17.4%	-66.7%	-100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Dermatology	0	0	8	30	13	0	8	22	-17	-	-	275.0%	-56.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Community Medicine	0	0	31	20	0	0	31	-11	-20	-	-	-35.5%	-100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Nursing	7	0	2	1	0	-7	2	-1	-1	-100.0%	-	-50.0%	-100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Paediatric Dentistry	0	0	0	0	5	0	0	0	5	-	-	-	-	0.0%	0.0%	0.0%	0.0%	0.0%
Accident & Emergency	3	0	0	0	0	-3	0	0	0	-100.0%	-	-	-	0.0%	0.0%	0.0%	0.0%	0.0%
GRAND TOTAL	63,163	66,914	69,521	68,317	66,674	3,751	2,607	-1,204	-1,643	5.9%	3.9%	-1.7%	-2.4%	-	-	-	-	-

TABLE AP7.12 · TOTAL NUMBER OF DEATHS AND DISCHARGES ACROSS ALL HOSPITALS IN CEREDIGION AREA - BY REGISTERED GP PRACTICE AREA

Source: Hywel Dda University Health Board (HDdHB)

Hospital	Total deaths and discharges					Increase/decrease to previous year				% Increase/decrease to previous year				% of total deaths and discharges				
	2009/ 10	2010/ 11	2011/ 12	2012/ 13	2013/ 14	2010/ 11	2011/ 12	2012/ 13	2013/ 14	2010/ 11	2011/ 12	2012/ 13	2013/ 14	2009/ 10	2010/ 11	2011/ 12	2012/ 13	2013/ 14
HDdHB - North Ceredigion	8,577	8,603	9,044	9,249	9,361	26	441	205	112	0.3%	5.1%	2.3%	1.2%	56.7%	57.0%	57.1%	57.7%	57.2%
HDdHB - South Ceredigion	2,014	1,954	2,021	2,185	2,137	-60	67	164	-48	-3.0%	3.4%	8.1%	-2.2%	13.3%	12.9%	12.8%	13.6%	13.1%
HDdHB - North Pembrokeshire	69	70	65	58	83	1	-5	-7	25	1.4%	-7.1%	-10.8%	43.1%	0.5%	0.5%	0.4%	0.4%	0.5%
HDdHB - South Pembrokeshire	13	15	14	27	34	2	-1	13	7	15.4%	-6.7%	92.9%	25.9%	0.1%	0.1%	0.1%	0.2%	0.2%
HDdHB - Taf / Towy (2Ts)	32	28	24	33	38	-4	-4	9	5	-12.5%	-14.3%	37.5%	15.2%	0.2%	0.2%	0.2%	0.2%	0.2%
HDdHB - Amman/Gwen-draeth	11	15	9	10	28	4	-6	1	18	36.4%	-40.0%	11.1%	180.0%	0.1%	0.1%	0.1%	0.1%	0.2%
HDdHB - Llanelli	1	2	5	11	25	1	3	6	14	100.0%	150.0%	120.0%	127.3%	0.0%	0.0%	0.0%	0.1%	0.2%
Powys teaching Health Board	2,644	2,602	2,764	2,663	2,842	-42	162	-101	179	-1.6%	6.2%	-3.7%	6.7%	17.5%	17.2%	17.5%	16.6%	17.4%
Betsi Cadwaladr Uni. Health Board	1,286	1,291	1,385	1,356	1,260	5	94	-29	-96	0.4%	7.3%	-2.1%	-7.1%	8.5%	8.6%	8.7%	8.5%	7.7%
Abertawe Bro Morgannwg Health Board	20	10	16	13	14	-10	6	-3	1	-50.0%	60.0%	-18.8%	7.7%	0.1%	0.1%	0.1%	0.1%	0.1%
Aneurin Bevan Health Board	6	7	10	4	14	1	3	-6	10	16.7%	42.9%	-60.0%	250.0%	0.0%	0.0%	0.1%	0.0%	0.1%
Cardiff And Vale Health Board	14	18	10	16	16	4	-8	6	0	28.6%	-44.4%	60.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%
Cwm Taf Health Board	25	20	14	25	19	-5	-6	11	-6	-20.0%	-30.0%	78.6%	-24.0%	0.2%	0.1%	0.1%	0.2%	0.1%
Outside Wales	317	332	317	311	459	15	-15	-6	148	4.7%	-4.5%	-1.9%	47.6%	2.1%	2.2%	2.0%	1.9%	2.8%
Not Known	106	127	133	80	29	21	6	-53	-51	19.8%	4.7%	-39.8%	-63.8%	0.7%	0.8%	0.8%	0.5%	0.2%
GRAND TOTAL	15,135	15,094	15,831	16,041	16,359	-41	737	210	318	-0.3%	4.9%	1.3%	2.0%	-	-	-	-	-

TABLE AP7.13 · TOTAL NUMBER OF DEATHS AND DISCHARGES ACROSS ALL HOSPITALS IN CEREDIGION AREA - BY MAIN SPECIALTY

Source: Hywel Dda University Health Board

Hospital	Total outpatient attendances (New and Follow up)					Increase/decrease to previous year				% Increase/decrease to previous year				% of total attendances				
	2009/ 10	2010/ 11	2011/ 12	2012/ 13	2013/ 14	2010/ 11	2011/ 12	2012/ 13	2013/ 14	2010/ 11	2011/ 12	2012/ 13	2013/ 14	2009/ 10	2010/ 11	2011/ 12	2012/ 13	2013/ 14
General Medicine	3,609	3,767	3,845	3,639	3,981	158	78	-206	342	4.4%	2.1%	-5.4%	9.4%	23.8%	25.0%	24.3%	22.7%	24.3%
Paediatrics	1,576	1,982	2,121	2,413	2,079	406	139	292	-334	25.8%	7.0%	13.8%	-13.8%	10.4%	13.1%	13.4%	15.0%	12.7%
Medical Oncology	1,670	1,451	1,809	2,356	2,766	-219	358	547	410	-13.1%	24.7%	30.2%	17.4%	11.0%	9.6%	11.4%	14.7%	16.9%
General Surgery	2,080	1,835	1,708	1,869	1,938	-245	-127	161	69	-11.8%	-6.9%	9.4%	3.7%	13.7%	12.2%	10.8%	11.7%	11.8%
Trauma & Orthopaedics	1,547	1,537	1,702	1,340	1,336	-10	165	-362	-4	-0.6%	10.7%	-21.3%	-0.3%	10.2%	10.2%	10.8%	8.4%	8.2%
Ophthalmology	1,240	1,380	1,530	1,646	1,498	140	150	116	-148	11.3%	10.9%	7.6%	-9.0%	8.2%	9.1%	9.7%	10.3%	9.2%
Gynaecology	735	668	666	601	615	-67	-2	-65	14	-9.1%	-0.3%	-9.8%	2.3%	4.9%	4.4%	4.2%	3.7%	3.8%
Obstetrics	745	667	599	623	508	-78	-68	24	-115	-10.5%	-10.2%	4.0%	-18.5%	4.9%	4.4%	3.8%	3.9%	3.1%
Cardiology	688	592	617	495	408	-96	25	-122	-87	-14.0%	4.2%	-19.8%	-17.6%	4.5%	3.9%	3.9%	3.1%	2.5%
Clinical Haematology	527	424	446	368	484	-103	22	-78	116	-19.5%	5.2%	-17.5%	31.5%	3.5%	2.8%	2.8%	2.3%	3.0%
Urology	163	204	249	243	314	41	45	-6	71	25.2%	22.1%	-2.4%	29.2%	1.1%	1.4%	1.6%	1.5%	1.9%
GP Other	221	229	257	157	131	8	28	-100	-26	3.6%	12.2%	-38.9%	-16.6%	1.5%	1.5%	1.6%	1.0%	0.8%
Midwifery	183	148	134	177	185	-35	-14	43	8	-19.1%	-9.5%	32.1%	4.5%	1.2%	1.0%	0.8%	1.1%	1.1%
Palliative Medicine	20	94	73	71	72	74	-21	-2	1	370.0%	-22.3%	-2.7%	1.4%	0.1%	0.6%	0.5%	0.4%	0.4%
Oral Surgery	67	76	30	0	0	9	-46	-30	0	13.4%	-60.5%	-100.0%	-	0.4%	0.5%	0.2%	0.0%	0.0%
ENT	36	19	22	27	15	-17	3	5	-12	-47.2%	15.8%	22.7%	-44.4%	0.2%	0.1%	0.1%	0.2%	0.1%
Paediatric Dentistry	12	21	23	16	29	9	2	-7	13	75.0%	9.5%	-30.4%	81.3%	0.1%	0.1%	0.1%	0.1%	0.2%
Dental Medicine	16	0	0	0	0	-16	0	0	0	-100.0%	-	-	-	0.1%	0.0%	0.0%	0.0%	0.0%
GRAND TOTAL	15,135	15,094	15,831	16,041	16,359	-41	737	210	318	-0.3%	4.9%	1.3%	2.0%	-	-	-	-	-

TABLE AP7.14 · PROJECTED ESTIMATES OF THE POPULATION, POWYS

Source: Welsh Government

Source of admission	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
North Powys (Montgomery)	63,779	63,767	63,656	64,269	64,415	64,558	64,697	64,832	64,957	65,074
Mid Powys (Radnor)	29,351	29,346	29,294	29,576	29,644	29,709	29,774	29,835	29,893	29,947
South Powys (Brecknock)	39,846	39,839	39,769	40,152	40,243	40,333	40,420	40,504	40,582	40,655
POWYS TOTAL	132,976	132,952	132,720	133,997	134,302	134,600	134,891	135,171	135,432	135,676

APPENDIX 8 · CONSULTANT MEDICAL STAFF BASED AT BRONGLAIS GENERAL HOSPITAL – HYWEL DDA UHB

There are currently 50 consultants working at Bronglais General Hospital as follows.

Source: Hywel Dda University Health Board

A&E

Dr Martin Sawyer (locum)

ANAESTHETICS

Dr Brian Campbell

Dr A G Bonsu

Dr B Collingborn

Dr R Koju-Shrestha

Dr Lackmann-Pavenstaedt

Dr J Zeber

Dr M Hobrok

Dr C Nwaefulu (locum)

Dr M Szappanos (locum)

HAEMATOLOGY

Dr Holmes

Dr H I Atrah (off long term)

MEDICINE

Dr Sajid Durrani – Oncology (on secondment, locum coming to replace)

Dr Graham Boswell – EAU

Dr Phil Jones – Strokes and COTE

Dr Christine Kotonya – Diabetes

Dr Donogh McKeogh – Cardiology

Dr Mark Narain – Gastroenterology

Dr Russell Canavan – Gastroenterology

Dr Lalit Pandya – Respiratory (covering Dr Urfi)

Dr Urfi Urfi – Respiratory (unpaid leave from Sept for 1 yr)

Dr G Lingesan – Palliative Medicine

ORTHOPAEDICS

Dr Wolfgang Spaeth (unpaid leave from 1 April for 1 yr)

Mr M A Omar

Mr Sanjay Sonanis

Mr Mahmoud Abdel Salam (locum)

OBS & GYNAE

Mr S A Awad

Mrs A Nan

Mrs Angela Hamon

Dr H Borase (terminates 10 October)

OPHTHALMOLOGY

Mr Dai Barr

Mr M Kulshrestha

Mr S T Shanmugalingham

PAEDIATRICS

Dr John Williams

Dr Simon Fountain-Polley

Dr E Ikapkwu

Dr K Khan

RADIOLOGY

Dr Liaquat Khan

Dr Shiblee Hafeez

SURGERY

Mr Taha Lazim

Mr Samy Mohamed

Mr Z Sallami (locum)

Mr B Jameel (locum)

VISITING CONSULTANTS

Rheumatology – Dr Peter Haynes

ENT – Mr Nicholas Morgan

Nephrology – Dr Chess

Paeds Cardio – Dr Peart

Neurosurgery – Dr Redfern

Neurology – Dr Hirst and Dr Hinds

Breast - Mr Holt

**APPENDIX 9 · VISITING SERVICES, BRONGLAIS GENERAL HOSPITAL – HYWEL
DDA UHB**

Service	Consultant	Frequency
ENT	Mr Morgan	Weekly
Rheumatology	Dr Haynes	Weekly
Nephrology	Dr Chess	2nd Wed and 4th Thurs
Paeds Cardio	Dr Peart	Every 3 months
Neurosurgery	Dr Redfern	Every 3 months
Neurology (Telemed)	Dr Hirst	Every 6 weeks
Neurology (Telemed)	Dr Hinds	Every 6 weeks
Genetics	Shan Owens	Every 4th Fri
MS Nurse	Sue Mullock	Monthly
Vascular	Various	Every 2nd Monday
Paeds Nephrology	Dr Krishnan	Every 6 months
Psycho Sexual Nurse	Glynis Florence	Weekly
Dermatology (Telemed)		Every 2nd Thursday

Source: Hywel Dda University Health Board

APPENDIX 10 · COMMUNITY HOSPITAL SERVICES, CEREDIGION – HYWEL DDA UHB

Source: Hywel Dda University Health Board

Hospital	Population Served (approx.)	Services
<p>Aberaeron Hospital Aberaeron</p>	<p>Aberaeron Hospital is in the centre of Ceredigion and mainly provides services for the North Ceredigion Locality, as it has clinical links to Bronglais General Hospital in Aberystwyth.</p> <p>The North Ceredigion Locality has a population of 53,000.</p>	<p>Onsite services</p> <ul style="list-style-type: none"> Audiology Service for Ceredigion (Adults/Children) Lymphoedema Service Occupational Therapy Outpatient Department Podiatry Physiotherapy Speech and Language Therapy Videoconferencing Facilities and Meeting Rooms No on site medical cover No inpatient beds No Minor Injuries Unit service No X-ray <p>Visiting Services</p> <ul style="list-style-type: none"> Abdominal Aortic Aneurism Screening Clinics (National Screening Programme) Age Concern – Nail Cutting Service – Ceredigion based Alcohol and Drug Misuse Clinics – from Llys Stefan, Lampeter Ante-Natal Clinics – midwife-led Community Paediatric Clinics – Consultant from Bronglais General Hospital Community Psychiatric Nurses – Ceredigion based Continence Clinics – Specialist Nurse from Bronglais General Hospital Counselling – CRUSE – Ceredigion based Diabetes Clinics – Consultant and Specialist Nurse from Bronglais General Hospital Diabetic Retinopathy Screening (National Screening Programme) Dialectic Behavioural Therapy (DBT) Clinics – from Gorwelion, Aberystwyth Dietetic Clinics – Dietitian from Bronglais General Hospital Enuresis Clinics – Specialist Nurse from Bronglais General

		<p>Hospital</p> <p>Family Planning Clinics – Consultant and Specialist Nurse from Bronglais General Hospital</p> <p>Gynaecology Clinics – Consultant from Bronglais General Hospital</p> <p>Heart Failure Clinics – Specialist Nurse from Bronglais General Hospital</p> <p>Movement Disorder Clinics – Consultant and Specialist Nurse from Bronglais General Hospital</p> <p>New Born Screening Clinics – Consultant from Bronglais General Hospital</p> <p>Ophthalmology Clinics – Consultant and Specialist Nurse from Bronglais General Hospital</p> <p>Orthoptic Clinics – Orthoptist from Bronglais General Hospital</p> <p>Orthotics Clinics – from Bronglais General Hospital</p> <p>Tissue Viability Service – Specialist Nurse from Bronglais General Hospital</p> <p>Base for</p> <p>Acute Response Team for Ceredigion (24/7 service)</p> <p>District Nurses</p> <p>Health Visitors</p> <p>Heart Failure Specialist Nurses</p> <p>Long Term Care Team – Continuing Health Care and Funded Nursing Care Assessors</p> <p>Medicines Management Team</p> <p>Midwives</p> <p>School Nurses</p> <p>Service Planning Manager</p> <p>Social Workers (Ceredigion County Council)</p>
<p>Cardigan and Memorial Hospital, Cardigan</p>	<p>39,200 within the natural catchment area, which extends into Carmarthenshire and North Pembrokeshire</p>	<p>Onsite services</p> <p>Day Case Unit (staffed by the Acute Response Team)</p> <p>Minor Injuries Unit Service - Nurse-led - Mon-Fri 0900-1700</p> <p>Occupational Therapy – including Paediatrics</p> <p>Outpatient Department</p> <p>Podiatry</p> <p>Physiotherapy – including Paediatrics</p> <p>Speech and Language Therapy</p> <p>Videoconferencing Facilities and Meeting Rooms</p> <p>X Ray facilities – Mon-Fri 0900-1700</p> <p>No on site medical cover</p> <p>No inpatient beds</p>

Visiting Services

Abdominal Aortic Aneurism Screening Clinics (National Screening Programme)

Ante Natal Clinics – Consultant from Withybush Hospital, Haverfordwest

Biomechanics and Footwear Clinics – Podiatrists (Ceredigion based)

CMATs (Physiotherapist from Lampeter)

Community Paediatric Clinics – Consultant from Bronglais General Hospital

Complex Needs (Children) – Consultant from Bronglais General Hospital

Community Psychiatric Nursing (CPN) Clinics (CPNs from Hafan Hedd, (Newcastle Emlyn) and Glangwili Hospital)

Continence Clinics – Specialist Nurse from Bronglais General Hospital

Developmental Assessment Clinics – Health Visitor led (Cardigan based)

Diabetes Clinics – Consultant from Glangwili Hospital and Diabetes Specialist Nurse from Aberaeron

Diabetic Retinopathy Screening (National Screening Programme)

Dietetics – Dietician (Ceredigion based)

General Surgery Clinics – Consultants from Bronglais General Hospital

Genetics – Specialist Nurse Based at Withybush Hospital linking to Prof. J. Sampson, Head of Medical Genetics at the Institute of Cancer and Genetics, Cardiff University

GU Medicine (soon to become the Integrated Sexual and Reproductive Health Service incorporating Family Planning) – Consultant and Specialist Nurses from Bronglais

Gynaecology Clinics – Consultant from Bronglais General Hospital

Head and Neck Cancer Clinics (about to commence) – Specialist Macmillan Speech and Language Therapist, linking with ABMU Health Board via Videoconferencing

Haematology Clinics – Consultant from Glangwili Hospital

Heart Failure Clinics – Specialist Nurse from Bronglais General Hospital

Leg Club (Leg Ulcers) – Specialist Nurse from Bronglais General Hospital

Low Visual Aids Clinic – Optometrist from Aberystwyth

Lung Cancer Specialist Nurse Clinics – Specialist Nurse from

		<p>Glangwili Hospital</p> <p>Lymphoedema Clinics – Specialist Nurses from Bronglais and Withybush Hospitals</p> <p>Mental Health Counsellors (CPNs) – from Hafan Hedd (Newcastle Emlyn)</p> <p>Motor Neurone Disease Clinics (starting 18th September 2014) – Consultant from Swansea and Specialist Nurse and Dietitian from Cardiff</p> <p>Movement Disorder Clinics – Consultant and Specialist Nurse from Bronglais General Hospital</p> <p>Ophthalmology Clinics – Consultant from North Road Clinic, Aberystwyth</p> <p>Orthopaedics – Consultants from Bronglais General Hospital</p> <p>Orthoptics Clinics – Orthoptist from North Road Clinic, Aberystwyth</p> <p>Orthotics – Adult Orthotics (from Bronglais General Hospital) and Paediatric Orthotics (from Glangwili Hospital)</p> <p>Paediatric Clinics – Consultant from Bronglais General Hospital</p> <p>Paediatric Rheumatology – Consultant from Bronglais General Hospital (service for whole Health Board)</p> <p>Palliative Care – Consultant and Specialist Nurse from Bronglais General Hospital</p> <p>Phlebotomy Service – Phlebotomists from Glangwili Hospital</p> <p>Psychiatric Clinic – Consultant from Bronglais General Hospital</p> <p>Psychogeriatric Clinic – Consultant from Bronglais General Hospital</p> <p>Urology – Consultant from Glangwili Hospital</p> <p>Base for</p> <p>Care Assessors and Social Worker</p> <p>Children’s Continuing Care Service (base for Hywel Dda)</p> <p>Children’s Occupational Therapist</p> <p>Children’s Physiotherapist</p> <p>Community Dietician</p> <p>Community Oxygen Administrator</p> <p>District Nurses</p> <p>Health Visitors</p> <p>Macmillan Nurse</p> <p>Marie Curie Nursing Service</p> <p>Midwives</p> <p>Oxygen and Respiratory Specialist Nurse</p> <p>School Nurses</p> <p>South Ceredigion Integrated Nursing Team</p>
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		<p>Speech and Language Therapy Service (base for Hywel Dda)</p> <p>Targeted Intervention Service (multi-agency, including the Reablement Service)</p>
<p>Tregaron Hospital</p> <p>Tregaron</p>	<p>3,550 in the area around Tregaron; however, the hospital accepts step-down patients mainly from Bronglais General Hospital in the North Ceredigion Locality. The North Ceredigion Locality has a population of 53,000.</p>	<p>Onsite services</p> <p>12 inpatient beds – step-up/step-down – with 24/7 nursing care</p> <p>GP Medical Cover from local GP Practice employed as Clinical Assistants (in hours) and also from the GP Out of Hours Service</p> <p>Palliative Care Suite</p> <p>Video conferencing Facilities</p> <p>No Minor Injuries Unit service</p> <p>No X-ray</p> <p>Visiting Services</p> <p>Abdominal Aortic Aneurism Screening Clinics (National Screening Programme)</p> <p>Baby Clinics – Community Physician from Bronglais General Hospital</p> <p>Community Paediatric Clinics – Consultant from Bronglais General Hospital</p> <p>Dietetics – Dietitian from Cardigan Hospital</p> <p>Heart Failure Clinic – Specialist Nurse from Bronglais General Hospital</p> <p>Occupational Therapy – Occupational Therapist from Bronglais General Hospital</p> <p>Physiotherapy – Physiotherapist from Bronglais General Hospital</p> <p>Podiatry – Podiatrist from Cardigan Hospital</p> <p>Speech and Language Therapy - Speech and Language Therapist from Cardigan Hospital</p> <p>Base for</p> <p>Community Transport Co-ordinator</p> <p>District Nurses</p> <p>Health Visitors</p> <p>Midwives</p> <p>School Nurses</p> <p>Public Health Officers</p> <p>Public Patient Experience Officer</p>
<p>North Road Clinic</p> <p>Aberystwyth</p>	<p>The Dental Department covers patients from North</p>	<p>Onsite services</p> <p>Community Dental Department</p> <p>North Road Eye Clinic – main Ophthalmology Department for north Ceredigion and north Powys providing outpatient clinics, pre-assessments, laser treatment, OCT scanning, Fluorescein-</p>

	<p>Ceredigion; The Eye Clinic covers patients from North Ceredigion and North Powys</p>	<p>angiography and minor ops. Visiting Services GU Medicine</p>
<p>Gorwelion (Mental Health) Aberystwyth</p>		<p>Onsite services Assessment and Out Patient Clinics Adult Community Mental Health Team including: Community Psychiatric Nurses Occupational Therapists Psychiatrists Psychologists Social Workers</p> <p>Visiting Services Primary Care Mental Health Team Substance Misuse Clinics</p> <p>Base for Adult Community Mental Health Team including: Community Psychiatric Nurses Occupational Therapists Psychiatrists Psychologists Social Workers</p>
<p>Hafan Hedd (Mental Health) Newcastle Emlyn</p>		<p>Onsite services Assessment and Out Patient Clinics Adult Community Mental Health Team including: Community Psychiatric Nurses Occupational Therapists Psychiatrists Psychologists Social Workers</p> <p>Visiting Services Primary Care Mental Health Team Substance Misuse Clinics</p> <p>Base for Adult Community Mental Health Team including:</p>

		<p>Community Psychiatric Nurses Occupational Therapists Psychiatrists Psychologists Social Workers</p>
<p>Llys Stefan (Mental Health) Lampeter</p>		<p>Onsite services Assessment and Out Patient Clinics</p> <p>Visiting Services Substance Misuse Clinics</p> <p>Base for Primary Care Team and Adult Community Mental Health Team including: Community Psychiatric Nurses Occupational Therapists Psychiatrists Psychologists Social Workers</p>

APPENDIX 11 · COMMUNITY HOSPITAL SERVICES – MEIRIONNYDD, BETSI CADWALADR UHB

Source: Betsi Cadwaladr University Health Board

Hospital	Services
<p>Dolgellau Hospital Dolgellau</p>	<p>Onsite services</p> <ul style="list-style-type: none"> 24 hour on site medical cover 24 hour nursing cover Minor Injuries Unit 8am-8pm 7 days per week Daily radiography cover 20 Beds used for Medical post operative surgery Out of Hours treatment service for South Meirionnydd Emergencies Inpatient alcohol detox Integrated Midwifery service Diagnostic Ultrasound service Palliative Care Terminal Care Minor Surgery Podiatry Physiotherapy Speech and Language Therapy Occupational Therapy 24 Hour BP monitoring Event Monitoring Community Paediatric Clinic Community Dental Service Video Conferencing Facility <p>Visiting Services</p> <ul style="list-style-type: none"> AAA Screening Clinic General Surgery Clinic Colorectal Nurse Practitioner Clinic Audio Clinic Audiology Clinic Healthy Hearts Clinic Heart Failure Clinic/Heart Failure Nurse Clinic Skin Clinic Urology Clinic ENT Clinic

	<p>Contenance Promotion Clinic Eye Clinic Chest Clinic Field Technician Clinic Rheumatology Clinic CKD Nurse Clinic Diabetic Retinopathy Clinic Tele Medicine Clinic Paeds Clinic Diabetic Nurse Clinic Parkinsons Consultant Clinic Orthopaedic Clinic Orthoptist Clinic Respiratory Nurses Clinic Contenance Advisor Clinic Benefits Agency Doctor/Nurse Clinic MOP Clinic</p>
<p>Tywyn Hospital Tywyn</p>	<p>Onsite services</p> <p>24 hour nursing cover Minor Injuries Unit 10 am – 6 pm (7 days per week summer/5 days per week winter) Weekly radiography cover 8 Beds used for Medical post operative surgery (increasing to 10 beds soon) Out of Hours available from Dolgellau Hospital Emergencies Integrated Midwifery service Palliative Care Terminal Care Minor Surgery Podiatry Physiotherapy Speech and Language Therapy Occupational Therapy 24 Hour BP monitoring Event Monitoring Community Paediatric Clinic Community Dental Service Video Conferencing Facility</p> <p>Visiting Services</p> <p>Visual Fields Clinic</p>

	<p>Surgical Clinic</p> <p>Orthopaedic Clinic - All contracts with Bronglais</p> <p>Ophthalmic Clinic (Hywel Dda UHB)</p> <p>Cardiac Clinic</p> <p>Diabetic Clinic</p> <p>Gynae Clinic</p>
<p>Ffestiniog Memorial Hospital</p> <p>Blaenau Ffestiniog</p>	<p>The precise pattern of services in this hospital is currently being reviewed.</p>

APPENDIX 12 · ENGAGING THE PUBLIC: ELEMENTS OF A NEW APPROACH

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DEFINING THE ISSUES

Whereas many of the old Health Boards of the internal market had shown themselves to be quite effective in consulting with the public on service development, the reorganisation of healthcare at a regional level has meant that the issues of these regional organisations have yet to find a clear constituency. Through their efforts to develop Single Integrated Plans, Local Authorities continue to consult with local populations on county wide issues. So on the one hand, Health Boards need to constitute a public across their own territories – a task that has been addressed through the development of locality teams, involvement in Stakeholder Reference Groups and so on. On the other hand, to the extent that healthcare issues span the borders of Health Boards, then there is also a need for the development of a public constituted to debate these cross Health Board issues. This may be particularly important for the Health Boards of Mid Wales where the Hywel Dda, Powys and Betsi Cadwaladr Health Boards are faced with the need to work together to serve the interests of a predominantly rural and remote population using service delivery models across primary and community care, the secondary care provided at Bronllais General Hospital, and mental healthcare services.

The proposal sketched here is focused on involving citizens as members of a public in influencing healthcare policy across Mid Wales. That is, to examine the extent to which healthcare professionals and the public feel their services may be governed by a cross Health Board body, and how these constituencies may channel influence as governors of such a body. To do this we propose a three stage process. First, we would engage with citizens in an iterative process of developing an action research project that first examines whether there is a need for a public that debates healthcare issues across Mid Wales, and scopes the dimensions of this public. Second, this project examines how this public may operate by developing a governing body on the one hand, and by inviting residents of Mid Wales to participate through various deliberative techniques on the other. Finally, the project will track the extent to which such a public may impact the deliberations of decision makers and of strategic decisions, examining routes through which such decisions may be communicated back to the involved members of the public.

DIRECTING A CONSULTATION WITH THE CITIZENS SERVED BY THE NHS IN MID WALES

In order to develop a meaningful consultation with health service users in Mid Wales, issues and questions need to be developed and agreed by a group who are in some way accountable. Ordinarily, consultations take place that report findings to a clearly accountable body – a local council or health board – who debate the findings, respond to the recommendations and take whatever action they deem appropriate. Even when the decision is to take action that is contrary to the advice of public opinion, because it is an accountable body, this body can be called on to justify their decision. Because the accountability mechanisms that lead from Health Boards through the CEO for NHS Wales to the Minister for Health and Social Services do not provide for pan regional accountability, then some additional mechanism is needed. Specifically, if there is a consultation on matters that span the Mid Wales region, then the results of this consultation will need to be debated in some kind of forum.

This is a forum that shapes debate insofar as it makes decisions on priority areas, but also discusses and debates inputs from broader democratic processes before reporting findings to participant Health Boards. Feedback from democratic processes need to be interpreted and the various aspects of

potentially conflicting opinion understood, before recommendations are made that can put to the participating boards. While it is up to the boards of the Health Boards to make decisions on strategic and operational matters, the legitimacy of the forum would be greatly improved by an undertaking from Health Board boards to provide feedback on advice and recommendations and to report any actions that have been taken as a result of the consultation process. But this forum must itself be accountable to the broader public.

It is quite possible for a group of researchers themselves to provide such a forum. The researchers can develop questions, priorities and refine judgements based on evidence that they then present to accountable bodies. But by themselves, researchers may receive criticism for paying insufficient attention to certain matters or allowing their judgement to be shaped by an overreliance on particular voices. To the extent that the overarching objective is to build trust and to develop a public opinion on healthcare matters across this region, then it makes more sense to develop a broader forum. The membership of such a forum could, for instance, be drawn from the existing Stakeholder Reference Groups and Professional Forums of the three Health Boards. The important point is that the forum gain input from representatives of professionals and the community and voluntary sector organizations, as well as client groups. The forum would be chaired by a senior cabinet member of a participating Health Board, and direct the work of the researchers carrying out the consultation. Initial meetings would focus on directing the consultation process, identifying priority areas and important groups whose voices must be heard for consultations to be properly representative, and facilitating access where possible. As the consultation process proceeds, the shape of public opinion would become central to debate.

STAGE 1: INITIAL CONSULTATIONS

The overall objective is to engage in a ‘community dialogue’ (Weeks, 2000) with the citizens of Mid Wales. A community dialogue does not stress any particular mechanism for communication. It is about providing citizens with extensive information about policy problems, placing citizens in the context of the same problems that elected officials face, and collecting their views. It is not a one off event, but multiple exchanges between the community and the researchers. Because it is a dialogue, this stage involves going back again and again to the community building up the information base that citizens have access to, ensuring they understand this information, and engaging in discussion about the potential policy options. Weeks (2000) separates an agenda setting, a strategy development and a decision making round.

The first stage is the ‘agenda setting’ round, where citizens are engaged with “to define the scope and terms of the dialogue” (2000: 362). This stage involves identifying and communicating the basis for the dialogue. Thus, it is first about selecting a divisive issue, presenting research findings on this issue to community groups, and developing a view on the problem at the core of this issue as well as the views of citizens on the problem. A dialogue can only proceed when there is some agreement on the problem. This could take the form of a statement, such as: emergency surgery is an expensive service that citizens expect to be able to access when they need it, without travelling long distances, but are unwilling to accept the need to address service provision in the current financial climate.

Setting the agenda in the context of service pressures, financial constraints and changing demographic profiles combined with a distrust of management and policy makers will involve an extensive initial dialogue. We will work to ensure that we communicate the general situation as clearly as possible, seeking areas of agreement about the nature of disagreements, and developing a consensus. Where there is an acceptance of the pressures (current and future) on health services, so that it becomes possible to identify an initial consensus, then the dialogue may proceed to the next stage. Where there is no acceptance, or citizens are suspicious of how pressures are being framed, we will work with citizens and communities to examine the facts and the policies that have been developed to deal with

situations.

The time spent on this phase will depend on the engagement of citizens and communities. Where there is acceptance of service pressures, there will remain work to identify the initial consensus on the issues. We will return to these communities at least twice to ensure they understand the issues, and to gain an agreement on their shared view. However, many communities and citizens may justifiably be suspicious of the grounds for service change, so work with these citizens may continue for some time. We propose returning to these groups repeatedly over six or eight months, working towards a shared understanding of the pressures leading to the need for service change.

While a distinct phase, the overall dialogue will remain focused on the pressures faced by health service providers. Therefore debates will return again and again to how we understand these pressures, and in what sense demographic, financial and medical changes bring about a need to rethink service provision. Therefore, we first focus on these issues, but they continue to remain a theme in the latter stages.

Overall, this phase will take up the first twelve months of the research team's time. These months will be spent identifying and contacting relevant groups, and in setting up and carrying out initial and subsequent meetings. In addition, we will use both survey and interview methods to identify the prevalence of views held by participants. This will enable us to identify how far a consensus is held by community members.

STAGE 2: INITIATING A COMMUNITY DIALOGUE

Having scoped the issues and problems that may be addressed on a Mid Wales level, we will begin the strategy development phase. In this phase, we will ask citizens to identify potential policy options, and to evaluate different options offered by others. During this stage, we will (1) work to enhance the information that citizens have about the policy situation, (2) engage with citizens using the appropriate methods, (3) try to systematise viable emerging policy options and use survey methods to assess support for these options.

The first task (1) is to develop knowledge of which services and facilities could be addressed by a Mid Wales public, and how changes in resource allocation may affect the development of services. The objective is to ensure that all interested residents are well informed of the issues and the implications of particular policy decisions and have opportunities to discuss these options. We will do this by producing a detailed website along with a newsletter distributed to households in Mid Wales describing how services could be dealt with on a Mid Wales level, describing each service and facility, its costs and the implications of reorganising services in directions identified by healthcare managers and in line with the views identified among the wider public in the stage 1 survey.

We would then (2) engage with citizens using various participatory methods. As table 1 below shows, there are various possible methods that we can choose from to carry out consultations. These different methods vary by size, duration, procedure, participant selection, and cost (for a detailed description of one such model, see Box 1, below). Given that we are engaging with people living in urban, coastal and rural places and in towns and villages of various sizes, then different methods may suit different circumstances. For instance, the 21st Century town hall meeting may suit rural towns and villages where such an event may be held over a weekend. Charettes may suit meetings where citizens feel they need input from professionals, whereas citizen's choicework may suit those living in more dispersed rural places. The main requirement of these methods is that they provide the researchers with the tools with which to confront citizens with difficult issues, and a forum in which to work through value conflicts and practical tradeoffs in order to develop a sense of direction.

We would anticipate that what will emerge from the participatory methods will be a small number of

policy options. These are simply the options that are raised through the participatory methods, and that survive critical appraisal. Our next objective is (3) to ascertain the extent of support for these options. The best way to do this is by use of a survey. Such a survey would be conducted with the participants during deliberative meetings, online, and with a representative sample using a telephone survey.

THE CITIZEN'S JURY

Perhaps the most deliberative method is the citizen's jury. Citizens' juries, like legal juries, are made up of a small sample of the general population who, it is hoped, can come to a decision similar to that which would have been reached if the whole population were given the opportunity to decide. Citizens' juries bring together a group of more or less self-selecting citizens to listen to submissions, question witnesses and deliberate about social problems that are believed to have a variety of solutions. By making a variety of experts available, the citizens' jury organisers attempt to provide citizens with enough information about different approaches to the same problem so that they can make an informed choice about which course of action to recommend (White et al., 1998, p. 1). Besides time, however, they must also be provided with the opportunity to talk about this information (Weeks, 2000, p. 361). However, because jurors are empowered to call on and question witnesses, to deliberate over a number of days, undergo a selection process and receive the constant support of a moderator, citizen juries are also notably resource intensive and expensive.

STAGE 3: REFINING AND DECIDING

The objective of these exercises is to produce a recommendation that may be submitted to the boards of the Health Boards. The questionnaires and workshops will provide data with which the researchers may construct the reflected judgement of the public in these areas. These considered views will then be documented in a report submitted to the governing board. The governing board is expected to work to develop more specific policy measures that implement the direction suggested by the public. At this point a second round of deliberations with the public may begin in which citizens are asked to make decisions, and to select their single preferred policy option.

This second round seeks to assess citizen support for the specific measures proposed by the project's governing board. Here, questionnaires may again be used in which respondents are asked to rank options. Deliberative methods will again be used to consider the options put forward by the governing board. At this stage the researchers will priorities use of the Citizen's Choicework method which allows exploration of the relative merits of options, but where each group will be asked to recommend in favour of one or other of the policy options based on a majority vote, thus forcing the participants to work to come to a collective opinion.

The researchers will then produce a draft report on the reflected public opinion of the citizen's of Mid Wales' views on policy options for their health service. This draft will be considered by the project board who make take different views on particular aspects of the report. A final report is one that the project board accepts as representing the considered opinion of the diverse citizenry of Mid Wales. This report will be submitted to the boards of the three participating Health Boards who will in turn be expected to note and respond to the project report. The project will not be complete until perhaps a year after the submission of the report to the Boards when an evaluation of how the boards acted on this report may be carried out by the research team. The results of this evaluation will then be published the project website and distributed to local newspapers along with an executive summary detailing the outcomes of the project.

ETHICAL CONSIDERATIONS

The proposed project carries significant ethical implications. The main objective of this project is to constitute a public to consider how experiences of health and social care may be addressed on a Mid Wales level, and to consider how to allocate resources across this very large rural area. While it may be anticipated that such an involvement exercise may bring about beneficial effects enabling changes in how health services are organised and changes in how citizens understand their right to access healthcare, presenting the public with options and asking them their opinion runs the risk that the public may choose a pathway that politicians and healthcare managers may find difficult to implement.

TYPES OF DECISION MAKING PROCESSES USING DELIBERATIVE METHODS

Processes	Size of Group	Type of session (excluding prep sessions)	Participant selection
21st century town hall meeting	Hundreds to thousands in one room at small tables	All-day meeting	Open; recruitment for representativeness
Bohm dialogue	Small group	No set length or number of meetings	Open or invitation
Charrettes	A small team of professionals and a much larger group of stakeholders	Intense work sessions last 1-3 days typically some last 1-2 weeks	Participants represent a range of organised groups, but others with a stake in the issue are encouraged to attend
Citizen choicework	Multiple small groups	1 session ranging from 2 hours to all day	Open; recruitment for representativeness
Citizens jury	Small group	5-day meeting	Random selection
Consensus conference	Large group	2weekends for participants to prepare 2-4 day conference	Random selection
Deliberative polling	Up to several hundred people in small groups in one room	Weekend-long meeting	Random selection
Future search	60 to 80 people	3 days	All inclusive (attempts to bring in all involved)
National issues Forum	Up to hundreds in 1 room at small tables	1 two-hour meeting	Open; recruitment for representativeness
Study circles	Up to hundreds meeting in separate small groups; all come together later for Action Forum	4 to 6 2-hour sessions	Open; recruitment for representativeness
Sustained dialogue	Small group	Numerous 2- to 3-hour sessions	Open; recruitment for representativeness among conflicting groups
Wisdom Council	10-12 people initially (and sometimes periodically), then entire community	Several-day session with group of 12, followed by informal large- scaled dialogue	Often held at events, involving all attendees; otherwise, invitations boost representativeness

Source: http://www.ncdd.org/files/NCDD2010_Engagement_Streams.pdf

APPENDIX 13 · HYWEL DDA UNIVERSITY HEALTH BOARD RESPONSE TO MID WALES HEALTHCARE STUDY

What follows are comments from Hywel Dda University Health Board to the Mid Wales Study. This paper was submitted to the Mid Wales Healthcare Study Team in the last week of September 2014.. The paper was developed by the executive team on behalf of the Health Board in discussion with and support from the senior clinicians in Bronglais General Hospital. Its status is as a '**Draft – for planning purposes only**' and must be regarded in that context. The Study Team feel that it is an important statement of the current position of the Health Board, and that it has the potential to act as an effective bridge between our study and the work that will follow.

OUTLINE COMMENTS FROM HYWEL DDA UNIVERSITY HEALTH BOARD TO SUPPORT THE MID WALES STUDY

PLANNING RURAL HEALTHCARE SERVICES FOR MID WALES

Introduction

This paper is the Hywel Dda University Health Board (H DUHB) response to the Mid-Wales Study and has been developed in discussion with clinicians in Bronglais General Hospital.

The proposals are currently based on high level planning assumptions and would require significant work to develop pathways, analyse demand, negotiate with other identified Health Boards and the relevant Royal Colleges.

The proposed model for Bronglais would be delivered within a set of principles:

Principles

- Recognising future training and recruitment challenges we will work towards consultant delivered services in appropriate specialities, supported by advanced practice (nursing and AHPs) and a robust emergency medical retrieval service building a flexible service
- As outlined in the Greenaway Report there will be a move towards an increased importance in the general list skills of clinicians which will be particularly important in the rural environment given the demographic challenge (ageing, frailty and dementia)
- A good example of this is our rural multi-disciplinary approach to and frailty and also an holistic approach by general list clinicians with access to specialist advice at the appropriate time
- Recognition of Bronglais as the Mid Wales General Hospital and repatriation of work currently being undertaken outside of Wales supporting other Health Boards to provide care closer to home and building the hospital's reputation as a provider of choice following the £38m investment in the Front of House Scheme; Welsh care for Welsh patients
- Redefining the interface and boundaries between acute and primary/community care; implementing a rural healthcare model with Consultant outreach into community settings working in close liaison with community-based advanced practitioners
- Service development will be within the UHB's financial envelope,

- Using the principles of prudent healthcare to develop roles to meet patient need and demand and developing new roles and responsibilities to deliver a new rural health model
- Creating and programming opportunities for specialists to maintain and develop their skills both locally and within wider networks
- Ensuring that all specialties work as part of an internal and external clinical network to provide robust support for individual patients with clearly defined networked pathways and responsibilities
- Development of robust telehealth networks to support the rural delivery model
- To back up the Consultant delivered service a robust emergency medical retrieval service is required

Background

HDUHB is one of 3 local Health Board's within Wales that provides health care services to the population of Mid Wales (prevention, primary care, secondary care and tertiary care). The acute hospital in Aberystwyth, Bronglais General Hospital is of strategic importance in delivering secondary care services to this population, particularly to those living to the West and is the Northern most acute hospital in HDUHB. The primary care, mental health and community services in Ceredigion are also commissioned and provided by HDUHB.

The two other populations within Mid Wales are South Gwynedd which is part of the Betsi Cadwaladr University Health Board and North Powys which is part of Powys teaching Health Board. The population in the Eastern Part of Mid Wales uses secondary care services in England and also the other Health Board's in Wales.

There are many challenges facing the provision of health care within Wales in the future. These include providing a high quality, safe service that meets the standards set by the Royal Colleges, the changing workforce education and recruitment requirements and the financial challenges facing all public sector organisations within the UK. The net result of all these is that there is a move to centralise secondary care Health Care Services within England and Wales.

However HDUHB recognises the need to equally focus on the provision of a sustainable Health Care Service for the people of Mid Wales which needs to ensure that it is of equal high quality to the more urban models but meets the needs of a more rural population.

This report will describe the possible future model for the delivery of health care services that meet the current and future healthcare needs of the population currently served within the catchment of Bronglais General Hospital and potential wider catchment areas both within hospital and outside of the hospital within a community or primary care setting.

These initial planning assumptions will require significant further work in terms of patient flows, financial impact, demand and agreement with other Health Boards (as well as potential consultation).

Assessment

Bronglais General Hospital currently provides secondary care health services to a population of approximately 70,000 who live in Ceredigion, North Powys and South Gwynedd. It is based in Aberystwyth, Ceredigion which is over 50 miles from the next nearest town with an equivalent or larger population and an acute hospital. The area it services has a poor road network and public transport system with travel times of over an hour by car and significantly longer by public transport to the next nearest hospital.

Aberystwyth has a large student population of > 10,000 for which it provides services as well as a large seasonal tourist population that visits all areas within Mid Wales. The hospital is important in its role as a hub which enables the sustainable provision of primary care and community services within the area. Finally health care services are one of the major employers in the area and therefore important in the sustainability of the rural economy of Mid Wales and the health and wellbeing of its population.

The biggest challenge facing the future provision of services within Mid Wales is the ageing nursing, medical and other professional workforce both in primary and secondary care. Current working patterns and training means that as people retire it is not possible to replace them like for like and so a new model is required which embraces the changes in the workforce available and the expectations of that workforce in maintaining their professional standards and having an acceptable work life balance. The model also needs to take account of the changing professional capabilities of the different professions that make up the workforce and provide education and training opportunities to ensure development of the current workforce and the future workforce.

Future Model for Health Care Services in Mid Wales

The future model for the provision of Health Care Services in Mid Wales will need to comprise of all of the following:

1. Models for disease prevention and self help
2. An integrated Health and Social Care System providing care in the community to people within their own homes.
3. Third sector and independent sector contributions to the community model
4. A federated model for general practice with much closer working between optometrists, community pharmacists, community dentists and general practice.
5. Bronglais General Hospital will become a 'Rural General Hospital' or 'The Mid Wales General Hospital' and be the hub for the community and primary care services in the area including Aberystwyth as the hub for the development of a community delivered adult mental health service.
6. Removal of the boundaries between GPs and consultants with GPs taking up GP with specialist interest roles
7. Robust pathways will need to be agreed and in place for the onward referral and transfer of the care of patients when required.
8. These services need to be supported by e-health, IT and telemedicine.
9. These services need to be supported by a robust land and air transport network.

Primary Care

Within Ceredigion there are two GP localities. There are 8 GP practices in the North Ceredigion locality and 7 in the South. The vision for the development of primary care services will involve the GP practices working closer together in 'federated practices' which will reduce the reliance on the GP workforce and allow the development of a multi-professional primary care team including nurse practitioners and community pharmacists which will be supported by the community teams. The federation of practices will allow the development of nurses with areas of special interest and GPs with special interest to provide additional services in primary care to a wider population.

GP posts need to be developed that contribute to the delivery of secondary care services as well as primary care and out of hours GP services and also to improve recruitment and retention of GPs into this area. These posts need to incorporate sessions in more than one setting to enable GPs to develop specialist interests and to enable their generalist skills to be available to manage the elderly with multiple co-morbidities presenting to secondary care.

Community pharmacists need to work alongside GPs providing minor ailment, smoking cessation and other enhanced services. They are also able to use their skills with medicines management to help an increasing elderly population with multiple co-morbidities on a myriad of different medicines.

Rural Community Services

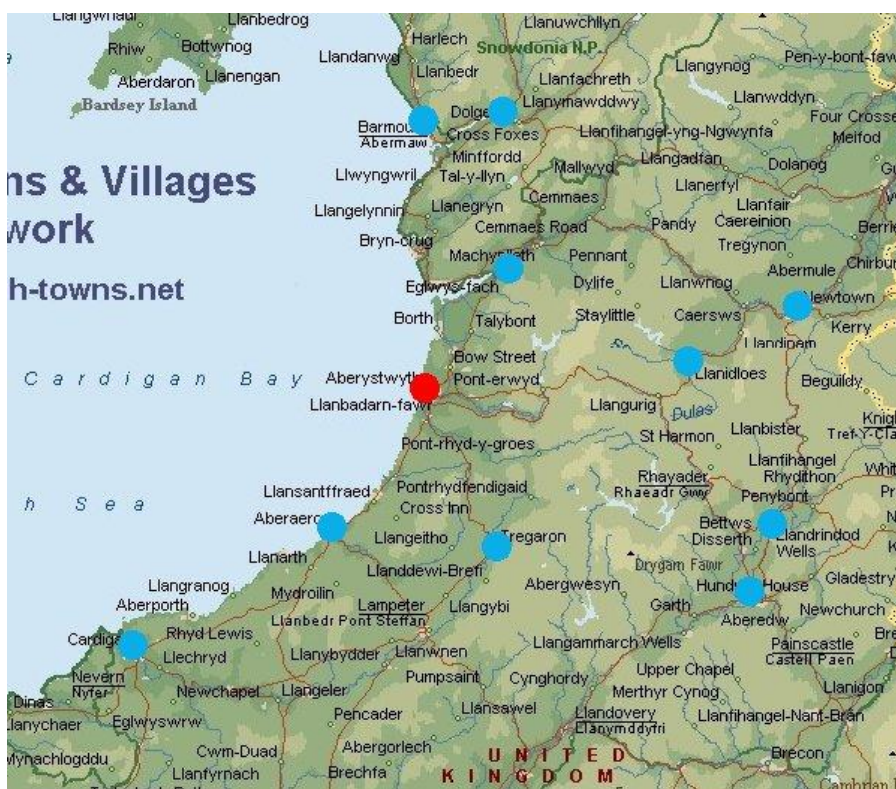
Community resource teams continue to be developed that provide integrated Health and Social Care Teams to support people with chronic conditions in their own home. They are supported by the district nursing and acute response teams that provide nursing care to patients in the community and residential homes with support from physicians increasingly working in communities as part of a whole system approach. There needs to be full integration of these teams across the GP localities to ensure seamless care is provided to patients in their own homes. The teams need to in reach into the hospital to ensure patients are able to be discharged as early as possible with support at home or are supported to avoid admission into hospital in the first place. The community services need to be the same in all 3 Health Boards in the Mid Wales region to reflect the different way of working in Bronglais General Hospital.

Rural Mental Health Services

Aberystwyth should become the hub for the development of a community delivered adult mental health service. Dementia services should be integrated with the general chronic condition management services. The footprint for the services should be the same as for all services served by Bronglais General Hospital for the people in Mid Wales. Due to the sparse population the community based teams should be generalist with the ability to access specialist skills as and when required either within the team or externally. The community teams should be fully integrated with the local authority teams and be multi-professional.

Bronglais General Hospital

Bronglais General Hospital will move towards developing into either a ‘Rural General Hospital’ or the ‘Mid Wales General Hospital’. It would need to deliver services within the hospital setting and as an outreach into Ceredigion, South Gwynedd and North Powys to support the primary care and community services.



It is possible to increase the population and geographical area that it serves as demonstrated in the graph below. By taking referrals from South Ceredigion as far as Cardigan it will relieve the pressure on the hospitals in the south of HDUHB. By taking referrals from further north into Gwynedd and east into Powys it would attract additional income into HDUHB.

There are opportunities to change the referral pathways in Powys as the English services reconfigure further from the Wales border and when the weather conditions are poor patients already travel south from the middle of Gwynedd.

Powys is finding it increasingly hard to recruit stand alone consultants to provide inpatient and outpatient care in their community hospitals and so the care could be provided as an out-reach service from Bronglais General Hospital.

Within the proposed model, the geographical area served by Bronglais General Hospital would include those areas served by the following community hospitals. The hospitals in brackets currently do not receive a service from Bronglais Consultants.

- Tywyn
- Dolgellau (BCUHB)
- Machynlleth
- Newtown
- Llanidloes
- Llandrindod Wells
- Builth Wells (Powys)
- Tregaron
- Aberaeron
- Cardigan (HDUHB)

Recognising the strategic importance of Bronglais General Hospital it will continue to deliver 24/7 acute care, ambulatory care, day case and short stay care as well as inpatient chronic condition management rehabilitation and palliative care.

Illustrative examples of core specialties provided from a rural general hospital
(Ref: Delivering for Remote and Rural Healthcare – NHS Scotland)

General Medicine
General Surgery
Obstetrics and Gynaecology
Paediatrics
Anaesthetics
Trauma and Orthopaedics

The medical model in Bronglais General Hospital should move to a consultant delivered service. The consultants would be mainly generalist with individual areas of special interests as outlined in the Greenaway Report where appropriate.

It would be the intention to design services based on the Scottish model of remote and rural care:

Illustrative examples of medical sub-specialities which should be provided
at a General Hospital are:

Care of the Elderly

Respiratory
Cardiology
Endocrinology
Stroke services and other neurological conditions
Cancer and palliative care
Gastroenterology

Illustrative examples of planned general surgery that should be undertaken at a General Hospital are:

Biopsy of lesions
Cholecystectomy and exploration of the common bile duct
Circumcision
Endoscopy
Resection and anastomosis of the bowel
Simple undescended testes repair

- There would be opportunities for either visiting consultants or consultants based in Aberystwyth to provide out-patient, day case and short stay surgery for ophthalmology, urology and ENT.
- Orthopaedic surgery will consist of day case and short stay procedures. Revision surgery and more complex care will be provided in a specialist centre supported by the consultants with colleagues from elsewhere.
- Paediatric services would be mainly ambulatory and community based however short stay inpatient care would be available.
- A midwifery led maternity unit would be supported by obstetricians providing emergency care. They would also provide emergency and planned day case and short stay gynaecology services.
- A consultant delivered anaesthetic service is already in place and will continue to support the high dependency/intensive care unit and emergency transfers to tertiary centres.
- Diagnostic cancer services and oncology and palliative care would need to be provided locally; however there would be a continuing need for travel to specialist centres for complex operative care, radiology and other specialist services.
- The hospital would continue to require the support of radiology and pathology services both within Bronglais General Hospital and from elsewhere in the Health Board.

It would be the intention that consultants would provide outreach consultant clinics to the primary care and community facilities within Ceredigion, Gwynedd and Powys supported by the required equipment (eg ECHO, endoscopy) as appropriate to allow local access to a high level of services with high quality and safety of such services. There would be opportunities to develop day case surgery and clinical interventions closer to people's homes.

Telemedicine facilities would be used where clinically appropriate.

The Consultant delivered services would be supported by GPs with special interest, middle grades, nurse and AHP led clinics as appropriate both within the hospital and within the community.

There would need to be sufficient capacity in the system to provide out-reach care to the community it serves. The consultants need regular net-working opportunities as well; an arrangement whereby clinicians can work alongside –ologist colleagues to maintain and develop skills.

Care pathways for all conditions should be agreed with specialist centres to support the local delivery of uncomplicated care for scheduled and unscheduled services for all specialities with agreed onward transfer of care to specialist centres for the management of more complex conditions.

Nursing

The specialist and advanced practice nurse roles are already established in Bronglais General Hospital and are designed to work both within the hospital and in the wider community and to support primary care. Examples of where the role is already very successful include osteoporosis, heart failure, diabetes and lymphoedema services. There is a need to expand the number of specialist nurses and ensure that they continue to provide their expert advice to patients and other health care professionals across the whole care pathway.

Therapy

Therapy services describe Dietetics, Occupational Therapy, Speech and Language Therapy, Physiotherapy and Podiatry.

Therapy intervention is recognised as a core element of NHS provision to support successful recovery from illness, surgery and injury for people who may not make rapid, spontaneous recovery without therapeutic interventions. In addition therapy services support people to improve or maintain broader health and wellbeing and empower self management.

Where rurality and travel distance pose a challenge, as in North Ceredigion, therapists will be required to work flexibly and frequently deliver services in a variety of sites e.g. GP practices, health centres, community hospitals, on a sessional basis. Whilst a small number of therapists (dietetics, OT & physio) predominantly work on site, therapists have a significant community focus.

The newly established Community Resource Teams deliver both long and short term care and include occupational therapists and physiotherapists as core members. The CRTs are integrated health and social care teams and are seen to be the cornerstone of integrated community services.

Each of the therapy services is led by a single Head of Service, whose professional leadership role spans all specialties. This provides an opportunity to strengthen partnership working across these specialties. In North Ceredigion therapy practitioners deliver both specialist and more generic services, with therapists working as part of learning disability, mental health, paediatric, diabetes, palliative care and pulmonary rehab teams. Therapists may also deliver stand alone intervention to individual clients and influence the practice of other professions e.g. dietitians work to embed optimal nutritional care into routine practice through education and training.

In addition, a 3 counties approach to providing equitable services ensures that service improvement initiatives are introduced in North Ceredigion to match service change in the other 2 counties e.g. Clinical. Musculoskeletal Assessment and Treatment Service, the MSK weight management service and XPERT diabetes group education programmes.

The therapy professions are progressively exploring the potential use of telemedicine and the use is currently being developed for people with head and neck cancers (linking with SLT in Singleton), pulmonary rehab (education component) and rheumatology (education component)

Education

The proposed model would allow the development of undergraduate and post-graduate training opportunities for doctors, nurses and other allied Health Professionals in developing generalist skills appropriate for practising in a rural environment. Joint working with Aberystwyth University of Wales, Trinity Saint David University and other university partners will provide opportunities to develop research and academic posts.

Further work needs to be undertaken to develop Diplomas in Rural Health Care and there is also an opportunity to further develop research excellence in rural health and well-being.

The existing nursing pre- and post-registration programmes through Swansea University will make a significant contribution for nursing and midwifery roles.

We will continue to work closely with the Deanery to ensure future graduates are trained appropriately to provide services in our rural care environment.

Emergency and Non-Emergency Transport

As referenced in all our consultation documents to date, we believe that emergency and non-emergency transport services are critical key enablers to deliver future service models. Telemedicine can be used on the ambulances to aid decision making and triage so that the patient gets taken to the most appropriate place. Paramedic practitioners can work within primary care, the community and secondary care services to maintain skills and support local services.

Risk

Key risks to the potential model are:

- Support from professional bodies (including Royal Colleges and the Deanery) for rural model of healthcare delivery
- Recruitment and retention of clinical staff
- Training time for advanced practitioners
- Training time for rural medical practitioners
- Model could not be delivered within the current financial envelope
- IT infrastructure and capability
- Clinical (and financial) sustainability without redesign of Mid Wales pathways
- Co-operation of and with partners
- Reputational

APPENDIX 14 · ROYAL COLLEGE OF PHYSICIANS RESPONSE TO MID WALES HEALTHCARE STUDY



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24 September 2014

Dear Marcus,

MID WALES HEALTHCARE STUDY

The Royal College of Physicians (RCP) welcomes the Welsh Government decision to commission the Welsh Institute for Health and Social Care (WIHSC) to carry out an independent study of the issues and opportunities for providing accessible, high quality, safe and sustainable health services, best suited to the specific needs of people living in Mid Wales.

The RCP plays a leading role in the delivery of high quality patient care by setting standards of medical practice and promoting clinical excellence. We provide physicians in Wales and across the world with education, training and support throughout their careers. As an independent body representing more than 30,000 fellows and members worldwide, including 800 in Wales, we advise and work with government, the public, patients and other professions to improve health and healthcare.

Further to the publication of the RCP invited service review into the quality and safety of cardiology services in Hywel Dda University Health Board in March 2014, we are writing to you today following several constructive discussions with colleagues working at Bronglais Hospital in Aberystwyth and with the president of the Welsh Cardiovascular Society, Dr Jonathan Goodfellow.

The RCP now understands that our colleagues in west Wales are concerned about the unintended consequences of this report. The invited service review was asked to look at cardiology services in isolation and the team's recommendations focused solely on patients presenting with cardiac related conditions. However, we would strongly caution against these recommendations being used as an evidence base to drive reconfiguration of other services. By definition, this review of cardiology services excluded many aspects of linked care and services. A more comprehensive review (with more detailed site visits) might have addressed these concerns in a more holistic and coherent fashion. Looking at cardiology in isolation in the context of reconfiguration is unwise.

The RCP believes that time has now moved on, and in the current context (that is, the decision to establish an independent mid-Wales healthcare study) we would be keen to work with the Welsh Government, Hywel Dda UHB, clinicians and patients on a whole systems review of acute medicine and local population need in mid and west Wales. We would welcome the support of WIHSC for investment in services at Bronglais Hospital and we would welcome a positive statement of intent on the future of acute services at Bronglais from both the Welsh Government and Hywel Dda UHB. The RCP would not support the recommendations of this invited service review being taken forward at this time.

To do nothing is not an option. There are significant differences in patient outcomes from cardiac intervention across Wales and our colleagues feel that the service in west Wales is currently not fit for purpose. There is a feeling that a hub and spoke model could work, but only with significant investment in the spoke hospitals, including an increase in cardiologist numbers. Both the RCP in Wales and the Welsh Cardiovascular Society agree that cardiology is such an important part of acute medicine that hospitals should not provide an acute medical take unless they have cardiologists based in that hospital. Doctors at Bronglais Hospital need to be reassured that investment will continue, and we feel strongly that this is about confidence in the long term future of service provision, medical training, and patient safety in west Wales.

In Wales, the RCP has developed a new programme of 'local conversations' where the RCP team visits hospitals across Wales. These bring together consultants and trainees with RCP senior officers and service quality advisers in order to highlight best practice, share information and raise any concerns. In July 2014, we visited Bronglais Hospital. For your information, the event report follows this letter.

We urge Welsh Government and Hywel Dda UHB to take urgent action, invest in acute services and work towards providing high quality patient care in all hospitals in Wales.

The RCP in Wales is developing its thinking on the future of safe, sustainable acute services in Wales and we will be publishing this work later in 2014. If you have any questions, or would like to discuss any of this in more detail, please contact our colleague, Lowri Jackson, RCP senior policy and public affairs adviser for Wales, at Lowri.Jackson@rcplondon.ac.uk or on 029 2050 4540.

With best wishes,



Dr Alan Rees
RCP vice president for Wales
Is-lywydd yr RCP dros Gymru



Dr Andrew Goddard
RCP registrar
Cofrestrydd yr RCP



Event report: RCP local conversation with colleagues at Bronglais Hospital, Aberystwyth

Key recommendations

- The Welsh Government and health boards should prioritise patient safety by actively investing in rural and remote hospitals to secure confidence and attract high quality physicians.
- Training pathways specialising in rural and remote healthcare in Wales should be developed by the Wales Deanery, royal colleges and other stakeholders.
- General internal medicine must be reprioritised and the workload of the acute take should be more evenly distributed between the medical specialties.
- The Welsh Government and health boards should invest in telehealth to support people with chronic conditions, particularly those living in remote and rural areas, to enable them to better manage their condition at home and to avoid unnecessary visits to hospital.
- Hywel Dda UHB must work more closely with clinicians across mid and west Wales to improve services. Communication must become active, two-way and constructive.

Background

As part of the RCP local conversations programme, the vice president and service quality advisers for Wales visited Bronglais Hospital in Aberystwyth in July 2014. The purpose of the visit was to learn more about how colleagues were meeting future hospital recommendations, and improving service delivery, patient care and medical training, and to offer advice or support on how to further improve their services.

Bronglais Hospital is a remote, rural hospital serving a population in Ceredigion, north Powys and south Gwynedd of around 150,000. It is the only district general hospital with a 24 hour emergency department for 50 miles to the south and 70 miles inland, and some patients travel two hours or more to reach the hospital for outpatient appointments or unscheduled care. The road infrastructure in west Wales can be poor and at many points in the year, the roads are full of heavy goods vehicles and holiday traffic.

There are eight physicians providing emergency medical care in the specialties of cardiology, respiratory medicine, diabetes and endocrinology, gastroenterology and stroke care. Physicians working at Bronglais feel that recruitment into another cardiology post has been made very difficult by the threat of 'downgrading' and historic lack of investment into cardiology services. There are no medical registrars based at Bronglais.

Presentations

Dr Phil Jones, consultant physician at Bronglais Hospital, welcomed the group and introduced his colleagues. He noted that two of the key RCP future hospital principles of careⁱ are especially relevant to healthcare at Bronglais: patient experience and timely access to care. He explained that it is time to consider whether we are using the right tools and measures for rural hospitals. He argued, for example, that the number of patients coming through Bronglais does not supply enough SSNAP audit data to produce accurate results. This reflects badly on the hospital which is not always justified.ⁱⁱ

Cardiology

Dr Donogh McKeogh, consultant cardiologist, explained that as recently as 2005, Bronglais Hospital didn't have a cardiologist. However, in 2014, the team has one consultant cardiologist with one core trainee and two foundation year two doctors. There are no registrars and no staff grade doctors. His aim is that every patient with heart failure should see a cardiologist.

The acute medical take at Bronglais is seen by two medical admissions unit doctors and split by medical need at the beginning of the pathway. Dr McKeogh receives admissions from A&E and CDU from Monday-Friday with a daily consultant round on weekdays and fulltime availability for referrals from other teams. There are 500-600 admissions a year, and Bronglais operates a triage function for Morriston Hospital, a tertiary centre in Swansea. There is a high level of patient care provided by a mostly local and bilingual nursing team with no limits on the take, and 100% continuity of care and follow-up. He also oversees a range of outpatient services, including clinics, the cardiorespiratory team and the community rehabilitation team.

Dr McKeogh noted that the service provides a strong local service for cardiology care and triage. There is open, early access to inpatient service and local integrated continuity of care. However, he highlighted a number of risks, particularly around having only one single cardiologist for 85,000 people. Clinics often run late when there is an unscheduled care crisis and there is under-provision of cardio-respiratory and intervention procedures. The service is at risk when he is ill, or on leave, and covering his absence has been difficult in the past. He also noted that there are huge gaps in the service eg contrast echoes, local stress imaging, cardiac CT. He suggested that the health board recruit a second cardiologist to work alongside the existing team.

Gastroenterology

Dr Mark Narain, consultant gastroenterologist, outlined the challenges associated with delivering gastroenterology medicine in a remote, rural district general hospital. It is not a stand-alone service and interacts with others, including surgery, cancer and stroke medicine. Gastroenterology is considered a core medical service for a rural general hospital: gastrointestinal disease is the third most common cause of death, the leading cause for cancer deaths, and the most common cause for hospital admissions. Cancers tend to be diagnosed at a later stage in rural sites.

Dr Narain explained that there was no gastroenterology service at Bronglais Hospital before 2000 and that Bronglais was the last site in the UK to appoint a first and single-handed gastroenterologist. Since then, Bronglais Hospital has been awarded unconditional JAG accreditation for five years, which called it a service



'other units could learn from'. However, he noted that from now on, providing patient-centred, safe, acceptable, timely and appropriate care will need new networks to be developed.

The service in Bronglais meets RCP guidelines for consultant numbers and is flexible, with good staff retention and low use of locum services. However, west Wales lacks integrated alcohol services, as well as radiology and pathology services, and needs to develop its health informatics.

Stroke

Dr Phil Jones was appointed in 1995. He has established good links with other services across Wales, including Swansea, Cardiff, and also across the border into England. He asked a number of questions of the group: are rural clinicians supported? Are we training doctors with the right skills for the rural population? How do we measure rural services when there are too few patients to ensure accurate data?

The group discussed the issue of national workforce planning, and the need to train stroke physicians in Wales to keep them here. There was some discussed about whether the answer is to have more salaried consultant-level GPs, because people do not want (or are increasingly unable) to buy into GP partnerships. Salaried GPs work for the practice, not the health board, and the group discussed whether health boards should be encouraged to employ more salaried GPs. It is also attractive to some GPs to work partly in hospital, partly in the community – this would also provide an effective, respected link between the two.

Surgical geriatrics

Dr Annette Snell has a unique post in Wales: she is a surgical physician who works closely with teams across the hospital. This results in, for example, collaborative working in hip fracture care. She argued that better joint working between surgery and medicine leads to better outcomes and should be routine across Wales. Bronglais operates a collaborative ITU/HDU and she works with both anaesthetists and surgeons. It is a small unit with good communication between doctors, relatives and patients.

The group noted that this meets a problem which exists everywhere in a very innovative way. Usually, these responsibilities fall on the middle grade registrar; this means that there is very little continuity of care. The group discussed the conflict of whether an acute physician or a geriatric physician should carry out the first consult. Annette explained that as a consultant, she has the respect of her peers, and has the authority to challenge decisions and offer a second opinion.

Acute medicine

Dr Russell Canavan explained the flexible structure for delivering acute medicine at Bronglais. There are five teams, including one with two consultants. The service delivery is heavily consultant led from door to discharge, supported by significant staff grade experience at night. However, he noted that specialty leave cover remains a problem.

Diabetes

Dr Christine Kotonya is a consultant specialising in diabetes, endocrinology and general internal medicine. The team also has one associate specialist, one foundation year one doctor, one GP trainee, two diabetes specialist nurses and 1 community diabetes community nurse. They work closely with the team in Powys



which has two diabetes specialist nurses, a dietician and a podiatrist. She has tried to make links with Betsi Cadwaladr UHB in north Wales, but this has proved difficult. The team has a well-established relationship with primary care and a good rapport with patients. Bronglais has good clinical outcomes and there is scope to develop telemedicine in Tywyn.

Group discussion

The vice president introduced the group discussion session and thanked colleagues. He explained that we have already visited Llanelli, where there are not dissimilar issues, and explained that he thought a cardiology service should remain in Bronglais.

The group discussed generalism and the workforce, especially training grades, as well as the difficulty of finding people who want to live in rural or remote areas. It was noted that universities in Wales may be training medical undergraduates who then leave the system. Bronglais currently has five foundation year two vacancies. It was noted that the new undergraduate curriculum in Cardiff is going to have more of an emphasis on rural medicine. The group briefly discussed GP training, and agreed to take some work forward by talking to the Wales Deanery about the need for innovative training solutions which prioritise general medicine in the rural context.

On recruitment, the group discussed alternatives, including consultant-delivered services. This would require financial and strategic commitment to Bronglais Hospital, and the group agreed that a strong, supportive statement of intent from the health board would be helpful. Colleagues felt that there has always been a question mark over the future of Bronglais. It is time for the health board to make a clear decision about the future of acute services in west Wales through investment, recruitment and improved communications.

Conclusions

The RCP Wales team was very impressed. The group agreed to take forward the concerns of colleagues at Bronglais with the RCP officer team in London.

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¹ Future Hospital Commission. *Future hospital: caring for medical patients*. London: RCP, 2013

² SSNAP is the Sentinel Stroke National Audit Programme. See [RCP website](#) for more details

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