



Contents

Executive Summary	3
1. Introduction	5
2. Context	7
3. Workforce & Labour Market Trends	12
4. Workforce Risks Supply & Demand	15
5. NHS Wales Workforce – Key Themes	19
5.1 Overview	19
5.2 What services are delivered and where	20
5.3 When services are delivered and quality standards	21
5.4 Who delivers services?	23
6. Workforce Skills	32
7. Organisation Development	34
8. Conclusion	35
Appendix 1: NHS Wales Staff Profile	36
Appendix 2: Welsh Government Strategies – Workforce Impact	

Executive Summary

- There is a need to draw together all elements of planning in the NHS into a coherent system (local, regional, All Wales). Planning needs to be long term as well as short and medium term recognising that 80% of the workforce for the next 10 years and beyond is already employed.
- There are a range of demographic, health and social care system design, quality productivity and financial drivers and challenges that impact on the future workforce. A number of these challenges are more acute in Wales including the aging population (and aging workforce).
- The Wales labour market shows a net outflow of workers coupled with an aging workforce. It is likely that there will be a shortage of skills in areas such as caring personal service occupations, estates and IT skills across the whole workforce.
- The NHS Wales workforce has remained relatively stable over the past six years, however, financial constraints, service demands and staffing shortages in some specialties mean that this position is not sustainable going forward.
- Within the overall position there has been sustained growth in the consultant medical workforce in the past 6 years compared to a levelling or reduction in other staff groups.
- Staffing constraints, mainly in the medical workforce, emergency medicine, paediatrics, general practice, radiology and psychiatry and other areas are likely to drive demand for development of other parts of the non-medical workforce.

- Prudent healthcare principles need to be applied to workforce development and utilisation including the organisation of work around the principle of "only do what only you can do".
- The centralisation of fragile services, the development of community and integrated health and social care models of delivery need to be reflected in workforce redesign and skills development.
- There is a need for a clear understanding of the clinical and supporting skills needed to underpin redesign. The development of a shared understanding of the contribution of Advanced Practitioners, Enhanced Skills roles and other developing roles such as Physicians Associates needs to be clearly understood and underpin workforce plans.
- Developing models in Primary care such as GP Clusters, developing multi disciplinary teams and enhanced roles that can be supported by a focus on design principles which prioritises the engagement of the primary care workforce and the need for appropriate OD strategies to support change in addition to redesign across the whole system.
- There are significant opportunities to reshape the pathology workforce including maximising the use of health care support workers and around the development of regional / all Wales services.
- The risks attached to the supply of radiologists means that opportunities for workforce redesign in expansion

of other roles in imaging needs to be pursued. There is an opportunity to drive this via the development of an Imaging Academy for Wales.

- The redesign of services in Health Boards and Trusts can be supported by expansion of the role of paramedics. It is essential that this forms an integral part of the workforce planning of local and regional services.
- Health Care Support Workers
 providing direct clinical care comprise
 15% of the NHS Wales workforce. It is
 important that a common language for
 training, development together with
 joint planning developed with Social
 Care services.
- A focus on infrastructure posts (for example, informatics) needs to be linked to Wales work on NHS Wales Careers
- There are lower basic qualifications in Wales compared to the rest of the UK which reinforces the need for NHS Wales to focus resources on the development of the existing workforce.
- The successful redesign of the NHS Wales workforce will be heavily reliant on the development and implementation of effective and focussed organisation development and workforce (HR) strategies.

1. Introduction

This report has been commissioned by Workforce & OD Directors to focus on the strategic, system wide workforce planning issues facing NHS Wales. It includes an assessment of high level workforce risks that will influence future plans and policy decisions. The report provides a summary of the key issues facing the workforce based on the workforce elements of integrated medium term plans produced by Health Boards and Trusts, together with a high level review of other UK and Wales data and information sources.

Whilst the report is not intended to provide a commentary on the current position of the workforce aspects of planning it is noted that the NHS Wales Planning Framework, 2015/16 (1-3 year integrated medium term plans - IMTPs) forms part of a system wide workforce planning process which, to be fully effective, needs to explore multiple possible futures and action plan for the targeted future on the basis of longer timescales. The following model describes potential levels of maturity in NHS Wales Workforce planning¹

System wide planning at level 4 of the model allows for planning at a variety of levels: all Wales (Imaging Board, National Pathology Board), regional (South Wales Collaborative), local and multi sector in addition to taking account of cross boarder planning issues (Powys, North Wales) and the need to link planning to policy direction with Welsh Government.

Level 4: NHS Wales Strategic
Workforce Planning –
strategic workforce planning
on a system wide level

Level 3: Strategic Workforce
Planning –alignment
with business strategy,
workforce segmentation

Level 2: Workforce Analytics:
Workforce skills gap
analysis – what if scenarios

Level 1: Headcount Planning:

Headcount data collection,
headcount analysis, static
data reporting

There is a need to pull together all of the elements of workforce planning that are currently taking place within NHS Wales into a coherent system to ensure that there is a focus on the medium and long term elements of planning as well as the short term (1-3 years). The following model describes the elements of the system which may be a subject for further discussion (see Table 1 overleaf).

In planning for the future health workforce for Wales it is recognised that 80% of the staff NHS Wales will have in the next 10 years and beyond are already working for the service². The redesign and development of the existing workforce and the modelling of it to meet future service needs is therefore critical.

Note: Education Commissioning outputs of the 2015-18 Integrated Medium Term Plans are covered in a separate report.

Table 1

UK context: Government policy, inward / outward migration, technological changes, professional regulation; Shape of training review, Francis Report **UK** government Wales context: Service development, clinical strategy, and devolved demand (demography, morbidity, public administrations health policy, education & training policy; WG: Strategy, policy, education commissioning pre CFWI and post registration funding allocations; social SfH services, third sector policy and plans. Sector skills councils WEDS: Supply Fully integrated plans: Whole Royal demand modelling, Colleges workforce (employed, primary best practice Trade Unions care, other stakeholders), workforce models Regulators right numbers, right skills with Building workforce UK Medical linked training development planning capacity; long Dental plans • Groups opportunities / risks Education Local Medium term service, commissioning financial, workforce plans 1-3 years Deanery: Post graduate Regional plans (1-3 years) medical and dental Pathway, Network, Service education – numbers, Plans e.g. Pathology, Imaging deployment of rotas, workforce training standards; GP LLL.

2. Context

2.1 Key Drivers

³In a report produced by the Centre for Workforce Intelligence four drivers for NHS Workforce Planning were identified together with the resulting issues facing the NHS workforce. The following sections consider each of these drivers in the Wales context.

2.1.1 Demographic and Social

The population of Wales is projected to increase by 4 per cent to 3.19m by 2022 and by 8 per cent to 3.32 million by 2037. The number of children aged under 16 is projected to increase to around 582,000 by 2026 before decreasing. The number of people aged 16-24 is projected to decrease by around 3% by 2037, whilst the number of people aged 65 and over is projected to increase by 50% by 2037⁴. Within the overarching Wales trends, account also needs to be taken of areas specific issues, for example, a projected increase in 0-16 year olds in Cardiff.

Wales already has a higher proportion of people aged 85+ than the rest of the UK. In addition, 6 out of 10 people living longer will have at least one long term condition and most will have two. High levels of deprivation (Welsh index of Multiple Deprivation) is focussed in areas such as the South Wales Valleys, North Wales coast, parts of Cardiff and Swansea although it is recognised that pockets of deprivation also exist within less deprived areas.

The above factors are coupled with more young people leaving Wales for England (with the exception of those parts of Wales with a University and in particular the South

East and inward migration of people retiring to Wales and more people aged 45-65 migrating to Wales).

Integrated Medium Term Plans identify increasing demand especially in services relating to frailty and dementia. Table 2 (see overleaf) identifies some of the key implications of these demographic changes for the NHS Wales workforce.

2.1.2 Health & Social Care system design

"Delivering Local Health Care – Accelerating the Pace of Change" issued by WG in 2013 aims to drive "accelerated adoption of new approaches to the delivery of primary and community care" with a focus on the wider primary care team and requiring the development of detailed workforce plans. The Welsh Government framework for delivering integrated Health & Social Care for older people with complex needs⁵ identified a range of measures of success which will have significant implications

for workforce design and workforce deployment. The Williams Commission on Public Services, Governance and Delivery also focuses on the need for greater integration.

In understanding the systems design issues facing the NHS Workforce in more detail it is necessary to review a range of Welsh Government current strategies and plans. Overall policy / strategy context is set out in the Programme for Government which, for example, identifies programmes such as Flying Start which has had a significant impact on the numbers of Health Visitors required in Wales. A more detailed

^{3.} Centre for Workforce Intelligence Big Picture Challenges for Health and Social Care 4. National Population Projections, - 2012. Welsh Government Statistics and Research

^{5.} A Framework for Delivering Integrated Health & Social Care for Older People with Complex Needs. Welsh Government. http://wales.gov.uk/topics/health/publications/socialcare/strategies/integration/?lang=en

summary of some of the key WG strategies and the identified workforce implications is attached as Appendix 2.

Table 2

Demographic & Social - Key workforce issues for NHS Wales

- · Planning to meet the needs of an ageing population with an ageing workforce. Planning to meet the needs of an ageing population with an ageing workforce. In terms of the demographic of the workforce, it is noted that older people in good health with up to date skill sets perform as well as their younger counterparts. Retention and management of the health and well-being of older staff will be a key issue in developing workforce strategy. In particular there will be a need to consider those parts of the workforce which have an older profile than the Wales average and to understand the implications of working longer, including what factors are likely to influence employee decisions to extend working life and what support older workers need to stay in work. Older workers are noted to have an
- increased level of sickness absence and approaches to sickness absence management and the implications for physical, psychological and emotional health and well-being will need to be considered. In addition, there will be a need to attract and understand the needs of younger workers and their career choices and aspirations throughout their health and social care careers which may extend to working into their late 60s.

In addition to the focus on older workers there will be a need to attract and understand the needs of younger workers and their career choices and aspirations due to the overall decreasing projected number of 16-24 year olds in Wales. In addition to address and maximising opportunities of area specific population trends.

- Managing changing demand. The
 workforce has to deal with increased
 demand in the context of financial
 constraints and a need to change
 skills. This means an increased focus
 on maximising workforce utilisation
 including skill and grade mix. This
 will need to be addressed not only in
- those staff groups where supply is a problem and is likely to require whole system workforce modelling and a system that supports it. In addition this is likely to drive an increasing need for generic and other broader skills within the health workforce e.g. IT skills.
- Managing changing public expectations about care and the related workforce skills. The Wales NHS Compact – "a new partnership with the public" and the ministerial emphasis on "co-production" means
- that the skills and knowledge to meet these expectations need to be built into training and in particular leadership development including cross sector training and development with social care.

The changing nature of work means that in some situations current skills do not match what is needed now or in the future. In the

policy context of greater integration and roles that span health and social care the key workforce issues include:

Health & Social Care Design – Key workforce issues for NHS Wales

- Better integration between health, social care and support organisations will focus attention on where care is delivered, the design of jobs, the skills needed and how to manage employment practices and differing terms and conditions of employment. The need to plan across sectors including the development
- of pan public sector/multi agency workforce planning particularly with social care services will be essential in addition to linking with other areas such as housing. In Wales some initial work to look at mechanisms for workforce planning across the public sector has been undertaken.
- Shifting the focus of the system towards prevention and wellbeing. Together for Health focuses on "improving health as well at treating sickness" and Working Differently Working Together states that "every
- interaction with patients is an opportunity for health improvement". This needs to be translated into training and development plans for the new and existing workforce.
- Delivering the personalisation agenda and providing person-centred care within financial constraints must be supported by how workforce

redesign is approached. For example, the HPMA award winning Wyn Project approach.

2.1.3 Quality & productivity Assuring patient safety and maintaining service quality is of paramount importance in planning the future delivery of healthcare services and is integral to Achieving Excellence, The Quality Delivery Plan for the NHS in Wales. The Welsh Government response to Francis, Delivering Safe and Compassionate Care and the Andrews Report, Trusted to Care, has reinforced a strong focus on the importance of the NHS

workforce and its critical role in ensuring high-quality patient-centred care. In Wales there has already been additional investment in increasing nursing numbers on acute wards.

The ONS estimates that across the UK NHS productivity rose by 0.5% per annum between 1997 and 2010. More recent estimates in England show an increase of just over 2% between 2010 and 2012.

Quality & Productivity – Key issues for NHS Wales:

 Ensuring the system delivers high-quality services within financial constraints. There will be a need to focus on those parts of the workforce which are priorities for attention in terms of cost and quality. For example, the largest cause of death in Wales is disease of the circulatory system. Services for circulatory disease including coronary heart disease, peripheral vascular disease including stoke account for 8.8% of all NHS Expenditure and diabetes accounts for 10%. The challenge of analysing the workforce in a way that enables NHS Wales to understand the workforce contribution to pathways and conditions needs to be a priority for the future development of the Electronic Staff Record (ESR) and approaches to planning and developing workforce models.

 Developing effective measures for quality of care and productivity and ensuring high-quality data is collected. The impact of developing workforce measures in NHS Wales as part of an integrated performance/ outcomes framework needs to be addressed, for example, 7 day working, nursing numbers, and contribution of consultants. There is a strong Welsh Government focus on safe staffing levels and nursing acuity tools in Wales.

 Preparing for changes resulting from innovation and technology such as genomic medicine, genome sequencing, bioinformatics, cancer therapies, stem cell technology, robotic surgery, tissue regeneration, point of care testing and telemedicine⁶. In addition there are smart phone healthcare applications and other digital devises supporting self care. The implications for skills, knowledge, ways of working, skill mix, role substitution (e.g. medicine / healthcare science workforce) are significant. Developments are taking place in a range of organisations across Wales, for example, the pilot of encrypted video conference technology in North Wales.

2.1.4 Financial and Economic

The February 2013 Public Accounts Committee audit report quoted the NHS Confederation as saying that workforce reduction plans were "overambitious" (a reduction of 1572 FTE projected) in the absence of service change and went on to say:

"The Welsh NHS Confederations comments illustrate a major short term problem for health services: despite workforce reductions being the single largest area for planned savings, they cannot necessarily be delivered without service change, and service change seems to be some way off for many Health Boards. The evidence we received on this issue did not provide clarity that there is therefore a clear path for NHS Services to make the required financial savings in the short-term."

^{6.} The Delivery of 21st Century Services – The Implications for the Evolution of the Healthcare Science Workforce. Health Education England. www.hee.nhs.uk

Wales high level pay modelling shows that the required level of pay savings required is circa £350m. If this was achieved entirely through reduced FTEs, then the reduction based on the average salary is 9328 FTEs – this is 11.8% of the workforce – there could be scope for skill mix changes to contribute to the pay reduction (and so reduce the FTE reduction). Last year's plans showed an overall reduction in workforce of 3.7%. However, within that figure, some organisations were showing an increase and others predicted no change (see Section 4).

The Nuffield Trust research report "A decade of austerity in Wales?"⁷ estimates a funding gap of £2.5b for NHS Wales

by 2025/26 assuming that funding is held flat in real terms. This would require efficiency savings worth 3.7% per annum after 2015/16. The report states that "beyond 2015/16 it will be very difficult to continue to hold down real terms pay" and that further reductions would be difficult to implement without impacting on recruitment and retention.

The high cost of some parts of the workforce e.g. medical (see Appendix 1) means that it is essential that the input of those staff in decision making and deploying other resources is a priority in workforce redesign.

Financial and Economic Key workforce issues for NHS Wales

 Planning service delivery given the uncertainty about level of funding in the future and how this will affect future demand for and supply of care services. For NHS Wales the issue of the affordability/sustainability of the current workforce is critical. The extent to which the gap can be closed by pay bargaining needs to be realistic addition to the potential contribution of redesign. The ongoing work on pay including consultant contract and changes to Agenda for Change is important but needs to be viewed in the context of the constraints on the ability to reduce and change workforce size and configuration without major service change and redesign.

 Uncertainty about how investment in life science, health and care will support the UK economy. Life Science is estimated to be worth around £1.3b to the Welsh Economy and in March 2012 Welsh Government announced a Welsh Life Science Fund worth up to £100m. Around £40m is invested in R&D in NHS Wales. Schemes such as the Welsh Clinical Academic Training scheme (WCAT) support this in the long term but are subject to more immediate financial constraints.

^{7.}A decade of austerity in Wales? The funding pressures facing the NHS in Wales to 2025/26. Research Report. Adam Roberts & Anita Charlesworth. Nuffield Trust June 2014 http://www.nuffieldtrust.org.uk/ publications/decade-austerity-wales

3. Workforce & Labour Market Trends

3.1 Wales Labour Market

The health sector in Wales currently employs an estimated 129,000 workers, which accounts for approximately 8% of the country's employment (sub-regionally this proportion ranges from 3% to 16%). Approximately 20% of workers are employed in the independent sector, with 80% employed in the NHS and voluntary sector⁸. Future trends identified in respect of the Wales labour market highlight potential future shortages in "personal service occupations" and "skilled trades"⁹. Some of the key considerations are:

- Wales has a net outflow of workers.
 Around 47,000 people commute into Wales to work but 87,000 Welsh residents work outside Wales. Fluctuations in these levels have the potential to open up skills mismatches in Welsh workplaces¹⁰. Work is being undertaken by NHS England to better understand migration of health workers and NHS Wales will be linked in to this work.
- The employed workforce in Wales is ageing, in keeping with the wider UK trend. More than 40 per cent are now aged 45 or over, and the numbers of those over 64 in employment has grown by almost 60 per cent in four years, though the age composition of different sectors does differ. The proportion of employment accounted for by those born outside the UK has increased from around four per cent to six per cent since 2004.
- Continued demand for workers in skilled trades occupations is an area of persistent historic skill shortages.
 Skilled trades are central to a range of

industries, some of them identified as priorities, and important to the wider economy through supply chains and as a progression route to technician roles. The age profile of the Estates workforce in NHS Wales is older than the average and is flagged as a significant risk in at least one Health Board plan.

- Growing demand for caring personal service occupations including care assistants in the social care sector a large occupational area with significant projected expansion and replacement demands. The lead-time for addressing this need is recognised as being potentially short but is a high priority in terms of contribution to employment and supporting societal well-being. It is noted that in IMT plans one HB has reported problems in identifying applicants with appropriate skills for therapies support worker posts. Skills levels are referred to in more detail in Section 6.
- Need for IT skills, mobile working.
 There will be an increasing need for IT skills among all sections of the workforce to ensure that potential new models of service delivery can be maximised for example, telemedicine.

3.2 NHS Wales Workforce

NHS Wales employs circa 73,000 FTE staff – the broad profile of this has shown a gradual increase up to 2009 and then a levelling off. Whilst there has been a levelling off in terms of the size of the workforce the overall changes in proportions of staff groups have been marginal. The most recent data shows that:

^{8.} Wales Skills Assessment and Labour Market Intelligence. Skills for Health Research and LMI Team 9. National Strategic Skills Audit for Wales NSSAW 2012.

^{10.} UK Commission for Employment & Skills: The National Strategic Skills Audit for Wales 2011 - Key Findings

Size of the workforce

- As at October 2014 NHS Wales employed 72,923 FTE; Headcount 85,488.
- The percentage split between clinical and non clinical staff is 70:30.
- Between 1999 and 2008 NHS Wales' workforce increased 28%, from 55,000 to 71,000 FTE¹¹.
- Between 2008 and 2014 NHS Wales' workforce increased 1.5% from 71,817 to 72,923.
- Medical & Dental (8%), Allied Health Professionals (8%) and Additional Clinical Services (7%) have seen the highest percentage growth between 2008 and 2014.
- Administrative & Clerical, and Estates & Ancillary, have seen the largest reduction in workforce numbers, -4% and -7% respectively over the same period.
- The Registered Nursing & Midwifery workforce has grown 1%.

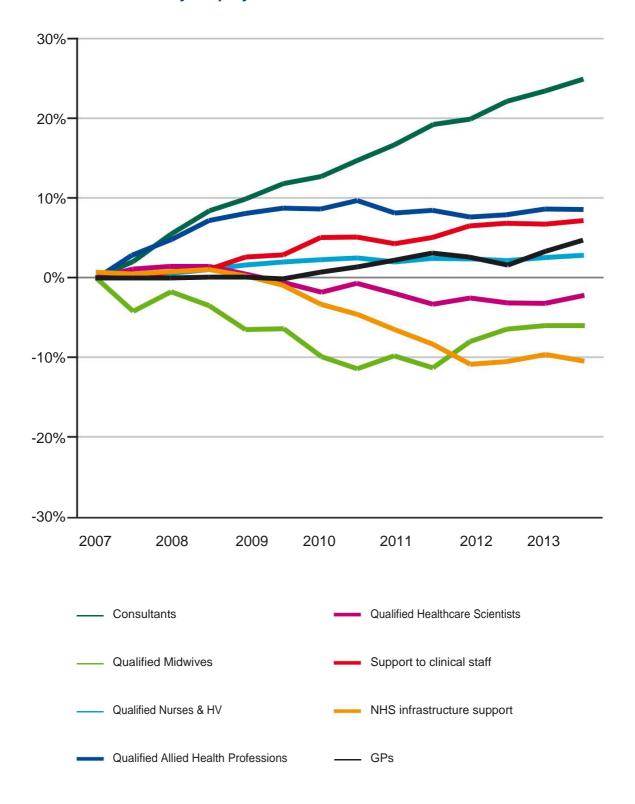
Cost of the Workforce

- Total NHS spend is currently £6.2 billion and the pay bill accounts for 75% of this.
- Variable pay accounts for 14% of the total pay bill.
- The Registered Nursing & Midwifery workforce accounts 30% of the workforce and 31% of total spend.
- Medical & Dental workforce accounts for 9% of the workforce and 21% of total spend.
- The Nuffield Trust states that annual earnings for staff were 0.1% lower in real terms in 2013 than they were in 2010.

Composition of the workforce/ skill mix

- Bands 1-7 account for 86% of the workforce and have increased by 3% since 2008.
- Bands 4-7 have all seen 4-7% growth.
 Only Bands 1 and 2 have seen a reduction (-28% & -5% respectively) and the majority of the reduction are within Estates & Ancillary and Administrative & Clerical.
- There is no doubt that NHS Wales'
 workforce has changed over the past
 seven years, in terms of staff groups:
 Administrative & Clerical and Estates
 & Ancillary have seen their overall
 workforce percentage reduce while the
 clinical staff groups have increased.
- The following graph (overleaf) shows the staff in post in Wales from 2007 – 2013 focussing on a number of key staff groups including General Practitioners. This shows that despite the current difficulties in recruiting doctors in certain specialties there has been ongoing growth year on year in overall numbers.
- At the same time as the increase in consultant numbers (+25%) there has been a much smaller increase in the numbers of GPs (+4%). If this trend continues it could mean that the focus on care out of hospital and the aims of Prudent Health Care of care in the appropriate place is likely to be skewed.

NHS Wales: Directly Employed Workforce & General Practitioners



4. Workforce Risks: Supply & Demand

This section outlines the main risk issues facing the NHS Wales workforce and includes information derived from Integrated Medium Term Plans. The supply of health care professional staff is affected by the number of undergraduate training numbers which will be covered in detail in a separate report.

The current medical model of health provision in Wales is increasingly hard to sustain in the light of increasing risk in medical recruitment.

4.1 Medical & Dental staff Medical and Dental staff comprise 9% of workforce and 21% of the cost with 60 different specialties plus sub specialties. It is therefore critically important that we understand the role of medical staff as critical decision makers which influence what interventions are implemented. The "decision points" in patient care pathways need to be understood in redesigning services.

Medical training is undergoing a significant review across the UK (Shape of Training Review) and there are substantial areas of shortage and risk which are a feature of the majority of NHS Wales plans. It is noted that the supply and risk issues facing the medical workforce provide opportunities to drive development of other professions and staff groups. IMTPs have reported recruitment difficulties in the following specialties:

- 3 or more organisations: Anaesthetics, Care of the Elderly, Emergency Medicine, General Psychiatry, Paediatrics and General Practitioners
- 2 organisations: Clinical Radiology, Endocrinology, Haematology,

Histopathology, Obstetrics & Gynaecology, Neonatology and Trauma & Orthopaedics.

Posts which are currently on the UK Shortage Occupation List include consultants in Emergency Medicine, Haematology and Old Age Psychiatry together with non consultant grades in Anaesthetics, Intensive Care, General Medicine, Rehabilitation and Psychiatry. There are also concerns about age profiles of some parts of the medical workforce, for example, SAS doctors which form a higher proportion of the medical workforce in some HBs e.g. 15% of the medical workforce but 17% of Betsi Cadwaladr UHB and 27% of Hywel Dda.

Within Wales detailed modelling has been undertaken to date in the following specialties:

Emergency Medicine The demand for consultant workforce in this specialty has increased at a faster rate in recent years and therefore the forecasted supply would not be likely to be sufficient to maintain this rate of growth in consultant numbers. Information from the South Wales Programme suggests that Wales is likely to need significantly more Emergency Medicine consultants during the next few years. Wales' existing supply of new consultants would not be sufficient to meet an increased level of demand.

General Practitioners Modelling carried out last year suggests that Wales' future supply of GPs is unlikely to meet the anticipated demand. The size of the forecasted gap varies depending on the "demand" scenario used but factors such as population growth, increased

prevalence of chronic conditions and the desired shift of more services into primary care means that the future demand for GPs is likely to be greater. ¹³The Centre for Workforce Intelligence in England noted that "the existing GP workforce has insufficient capacity to meet current and expected patient needs." The Health Education England (HEE) workforce plan for 2014/15¹⁴ shows a 3.6% increase in GP training numbers and states that "within our mandate there is an implicit expectation that demand will increase with a requirement for us to ensure that 50% of medical students become GPs". The increases in GP posts in England have been at least partly funded by reductions in training posts in other specialties (e.g. Surgery which have been reduced by 5.6%).

Health Board Integrated Medium Term
Plans highlight risks attached to a
significant cohort of GPs at or approaching
retirement age and one HB has stated a
need for 1.5 new GPs to replace each of its
retiring GP due to issues such as different
working patterns amongst younger GPs.

Modelling suggests that the number of entry-level GP specialty training (GPST1) posts in Wales would need to be increased by at least 30% to meet a conservative level of future demand. However, it is noted that other demand estimates show that an increase of 50% would be required (e.g. to give Wales a future supply of GPs comparable to England's.) There is also a need to consider the interplay between setting GP numbers and education commissioning decisions for other parts of the healthcare workforce in addition to considering the demand for GP services both in and out of hours.

Paediatrics Modelling suggests that the current supply of newly-trained consultant paediatricians is likely to improve from circa 2017 onwards. While this may help fill consultant posts that are currently difficult to recruit to there is a risk that an oversupply of new consultant paediatricians (CCT-holders) could be produced (as has been forecasted at a UK-level by the Royal College of Paediatrics and Child Health). The Wales Deanery is proposing to reduce specialty training post numbers in Wales, partly to address this risk although this would be likely to create gaps in middle grade rotas. If there was a need to fill these gaps with consultant level doctor, conversely, that would in turn increase Wales' demand for trainees.

Radiology faces existing consultant recruitment issues in a number of Health Boards, combined with increasing demand for imaging services and a significant number of consultant radiologists at or approaching retirement age. Modelling suggests that Wales is likely to face a significant shortfall in its supply of consultant radiologists in future. Risk has been identified by the South Wales Collaborative with regard to the availability of interventional radiologists and the ability to provide cover in this regard.

An increase of four new specialty training posts in Radiology has taken place, however, whilst this increase is likely to boost Wales' supply of consultant radiologists from 2020/21 onwards to a point where it broadly matches the anticipated demand, other solutions will be needed to cope with the current anticipated medium-term shortfall of consultant radiologists.

Psychiatry There are currently difficulties recruiting to some consultant psychiatrist posts in Wales and modelling suggests that

^{13.}GP In Depth Review. Centre for Workforce Intelligence

^{14.} Investing in people for health and healthcare. Workforce Plan for England. Proposed Education and Training Commissions for 2014/15. Health Education England. http://hee.nhs.uk/

Wales' future supply of consultants in this specialty is unlikely to meet the anticipated demand. WEDS has recommended that this plan includes increasing Wales' intake into higher specialty training from 17 to 21 posts – the plan is currently still under development. WEDS also recommended that this intake is reviewed in 2-3 years' time, or before this if the long-term direction of services/the workforce in psychiatry is altered in the meantime.

Other modelling work: Currently modelling work is being undertaken on Geriatric Medicine and it is intended to undertake work to understand the issues relating to the SAS workforce.

In addition to the supply issues referred to above the impact of changes to the medical curriculum could have a significant impact on the level of service contribution that can be made by doctors in training in the future.

There are also issues of over-supply in some specialties – e.g. general surgery which would also need to be included in an overarching plan.

Priorities for action:

- Taking into account the above projections in addition to potential oversupply in surgery it is essential that urgent strategic decisions are made about the configuration of medical specialty training posts across NHS Wales and that there is an effective mechanism for this to take place.
- Prioritisation of modelling work via the NHS Wales Medical Workforce Strategy Group which will help to underpin the demand for other professional staff groups.

4.2 Nursing & Midwifery Nursing staff comprise 30% of the workforce and 31% of the cost. The graph on page 19 shows that nursing and midwifery workforce numbers have not changed significantly. Since 2007 the nursing and midwifery workforce has increased 2.6% (over 550 FTE).

The CfWI¹⁵ latest Nursing projections predict a reduction in supply by 2016 although it is noted that demand projections vary considerably (as widely as -7% to +23%), especially around patients with complex needs and community care. It is noted that NHS England are experiencing significant recruitment challenges.

There is a changing landscape in relation to the focus on safe staffing levels in nursing. Within Wales an additional £10m was provided in the 2013/14 financial year to "allow HBs to accelerate their plans to secure acute medical and surgical ward nurses" this was expected to fund in the region of 290 additional posts. An initial modelling exercise undertaken by WEDS suggested that Wales may have a sufficient supply of adult nurse graduates to maintain its current workforce size. However, this supply is likely to be insufficient to meet the demand created by an additional 290 new posts. Forecasts were based on an average retirement age of 60 years old. If nurses typically choose to retire younger than this, then Wales' medium-term supply of adult nurse graduates may not be sufficient to maintain its current workforce size. The forecast assumed that, for each Welsh-trained nurse graduate who does not take up their first post in Wales, a nurse trained elsewhere comes to work in Wales. The number of these posts that have been filled is unknown, however, the overall number of Nursing & Midwifery staff employed in Wales increased by 0.4% March 13 - October 2014 (+81FTE).

The only nurses currently on the UK Shortage Occupation List are specialist nurses working in Neonatal units. There are some specific nursing recruitment difficulties in areas such as Critical Care, Mental Health and Advanced Practitioners e.g. Endoscopy. In addition, it is noted, however, that one HB is currently recruiting from overseas and there has been a significant increase in nursing agency costs in a number of HBs. The impact of skill mix going forward and the mix of qualified nursing staff to health care support workers is also an important consideration.

Priorities for action

 Further detailed modelling of the nursing workforce numbers to inform future education commissioning.

4.3 Allied Health Professionals and other groups

IMTPs have reported some recruitment problems in therapies staff groups for example, in Occupational Therapy. It is noted that whilst these may be small numbers they may have a high impact on local services. A number of health boards reported recruitment difficulties in Therapy posts although they tended to be reflected in just one or two organisations with the exception of sonographers which were reported as difficult to recruit in a number of organisations. It is noted that one HB reported recruitment difficulties across "all disciplines" in AHP groups. In addition to the above three health boards report a requirement for additional AHP Advanced Practitioners across all disciplines (see Section 5.4.1).

There are a range of issues affecting AHPs relating to increasing demand. One example relates to stroke care. Wales has joined the Sentinal Stroke National Audit Programme which provides a strong evidence base for

quality standards in stroke care. The audit shows a deficit in meeting standards for dietetic services in stroke care in Wales. Dietetic services would also be likely to be impacted by Delivery plans such as prevention of diabetes. Increasing demand for 7 day services is also a key issue.

Other opportunities for change and skill mix exist which will not be driven by recruitment shortages but may afford greater efficiencies, for example in skill mix between Clinical Psychology and Psychological therapies, the positioning of senior therapists in revised service models e.g. Physiotherapists in Trauma & Orthopaedic; the need for Occupational Therapists to support discharge and to maintain people within community settings. It is possible that such developments could contribute to increasing supply pressures.

4.4 Other

Individual health boards have reported difficulty in recruiting to other posts, including for example, **Perfusionists**, in addition to identifying plans for additional posts such as increased numbers of **Audiology** staff.

Detailed supply and demand issues relating to the nursing, therapies and health care science workforce are covered in the separate education commissioning report referred to above. Discussion of Health Care Support Workers, IT and Estates staff are covered in Section 5 of this report.

5. NHS Wales Workforce - Key Themes

5.1 Overview

The Nuffield Trust report concluded that "beyond 2015/16 it will be very difficult to hold down real terms pay" and that "Further reductions in pay beyond 2015/16 would be difficult for the government to implement without impacting on recruitment and retention". Bearing this in mind and in the context of the financial challenge referred to in Section 2, all organisations IMTPs have reflected an ongoing need to ensure that workforce productivity is maximised. The plans therefore focus on:

- · Efficiencies in bank, agency, locum use
- Skill mix changes
- Reductions in FTE via turnover, Voluntary Early Release Scheme (VERS) etc.
- Reducing sickness
- Focus on consultant productivity

Last year's IMPTs identified an overall reduction in the NHS Wales Workforce of 3.7% (2667 FTE) over the 3 year period. The overall percentage includes an increase in one organisation, predicted steady state in 2 organisations and reductions in others. For a number of health boards the reduction equates to between 6 – 7.5% of the workforce which presents a considerable challenge in the context of increasing pressures and demand.

Prudent Healthcare

In addition to a focus on productivity there is a need to think radically about the workforce of the future – the skills that NHS Wales will need, who will be the key decision makers in patient pathways coupled with the need to design workforce models which are deliverable and the impact of the application of principles of prudent healthcare:

- Do no harm
- Carry out the minimum appropriate intervention

- Organise work around the "only do what only you can do" principle
- · Promote equity
- Remodel the relationship between user and provider on the basis of co-production.

All of the above have implications for design of workforce models and the skills required. Balancing the development of broad based skills needed to provide care to an aging population and recognition of the place of self care in developing models will all impact on how we think about and plan the workforce. In addition, changes in genetics and genomics and technology will have a significant impact.

Based on what we know of the context, high level modelling of risk and the content of the organisation plans, this section focuses on the key workforce themes that need to be addressed by NHS Wales.

The development of workforce plans around pathways at an organisation and Wales level remains a significant challenge. It is recognised that a focus on specific aspects and sections of the workforce would enable NHS Wales to fully explore workforce trends, risks, opportunities and potential actions.

A review of IMTPs and other available information identified the following themes which have been grouped against 3 broad areas of focus:

What services are delivered and where

- Maximising care in the community
- Development of localities
- Centralisation of fragile services and pathway redesign
- Efficiency "Prudent Healthcare"

When services are delivered and to what quality standard

- Deployment of the workforce
- Quality/ safety of services
- 24/7 services

· Who delivers services

- Integration of health and social care and other agencies
- Medical workforce risk
- Development of Advanced Practitioners
- Paramedics (extended roles helping people to stay at home)
- Primary Care team
- Diagnostics Imaging , Pathology
- Health Care Support Workers
- Administrative & Clerical Digitisation

These themes are analysed in more detail in the sections below covering why the issue is important, the current position of NHS Wales and recommended priorities for action.

5.2 What services are delivered and where

Why it is important

One of the objectives of Working Differently Working Together is to deliver "A workforce operating across a fully integrated network of care" which reflects the overall strategic direction of Together for Health and other Welsh Government policies. This includes more recent strategies such as Delivering Local Health Care – Accelerating the Pace of Change and the Framework

for Delivering Integrated Health and Social Care for Older People with Complex Needs. Reflecting this strategic direction, much of the focus for the workforce in integrated plans has been on:

- Maximising care in the community and the skills required to reflect this
- Development of localities new models of delivery and employment models required
- Centralisation of fragile services
 driven by the need to align specialist
 expertise more closely to patient need
 via the development of hub and spoke
 models, regional plans and managing
 the significant workforce risk attached
 to the viability of junior medical staff
 rotas in a number of specialties.
- The extent to which the redesign of patient pathways is leading to a move of services out of acute into community settings and supports alternative models of delivery
- Integration of health and social care in the development of skills, common training and language

The drive for efficiency means that the impact of the **prudent healthcare** approach is also an important consideration. "In a system with limited resources, health professionals have a duty to establish not only that they are doing good, but that they are doing more good than anything else that could be done with the same resources" 16. The desire for health professionals to "only do what only you can do" needs to be balanced with the benefits to resource utilisation and patient experience of being seen by senior clinicians (fewer diagnostic tests, lower admissions etc).

^{16.} Simply Prudent Healthcare – achieving better care and value for money in Wales – discussion paper. Bevan Commission

How far have we got?

Current workforce information systems are limited in being able to pinpoint exactly how many staff have a community focus to their role and in supporting planning across patient pathways. Good work has been undertaken to incorporate additional information on consultant job planning, into ESR. Another potential future element of this could be the ability to record whether medical sessions are community based.

Whilst examples of good practice exist within organisations, there is a need for

these to be highlighted and spread e.g. Health and Social care locality models of delivery. A number of organisations have developed approaches to the development of pathway redesign although these need to be embedded and spread to drive change. Opportunities are afforded by work programmes such as the South Wales Health Collaborative. Whilst some work has been done on medical staff implications of plans further work remains to be undertaken to address whole workforce models.

Priorities for action:

- Understanding of impact of prudent healthcare on the workforce as part of Directors collaborative work programmes and agreement on workforce redesign priorities
- Identification and sharing of best practice in developing different and nontraditional workforce models across NHS Wales.
- · Work to develop the workforce information base via focus on priority areas.
- Influencing ongoing development of the Electronic Staff Record (ESR) in the understanding of the proportion of the workforce delivering services in community settings.
- Joint skills development and education between health and social care.
- Driving the workforce elements of the pan organisational planning.

5.3 When services are delivered and to what quality standard

Why it is important

Another of the WDWT objectives is to deliver "Clinically safe services that can be accessed when required". The Wales Delivery plans for Cardiac Services and Stroke identify the need for 7 day working as a priority (See Appendix 2 – Workforce implications of delivery plans). The NHS Services, Seven Days a Week report¹⁷ stated that "patients admitted at the weekend have a significantly greater risk of dying within 30 days of admission than those admitted on a weekday; the

increased mortality could be as high as 16%". Reasons for this are likely to include staffing levels, absence of senior decision makers, availability of diagnostic services, availability of specialist community/ primary care (end of life pathway) services. Addressing this supports the prudent healthcare aim of "do no harm" and "promote equity".

The Future Hospital Commission (Royal College of Physicians)¹⁸ outlined a new model of clinical care where services for acutely ill patients in hospitals would be available on a seven day basis together with services in the community.

"Health and social care services in the community will be organised and integrated to enable patients to move out of hospital on the day they no longer require an acute hospital bed".

The majority of IMTPs focus on the need for extended and 7 day working especially in unscheduled care "increasingly more routine services will be delivered over 7 days".... "Priority areas are establishing the best working patterns for Frailty, Enhanced Community Services and Emergency Service Flows" (ABMU IMTP). It is recognised that the impact of extended and 7 day working will also be an issue for diagnostic services (see Section 5.4.4).

Current position

The impact of additional resources needed to deliver the planned level of service both in terms of availability of staff and cost is critical. For example, some scenarios suggest an increase in demand for Emergency Medical staff which would not be deliverable in current supply projections. Challenges include managing increasing acuity and complexity of patient skill mix with difficulties in recruiting medical staff and maintaining current junior medical staff rotas. Numbers of nursing staff have also been highlighted from a quality/safety perspective.

The NHS Seven Days a Week report referred to above identifies a key area of development for the workforce as the service development space which stands between the acute and home-based services:

"the 'Place in the Middle' which includes preventative services/self care and assessment/triage, through to residential care, re-ablement, rapid response and intermediate care, community based care and palliative /end of life care, acute admission and discharge and urgent & emergency care".

Another area of focus is the vision of the Wales Unscheduled Care Programme that people should be supported to remain as independent as possible and "that it should be easy to get the right help when it is needed and that no-one should wait unnecessarily for the care they need". One of the key elements of achieving "rapid reliable advice when it is needed" is proposed to be the development of a single urgent care "111" phone service for Wales which would align existing out of hours GP services and NHS Direct Wales. Key elements of this will be the right skill mix so that call handlers are supported by the right number and mix of clinicians.

Priorities for action:

- Development of robust information base on staff deployment maximising intelligence from e-rostering systems.
- System wide planning & modelling e.g. in Emergency medicine, for example, Advanced Practitioners (see Section 5.4.1)
- Workforce and OD support for Unscheduled Care Board in assessing workforce implications and skills requirements and in particular for the development of an urgent care phone service for Wales and the WAST Clinical model

^{18.} Future Hospital: Caring for Medical Patients. Future Hospital Commission. Royal College of Physicians. September 2013.

5.4 Who delivers services?

This section focuses on the WDWT Objective to deliver Skill mix across all staff groups at all levels to support redesigned services. It is noted that many of the supply issues relating to medical staff described in Section 4 drive demand for other groups of staff such as the development of Advanced Practitioners and other roles.

Whilst care is focused currently on a see, treat and to a lesser degree, rehabilitate model it is envisaged that in future the balance could shift towards ongoing care and maintenance of individuals. The need to look at workforce models in a different and more challenging way is therefore needed. The Horizon 2035 work being undertaken by the CfWI www.horizonscanning.org.uk provides an example of a way of thinking about how healthcare is delivered via a "skills and competencies lens"

The facilitation of pathway approaches to redesign thinking about the skills and competencies needed needs to underpin how NHS Wales plans for the future workforce by considering the skills and competencies needed to:

Prevent, enable, assess, plan, treat, rehabilitate, relieve, link

Whilst the following sections focus on different staff groups it is recognised that planning needs to move towards consideration of workforce models by patient pathway and in terms of the skills, knowledge and experience needed to deliver care.

5.4.1 Advanced Practitioners, Physicians Associate and other Extended Skills

Why it is important

The level of workforce risk attached to supply problems especially in relation to

medical staff and the resulting need to redesign models of delivery is significant. All IMTPs have included plans to increase the numbers of Advance Practitioners and other practitioners with Extended Skills. In addition the Prudent Healthcare principle of "only do what only you can do" drives the aim of ensuring that staff can work to the top of their competence levels.

Some Advanced Practitioners and other practitioners with extended skills in Wales work in areas where there is no coordinated succession planning resulting in risk that these alternative models of delivery may not be sustainable. Among the 9 challenges identified by the South Wales Programme Board was "the persisting difficulty with recruiting doctors and other hard to recruit posts will require new employment models to be developed".

Health Board plans have identified the need for additional Advanced Practitioners in a range of areas including Emergency Units, Cardiology, Critical Care, Neonatology and Paediatrics although there has been limited detail of actual numbers required. One Health Board plan stated that "By year four, fifteen agency junior doctors could be replaced by trained ANPs (paediatrics, A&E, surgery, mental health)".

Chief Executives have recently asked for additional work to be undertaken to more fully establish supply and demand relating to Advanced Practitioners, initial work being undertaken in Emergency units and Neonatology. This work has identified the need for organisations to be clear regarding the benefits and need for either or both advanced practitioners (meeting full requirements of the AP Framework) or registrants with extended skills amongst its workforce. The development of specialist roles and other health professional roles leading on protocol driven care within

patient pathways is critical to remodelling the work force. Particular attention needs to be given to the issue of substitution so that new workforce models and roles are developed with clear responsibilities and accountabilities and old roles removed.

Current position

WG funding for Advanced Practice of £500,000 has been made available for the following priority areas:

- Emergency medicine
- Unscheduled care
- Paramedic AP roles
- Neonatology
- Primary / Community care

Currently there is no reliable baseline of numbers of APs across NHS Wales available for planning purposes due to the inconsistency of job titles and roles used in the service which is reflected in ESR. Organisations are therefore being urged to ensure that all staff calling themselves Advance Practitioners are working in accordance with the agreed Wales AP Framework and are appropriately recorded on the workforce information system. This will be important in supporting effective workforce planning in ensuring that there is an accurate understanding of the needs for future AP roles vis a vis other extended skills roles such as Emergency Practitioners and Surgical Practitioners. This will ensure that the appropriate education can be commissioned, that it is specific to the clinical roles required and effective succession planning.

Consideration also needs to be given to developments elsewhere in the UK of unregulated **Physicians Associates** at Band 7. A paper was recently received by

the All Wales Strategic Medical Workforce Group. Physicians Associates are working in areas including Primary Care with GPs, Emergency Units, and in-patient medical and surgical units. Health Boards and Trusts will need to give consideration to what roles Physicians Associates would undertake, for example, in other parts of the UK they see patient referrals, undertake home visits and discharge and admit patients. In Wales there are currently four Physicians Associates working in Anaesthetics in Hywel Dda Health Board.

Typically they have a Life Science degree and undertake a Post Graduate Diploma. "The UK has recently been exploring the use of PAs in clinical practice and the University of Southampton is due to publish research commissioned by NIHR investigating the contribution of PAs to primary care in England". 19

The potential role of Physicians
Associates in Primary care and other
shortage areas (see also Section 4.1)
would seem to be an urgent area of
consideration for Wales. If such a role was
to be introduced in NSH Wales, issues
relating to career progression would need
to be considered in making it sustainable.

It is evident that there is currently a lack of clarity within Wales and amongst professional groups on a number of issues relating to this critical area of workforce transformation. This lack of clarity includes issues relating to professional regulation, delegation guidance, the nature of Advanced Practice and extended skills.

^{19.} How Could the Community Workforce Alleviate Some of the Pressure on General Practitioners and Improve Joint Working Across Primary and Community Care? Workforce Briefing. Horizon Scanning. www.cfwi.org.uk

Priorities for action

- Urgent work to undertake a full baseline assessment and detailed projection of numbers of APs and other enhanced skill roles required across NHS Wales.
- Workforce Education & Development Services to support work to address the following questions:
 - Do we have sufficient supply to meet demand?
 - What range of work can other professionals do and are we optimising what we have invested in these roles?
 - Is there scope for a generalist AP and what are the risks of increasing sub specialisation in terms of sustainability?
 - What is the capacity of organisations to release staff for training as APs and other practitioner roles?

- Is there professional agreement of medical staff substitution roles as legitimate nursing and AHP roles?
- Introduction of an All Wales approach to Advanced Practitioner Education.
- Application of the AP framework across all organisations and to ensure that all APs are appropriately coded in ESR
- Identifying need for other enhanced skills roles e.g. Emergency Practitioners, Surgical Practitioners
- Consideration of the potential impact and cost / benefit of investing in Physicians Associates in NHS Wales in shortage areas of the workforce.
- Scope for further development and utilisation of other health professionals e.g. hospital pharmacists, paramedics.

5.4.2 Primary Care

Why it is important

The need to develop those services which provide first point of care to the people of Wales (more than 90% of contact with the NHS) has been set out in the WG "Our plan for a primary care service for Wales up to March 2018"²⁰. The level of risk relating to difficulties in recruitment and the age profile of the GP workforce has been highlighted across the UK and within Wales and is referenced in Section 4.1 (page 15) of this report.

The developing new models in primary care are described in a Kings Fund/Nuffield Trust report "Securing the future of general practice: new models of primary care" 21. The report identifies 4 broad models which are showing promise:

- networks (clusters),
- · super partnerships,
- regional and national multi practice organisations
- · community health organisations.

The report helpfully offers a number of design principles and recognises the importance of leadership, management and organisation development in enabling such models. There will be a need for such models to be locally owned and developed with full engagement of those who will be delivering services.

Such development will be underpinned by a variety of workforce changes, for example:

Expansion of the multi disciplinary team,
 e.g. telephone triage by GPs; maximising
 the role of pharmacists; midwife / health
 visitors; use of extended roles for chronic

^{21.} Securing the future of general practice: new models of primary care. Research Report. July 2013

conditions (nurses practitioners); district nurses in diabetes to provide reviews in community based around developing service delivery models:

- Community Resource teams;
 Virtual wards etc
- Employment of salaried GPs where appropriate, GP clusters with shared information, shared resources and shared budgets. Such Clusters could include special interest, GP Champions, geriatric champions linked to network areas, GPs with sessions in Community Resource Teams and work within networks; In addition the development of flexible career scheme e.g. research – academic fellows, clinical fellows in secondary care could be linked to clusters.
- Enhancing general practice as a profession and promoting it in Wales as a positive career choice.
- Encouraging medical trainees into general practice including increasing opportunities for foundation doctors in general practice.
- Increasing consultant to GP consultations using new technologies e.g. telemedicine.

Current position

Almost all HBs identify risks attached to the delivery of GP services in particular Out of Hours services and in the age profile of GPs. Generally there has been limited workforce planning in Primary care and little evidence of increase in resources (Nuffield Trust – A decade of austerity in Wales report). There is little central information available about the primary care workforce. In England it is noted that the Department of Health had mandated provision of a core data set from all providers of healthcare services although the challenges of collecting primary care

data are still being addressed. There has been some limited work to look at the evidence base behind alternative workforce models in primary care, for example, a CFWI report quotes research into the impact of pharmacist interventions for heart failure which identified no significant differences in hospital admissions. However, as this research is not extensive any conclusions must be treated with some caution.

It is also recognised that there is a need to redesign services across the system. The Kings Fund report "Specialists in out-of hospital settings"²², for example, investigated ways in which consultants are working beyond traditional boundaries in delivering care outside hospitals. The report identifies two groups:

- Services that enable more complex patients to be treated at home or in primary care (via joint delivery of care, multi-disciplinary team working and education of primary and community care practitioners and patients
- Intermediate services that treat patients who need specialist care that cannot be provided in general practice

Case studies are provided in the report plus key strategies for developing out of hospital working. The report recognises the importance of medical leadership in driving such developments and the need for sustained relationship building between clinicians across primary and secondary care over extended periods of time.

^{22.} Specialists in out-of-hospital settings. Findings from six case studies. The Kings Fund. October 2014 www. kingsfund.org.uk/publications.specialists-out-of-hospital-settings

Priorities for action

- Engaging with Directors of Primary, Community & MH to develop workforce plans
- Engaging with the primary care workforce in developing appropriate OD approaches to workforce development and redesign.
- Posing the right questions to be addressed in respect of the workforce, for example:
 - What OD strategies can be put in place to support the development of GP clusters and other locally appropriate workforce model for delivery

- Exploration and understanding of other models as part of WEDS work programme.
- Developing appropriate leadership strategies to facilitate the development and implementation of new models of delivery.
- Engaging with the primary care workforce
- Developing the primary care workforce information base.
- Supporting the development of the primary care workforce plan

5.4.3 Provision of Diagnostics - Pathology

Why it is important

A recent HEE report²³ on the Healthcare Science Workforce states that the "predominant view is that the future shape of the whole scientific workforce will resemble an hourglass with more scientists at a higher and lower grades and fewer at middle grades" and that "there are more likely to be an increase in numbers of assistants and associates undertaking the simple operation of laboratory equipment in life sciences". The report also points to changing skill requirements: increasingly technology focussed roles, the ability to work across specialties the increase in point of care testing and affordable portable technologies for monitoring in the community particularly for long term conditions; the use of mobile devices and telemedicine integrated with tele-care.

Current position

The national Pathology Modernisation

Programme established in 2009 following

the publication of the pathology strategy is tasked with driving the modernisation of pathology services in Wales. More recent advances in analytic technology and the national roll out of the Laboratory Information Management System (LIMS) provide an opportunity to significantly change how pathology services are delivered. This has supported the reconfiguration of services in North Wales and has led to the establishment of the South Wales Pathology Collaborative covering South East and South West Wales. This approach has been endorsed by Chief Executives in the context of recognising Ministerial expectations for a national approach to pathology services. The South Wales Pathology Collaborative will cover the following services as phase 1:

- · Cellular Pathology
- Microbiology
- Andrology
- Transport.

National work has been undertaken to recode the healthcare science workforce within ESR which will support better identification and analysis of this part of the workforce.

23. The Delivery of 21st Century Services – The Implications for the Evolution of the Healthcare Science Workforce. Modernising Scientific Careers. Health Education England. www.hee.nhs.uk

Priorities for action:

- Provision of focussed workforce support to the National Pathology Programme Board and South Wales Pathology Collaborative to identify workforce opportunities of pathology service reconfiguration including maximisation of the benefits of Modernising Scientific Careers
- Role of DoTHS in leading workforce change in maximising the benefits of Modernising Scientific Careers

5.4.4 Provision of Diagnostics – Imaging

Why it is important

Future Delivery of Diagnostic Imaging
Services in Wales²⁴ recommended the
formation of the National Imaging Board and
recognised the need for workforce plans to
support the delivery of future service models.
In addition a number of the Delivery Plans
cite the need for an increase in diagnostic
radiology (Cancer, Cardiac, Stroke) and a
current undersupply. Both diagnostic and
therapeutic radiographers and sonographers
are on the UK shortage occupations list.

There are a number of opportunities for workforce and skill mix changes, for example: according to the Society of Radiographers 6% of the profession currently undertake reporting; the potential use of band 4s; maximising imaging which can be undertaken by other professions such as midwife ultra-sonographers (referenced in one HB plan).

Current position

Recently the National Imaging Programme Board has taken forward a number of work streams to look at such areas as the Radiologist Workforce, Paediatrics, 7 day working, Radiographer Reporting and Advanced Practice, Breast and Nuclear Medicine. A number of these areas are considering the option of regionalisation of services. More recently, the setting up of the Radiology (Imaging) Academy Board is providing a focus for potential developments such as a reporting hub as well as a opportunities for workforce redesign.

Priorities for action

 Need to provide focussed workforce support to the Imaging Board linked to the work of the Radiology (Imaging) Academy.

5.4.5 Paramedic and Ambulance services

Why it is important

The ambulance service and paramedic resource in NHS Wales is essential to support the reconfiguration of fragile services and delivery of emergency care. The urgent care system is under considerable pressure with a failure to meet key targets and current constraints include that with the current service configuration of WAST there is an estimated deficit of 119 FTE staff.

Only around 10% of 999 patients have a life threatening condition. There is therefore a need for greater critical care skills for initial assessment and treatment. The Association of Ambulance Chief Executives report "Taking Healthcare to the Patient 2"25 noted that "Deciding what to do when faced with a patient who has stopped breathing is actually less difficult than deciding what to do for a patient with multiple chronic conditions, who no-one to look after them

24. The Future Delivery of Diagnostic Imaging Services in Wales. Welsh Government. December 2009.25. www.aace.org.uk Association of Ambulance Chief Executives. Taking Healthcare to the Patient2: A review of 6 years progress and recommendations for the future. June 2011.

at home, but does not really need to be in hospital".

The CfWI has identified an increase of workload of 7% year on year since 2000 with a 5% increase in paramedics per annum from 2005 – 2010²⁶ and this trend is expected to continue. Whilst the CfIW report concluded that there was a "secure supply" of paramedics up to 2016 there is a recognised need for workforce up-skilling – current technicians training as paramedics after which supply may fall. There is also a demand for AP roles and a need to ensure retention where such skills are developed.

The strategic ambulance review²⁷ stated that "Robust workforce planning should be put in place to deliver an up skilled and modernised EMS workforce enabling greater levels of autonomy and clinical decision making. This should be developed in partnership with the NHS, Higher Education Institutions and Regulatory Organisations."

Current position:

Implementation of the newly developed WAST competency framework linked to service reconfiguration provides opportunities to redesign the workforce. Examples of this include the Neath Port Talbot model; retrieval services — Paramedics with specialist knowledge; Advanced Practice Technicians.

Priorities for action

- It is likely that plans will need to be developed on a Regional basis across organisations and opportunities to develop and drive these will be essential.
- WEDS support for EMT conversion and Paramedic Advanced Practitioner development

5.4.6 Support workforce – Clinical

Why it is important

From the Wales labour market projections referred to in Section 3 it is likely that there will be long term supply problems for Wales. Circa 70,000 people are employed in social services and social care in Wales²⁸ and therefore future training of those working across health and social care settings is a priority including ensuring safety and quality of care. Future needs—increasing care in the community.

Current position

Health Care Support Workers: There are a total of 11,305 HCSWs delivering direct clinical care in NHS Wales (excluding WAST); 10,035 are in nursing; 590 working with Allied Health Professions; 680 in other professional technical and scientific support posts (data source – Iview). It is noted that this is an aging workforce (see Additional Clinical Services graph at Appendix 1) and is one which has not received much attention in terms of planning, training and education.

Opportunities for "rebalancing" the workforce and further development of HCSW roles may be found in Pathology - Haematology, Biochemistry; Imaging – shift

^{26.} Paramedics Workforce Risks and Opportunities Education Commissioning Risk Summary. Centre for Workforce Intelligence. 2012

^{27.}A Strategic Review of Welsh Ambulance Services. April 2013. Professor Siobhan McClelland. http://wales.gov.uk/topics/health/publications/health/reports/review/?lang=en

^{28.} Sustainable Social Services for Wales, A framework for Action

systems – scope for further development of band 4s.

Since 2008 Welsh Government has supported the development of Healthcare Support Workers working in support of Registered Nurses. The funding has been made directly to Health Boards and Trusts and has enabled HCSW to undertake education at Credit and Qualification for Wales (CQFW) level 4 or above.

In 2012/13, it was agreed at Lifelong Learning and CPD Advisory Group that the modelling of the funding allocations would be based upon each organisations total numbers of Band 3 and Band 4 staff. The monies allocated to organisations could for the first time be used for all clinical Healthcare Support Workers in particular at A4C bands 3 and 4. The development of codes of practice for HCSWs has provided

a basis on which further work to develop a career framework has been commissioned.

Opportunities for assistant practitioner posts at band 4 exist in a number of services including Pathology, Haematology, Audiology and Ambulance services as part of enhancing skill mix. Higher level apprenticeships are available to support such developments and there is a WG target to increase the numbers in Wales and a higher level apprenticeship at level 4&5 is currently available in Life Sciences and Chemical Science (Skills for Health Report into the deployment of Assistant Practitioners in Wales).²⁹

The development of support roles need to be balanced alongside the risks of fragmentation and a recognition that dividing work can increase co-ordination costs.

Priorities for action

- Completion of work to develop a career framework for Health Care Support Workers (HCSW) which can support the development of increased workforce efficiency by providing a common language resulting in a recognisable, transparent and transferable identity for the workforce;
- Make explicit the agreed skills and educational and training needs of HCSWs.
- Supporting consistent classification and reporting in ESR; Provide a platform for effective assessment of skill gaps and the subsequent development of appropriate qualifications
- Maximising opportunities for skill mix, for example, Modernising Scientific
 Careers will be introducing an Education & Training Framework for bands 1-4.
- Developing links with Social Care with a focus on joint planning and development.
- Careers promotion in potential shortage skill areas e.g. HCSWs.

^{29.} Assistant Practitioner roles in the Welsh Health Sector. Enhancing the potential for future development. Skills for Health 2014. http://www.skillsforhealth.org.uk/search/assistant%20practitioner/?ordering=newest&searchphrase=all

5.4.7 Infrastructure support

Administrative & Clerical support – digitisation

Why it is important

A report produced in 2010 stated that there were 1395 (WTE) Health records staff in NHS Wales³⁰ and that one health board had projected that the digitisation of health records could result in workforce levels in health records reducing by over 50%. Health informatics staff are essential to delivering the digital agenda (WDWT, 2012). The codification of health care enabling clinical information to be collected and transferred and interpreted by computers and health records being held by the patient or on a central service utilising "cloud" technologies means that changes in health records management are likely to be significant and to require new skills.

Current position

The IT professional workforce in Wales is forecast to grow at 1.37% per annum, over twice as fast as the average employment growth in Wales (e-skills UK, 2012). Historic growth trends within the Welsh IT & Telecoms employment are set to continue (Stats Wales, 2012), with the strongest growth predicted to arise in high skill areas/occupations, particularly Software Professionals, ICT Managers and IT Strategy & Planning staff (e-skills UK, 2012).

The NHS in Wales employs circa 627 FTE
Health Informatics staff in total, of those
staff 92 are employed in software
development functions and 44 in IT strategy
and management planning (source: Health
Informatics (HI) Workforce Baseline Survey
Report – Health Informatics Workforce
Capacity in NHS Wales June

2010). To deliver the digital and IT change agenda in NHS Wales it has been estimated that this staff group would need to increase by 10-15%.

The Health Informatics workforce does not reflect what might be expected of an emerging profession based on new technology, that is, a younger workforce - 17% of the informatics workforce are aged 51-60 (Source: Health Informatics (HI) Workforce Baseline Survey Report - Health Informatics Workforce Capacity in NHS Wales June 2010). Consideration will need to be given to internal and external career pathways in informatics at all entry level both pre and post graduate.

Priorities for action

- Update of the previous Health Informatics work including;
- an assessment of whether additional work is needed.

6. Workforce Skills

This section focussed on the skills requirements of the NHS Wales workforce going forward arising from plans and known trends and development.

The workforce planning focus of the NHS has tended to be on the numbers of regulated professions to inform education commissioning rather than on the needs of patients and the skills and competencies required to support independence.

The NHS in Wales invests circa £350m to support 15,000 plus students and trainees undertaking health related education programmes. It is estimated that 60% of the total training budget (including continuing professional education) is spent on doctors (12% of the workforce), 35% on Nurses and AHPs (40% of the workforce), whereas the amount spent on the social care workforce is unknown.

10.6% of the Wales population have no qualifications compared to 9% across the UK. 32.6% are qualified at NVQ level 4+ compared to 36.7% across the UK³¹. The most recent Skills for Health Report (2011) states that there is a need for employers to identify and address literacy and numeracy skills gaps if employers want to progress individuals within the sector in order to deliver flexibility in healthcare delivery.

"Analysis of access to training across the workforce highlights an apparent inequality, with those individuals who already hold high levels of qualification (typically medical consultants or senior managers) reporting they receive more ongoing

training than individuals without a high level of qualification (those in routine or support roles)".

The Skills for Health Report indicated that of the Wales workforce who are qualified at NVQ Level 4 and above, 53% report having received training in the past 13 weeks compared to 18% of those qualified to 'below NQF Level 2'. "If employers aspire to enhance skills utilisation across the whole workforce, they may need to examine and analyse these issues further in order to break down any barriers that currently exist".

Moving towards 2020, employers in Wales will face a growing range of skills-related priorities, including:

- Enhancement of the quality of management and leadership, particularly through excellent employee engagement and followership.
- Continued development of workforce-planning capability in the sector to assist with changes to a highly complex set of services.
- Growth in the supply of those willing and able to undertake Assistant and Advanced Practitioner 'type' roles.
- Ongoing development of new skills sets in the light of new opportunities to exploit technology, including navigator/facilitator roles.
- Ongoing willingness of healthcare professionals to deliver care in areas that require multi-disciplinary working within diverse teams.
- Growth in the skills and volume of those working in a range of non traditional healthcare providers and community settings.

- The development of health skills for nonhealth specialists to assist family carers and to facilitate self-care, supported by a combination of Information Technology and human contact.
- Health promotion skills (supporting self care)

In terms of the demography of the workforce, it is noted that older people in good health with up to date skill sets perform as well as their younger counterparts (Working longer review). From the IMTPs, Delivery Plans and other strategies the current skills requirements are as follows:

- · Dementia skills
- Working in Community settings
- · Advanced Practice
- Prescribing
- · New genetics and radiology techniques
- General training for staff in "good, basic diabetes care"
- End of life care training for primary and social care teams
- Primary care development programmes e.g. public health skills, joint learning opportunities; nursing competencies matrix;
- Developments in the health sector in Wales will include applications of genetics, new diagnostic methods and robotics all requiring enhanced IT and technology-related skills.

In addition to the skills of the employed and contracted workforce there are knowledge requirements of the people of Wales in supporting self care. Use of the internet, access to education regarding conditions will all be important and staff skills in presenting reliable and accessible information will be critical.

Priorities for action:

- Development of a Training and Development Strategy for NHS Wales – based on prudent healthcare principles
- Exploration of skills and competencies approach to workforce planning (e.g. CFWI Horizon 2035)

7. Organisation Development

The aim of Working Differently Working
Together the Workforce & OD Framework for
NHS Wales is to develop and engaged
workforce that is aligned and committed to
the delivery of the vision for NHS Wales. This
includes a vision shared by all staff, shared
values and behaviours, engaged leadership
and effective systems and processes. There
has been an increased focus on culture
compassion in care with the advent of reports
such as Francis, Trusted to Care³² referred to
in Section 2.1.3 of this report.

In recognition of the above, the focus of the health board and trust medium term plans has been on:

- Management and Leadership development
- Multi disciplinary and multi agency team working
- · Culture and values
- Employee Engagement
- Focus on performance appraisal and development reviews (PADR) and the health and wellbeing of staff
- Succession planning

The importance of transformational leadership in supporting and encouraging workforce redesign and the ability to engage a wide range of staff and clinical leaders in this process will be critical to success. The Kings Fund report "Specialists in out of hospital settings" referred to in section 5.4.2 says "We were not surprised to find that charismatic innovative clinical leaders were instrumental in setting up each of the services featured... They were able to motivate and persuade staff to work in new ways, were prepared to work with colleagues outside their usual clinical boundaries and put in long hours – often unfunded – to get

these services off the ground".

The critical importance of staff engagement and supporting the development of teams is known to have an impact on performance and patient experience. Part of the Workforce & OD Directors collaborative work programme aims to promote the contribution of OD approaches and strategies to support the significant service and organisational challenges facing NHS Wales including the exploration of an OD model or models which could be used across the service.

Other considerations for OD include the impact of the development of alliances and whether OD programmes need to be developed to support future working on a pan organisational basis.

At the time that WDWT was produced it was recognised that "the focus of the framework is staff directly employed within the NHS, but it is recognised that healthcare is delivered in partnership with other stakeholders and in particular primary care". The OD challenges facing the service in the redesign of primary care services are also a key priority in taking forward models such as GP clusters, enhanced multi disciplinary teams and in engaging with and developing GPs as leaders of change

Priorities for action

- Development of OD plans to support primary care.
- · Continuing focus on clinical leadership.
- Continuing focus on those workforce (HR) and OD interventions and employment practices that support staff engagement and health and wellbeing and working longer.

^{32.} Trusted to Care Report of the External Independent Review of the Princess of Wales Hospital and Neath Port Talbot Hospital at Abertawe Bro Morgannwg University Health Board. Professor June Andrews et al. www.wales.gov.uk/topics/health/publications/health/reports/care/?lang=en

8. Conclusion

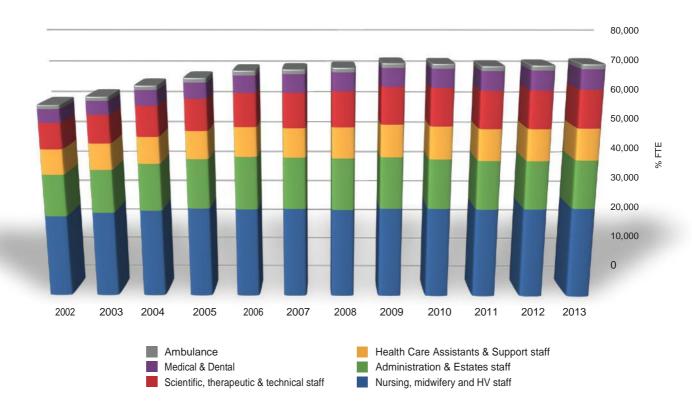
A review of the key workforce themes for NHS Wales has recognised that a focus on workforce redesign is essential to secure the future of services which are appropriate to patient needs and the changing face of healthcare in Wales and the UK. Workforce redesign needs to address short – medium term risks and priorities within the context of longer term direction of travel.

The above can be achieved by:

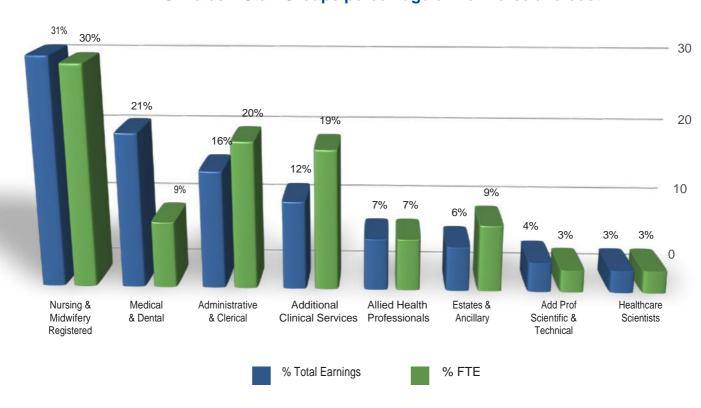
- Developing workforce planning and workforce redesign skills within organisations and supporting clinical leaders and managers to deliver this agenda.
- Developing clear strategies for training and development of the existing core workforce in addition to education commissioning of new staff.
- Organisation development and workforce (HR) strategies to support redesign.
- Addressing the needs of the support workforce across both health and social care
- Prioritising planning which addresses the need to deliver care closer to patients homes and maximising opportunities to:
 - Develop skills to support this in primary care and community services
 - Spreading the use of supporting technologies
- Developing roles around clinical teams with
 - clear roles and accountabilities,
 - identified career progression

Appendix 1

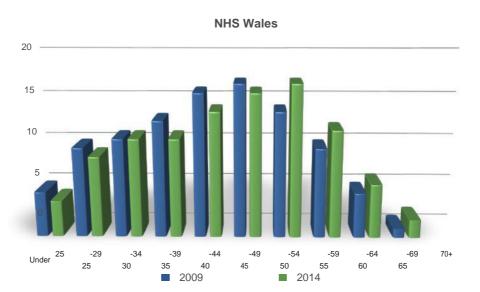
NHS Wales – Staff Profile



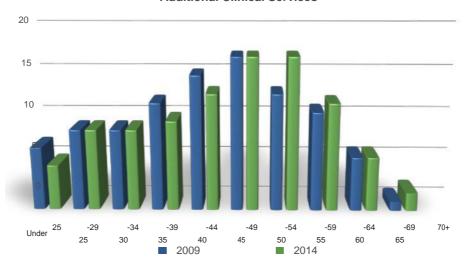
NHS Wales - Staff Groups percentage of workforce and cost



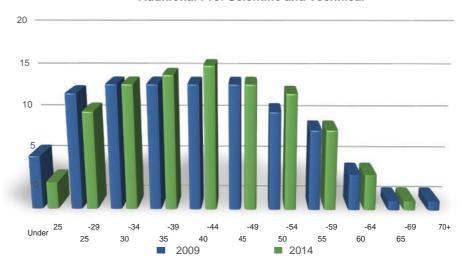
NHS Wales – Percentage of the workforce Age profile by Staff Group (Data Source: iView)



Additional Clinical Services

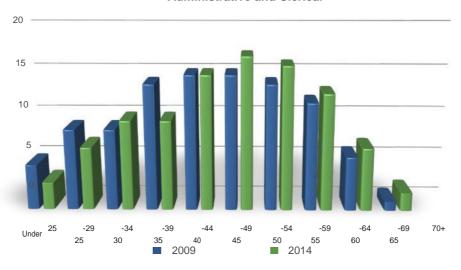


Additional Prof Scientific and Technical

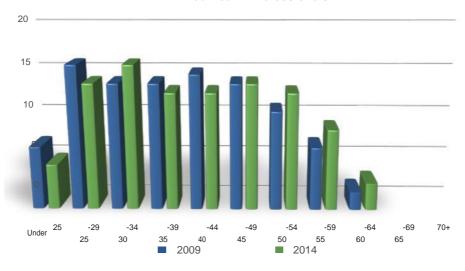


NHS Wales Workforce Key themes and trends

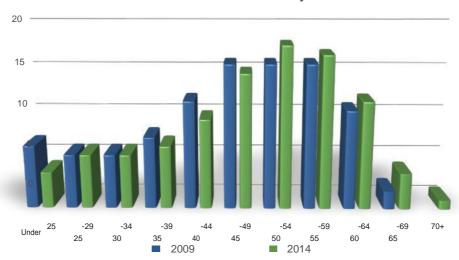
Administrative and Clerical



Allied Health Professionals

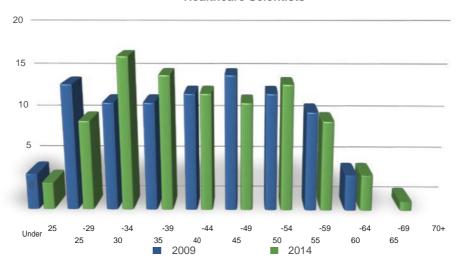


Estates and Ancilliary

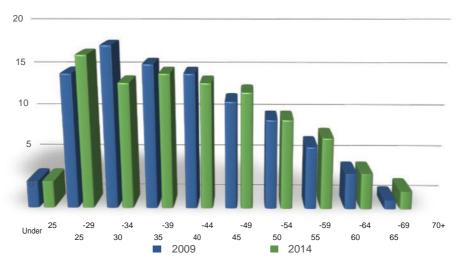


NHS Wales Workforce Key themes and trends

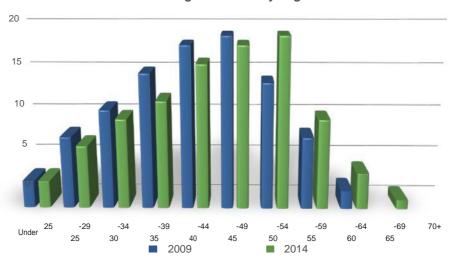
Healthcare Scientists



Medical and Dental



Nursing and Midwifery Registered



Appendix 2

Welsh Government Strategies – Workforce Impact

Strategy	Workforce Impact
Together for Health	An overarching workforce redesign themes underpinned by Working Differently Working Together
Cancer Delivery Plan	Skills – new genetics and radiology techniques;
	Diagnostic testing – ultrasound and CT
	Named key worker to assess and record care plan clinical and
	non clinical needs
Cardiac Delivery Plan	New diagnostic procedures
	7 day working: Assessment by a cardiologist within 24hrs of admission; access to specialist palliative care nursing
	Multi disciplinary teams
	Imaging services
Diabetes Delivery Plan	Faster diagnosis and care closer to home – focus on primary care / community and AHPs
	Access to intensive insulin treatment
	Multidisciplinary diabetic foot teams
	All Wales Diabetic Retinopathy service
	Establishment of Community diabetes teams with specialist nurses
	Via GPs delivery of Structured Diabetes Education to patients
	Training needs:
	Diabetes education programme for ward staff caring for hospitalised children
	Education in Diabetic Nephropathy
	General training for staff in "good, basic diabetes care"
End of Life Care	Lead Pharmacist for end of life care
	Training opportunities for primary and social care teams to have in place plans for end of life
Maternity	Maternity: Compliance with the RCOG guidance for hours of consultant labour ward presence per week
Mental Health	MH: Training in Psychological therapies
Neurological	·
Conditions	"numbers of neurology specialists of all kinds remain low"
Delivery Plan	All staff managing care of people with neurological conditions to have appropriate understanding of the condition and its impact
Respiratory Health	Impact on diagnostics – chest x-ray, spirometry
Delivery Plan	Physiotherapy – teaching breathing and lung drainage
	Community leads – promoting home treatment and development of new pathways

Stroke Delivery Plan	7 day access to services – centralisation of hyper acute stroke care; thrombolysis Telemedicine Early rehabilitation with psychological support Development of specialist and advanced practitioners Interventional neuroradiology and neurosurgery Diagnostic imaging
Delivering Local Health Care – Accelerating the Pace of Change and Framework for Delivering Integrated Health and Social Care for Older People with Complex Needs	"A consciously planned and managed system" – important in relation to how planning is undertaken going forward.