

BUILDING THE NHS WALES IMAGING WORKFORCE MODEL

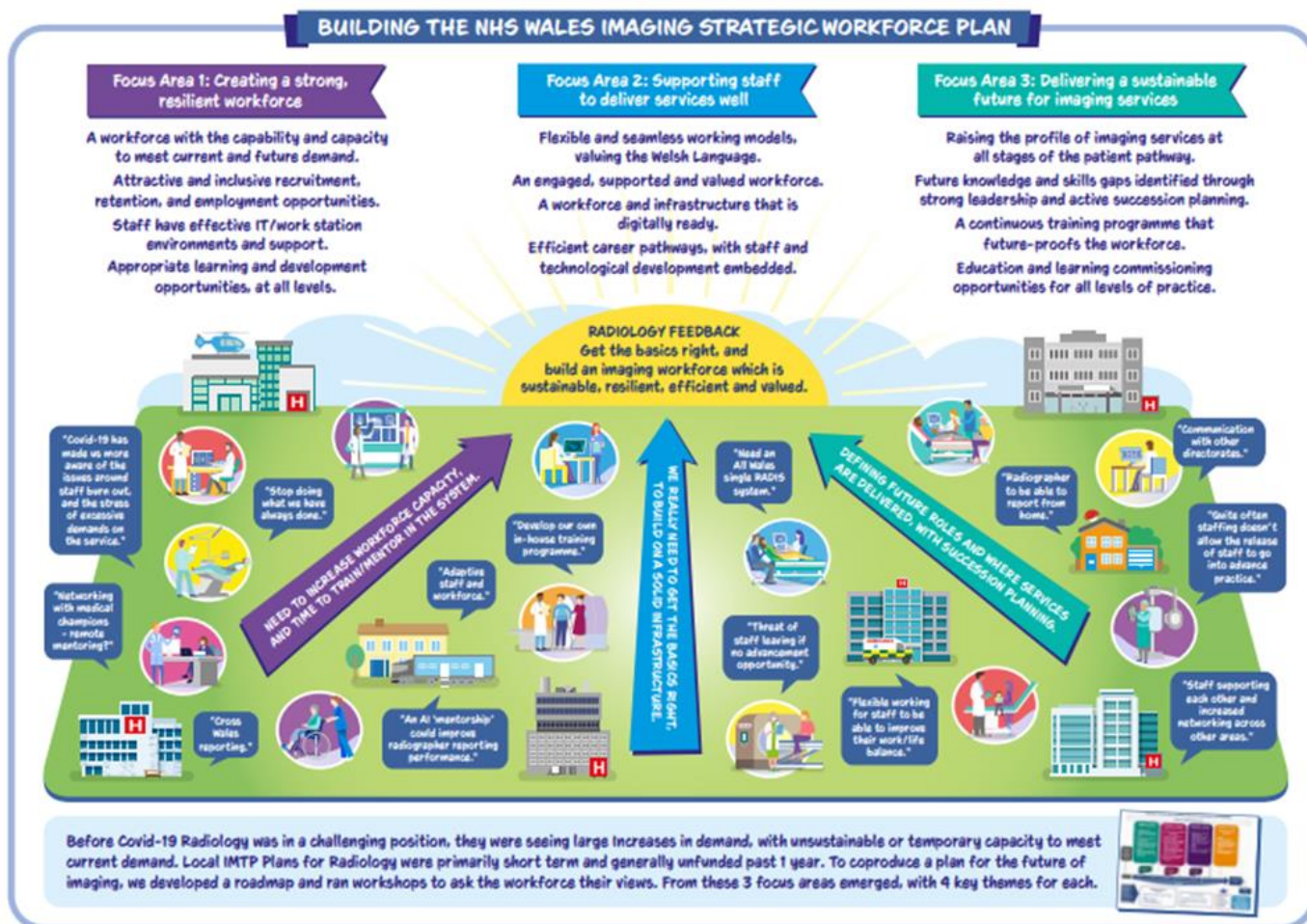
Strategy for Developing a Radiology Workforce Model for Wales

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Our Vision for Developing a Radiology Workforce Model for Wales



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We look forward to your continued involvement in, and contribution to, the implementation of the recommendations and the realisation of the ambition of this strategy.

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Introduction – Why are we doing this?

The ‘Strategy for Developing a Radiology Workforce Model for Wales’ has been produced by the Imaging Workforce and Education Group (IWEG) in collaboration with Health Education and Improvement Wales (HEIW) and Radiology Services across NHS Wales. This strategy aims to:

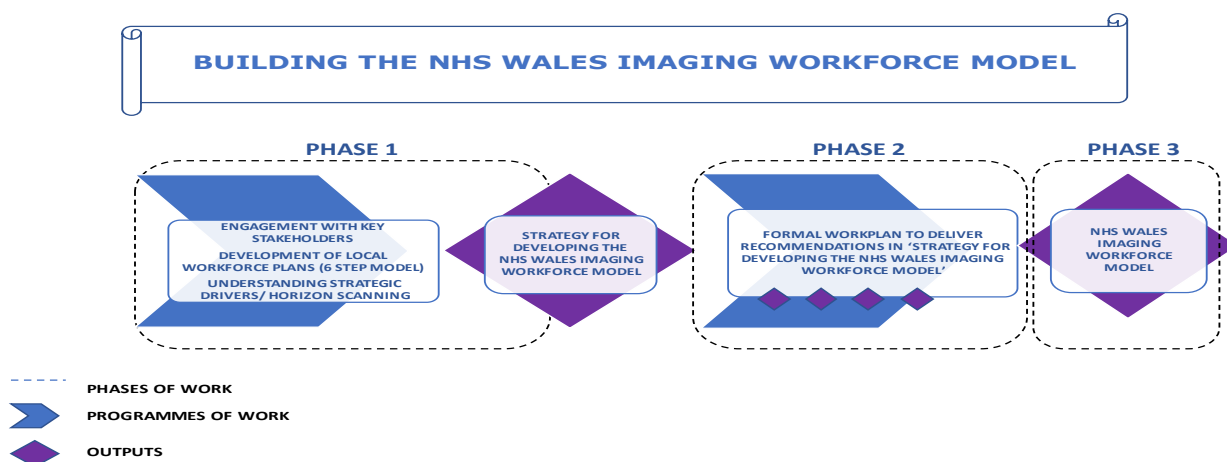
- describe the workforce that is employed by Radiology Services in Wales
- highlight the significant challenges that are currently being faced by the Radiology workforce
- put forward a number of potential workforce solutions to assist those involved in the planning and management of radiology services in Wales
- set out a shared vision for a strong, resilient, and sustainable Radiology Workforce
- outline a number of practical recommendations to support and facilitate the development of the Radiology Workforce

In 2018 Welsh Government produced the *Statement of Intent for Diagnostic Imaging Services (Wales)* which “addresses the current challenges in diagnostic and therapeutic imaging in the Welsh National Health Service”.¹ It signalled Welsh Government’s commitment to adopt a new strategic approach to the development of high quality, effective and sustainable imaging services for NHS Wales that address the needs of the population, respond to current and future policy direction and ensure long term sustainability.

Imaging workforce development was a key priority within this statement with a number of specific actions identified to initiate the process of developing an optimally configured, sustainable, future imaging workforce. The Imaging Workforce and Education Group (IWEG) was established in 2019 to take forward these recommendations as part of the National Imaging Programme for Wales.

The Imaging Workforce and Education Group (IWEG) is in the process of developing an Imaging Workforce Model for NHS Wales. The process by which this will be achieved is set out in **Figure 1** below.

Figure 1. High-level Process for Building the NHS Wales Imaging Workforce Model



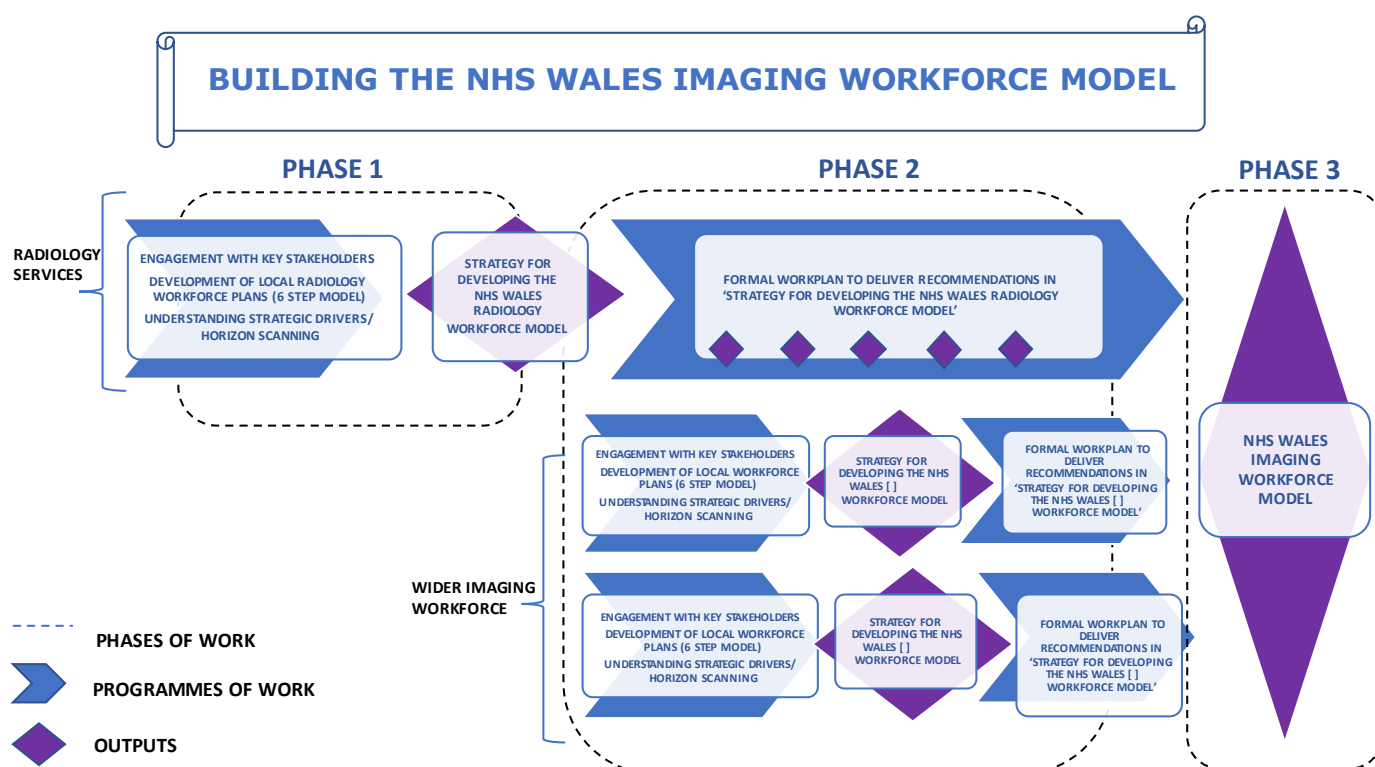
¹ [imaging-statement-of-intent.pdf \(gov.wales\)](#)

Due to the scale of the work required, IWEG were clear that a phased approach to the development of an NHS Wales Imaging Workforce Model was required.

As the largest provider of diagnostic imaging services, Radiology Services was proposed as the scope for the initial phase of work. Once a strategy for the development of a Radiology Services' workforce model was developed, the scope of work will be extended to staff groups within the broader imaging community, using the same planning methodology to develop additional strategies for developing a workforce model. This approach was endorsed by the National Imaging Programme Strategic Board in July 2021.

A process map of the agreed approach can be seen below in **Figure 2**.

Figure 2. Detailed Process for Developing the NHS Wales Imaging Workforce Model



This document is the first output in this process of building the NHS Wales Imaging Workforce Model.

Throughout 2021/22, HEIW supported IWEG to actively engage with Health Boards and Trusts across Wales to identify barriers and opportunities to Radiology workforce transformation, and to develop local workforce plans using the 'NHS Wales Workforce Planning Approach' which is based on the Skills for Health Six Steps Framework®.²

² [Six Steps methodology to Integrated Workforce Planning - Skills for Health](#)

This strategy document presents in detail the key themes that arose during this engagement and those that emerged from analysis of the outputs of each Organisation's workforce planning. This information has been evaluated alongside current literature on diagnostic workforce redesign and policy direction to develop a vision for the future Radiology workforce in Wales.

It was essential that this vision was developed in collaboration with Radiology services across Wales to ensure that the future model developed is flexible and is not a 'one size fits all'. This is in recognition of the fact that whilst workforce challenges are broadly similar across Wales, workforce solutions will be dependent on the local population health need, the availability of the workforce and the ability of individual Organisations to develop staff through training and education.

This vision does not explicitly address the emerging concept of Diagnostic Hubs, it does however provide enough flexibility and adaptability to enable the development of a workforce model that could be applied both in support of existing service configurations, and in the advent of the introduction of diagnostic hubs.

This strategy for workforce development is the first of its kind for Imaging Services in Wales. It is a product of a significant degree of collaboration between the National Imaging Programme, HEIW and Radiology Services in Wales, all of which was achieved despite the significant service and workforce challenges posed by the covid-19 pandemic.

Chapter 1: Drivers for Change

1.1 Strategic Context

In 2018 Welsh Government produced the *Statement of Intent for Diagnostic Imaging Services (Wales)* which “addresses the current challenges in diagnostic and therapeutic imaging in the Welsh National Health Service”. It signalled Welsh Government’s commitment to adopt a new strategic approach to the development of high quality, effective and sustainable imaging services for NHS Wales that address the needs of the population, respond to current and future policy direction and ensure long term sustainability.”³

Workforce development was cited as a key priority area within this written statement with specific actions identified as follows:

- To establish the NHS Wales Imaging Academy to develop a sustainable and flexible imaging workforce to deliver modern, responsive diagnostic imaging service for Wales.
- To develop an integrated workforce training strategy for Imaging Healthcare Professionals in Wales
- To establish funding models to allow the delivery of a national approach to workforce training that is appropriate for modern, flexible training combined with regional service provision.

The Diagnostics: Recovery and Renewal Report, of the Independent Review of Diagnostic Services for NHS England (R Richards, 2020) was developed for NHS England and the report provides a comprehensive overview of issues faced by diagnostics services.⁴ The report highlights several pressure areas, including the impact of the ongoing coronavirus pandemic. The report makes several recommendations regarding service provision and the workforce required, highlighting a need for the expansion and reform of diagnostic services over the next five years to facilitate recovery from the pandemic and to meet rising demand across multiple aspects of diagnostics. The report further recommends a major expansion in the imaging workforce including advanced practice for radiographers, who undertake reporting, growth of assistant practitioner roles to take on work currently undertaken by radiographers, as well as the development of support staff.

‘*Our programme for transforming and modernising planned care and reducing waiting lists (WG:2022)* outlines how Wales plans to address waiting lists for planned care which increased due to the pandemic.⁵ Within the plan, there is a specific focus on prioritising diagnostic services, with recognition that Wales does not currently meet demand for imaging services. The document details planned improvement to enable timelier access to diagnostic services, focussing on earlier diagnosis and treatment. For imaging, this places a focus on building capacity with new facilities, equipment, expanding the workforce and providing capacity in different ways, including the advent of diagnostic hubs within community settings.

³ [imaging-statement-of-intent.pdf \(gov.wales\)](#)

⁴ [DIAGNOSTICS: RECOVERY AND RENEWAL – Report of the Independent Review of Diagnostic Services for NHS England – October 2020](#)

⁵ [Our programme for transforming and modernising planned care in Wales and reducing the waiting lists \(gov.wales\)](#)

The Diagnostic Board has been established to oversee this work and there is an ongoing expectation that organisations' Integrated Medium Term Plans (IMTPs) will be used to identify and quantify the specific needs for diagnostics services.

A Healthier Wales – our plan for Health and Social Care (WG: October 2019) set a vision for NHS Wales new models of integrated health and social care founded upon good practice and sustainability, to deliver better health and wellbeing.⁶ The document sets out the vision for health and social care, including supporting people to stay well, providing more services outside of hospitals, closer to home, using the latest technology and medicines to help people get better, or to live the best life possible. It includes a strong focus on prevention and early intervention, and supporting individuals to manage their own health and well-being

Figure 3. A Healthier Wales: Our Workforce Strategy 7 Key Themes



“A Healthier Wales: Our Workforce Strategy for Health and Social Care” (HEIW:2020) sets out the vision for the Health and Care workforce by 2030.⁷ It is underpinned by seven key themes (**Figure 3**) which have been incorporated in the ‘Strategy for Developing the Radiology Workforce in Wales’.

1.2 Demand for Diagnostics - Radiology Services

Demand for diagnostic imaging has continued to increase over many years. This has been driven by:

- An ageing and growing population with increased long-term diseases
- increased surveillance requirements of long-term conditions
- Increased admissions of patients to hospitals
- Technological advances benefitting patients but also increasing the diversity and complexity of imaging procedures

As demand for diagnostic imaging increases there is an increased requirement for workforce to both perform image acquisition and to produce a diagnostic report (result). As modalities, complexity and technology expands, there is likely to be an impact on the numbers and types of roles required to provide high quality, safe, sustainable Radiology services.

⁶ [A healthier Wales: long term plan for health and social care | GOV.WALES](#)

⁷ [A healthier Wales \(nhs.wales\)](#)

1.2.1 Impact of COVID-19 Pandemic on Demand

The impact of Covid on diagnostic Radiology has been as follows:

- increased demand due to the Covid disease directly
- reduced capacity and throughput due to increased cleaning procedures as part of infection control
- a back log of patients waiting for imaging as their treatment has been delayed
- an initial reduction in number of imaging requests due to a reduction in referrals to NHS services generally e.g., as a result of reductions in outpatient activity (over 80% of outpatient attendances result in a radiology referral)

There is currently a large backlog of patients waiting for an outpatient attendance with a resultant risk of increased complexity of imaging and treatment as patients will be presenting at a later stage in their disease.

□

1.3 Equipment and Investment

In November 2021, the Health Minister announced a £51 million investment to replace ageing diagnostic equipment and enable upgrading of technology.⁸ This was in addition to the £63 million already invested since 2018 as part of the National Programme. This investment is enabling Organisations to replace ageing equipment with the latest technology, reducing down-time as a result of breakdowns and maintenance. The new scanners provide better imaging quality to enable faster and even more accurate diagnostics whilst speeding patient flow. As part of this investment package a number of Organisations in Wales have replaced CT and MRI equipment.

1.4 Digital Systems: Radiology Information System Programme (RISP)

The Radiology Information System Programme (RISP) will commission replacement PACs and RADIS across Wales with an integrated image storage and patient administration system. The current IT infrastructure across Wales can lead to workforce inefficiencies as data often has to be entered more than once and there is still a need for paper records in many instances.

The deployment of RISP, which is anticipated from late Spring 2024, will bring a number of benefits, and will enable more effective working practice for Radiology departments. From a workforce perspective, these will include:

- universal ease of access through non-geography related organisational login
- reduced manual interventions
- reduced reliance on paper-based systems,

This will improve workload, support more effective MDT meetings, and enable cross boundary working along with improvements to quality and efficiency of the service and better diagnosis.

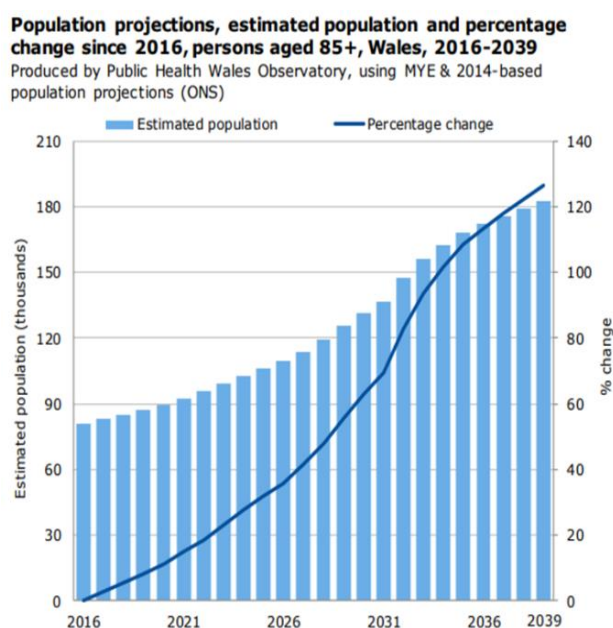
⁸ [More than £51m investment to replace ageing diagnostic equipment will ensure NHS Wales has facilities 'fit for the 21st century' | GOV.WALES](#)

The additional funding for new imaging equipment, alongside the rollout of RISP, could potentially enable supervision of remote sites via networked scanners, which in turn may enable changes to skill mix. It is now feasible to create a network of scanners (especially CT and MRI scanners) to a central control located remotely. The creation of networked scanners enables enhanced clinical support to be available to local sites, supporting less experienced staff and potentially improving patient flow and decision making, through a reduction in repeat appointments or examinations. The adoption of this working model is currently limited in Wales due to the requirement for scanners networked to be produced by the same manufacturer.

1.5 Population Trends

At the time of writing this report the findings of the Census 2021 had not been published and the following population projections were based on the projections as part of the 2011 Census. Wales has an aging population, and it is estimated that by 2038, 1:4 of the population will be aged over 65. The proportion of the population aged over 85 is also set to increase significantly (Office for National Statistics).⁹ An illustration of population projected growth can be seen at **Figure 4**

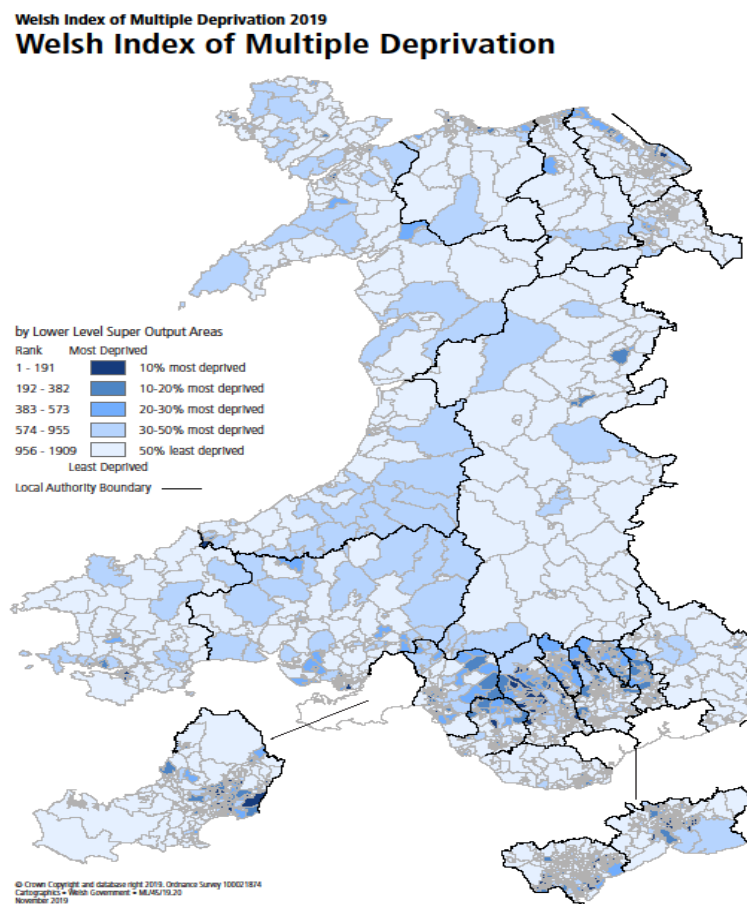
Figure 4. Wales Population Projections



People are living longer with multiple conditions/co-morbidities; the average life expectancy for males and females has consistently increased, however, recent estimates have seen it fall for the first time with a strong correlation between life expectancy and deprivation. Wales has multiple areas of severe deprivation which are identified in **Figure 5**.

⁹ [Population estimates for the UK, England and Wales, Scotland and Northern Ireland: mid-2020 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/population-estimates)

Figure 5. Welsh Index of Multiple Deprivation



As incidence of disease rises with both age and deprivation, demand for imaging will rise proportionately.

Chapter 2: What Did We Do?

2.1 Defining the Scope

The scope for phase 1 of 'Building the Imaging Workforce Model for Wales' was agreed as the imaging workforce employed by Radiology Services across Wales. This was in recognition of the fact that they are the largest provider of diagnostic imaging services.

Once a strategy for the development of a Radiology Services' workforce model is developed, the scope of work will be extended to staff groups within the broader imaging community. The engagement and planning methodology explained below will be refined and repeated to produce supplementary strategies for imaging workforce model development. This approach was endorsed by the National Imaging Programme Strategic Board in July 2021 (see **Figure 2**).

2.2 Engaging with Stakeholders

A structured engagement process with all key stakeholders was undertaken to identify the strategy for developing a Radiology workforce model for Wales.

In recognition of the different population health needs across Wales and the differing availability of skilled workforce, it was decided that the workforce model would need to be developed in collaboration, across Organisations, using a 'bottom-up' workforce planning approach.

Organisations were expected to develop their own workforce plans. The outputs from local planning would then help to inform, and in turn would be informed by, the collaborative work that was undertaken at a national level. This would ensure that any future model developed was flexible and could be tailored by individual Organisations to meet their individual workforce needs.

It was important that all Organisations were engaged with the process and used the same workforce planning methodology to produce their workforce plans. In order to achieve this, HEIW provided support and guidance to Radiology Service Managers on the application of the NHS Wales Workforce Planning Approach which is based on the Skills for Health Six Steps Framework®.¹⁰ This was in the form of virtual presentations and workshops.

An engagement 'workshop roadmap' was developed for Wales-wide engagement with stakeholders (**Appendix A**).

A series of 5 workshops were undertaken, some of which were extended into more than one part. The workshops were designed to:

- ensure key stakeholders were clear about what the group was aiming to achieve
- gather information
- explore barriers and opportunities to workforce transformation
- share examples of good practice – internal and external to NHS Wales

¹⁰ [Six Steps methodology to Integrated Workforce Planning - Skills for Health](#)

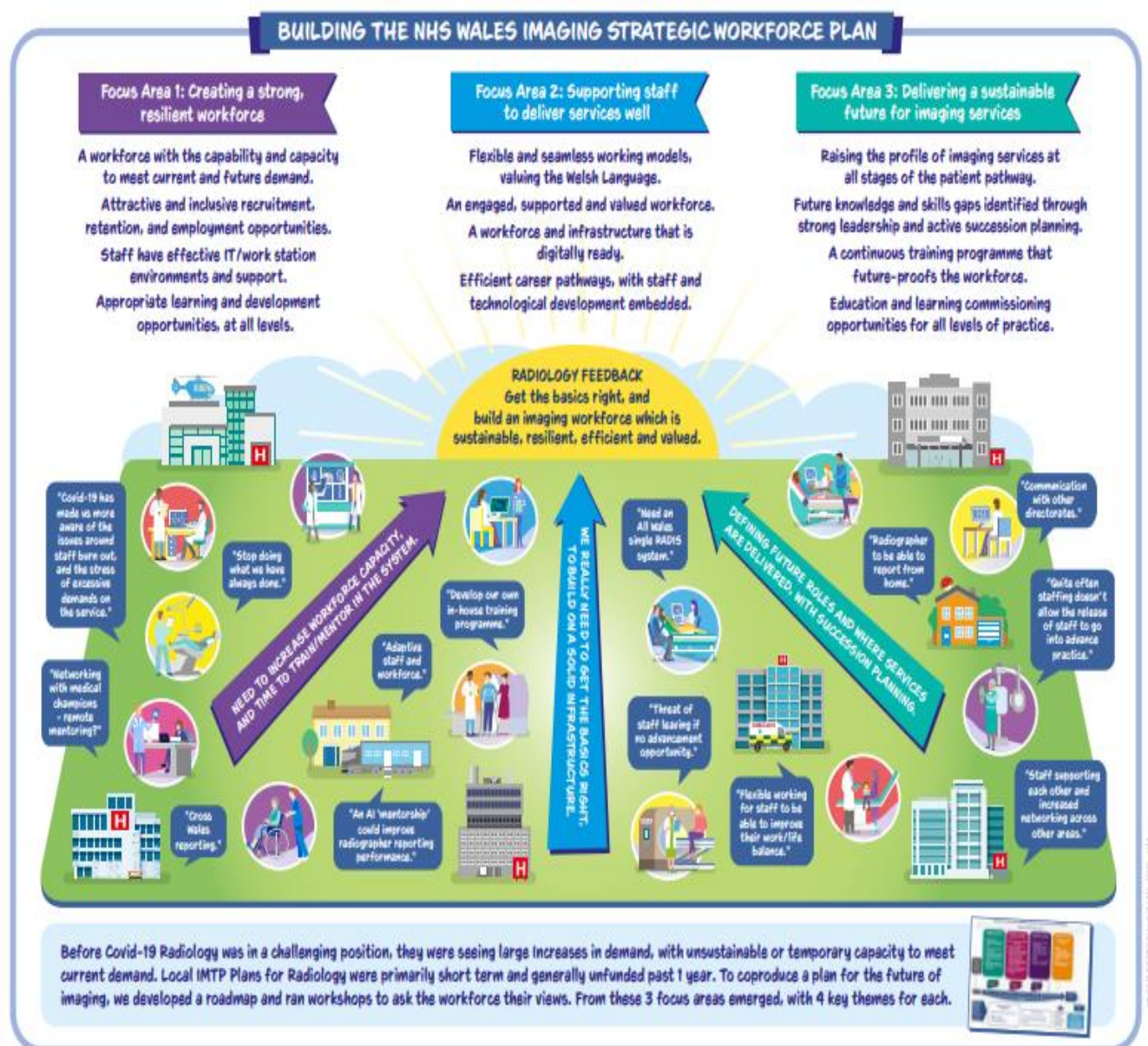
Despite the significant challenges that Covid-19 presented, and the associated service pressures; the engagement workshops were delivered to time, with good levels of attendance and engagement sustained throughout the process.

The first national SWOT analysis for Radiology was developed throughout the course of the workshops (**Appendix B**). After each workshop a summary document was produced and outcomes fed back to the service, IWEG and Imaging Essential Service Group (IESG) members (**Appendix C**). This ensured communication at each stage of the roadmap.

During the workshops examples of good practice were highlighted by attendees from within NHS Wales, as well as by guest speakers from Organisations across the UK where different workforce models and roles were being used. This demonstrated the significant levels of workforce development happening currently despite constraints and service pressures. To evidence this good practice, one example of a workforce development solution was captured from each NHS Organisations across Wales (**Appendix D**).

Over the course of the engagement process multiple key messages were captured, and 3 clear focus areas emerged with several associated underlying themes. A summary of these focus areas and themes is demonstrated in visual form in **Figure 6** below.

Figure 6. 'Listening to Radiology Voices' – A visual representation of what we heard during the engagement process



Strategy for Developing a Radiology Workforce Model for Wales

Focus Area 1: Creating a strong, resilient workforce

Focus Area 2: Supporting staff to deliver services well

Focus Area 3: Delivering a sustainable future for imaging services

Chapter 3: Current Workforce Shape and Supply

This section provides a brief overview of the current workforce working within Radiology services in Wales. This information was used to explore workforce shape and undertake gap analysis as part of the engagement workshops. The following provides a brief overview of the current workforce shape and supply.

3.1 Wales Radiology Workforce Profile

In January 2022, there were 2,116 (1,871wte) staff working within Radiology within Wales. This data was extracted from the ESR Data Warehouse and includes medical staff, Radiographers, and support staff. These figures are not the complete funded establishment, therefore, any workforce gap due to vacancies is not entirely known. Table below shows how the current staff in post are distributed across the staff groups working in the service.

Table 1. Radiology Workforce Profile Data Extracted from ESR Data Warehouse January 2022

Staff Group	Headcount	Contracted WTE	Participation Rate
Medical*	288	269.75	0.94
Allied Health Professionals (Radiographers)**	1438	1272.27	0.88
Additional Clinical Services (Health Care Support Workers)	390	328.98	0.84
Total	2116	1871.00	0.88

* The Medical group includes doctors in training and non training grade doctors (Speciality Registrar = 96 and Speciality Doctors = 9).

**Radiographers are included within Healthcare Science in NHS Wales; however ESR follows the England categorisation of including within Allied Health Professionals

The whole-time equivalent figure (wte) provides an indication as to how part time working influences staff availability in the context of headcount. The participation rate is an indication of the average amount of working hours per member of the workforce, and a representation of the actual worked hours in the system.

Analysis of the participation rate by role, age and gender of the workforce indicates that participation rates decline for both males and females as the workforce ages.

- For Radiographers, participation rates for females start to decrease at age 30+ as compared to 45+ for males.
- For Support Workers, participation rates for females decline at 25+ and increase between 45 and 54, at which point they decline again.
- For males, participation rates decline from 40+.

Figure 7 below shows the non-medical workforce shape for Radiology, by grade, as recorded within ESR in January 2022.

Figure 7. Participation rate analysis Radiographers

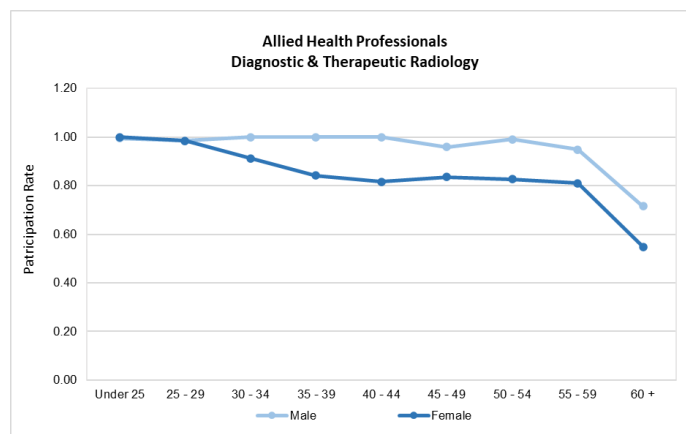


Figure 8. Participation rate analysis Clinical Support Workers

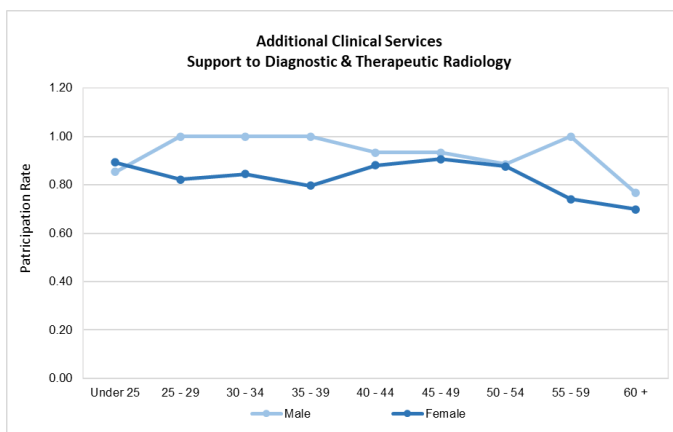
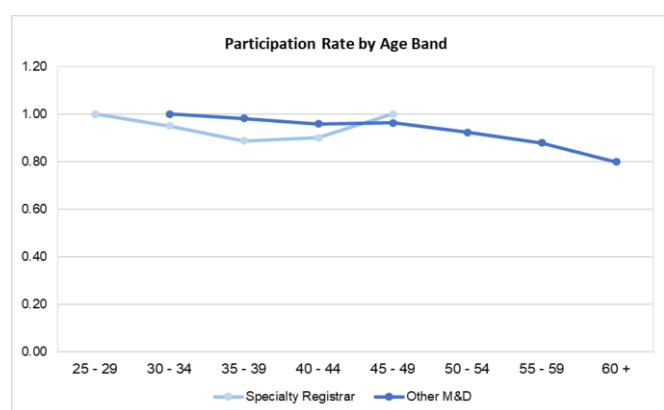


Figure 9. Participation rate analysis medical workforce



Specialty Registrars reduce their participation rates from 30+ possibly indicating increased less than full time (LTFT) training. This extends the length of time to train and decreases workforce capacity available when participating in service delivery during their training. For other medical staff participation rates start to decline from 35+.

The workforce profile shows that the majority of the Radiographer workforce is employed between Bands 5, 6 and 7. Most radiographers are employed at Band 6. There is a considerable proportion of the workforce employed at Band 7 which may indicate the development of extended skills and practice. There are small numbers of Band 4 Assistant Practitioners (58.21wte) compared to Band 3 Support Workers (190.38wte).

Figure 10. Radiology Workforce Headcount by Grade

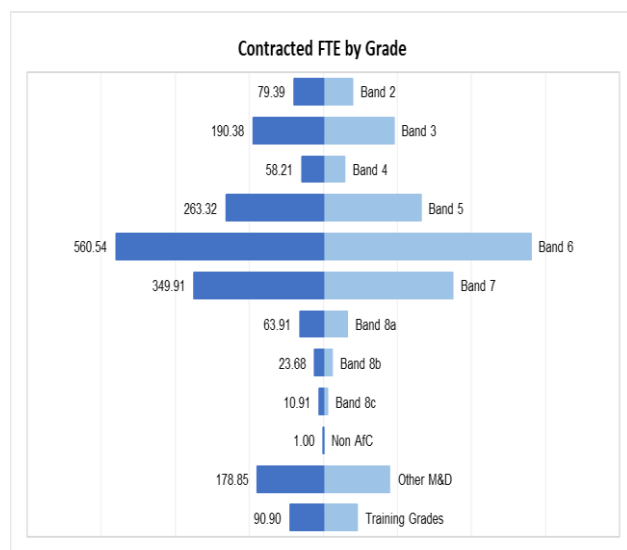
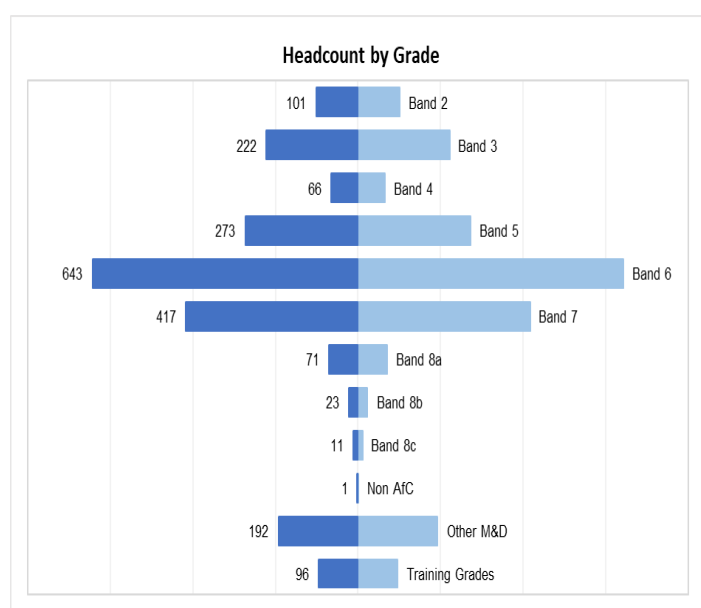


Figure 11. Radiology Workforce Contracted FTE by Grade



3.2 Age Profile

Figures 12, 13 and 14 below provide an overview of the age profile of the workforce. The age profiles have been split to show the differences in the Radiologist, Radiographer and Support Worker workforces within Radiology services. Trainee radiologists have been excluded from the medical workforce age profile.

Figure 12. Age Profile of Radiography Workforce

Figure 13. Age Profile of Support Workforce

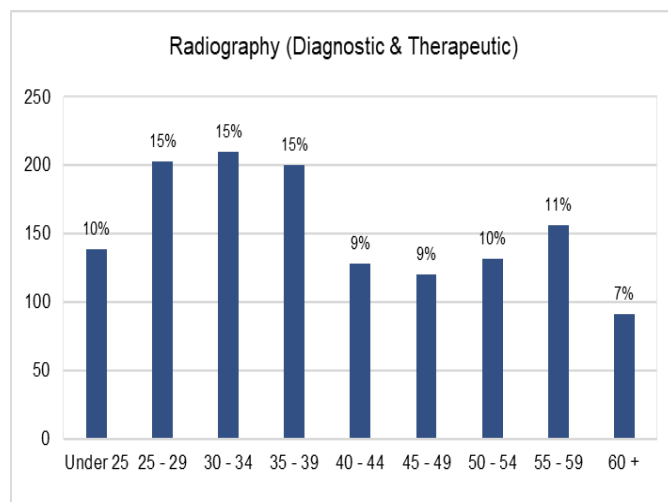
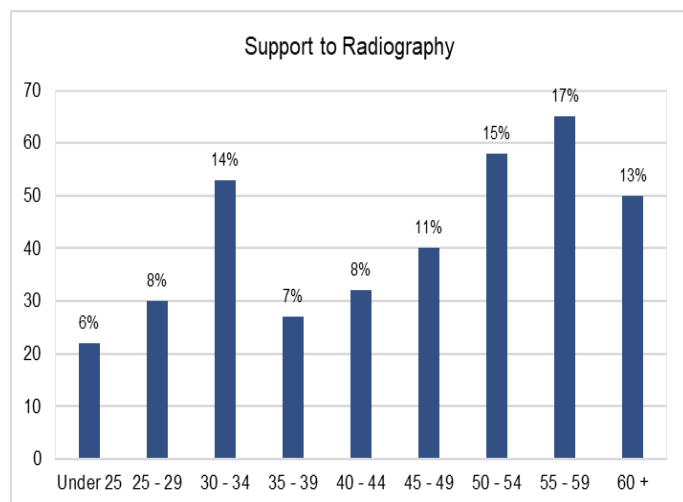
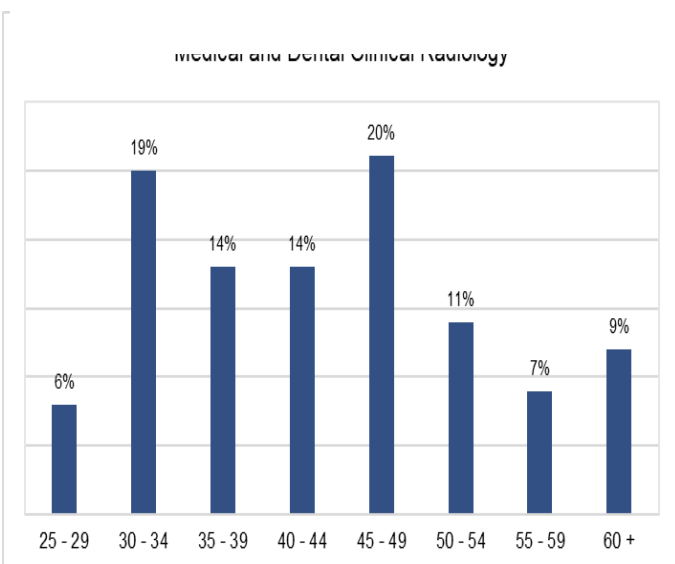


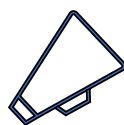
Figure 14. Age Profile of Radiology Workforce



Over a quarter of Radiologist and Radiographers are currently aged 50 or above.

7% of Radiographers and 9% of Radiologists are aged over 60 and therefore could retire imminently

43% of Support Workers are aged 50 or above and 13% are currently over 60, these could retire imminently.



There is a significant emerging retirement risk for Radiology services which could impact on timescales for the development and growth of the workforce.

The level of anticipated retirements in all staff groups in the next 10 years will be accompanied by a significant loss of knowledge, experience, and expertise. This could be felt most acutely for Support Workers where there is no direct training pathway and staff are recruited directly from within radiology departments.

3.3 Gender Profile

The gender profile for Radiology services shows that, in line with the NHS Wales workforce in general, the workforce is predominantly female. This is broken down by staff group as follows:

- 78% of Radiographers are female
- 86% of Support Workers are female
- 41% of medical staff are female.

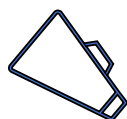
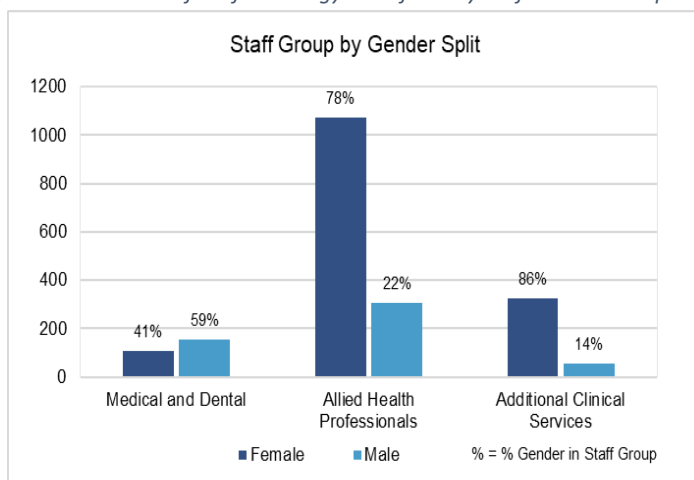


Figure 15. Gender Profile of Radiology Workforce by Professional Group



3.4 Vacancies

Data for vacancies is not routinely available to review as this is not recorded within ESR, therefore a snapshot was undertaken in March 2022 with Organisations to establish a vacancy profile nationally for Radiology services. Information gathered was variable and not provided by all Health Boards, but an approximation of the vacancy rate range across Organisations has been made below:

- Radiographer 0-18%
- Healthcare Support Worker 0-4%

An estimation for Radiologist vacancies can be taken from the RCR Clinical Radiology Census Report 2021¹¹:

- The Consultant Radiologist vacancy rate was 8% in 2021; slightly lower than the average 10% over the past five years.
- Radiology Clinical Directors in Wales reported 15 consultant-grade vacancies in October 2021, of which a third (33%, n=15) have remained vacant for a year or more, despite recruitment attempts.
- Following successful recruitment in 2021 (resulting in the Clinical Radiology (CR) consultant workforce increasing by 11), vacancies in 2021 have decreased from previous years.

Vacancy data provides limited insight into the extent of workforce shortfalls. Vacancies do not reflect the entire shortfall as vacancies are constrained by several factors, including budgets and/or a lack of suitable candidates.

3.5 Contingent Workforce

The contingent workforce is made up of non-permanent workers such as agency and locums. There was no data available to provide a profile of usage in Radiography services as the national data is aggregated and recorded for the “Allied Health Profession” data group in total.

During the engagement workshops, Radiology Managers reported increasing difficulties in sourcing locum or agency staff, both medical and Radiographers. Locum Sonographers were reported as a particular problem in terms of availability. These difficulties increased for Organisations located in the West and those covering rural areas of Wales. Where locum or agency staff were able to be booked, managers reported instances of staff cancelling before coming into post or contract to take up alternative posts in NHS England.

Agency and Locum staff make up some, but not all, of the additional workforce capacity within Radiology. Additional capacity will also take the form of any additional hours worked by existing staff and outsourced reporting capacity.

¹¹ [clinical_radiology_census_report_2021.pdf \(rcr.ac.uk\)](https://www.rcr.ac.uk/clinical-radiology-census-report-2021.pdf)

3.6 Workforce Supply

The Home Office has included a wide range of healthcare professionals in the shortage occupations list; Radiologists and Radiographers have featured on this list for many years.¹²

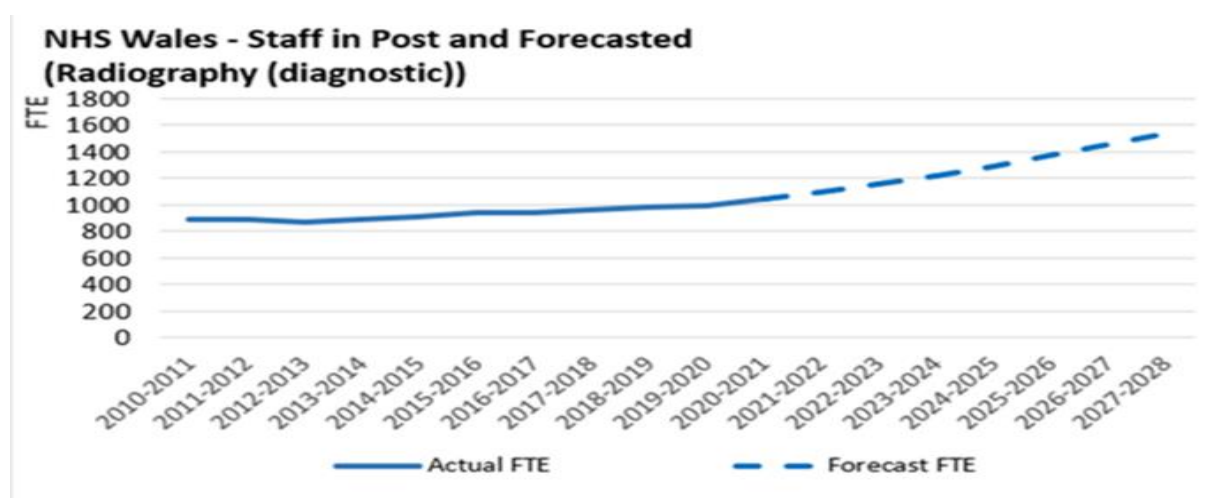
In Wales, HEIW supports the education and training of a wide range of health workers via post-graduate medical education training programmes, education commissioning, and by means of the bursary system. The following provides an overview of the supply of the Radiology workforce, including the training routes.

3.6.1 Radiographer

Diagnostic Radiography training is provided by two universities in south and north Wales. These are 3-year, full time, degree courses. There is currently no part time training route for Diagnostic Radiography.

Education commissioning trends have seen an increase in Radiographer undergraduate places over recent years and Wales continues to commission increased training places. In order to facilitate the increase in students within Health Boards HEIW is supporting training placements through the funding of Practice Education Facilitators. These roles support students in practice, providing pastoral care, undertaking clinical skills assessments and simulation training opportunities. Modelling of this workforce supply indicates that, taking estimated retirements into account, there will nevertheless be an overall increase in workforce availability.

Figure 16. Workforce Trends Tool



Streamlining recruitment was introduced in 2020, matching employment opportunities to the bursary funded Radiographer graduates who are subject to a two-year bursary tie-in of employment in Wales. Streamlining in Radiology provided opportunities for Organisations to secure employment of increasing numbers of graduate band 5 Radiographers. Due to vacancy levels and increased demand for Radiographers, additional recruitment is still required throughout the year and as such

¹² [Skilled Worker visa: shortage occupations - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/skilled-worker-visa-shortage-occupations)

streamlining cannot be considered as the only option for increasing radiographer numbers. It remains challenging to attract sufficient graduate applications to Wales more rural areas.

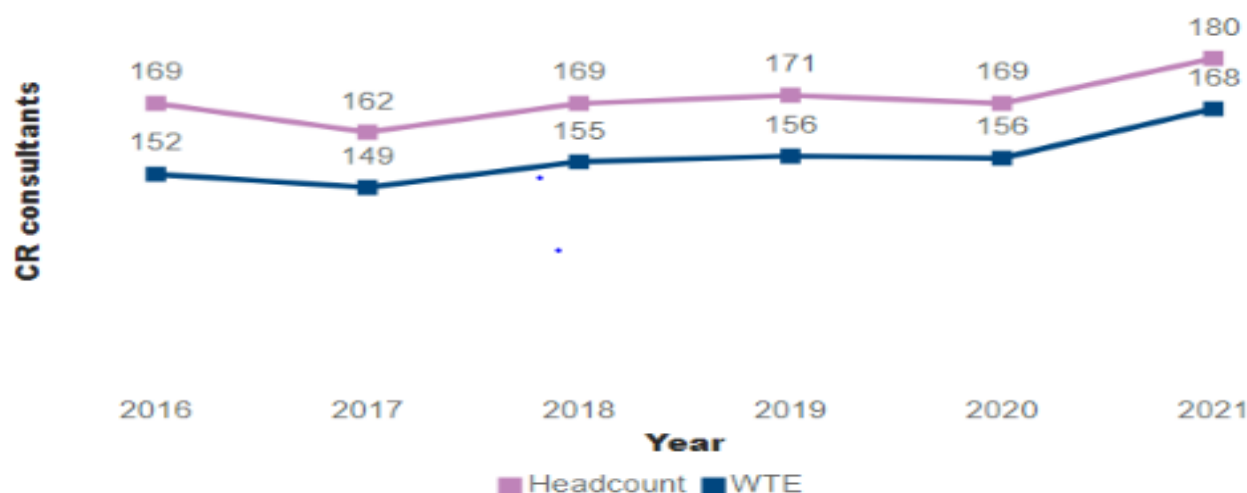
Education contracts commencing in 2022 require Higher Education Institutes (HEI) to work more closely with their aligned Health Board/NHS organisations. HEIW is facilitating education meetings between the HEI and NHS organisations to discuss student placement distribution and preparation of students to work in all settings across NHS Wales. Additionally, HEIs have responsibility to ensure that they are recruiting students who will go on to support the workforce in Wales, and to support students who live remotely from any HEI in accessing education.

3.6.2 Medical

The Royal College of Radiologists workforce census (2021) shows a steady growth in the UK Radiologist workforce over the last 5 years.¹³ Although the census indicates that growth for all devolved nations has increased, the report highlights that over the past five years Wales has had some of the slowest growth in the UK in terms of Consultant Radiologist workforce numbers at only 2% per annum.

However, over 2020-21, growth accelerated to 8% with an increase of 12 CR consultants (WTE).

Figure 17. Clinical Radiology Consultant workforce – Wales, five-year trend (2016–2021) (RCR: 2020)¹⁴



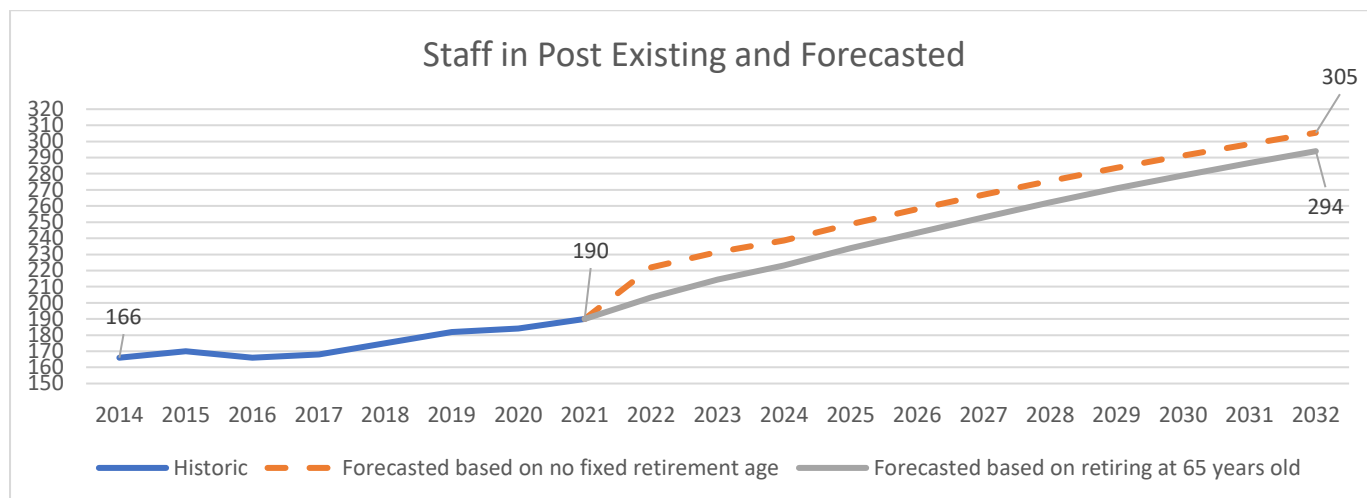
Clinical Radiology training places in Wales have increased substantially, enabled by the establishment of the National Imaging Academy Wales (NIAW) in 2018. Initial modelling of trainees indicates that this will lead to an increase in the consultant workforce from 2020 onwards. This modelling assumes a level of attrition from training, leavers (including retirement) and retention of trainees into consultant posts. It also accounts for less than full time training and participation rates of the trainees.

¹³ [clinical radiology census report 2021.pdf \(rcr.ac.uk\)](https://www.rcr.ac.uk/clinical-radiology-census-report-2021)

¹⁴ [Clinical radiology UK workforce census 2020 report \(rcr.ac.uk\)](https://www.rcr.ac.uk/clinical-radiology-uk-workforce-census-2020-report)

Modelling also indicates that there is potential for the workforce to increase above the levels required for replacement attributed to those leaving. It is not currently possible for the model to consider increases associated with in future demand.

Figure 18. Clinical Radiology Staff in Post Existing and Forecasted



Trainee numbers have increased since the launch of NIAW, and flexible working/training opportunities have become more prevalent. In recent years, a larger proportion of Radiology trainees have chosen to work/train on a less than full time (LTFT) basis, to undertake out of scheme training opportunities or Fellowships, and to undertake extended specialist training for Interventional Radiology, all of which extend the overall time taken to achieve their Certificate of Completion of Training.

3.6.3 Healthcare Support Worker (HCSW)

There is no commissioned training pathway for HCSW's in Wales; supply of this workforce is subject to competitive recruitment from the local population is via the Career Frameworks for Healthcare Support Workers (HEIW:2015). New clinical HCSW's are required to attend the All Wales NHS accredited clinical induction programme which constitutes the first step of the Framework.

HCSW's in Radiology services then undertake work-based learning at Level 2 to 4. HEIW currently commissions the Radiology Assistant Practitioner (AP) Higher Certificate, which does provide a route into the full-time graduate training programme. Discussion is commencing with Radiology services to scope the need to develop Level 4 work-based learning, to support the development of AP's across a wider range of modalities and to assess the need for the development of part time routes to registration.

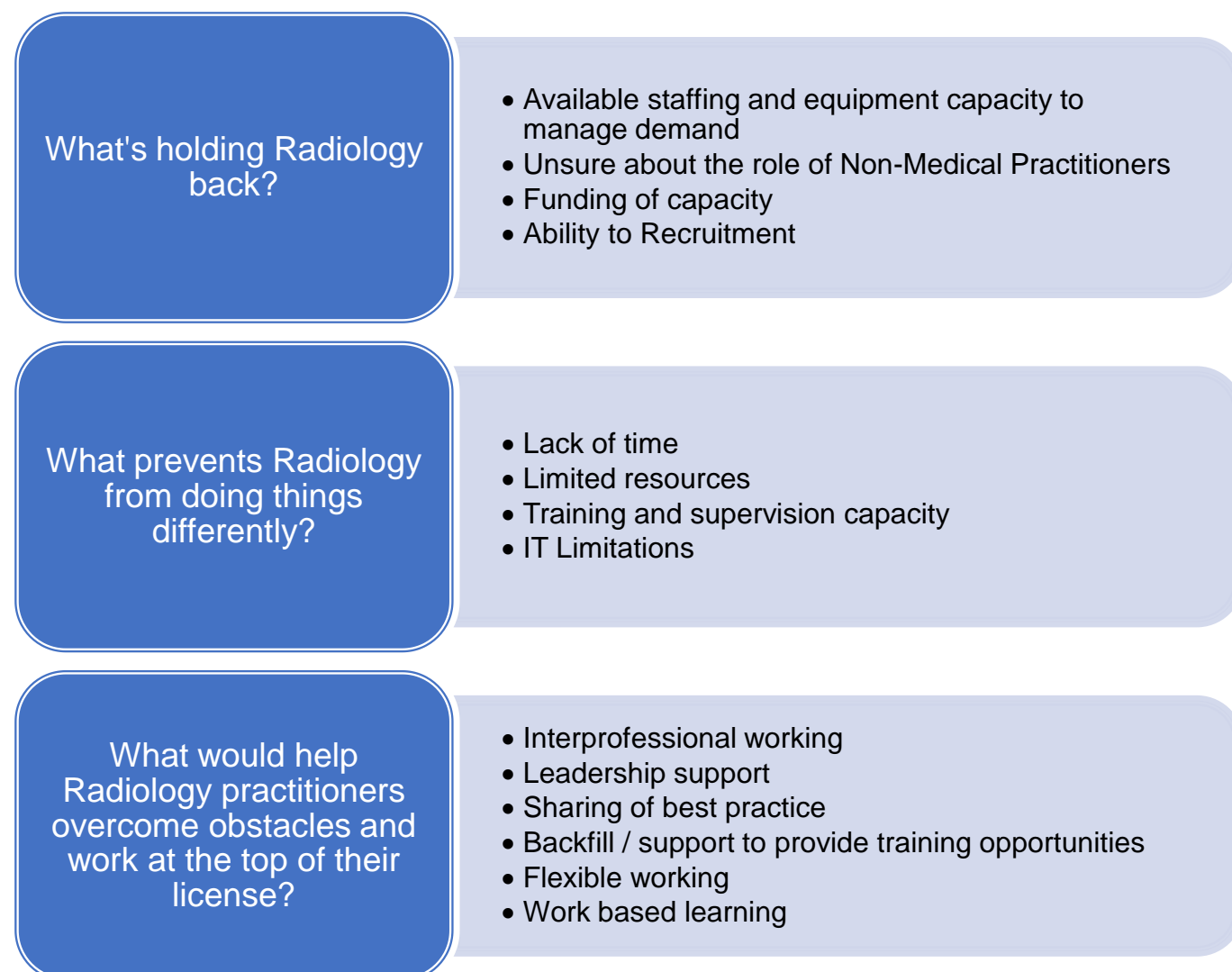
3.6.4 Postgraduate education

HEIW and NHS Organisations fund and support a range of postgraduate education and learning for the Radiology workforce. Postgraduate education supports the workforce to develop a new skill or extend skills and knowledge. This includes training to develop reporting radiographers, medical ultra sonographers, and postgraduate education to support staff to work across a wider range of imaging modalities.

Chapter 4: What We Heard

In the first engagement workshop participants were asked questions designed to help identify barriers to workforce transformation, and the opportunities to change, enhance and develop the necessary workforce. The most commonly cited answers are listed in the table below.

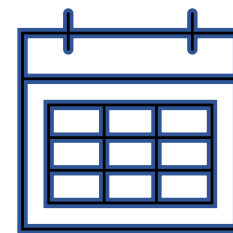
Figure 19. Listening to Radiology Voices. Feedback from Workshop 1 - Barriers and Opportunities for Radiology Workforce Transformation



These three questions, and the feedback provided by participants, were explored in greater detail within each of the 5 workshops that followed. This chapter presents in detail the key themes that arose within this engagement phase and also those that emerged from analysis of the outputs of each Organisation's workforce planning.

4.1 24 Hour/ 7 Day Model

Although Radiology is a 24 hour/7-day service, there was general consensus that services may not be using their resources to their full potential, e.g. not all staff groups work what is traditionally called “out of hours” or weekends. There is opportunity to redefine the core hours of Radiology services, applying the flexibilities within terms and conditions of employment to create flexibility for staff to work across a broader range of working hours.



Having sufficient workforce capacity in the system is crucial to being able to run services as a 24 hour/ 7-day model. This could be achieved by allowing staff to work across Organisations or enabling staff to undertake sessions remotely across NHS Wales.

4.2 Role of Point of Care Testing (POCT) and Diagnostic Hubs

The use of Point of Care Testing (POCT) is currently restricted in imaging due to shortages of skilled staff and limited availability of imaging equipment. Consideration needs to be given to the role POCT could play in the future delivery of imaging. Including that which is performed by non-Radiology staff, for example Physiotherapists or Midwives who may perform ultrasound examinations.

The proposed introduction of Diagnostic Hubs could provide opportunities to introduce rotation of staff between the acute setting within organisations and community facilities. This would enable the development of skills and competency around elective and emergency environments, whilst also supporting staff to maintain their skills.

Recommendation 1: *An All Wales Standardised Practice for Radiographers should be in place to enable consistency across Wales for working across the different modalities and specialties that will enable more flexible deployment and development of the workforce and support succession planning*

4.3 Education, Training and Development

Capacity to train was widely cited as a workforce challenge across Organisations. This related to both staff time to train students and trainees, and capacity to train on equipment. Whilst the service acknowledges the need for continued growth of student Radiographers and medical Registrars, sufficient placement and supervision capacity remains problematic. There is a need to increase capacity within the system to maintain a managed growth in students and trainees and the opportunities to provide sustainability.

Recommendation 2: *Organisational level plans to be developed to support the training and recruitment of trainee Radiographers. This will enable Organisations to accommodate the increased numbers of trainees and ensure that graduates are recruited into roles within NHS Wales*

The need to ensure personal development was highlighted with Personal Development Reviews (PADR) and active Job Planning being key. Sessional job planning for non-medical staff was viewed positively, especially for extended and advanced practice roles. This could reduce the current challenge of non-medical reporting Radiographers being pulled back into acquisition roles during times of pressure, resulting in a loss of reporting capacity to the service.

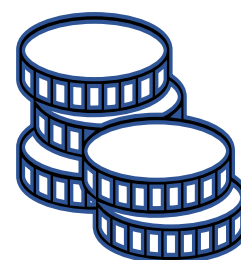
Recommendation 3: *Sessional job planning for non-medical staff should be explored to ensure that the extended and additional skills of the current and future workforce are more effectively utilised. This would improve patient flow and release medical capacity.*

Recommendation 4: *Appropriate time is needed for CPD and staff development in Radiology. An All-Wales Career Pathway from Health-Care Support Worker to Non-Medical Consultant Practice should be developed with a supporting strategy for CPD that clearly identifies all development and progression routes available.*

4.4 Funding

Finance was reported as a significant barrier to the development in Radiology services. Funding issues cited included:

- New or additional services being started with no resource considerations for Radiology e.g. additional Surgical or Orthopaedic Consultants appointed with no increase in Radiology resources to support additional referrals.
- IMTP Financial priorities not always aligning with national Radiology priorities
- Lack of understanding of the need for initial (funded) increase in workforce capacity to release time to develop staff to undertake new roles – The absence of backfill funding.



Adoption of the bottom-up workforce planning approach has supported Radiology Service Managers to develop organisational stakeholder maps for the development of their workforce plan; a key stakeholder being finance. Having established relationships with finance departments should improve understanding and planning at Health Board level.

4.5 Attraction and Recruitment

All areas of the UK intend to grow their diagnostic workforce over the coming years increasing employment opportunities for graduates and Consultant Radiologists. This will increase competition for both experienced and graduate staff, therefore, retaining students, trainees and existing staff in Wales should be a priority.

There is a need to ensure that working in Radiology services in Wales is an attractive option. NHS England is exploring link grade posts to reduce un-necessary internal movement for staff to gain promotion to their next band/level. Within Wales other specialities are also exploring this option.

During engagement we heard that there is an increasing trend of graduate Radiologists choosing to work as a locum or via an agency contract to enable them to obtain an optimum work life balance, this is evidenced via exit interviews. Private practice was discussed as an employment area which may be seen as increasingly more attractive. It was also suggested that staff may choose to work part time NHS, part time private sector.

“Threat of staff leaving if no opportunities.”

There was seen to be a need to make Radiology an attractive career choice. Whilst there has been a Train Work Live recruitment campaign, there has not been anything in specific in terms of Radiology, although Radiographers did feature in the recent Allied Health Professions (AHP) campaigns in England and Healthcare Scientist promotion in Wales.

4.6 Wellbeing of Workforce

The wellbeing of the workforce is key to attracting and retaining Radiology service workforce.

“Covid 19 has made us more aware of issues around staff burn out and the stress of excessive demands on the service”

The impact on workloads of the pandemic was noted and the issue of staff burnout was highlighted as a concern during the engagement workshops. There is a need to ensure that the right support is available for staff to allow them to perform highly. Radiology Service Managers reported a perceived reduction in the goodwill of staff across Radiology services post-pandemic.

“Staff need to feel valued; this includes the direct environmental support in their workplace. Progress towards a more manageable workload for all staff was seen as essential”.¹⁵ (CIPD, 2020)

There are well established effective support mechanisms in place within Health Boards which staff can access for support with both physical and mental wellbeing. This strategy does not intend to duplicate these efforts but rather focus on improving wellbeing by ensuring staff feel supported in their everyday working environment to deliver services to a high quality.

4.7 Digital Ready Workforce

IT issues, facilities and support were cited as being a substantial barrier to a sustainable service, and also a workforce constraint.

¹⁵ [Impact of COVID-19 on working lives | Survey reports | CIPD](#)

4.7.1 IT System Integration

There is a lack of IT system integration, for example, Radiology referrals still being based on a paper system, when similar services in other areas of clinical care had progressed to electronic referral many years ago. (It is however acknowledged that the RISP Programme is underway and looking to address these issues).

"Need an All Wales single 'RADIS' system."

4.7.2 Remote Supervision

The importance of remote supervision was heard many times throughout the engagement sessions. Benefits cited include:

- The ability to 'tap into' the experience of a particular speciality
- A network to call on for advice and support
- The potential for different skill mix within teams
- The potential for cross Wales reporting



One current barrier to the adoption of remote supervision is that it is often dependent on more modern equipment (from the same providers) to enable networked scanners with cameras and workstations. There are however examples of remote supervision being successfully implemented and supporting changed skill mix, for example in Breast Screening.

Recommendation 5: *Workforce transformation opportunities should be identified and maximised as a result of additional funding for the replacement and introduction of new scanners e.g. introducing new working models and skill mix, enabled by remote supervision*

4.7.3 Artificial Intelligence

Artificial Intelligence (AI) represents the capacity of machines to mimic the cognitive functions of humans (both learning and problem solving). The development of artificial intelligence and associated machine learning will offer multiple workforce capacity possibilities in Radiology. The areas of development and service support will range from:



- Radiology reporting of examinations / images - reporting support (possible second opinion) and eventually primary reporting of images
- Streaming of priority for reporting - urgency / prioritisation and flagging of urgent examinations for first reporting.
- Support for clinical decision making.
- Radiation dose optimisation.
- Support for workflow of patient services in Radiology such as appointment booking, clerical support, and virtual assistants (chatbots) in functions such as booking appointments and answering queries from patients and the public.

The contribution and workforce changes that the roll out of AI will enable was noted, especially amongst medical staff who saw the potential for different ways of working that the introduction of this technology would enable.

Recommendation 6: *Implement a national approach to horizon scanning for innovations and improvements in technology and diagnostic equipment that would provide opportunities for workforce transformation. Clearly define the training needs and associated timelines to achieve technological and digital transformation i.e. the introduction of the new Radiology Information System or the installation of new scanning equipment*

Chapter 5: Recommended Future Workforce Model

There is potential to reshape the workforce within Radiology services by changing the models for delivery. This could be achieved by:

- Developing extended skills across the Radiology workforce
- Extending the skills of Radiographers so that they can work across more specialities/ modalities
- Freeing up medical capacity to enable this part of the workforce to undertake more patient facing complex work, and to lessen the reporting workload for 'basic' investigations
- Further developing the role of the APs/ HCSW



"Stop doing what we have always done."

This chapter will put forward a number of recommendations as to how each staff group within radiology services could be developed to support new ways of working.

5.1 Non-Medical Consultants

There are currently no Non-Medical Consultants recorded on ESR within the Radiology Service. It is known through our engagement we have non-medical workforce individuals who are working at Consultant level practice (Appendix D); however, it is not possible to quantify the numbers via existing ESR systems.

Other professions have well recognized frameworks for developing this role and the Society of Radiographers has produced guidance for the development of Consultant and Advance Practice.¹⁶ It remains important for future sustainability, to identify where non-medical Consultant level practice could be introduced within Radiology services, to enable growth of these roles with scopes of practice to be identified. Work should be undertaken to define the scope of practice for these roles and ensure that they are embedded within MDTs.

A framework for non-medical Consultant practice is being developed by HEIW. Organisations should identify where these roles form part of the staff complement within workforce plans to ensure there is succession planning underpinned by the required programme of training. Non-medical Consultant roles must be recorded within ESR. We need to understand the contribution of these roles and be clear as to how they will be implemented and authorized / accredited across Wales for the Radiology workforce.

Recommendation 7: *Electronic staff management systems (currently ESR) should have the ability to accurately record the workforce skills profile (i.e. non-medical consultants, advanced and*

¹⁶ [consultant radiographer - guidance for the support of new and established roles.pdf 2 \(sor.org\)](#)

extended practice) and should facilitate the collection and monitoring of data on a local and national level.

Recommendation 8: *Identify where non-medical consultant radiographer roles could be introduced across all Organisations (e.g., which modalities). This work should build upon examples of good practice where consultant radiographer roles have already been successfully introduced.*


Recommendation 9: *An All-Wales Standardisation of Practice for Consultant Radiographers should be developed with associated education and training requirements identified.*

5.2 Reporting Radiographers

Reporting Radiographers are extended clinical practice roles who, once trained, can increase reporting capacity. HEIW has commissioned funded educational places to support organisations to develop these roles and expand their use. Radiology services are accessing this funding stream and knowledge of the places available is good. At present information is not recorded in ESR to provide us with the numbers of existing workforce participants in this role, or those trained in reporting radiography (see **Recommendation 7**).

Reporting Radiographers are often only trained in one speciality or modality with a limited scope of practice. There was a need to further develop these roles to enable medical staff to delegate the reporting of less complex / routine imaging to release their time for reporting on complex imaging and diagnosis. There has been ongoing development of Reporting Radiographers in Wales, however this development is not standardised across specialties or modalities. Within organisational workforce planning work should be undertaken to identify the need for these roles, including the specialties and modalities that would benefit. Plans should also be developed to support succession planning into these roles by ensuring that staff are able to be released from their existing roles to train.

Radiographer reporting is a service which can be adapted to be performed from home-based workstations. This could also help these roles to have dedicated and uninterrupted time to report and could potentially reduce Wales's increasing reliance on reporting outsourcing.



"Radiographers to be able to report from home."

Recommendation 10: *Organisation level plans to be developed to identify the specialties and modalities that would benefit from Reporting Radiographers.*

Recommendation 11: *The development and implementation of the new Radiology Information System should maximise opportunities for workforce transformation which could include home working flexibility for reporting*

5.3 Advanced/Extended Practice

There is a need to develop extended and/or advanced practice (including Reporting Radiographers) within Radiology services.

Extended practice can be gained through a range of education as a full qualification or modular approach. Organisations are able to identify this need through their education commissioning requests or local education and training departments.

“Quite often staffing doesn’t allow the release of staff to go into advance practice.”

The SOR definition for Advance Practice is: ‘Advanced clinical practice is delivered by experienced, registered health and care practitioners. It is a level of practice characterised by a high degree of autonomy and complex decision making. This is underpinned by a master’s level award or equivalent that encompasses the four pillars of clinical practice, leadership and management, education, and research, with demonstration of core capabilities and area specific clinical competence’. (SoR, 2017)

There is already an Advance Practice Framework in place in Wales.¹⁷ In Radiology, existing practice may not meet all the 4 pillars of evidence required to attain advanced practice status. The Society of Radiographers has therefore produced guidance for the development of Consultant and Advance Practice.¹⁸

There are examples of where extended roles were being implemented across Wales and a selection of these can be found in Appendix D. Despite the development of a range of extended practice roles, Radiology services do not seem to be accessing all national funding streams for education and development currently available. HEIW is currently undertaking a review of commissioned post registration education which may mean that there is also the opportunity to develop work-based learning at Level 6 & 7 for the registered workforce to support extending clinical practice.

Work should be undertaken as part of organisation workforce planning processes to identify the need for these roles, including the specialties and modalities, and to identify the education requirements for developing these skills within the imaging workforce.

Recommendation 12: *Work should be undertaken as part of organisation workforce planning processes to identify the need for extended and advanced practice roles, including the specialties and modalities, and to identify the education required including timescales to phase in any role required.*

Recommendation 13: *An All-Wales Standardisation of Practice for Advance and Extended Practice should be developed, and associated education and training requirements identified, including timescales to phase in any role required.*

Recommendation 14: *All national funding streams for education and development should be widely publicised and utilised to their full potential by organisations across Wales*

¹⁷ [Introducing advanced practice - HEIW \(nhs.wales\)](#)

¹⁸ [consultant radiographer - guidance for the support of new and established roles.pdf 2 \(sor.org\)](#)

5.4 Healthcare Support Workforce

There is a need to increase and develop the Healthcare Support workforce in Radiology. HCSW's currently constitute a small proportion of the overall workforce in Radiology and are predominantly older, with a large proportion approaching retirement.

"Develop our own in-house training programme."

The Current HCSW qualifications available to Radiology support workers are:

- Level 3 Diploma in Clinical Imaging which can be delivered locally by each Health Board
- Level 4 Assistant Practitioner Programme (RAP) commissioned by HEIW

Training places for the level 4 qualification are currently not being requested from all Organisations in Wales. This qualification should therefore be reviewed to ensure that it is still fit for purpose as all training and education should be available to access in all parts of Wales.



During the engagement process several Organisations advocated the need for part time courses and routes for HCSW to develop into professional / registered roles, as some staff cannot leave paid employment for education. There are a number of successful examples of "grow your own" approaches to qualification in other staff groups across Wales and Radiology should consider if there is a need to introduce something similar.

In addition to supporting HCSWs to progress to registration, there is also a need to develop their knowledge and skills to support current and future service delivery. By recognising the contribution HCSW can make to the workforce capacity in the system, it is possible extend their current practice to take on tasks that were traditionally done by others. In order to achieve, Radiology Services would need to define the scope of practice for Band 3 and Band 4 support workers.

Recommendation 15: *All Wales Standardisation of Practice documents for Bands 2, 3 and 4 should be developed to provide a common understanding of where support workers can support Radiology Services in Wales. The existing level 3 qualification should be reviewed to ensure that it is fit for purpose.*

Recommendation 16: *Building on current national work, an All-Wales Standardisation of Practice document should be developed for Band 4 Assistant Practitioners that provides a common understanding of where Band 4 Assistant Practitioner role could add value across modalities and specialties within Radiology Services in Wales. The existing Level 4 Advanced Practitioner Qualification should be reviewed to ensure that it is fit for purpose and has equitable access for all Health Board's in Wales.*

Recommendation 17: *Explore the need to develop a part time route to registration for the Assistant Practitioner role and alignment of the Level 4 work-based learning to achieve this*

5.5 Medical Capacity

The development of extended skills as part of the wider team within Radiology services will enable medical staff to release work which can be undertaken by non-medical staff. Development of extended practice Radiographers and specifically Reporting Radiographers will release capacity for medical staff to undertake more complex work including interventional work.

There are also opportunities for medical staff to work more flexibly, including home reporting and working across organisations and geographical areas. The implementation of new technologies, AI and IT systems will act as an enabler.

There is a need to continue to model the workforce and track the conversion of medical trainees into consultant posts to ensure there is sufficient supply and output from our medical training programme to replace those retiring and to meet demand.

Recommendation 18: *Work to identify where there are opportunities to release medical capacity through the development of other members of the imaging multi-disciplinary team, including where other professionals could be trained to undertake specified imaging activity*

Recommendation 19: *Workforce plan to ensure that the increased number of trainees are recruited into Consultant posts in Wales and monitor whether the additional trainees completing training are addressing the anticipated retirements*

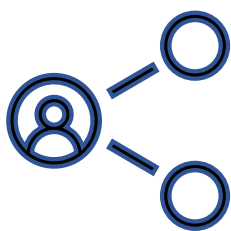
5.6 Imaging Skills for Wider Workforce

There are opportunities for certain imaging diagnostic tests to be undertaken by other staff groups (with additional training) and as technologies develop over the forthcoming years (including roll out of POCT) these opportunities may increase. Medical ultrasound is already undertaken by non-Radiology services staff and, in collaboration with other services, Radiology should explore opportunities to support other staff to undertake appropriate imaging.

Recommendation 20: *Refine and repeat workforce planning approach used in the production of the Radiology Workforce Model for Wales to produce supplementary Workforce Models that will contribute to the overall Imaging Workforce Model for Wales*

5.7 A Collaborative Approach to Workforce Planning

There are examples of these models being successfully implemented across Wales and the UK, however there is currently no established infrastructure in Wales to support the sharing of good practice with regards to workforce planning. Sharing is currently by means of ad hoc arrangements between committed individuals through existing networks.



Recommendation 21: A collaborative approach is needed to review intelligence from organisation workforce plans to identify key areas where specific workforce options and solutions can be identified. The establishment of a workforce planning community of practice in Radiology Services could support a more collaborative approach to the development of workforce solutions and the sharing of good practice for example to address recruitment and retention for more specialist and difficult to recruit to posts.

Recommendation 22: A central document repository for NHS Wales to enhance collaborative working and maximise opportunities to share good practice, clinical excellence, policies and procedures and accreditation activity. In addition, this system could be used to store resources to support workforce planning and facilitate the creation of a workforce planning community

Chapter 6: Summary of Recommendations and Next Steps

6.1 Summary of Recommendations

The 'Strategy for Developing a Radiology Workforce Model for NHS Wales' has put forward 22 recommendations to support and facilitate the development of a strong, resilient, and sustainable Radiology workforce.

These recommendations are a combination of those that can be immediately taken forward by individual Organisations (identified as 'local'), and those that will require a national collaborative approach to progress.

A full summary of these recommendations can be found in **Table 2** below.

Table 2- Summary of Recommendations

Rec. No.	Recommendation	Local	National
1	An All-Wales Standardisation of Practice for Radiographers should be in place to enable consistency across Wales for working across the different modalities and specialties that will enable more flexible deployment and development of the workforce and support succession planning		x
2	Organisation level plans developed to support the training and recruitment of trainee Radiographers. This will enable Organisations to accommodate the increased numbers of trainees and ensure that the graduates are recruited to roles within NHS Wales	x	x
3	Sessional job planning for non-medical staff should be explored to ensure that the extended and additional skills of the current and future workforce are more effectively utilised. This would improve patient flow and release medical capacity.	x	x
4	Appropriate time is needed for CPD and staff development in Radiology. An All-Wales Career Pathway from Health-Care Support Worker to Non-Medical Consultant Practice should be developed with a supporting strategy for CPD that clearly identifies all development and progression routes available.	x	x
5	Workforce transformation opportunities should be identified and maximised as a result of additional funding for the replacement and introduction of new scanners e.g., introducing new working models and skill mix, enabled by remote supervision	x	
6	Implement a national approach to horizon scanning for innovations and improvements in technology and diagnostic equipment that would provide opportunities for workforce transformation. Clearly define the training needs and associated timelines to achieve technological and digital transformation i.e. the introduction of the new Radiology Information System or the installation of new scanning equipment	x	x

Rec. No.	Recommendation	Local	National
7	Electronic staff management systems (currently ESR) should have the ability to accurately record the workforce skills profile (i.e. non-medical consultants, advanced and extended practice) and should facilitate the collection and monitoring of data on a local and national level.	x	x
8	Identify where non-medical consultant radiographer roles could be introduced across all organisations (e.g., which modalities). This work should build upon examples of good practice where consultant radiographer roles have already been successfully introduced.	x	x
9	An All-Wales Standardisation of Practice for Consultant Radiographers should be developed with associated education and training requirements identified.		x
10	Organisation level plans to be developed to identify the specialities and modalities that would benefit from Reporting Radiographers.	x	x
11	The development and implementation of the new Radiology Information System must maximise opportunities for workforce transformation which could include home working flexibility for reporting		x
12	Work needs to be undertaken as part of organisation workforce planning processes to identify the need for extended and advanced practice roles, including the specialties and modalities, and to identify the education required including timescales to phase in any role required.	x	x
13	An All-Wales Standardisation of Practice for Advance and Extended Practice should be developed, and associated education and training requirements identified, including timescales to phase in any role required.		x
14	All national funding streams for education and development should be widely publicised and utilised to their full potential by organisations across Wales	x	x
15	All Wales Standardisation of Practice documents for Bands 2 and 3 should be developed to provide a common understanding of where Band 2 & 3 support workers can support Radiology Services in Wales. Although the Level 3 Diploma in Clinical Imaging has recently been revised, this should be reviewed against the 'Standardisation of Practice' developed to ensure that it meets all requirements identified		x
16	Building on current national work, an All-Wales Standardisation of Practice document should be developed for Band 4 Assistant Practitioners that provides a common understanding of where Band 4 Assistant Practitioner role could add value across modalities and specialties within Radiology Services in Wales. The existing Level 4 Advanced Practitioner Qualification should be reviewed to ensure that it is fit for purpose and has equitable access for all Health Board's in Wales.		x

Rec. No.	Recommendation	Local	National
17	Explore the need to develop a part time route to registration for the Assistant Practitioner role and alignment of the Level 4 work-based learning to achieve this		x
18	Work to identify where there are opportunities to release medical capacity through the development of other members of the imaging multi-disciplinary team, including where other professionals could be trained to undertake specified imaging activity	x	x
19	Workforce plan to ensure that the increased number of trainees are recruited into Consultant posts in Wales and monitor whether the additional trainees completing training are addressing the anticipated retirements	x	x
20	Refine and repeat workforce planning approach used in the production of the Radiology Workforce Model for Wales to produce supplementary Workforce Models that will contribute to the overall Imaging Workforce Model for Wales		x
21	A collaborative approach is needed to review intelligence from organisation workforce plans to identify key areas where specific workforce options and solutions can be identified. The establishment of a workforce planning community of practice in Radiology Services could support a more collaborative approach to the development of workforce solutions and the sharing of good practice for example to address recruitment and retention for more specialist and difficult to recruit to posts.	x	x
22	A central document repository for NHS Wales to enhance collaborative working and maximise opportunities to share good practice, clinical excellence, policies and procedures and accreditation activity. In addition, this system could be used to store resources to support workforce planning and facilitate the creation of a workforce planning community		x

6.1 Next Steps

The recommendations will be reviewed by IWE G and an action plan with agreed ownership and timescales for delivery developed. It is anticipated that a formal programme of work will be established to take forward those actions that are identified as being within the scope of the National Imaging Programme.

It is recognised that workforce planning is an iterative process therefore it is essential that the Radiology voice continues to be heard, and that the commitment to collaborate, network and share good practice to improve services for patients continues to be harnessed. Whilst there are a number of medium to long term pieces of work emerging from this strategy, Radiology Service Managers must continue to be brought together as a workforce planning community and receive support with local workforce planning activities. This will ensure that the medium to long term ambition of this strategy remains relevant and can be realised.

Finally, as explained throughout this strategy document, the scope of this work was limited in the first instance to staff employed within Radiology Services only. The engagement process and

workforce planning approach used to develop this workforce strategy must now be repeated for the wider imaging community to produce additional workforce strategies that will contribute to the overall Imaging Workforce Model for Wales.

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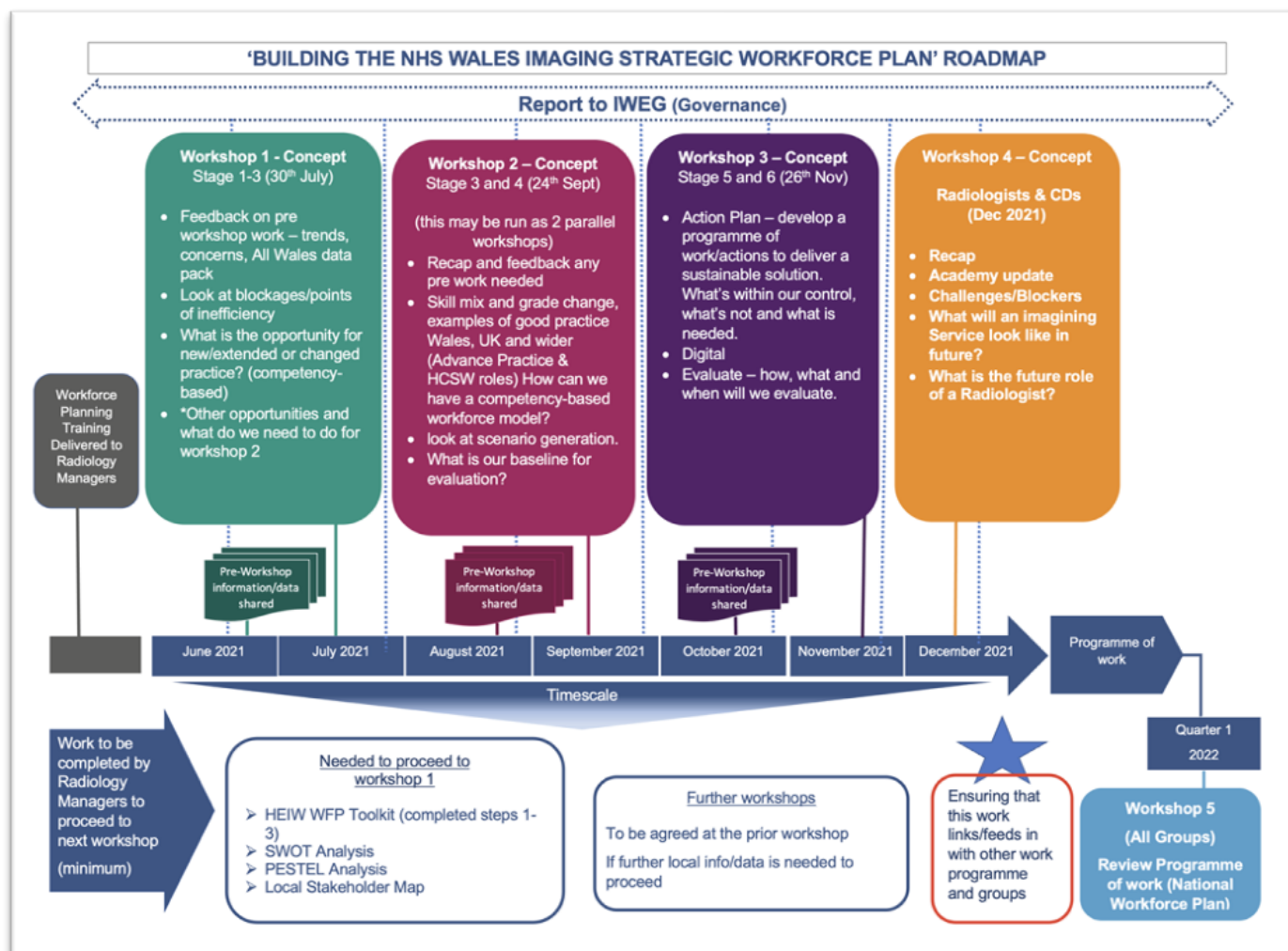
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Appendix A –Engagement Road Map



Appendix B - Radiology Services National SWOT Analysis

<p>Strength</p> <ul style="list-style-type: none"> • All Wales Imaging Network • Robust Clinical Governance • Patient Centric Service • Flexible and resilient workforce • Imaging Pathway Development • Training Opportunities • AI Potential Development – Patient Pathways • Increasing guided therapeutic Intervention • Good networks in and outside Wales 	<p>Weakness</p> <ul style="list-style-type: none"> • Generational Expectations (X, Y & Z) • Capitalise on Advance Practice • Silo Budgets • Lack of Time – Mentoring • Reliance on Outsourcing • No Electronic Referring Available • Timely Consideration (new change's) • Hard to Recruit Profession • Access to Timely Diagnostics • Inconsistencies Across Wales • Utilising Fully 24/7 Working • Use of Locum Staff • hard to recruit and retain • Insufficient infrastructure e.g. IT • Clear career progress for non-medical • Lack of IT • Terms & Condition's to allow all wales working
<p>Opportunity</p> <ul style="list-style-type: none"> • Graduate Streamlining • One IT System for Wales • Overseas Recruitment • Artificial Intelligence • Remote Reporting • Use NIAW for All Wales (hubs) • Productivity (e.g. Radiographers job planning) • Research • Contribution of other professions and agencies • Extending Practice at All Levels • Diagnostic's Closer to Home • RISSP • Better connectivity • Flexible working used effectively • Set standards 	<p>Threat</p> <ul style="list-style-type: none"> • Stress/Burn Out/Work Life Balance • Covid-19 Recovery • Retirement Profile • Increasing Demand • Pull on Workforce (Community Hubs) • Reliance on Good Will • Pension penalties to reducing hours • Demand more in and out of hours • Others plans not considering impact • Service expectations • Finance – local employment

Appendix C - Summary Documents, Following Workshop

“BUILDING THE NHS WALES IMAGING STRATEGIC WORKFORCE PLAN”

Workshop 1 – Feedback Summary

Good Attendance: Aneurin Bevan UHB, Betsi Cadwaladr UHB, Cardiff & Vale UHB, Cwm Taf Morgannwg UHB, Hywel Dda UHB, Swansea Bay UHB, National Imaging Academy Wales, Society of Radiographers - Hosted by NHS Wales Collaborative and Heath Education innovation Wales.

Everyone was fully engaged with the Workforce Workshop 1 and we received the substantial majority of the pre work due prior to the workshop. This process is not only intended to help build the NHS Wales Imaging Strategic Workforce Plan but also to assist development of local imaging plans and challenge traditional thinking. We covered the Welsh strategic content and why we need a national as well as a local Workforce Plan/Programme of work.

The Radiology Managers had already received a detailed data pack to assist preparation. We included some of the insights/knowledge that the data demonstrated and our reflections on the messages. We touched on how education commissioning numbers have been increased year on year and how this year imaging should have felt the impact of the increase from the 2017 commissioning. HEIW in 2020-21 commissioned 15 education places for Reporting Radiographers. However, we debated whether this would be enough to cover increased demand as well as retirements. In relation to the age profile, it can be argued the outlook is not very positive, with 27% of Radiographers and 27% of Radiologists currently over 50. However, 43% of HCSW in Radiology being over 50 may unbalance the figures. We examined Gender profiles across the different organisations. As expected, this demonstrated a predominantly female workforce. However, examining HCSW solely in Radiology, resulted in a below the overall average of Male HCSWs (which represented 74% female and 26% male).

We discussed Covid-19 and any positive elements to retain. Then together we reviewed all the elements of the local SWOT's combined and considered what the initial national SWOT would comprise of. Messages that came through strongly were:

Covid-19 recovery, increased demand, not having sufficient time to train and mentor staff, what opportunities NIAW can offer, and streamlining was felt to be an opportunity if the process is improved (some mixed reviews here). We do have a strong resilient workforce, but we need to maintain their health and wellbeing. The workforce is enthusiastic to think outside the box and want to develop and extend skills. However, we agreed we cannot continue to rely on goodwill and need to capitalise on the increased profile/engagement Covid-19 has given imaging services.

That led us smoothly into the next activity, which was to consider what we could start, stop, and continue in imaging. The participants were automatically put in 3 of the virtual rooms (which were then facilitated) and the groups considered 1 of 3 questions. We spent a significant amount of time on this activity, which allowed us (amongst other things) to touch on barriers and challenges. It was difficult to stick solely to discussing just the 1 question in each group. When we all returned to the main discussion group, we allowed feedback on each question, which was then debated and where appropriate enhanced and added to..

Activity 2 generated a lot of debate and we then considered how important horizon scanning is and what was coming in imaging's future which we needed to prepare for. We touched on the demand for specialities within Imaging services, how cancer treatment will be a challenge and the vital role diagnostics plays in patient pathways. The recovery from Covid-19 is challenging, but there is a recognition that we can't only carry on doing more of the same. Imaging has a vital part to play in making the whole patient pathway run smoothly, imaging needs time to train and mentor the existing and new generation of the Imaging Workforce.

Start

Short Term (1 year)	Medium Term (1-5 years)	Long Term (>5 years)
Apprenticeships – for those with family commitments, etc	Post grad ultrasound training of quality offer within Wales	CDEs – benefits of staffing rotations, moving outpatient work offsite, flexibility of workforce
Bringing those with Advanced Practice into use	Direct entry ultrasound – not having to do full training before sonographer training, meet the gap, conscious re training needs	
Not reporting of OHVGP CXRs by advanced practice radiographers		
Radiographer led discharge from minor injuries	Postgrad training for intervention – course to be developed	Advanced Practice mammographers (in training presently)
Cannulation by radiographers and/or radiography assistants/HCSW – accredited training e.g. external or accreditation of in-house courses	MDT involvement and coordination of (imaging) patient journeys e.g. multiple comorbidities	
Radiographer led MSK injections e.g. joint injections in ultrasound (doing in ICU) – in-house or potential accredited training, in Wales	Conversion course for assistant practitioners	
	Career pathway for radiographers, with Made in Wales	
Staffing weekends/extended working days/night shifts	Movement of electives away from ED comfort – same day emergency care service in addition to ED providing challenges, example where this	
Using community sites – e.g. steps		
Radiographer led minor injuries – meeting nursing staffing needs	Extending AP roles and using them differently, to their full potential – e.g. portable chest steps – HS governance, etc	
Community sites – on doorstep of patients	Extending AP scope of practice to work in theatres – working directly with surgeon	
	Extending scope of practice for fluoroscopes	
Pathways, wider same day access – e.g. upper and lower GI endoscopy required to keep CT slots available for on the day	Walk-in service previously for GP patients, have had to go back to appointment system and waiting list	
Appointment reminder system – counter DVAs, challenge of withheld numbers, current ambiguous general reminders		

Stop

Short Term (1 year)	Medium Term (1-5 Years)	Long Term (>5)
Doing thing and line-up radiographer time by doing what only a Radiographer can do.	Reporting multi sites (use All Wales)	Stop utilising different IT systems
Inconsistency across organisations in Wales and sometime within organisations	Reporting delays	
	Inequality different health conditions	
Stop admin some admin which could be done by others – all different levels	Looking at productivity – measure outcome (valued based system) HC	Poor use of machine – need to ensure data quality and that it measure all the part of the service,
Using Radiologist time unnecessarily	Social distancing	
	Stop thinking of it not being 7 day service – resource properly does not run 9-5	
Ad-hoc examinations	Unnecessary exams – Diagnostic tools	Stop reporting what we are not achieving and take into consideration quality – current system has been with us 15+ years. Something may take longer for quality and give a better more appropriate diagnosis.
Other services not considering radiology needs and can it be delivery within current workforce.	Using Paper to do referrals	
Relying on good will of the workforce to run services.	Thinking in silos as an organisation – saving may be else where in the pathway.	
Overtime high – resource properly (establishments)		
How we have been working ad do thing differently – Existing tasks need to be done by others	Not having standard process	

Continue

Short Term (1 year)	Medium Term (1-5 Years)	Long Term (>5)
Continue to push boundaries to further develop radiographers (Just and Advance)	-	-
Explore the potential to develop 24/7 direct and extend practice under supervision of Radiographers (breaching gap)	Training of other professional to undertake imaging to improve patient flow	Develop other professionals to be able to undertake more imaging e.g. MRI Nurses for scope of practice 'not' reporting (there and there)
Review scope of Asst Practitioners to make sure getting most out of them now	Providing more imaging modalities in community settings and building skills of other worker to undertake PCT and more timely imaging	Radiographers to contribute to other patient pathways in specialist roles
Continue to explore different ways of doing things	Continue to develop supervision to include remote supervision and develop SOP to support this from governance perspective	Continue to develop services better enabled through IT/digital
Change skill mix to meet changing needs of future workforce which will require reshaping how we divide workload amongst roles	Similar processes to PGD to enable changes to service delivery	
Partnership working with Radiologists to build the supervision required to develop extended practice Radiographers	IT – investment into PACs available to everyone to enable sharing.	Build sustainable workforce solutions when we build new services and roles (adequate workforce supply to meet changing demand when role change, and people develop new skills and knowledge and need to cover new work)
Radiographers doing more reporting	Reduce use of hospital numbers instead of NHS numbers	(STDP: Building services around individuals rather than patient pathways – see above)
	Get GP requesting up and running (and to end) – better system will facilitate appropriate imaging requests from GPs	
Changing working patterns to be able to provide more timely imaging services e.g. replacing traditional on call with appropriate shift working patterns	IT systems introduction that enables a consistency in patient data across site – one system/one number e.g. NHS number	
Authorized delegation processes put in place to enable efficient use of staffing resources e.g. CT	Extend role of sonographer (radiographer) to extend the interventions and taking on work traditionally undertaken by Radiologists e.g. injections	
Re-look at staffing models across the 24/7 to enable more effective provision of imaging services across the hospital including mobile imaging	Benchmarking to develop practice that is happening elsewhere in the NHS	
More creative use of existing financial packages to enable more effective staffing models for service and for the workforce	Challenge traditional roles and boundaries	
	Work across boundaries to work with other MDT and bring skills and knowledge to other patient pathways	
	Expanding into more areas for radiographers e.g. joint injections for hip pain/therapeutic interventions where there is an imaging element	
	7-day services and working including medical staff	

What's Next:

This workshop (1) concentrated on steps 1 – 3, of the 6 steps [‘Skills for Health’](#) methodology of integrated workforce planning. Workshop 2 is scheduled for 24th September 2021 and will revisit step 3 and concentrate on step 4. It is anticipated there will be a need to run a 2b workshop in parallel around education needs and this will need different attendees but remain part of this process. There will of course be another corresponding feedback summary for workshops 2 (a & b)

BUILDING THE NHS WALES IMAGING STRATEGIC WORKFORCE PLAN”

Workshop 2 (a & b) – Feedback Summary

Good Attendance: Aneurin Bevan UHB, Betsi Cadwaladr UHB, Cardiff & Vale UHB, Cwm Taf Morgannwg UHB, Hywel Dda UHB, Swansea Bay UHB, Velindre Trust, Public Health, National Imaging Academy Wales, Society of Radiographers - Hosted by NHS Wales Collaborative and Heath Education innovation Wales. Presentation given by Great Ormond Street, Manchester, CTM Occupational Health and SoR's.

It should be noted, and we had good engagement but due to extreme pressure on the service, some UHB were not able to attend both workshops (2a&b). However, we had good engagement from all organisations over the whole of session 2.

Workshop 2a

Session 2a started with a review of the outputs from workshop 1, to see if they felt right, or needed adjustment. We then had presentations from Great Ormond Street, Manchester Trust and Occupation Health (CTM) on innovative practice on skill mix change, to help stretch our thinking on what we can do in Imaging in Wales. The [presentations](#) were well received and recorded to allow them to be seen by people who couldn't attend on the day.

Then we played a video “[transforming the radiology workforce](#)” which led us into our activity to discuss skill mix and grade mix examples that we could introduce into new area and All Wales. The information gained from this was further enhanced outside the workshop by Radiology Managers and used to inform workshop 2b, which focused on education.

We finished the workshop by taking some time to think about evaluation/benefits realisation. How do we know what, when, and who? How has the change benefitted the patient, ensuring no unintended consequences has occurred? Victoria Whitchurch from the Imaging Academy shared examples of how important it is, to think about evaluation at the beginning and not in retrospect.

Workshop 2b

We started this workshop 2b looking at a collated version of the output from the first workshop (2a) and spent some time looking at this and what the different categories were telling us.

We then had a presentation from the Society of Radiographers (SOR) on “The future of the radiographic profession” we then asked a few questions which lead us into the funding context for Advance and Extended Practice. We had several slides on this which raised awareness. It's important where there is funding available, it is accessed to support education and development.

It was then we had the 1st of our group discussions to gather intelligence and explore options. What we felt was important here, was to understand why this isn't already happening. What's stopping it or what's missing.

We then moved onto the support workforce and again asked a few questions. We then looked at the education available in Radiology and understanding the funding options and routes. We took time here to discuss governance and went over what is available to support and aid appropriate delegation. As imagined this raised lots of debate.

This led us into our final group discussion, where we again gathered intelligence and explored options. What came out here was the need to develop routes from support worker to Radiographer whilst taking into account existing degree level band 5. Also, the need to develop and recognise the experience of band 5.

What's Next:

These two workshop focused on steps 3 & 4 of the 6 steps '[Skills for Health](#)' methodology of Intergrated workforce planning. We continue on our road map of engagement to workshop 3 which is scheduled on 26th November 2021 and again will have to be virtual. Workshop 3 will focus on steps 5 & 6 which will focus on action planning. There will of course be another corresponding feedback summary for workshop 3.

“BUILDING THE NHS WALES IMAGING STRATEGIC WORKFORCE PLAN”

Workshop 3 – Feedback Summary

Good Attendance: Aneurin Bevan UHB, Betsi Cadwaladr UHB, Cardiff & Vale UHB, Cwm Taf Morgannwg UHB, Hywel Dda UHB, Swansea Bay UHB, Velindre Trust, - Hosted by NHS Wales Collaborative and Health Education Innovation Wales.

Given the current challenges we maintained good engagement. This workshop was covering steps 5&6 which is action planning, but we also wanted to check on local workforce plan development and offer additional help if needed.

We recapped on strategic workforce planning and the different stages gone through when transforming our workforce. We then had the opportunity for each organisation to summarise where they were at developing local workforce plans.

We took the opportunity to sense check what we had heard so far in relation to the challenges and barriers the service is facing, as well as strengths and opportunities. We looked at data projections and examined how less than full time working trends across all age ranges maybe influencing available workforce capacity. We recognised that how people want to work maybe different going forward due to differences between generations. We realised that we currently had little data available, on how people in radiology want to work in the future

We then focused on the different areas that digital working would help, and in relation to AI, we highlighted a 2020 report which stated:

“While at first glance AI appears to threaten the role of the radiographer, its widespread adoption and implementation also offers significant opportunities for greater autonomy and self-definition.” “The future is there to be created today and it is our professional responsibility to ensure the opportunities of tomorrow do not pass us by.”

We asked a few interactive questions by mentimeter to check in on what we have heard so far, how people want to work in the future and see if locally, people need further support with developing their workforce plan.

We then moved to our activity in 3 breakout rooms. All 3 breakout rooms had a facilitator present to support and play back what intelligence had been captured from previous workshops. Each group discussed the information that had been gathered and decided if each was a local, national or HEIW issue. The output of the activity is to support what needs to be done at a national level, where HEIW can support and what organisations should include locally in their workforce plan. When we came back as a main group and the facilitator from each group, feedback their top 3 issues which they wanted to take forward.

We spent the last section recapping on the workforce planning tool kit and highlighted an example of an action plan. Also recapping on what successful workforce planning requires, not to start each time from scratch but the need to revisit and refresh regularly. Understanding that the local workforce plans are a live document, that needs monitoring and refreshing regularly.

We finished the session with a quote from Edward de Bono who was a Maltese physician, psychologist, author, and inventor. Who originated the term 'lateral thinking' and wrote the book 'six thinking hats'.

"You can analyse the past, but you need to
design the future... that is the difference
between suffering the future and enjoying it."

—Edward de Bono

What's Next:

This workshop concentrated on steps 5&6 of the Skills for Health 6 step workforce planning methodology. The next phase is the medical engagement phase. Workshop 4 is planned to take place in December - workshop 4a is with the specialist registrar radiologists, workshop 4b is with the Clinical Directors and Radiologist from each health board within Wales. We decided these 2 sessions would be run solely virtual and they are being supported by NAIW.

“BUILDING THE NHS WALES IMAGING STRATEGIC WORKFORCE PLAN”

Workshop 4 (Medical) – Feedback Summary

Good Attendance: Aneurin Bevan UHB, Betsi Cadwaladr UHB, Cardiff & Vale UHB, Cwm Taf Morgannwg UHB, Hywel Dda UHB, Swansea Bay UHB, Velindre Trust, Public Health - Hosted by NHS Wales Collaborative, Heath Education Innovation Wales, National Imaging Academy and Scarlet Designs.

Prior to workshop 4, a workshop session was held with our trainee Radiologists - to both hear their voice and gain their input into the engagement process. The trainees were more focussed around the here and now so it was a little difficult to get them into any future space of how they would like to see the imaging service of the future but their input was nevertheless valuable.

It was very pleasing that in the main Radiologist Workshop 4 that we had attendance from all health boards. Attendance was really appreciated given a background of a very trying time - we changed to a virtual environment and also condensed the workshop to a half day to help reduce the pressure of attendance.

We began by updating the attendees of our journey to date (documents were circulated prior) and demonstrating education commissioning trends for medical and non-medical education, but also recognising how demand is also growing. We reviewed the workforce trends and updated the national SWOT. We also touched on the Royal College of Radiologist workforce census 2020.

The Imaging Academy then gave a presentation on their current role and future direction, giving addition statical information for further reference.

To guide attendees to be future focused we then had 2 activities. The first focused on where you want to be and how do we get there. We had 2 break out session with facilitators and fed back to main group.

What's Next:

This workshop was the last of the information gathering sections of the workforce workshop roadmap. Workshop 5 in 2022 will allow us to play back what we have heard and do a sense check as below:



FURTHER
ENGAGEMENT
QUESTIONS
(WIDER IMAGING
IMPACT)




SLIDE DECK
TO IWEG IN
JANUARY 2022
(COMMENT AND
ENGAGEMENT)



FINAL
PRODUCT
PRODUCED
MARCH 2022

Appendix D - Examples of Workforce Planning Good Practice across Wales

Workforce Solution Radiology – Good Practice Example

<p>Organisation: Aneurin Bevan UHB</p> <p>Role: Vascular / Interventional Radiographer</p>	 <p>GIG CYMRU NHS WALES</p> <p>Bwrdd Iechyd Prifysgol Aneurin Bevan Aneurin Bevan University Health Board</p>
<p>This role was introduced to help with the Interventional Radiology workload. This is an Advanced role that is an independent, unsupervised practitioner who as part of their role performs PICC line insertion and support staff training and raising awareness of PICC line management. This role undertakes tasks that would traditionally be done by a Consultant Radiologist. Interventional Radiology is an area which is very difficult to recruit to and it is important to maximise utilisation of scarce resource to address complex investigations demands and this new role allows Consultant Radiologists to prioritise urgent complex interventional diagnostic and therapeutic procedures.</p>	
<p>Why Introduce?</p>	
<p>We needed to do things differently and we needed to give a good experience to the patient, including reducing waiting times. With this role we can provide continuity of care, provided at different sites across the Health Board. The new role is able to devote time to inform / educate the patients and it also provides essential prudent care. We are expanding the skill set of departments and non-medical staff in imaging.</p>	
<p>What if any are the potential barriers?</p>	
<p>Increasing workload demand pressures and having the time to train and mentor staff while they develop. Training and developing staff cannot be a one-off single person dependent services, they need ongoing support to succeed and for the service to be sustainable. We also need to ensure our Radiologist colleagues are on-board and to build the level of trust in the system that care given from new non-medical roles will be done in the right way, having robust training and governance arrangements.</p>	
<p>What's next?</p>	
<p>Areas which are in our IMTP where we intend to progress with advance practice are Ultrasound interventions, MRI & CT Colon reporting, CT head reporting outpatients and MSK ultrasound. Our ongoing vision is to increase areas of non-medical Advance/Extended practice.</p>	
<p>Final Thought: BUHB Radiology Directorate committed to become a learning directorate and continue to invest in developing our staff with an aim of ensuring safe, effective, efficient, timely and responsive imaging services to our patients. Dr A Kumar, AGM Scheduled Care.</p>	

Workforce Solution Radiology – Good Practice Example

Organisation: Betsi Cadwaladr UHB

Role: Radiographer led Video Fluoroscopy



Pre the Pandemic we had one Consultant Radiologist doing Video Fluoroscopy for paediatrics who retired at the start of the pandemic, the only option available would be to send our patients to Alder Hey Children's NHS Foundation Trust, Liverpool.

Why Introduce?

These patients are usually very complex so getting to an appointment can be a big challenge. We developed all the governance around this extended Radiographer role to enable us to provide a radiographer led paediatric video fluoroscopy service in Bangor and Wrexham. We are just starting to train another radiographer to ensure we have workforce capacity available.

What if any are the potential barriers?

There was a lot of time needed from the Consultant Radiologist (before he retired) to support the training and develop the governance structure to enable the introduction of a Radiographer led paediatric video fluoroscopy service. We were very lucky that we had a radiologist that was very keen to support, without his support we would not have been able to introduce this service and a lot of patients would have had travel to Alder Hey. Approval and support from the Royal College of Speech and Language Therapists was required to ensure the SALTs were covered by their professional body for supporting the procedures without a medic being involved in the procedure.

What's next?

BCU are continuing to look for areas for practise development and role extension across all modalities.

Final Thought:

The introduction of paediatric video fluoroscopy has been positive as we have not only been able to maintain the service but deliver from both Wrexham and Bangor whereas previously it was only available on the Wrexham site when consultant lead. This has made a real improvement to the patient experience for children from the west who would have previously had to travel to Wrexham.

Helen Hughes, Professional Service Manager Radiology

Workforce Solution Radiology – Good Practice Example

Organisation: Cardiff and Vale University Health Board

Role: Radiographer-Led Discharge for EU



The University Hospital of Wales has a large Accident and Emergency Unit, with over 130,000 patients per year attending. Reporting Radiographers have provided 'hot reports' for A&E patients during standard office hours since 2010 to support the diagnosis and clinical management of patients with skeletal injuries. We have recently appointed 2 full time Advanced Practitioner Reporting Radiographers to support the plain film reporting service. These are the first full time appointments of this nature for Cardiff and Vale UHB. Radiographer-Led Discharge for patients with minor injuries has been implemented in a small number of sites in England, but no Welsh hospitals had provided this service. A small-scale trial previously undertaken demonstrated decreased patient waiting times and patient re-calls whilst increasing patient satisfaction. A joint venture between Radiology and Unscheduled Care was launched to implement this as a large-scale project.

Why Introduce?

To provide positively contributed to patient flow within the unit, reducing patient waiting times and provide increased MDT support to EU colleagues. Where no bony injury is demonstrated, Reporting Radiographers can formally report the radiograph, confer results to patients, provide advice and minor treatments and complete all required clinical documentation and processes to discharge the patient from the EU. All positive radiological findings are discussed with the referring clinician to enable the appropriate injury management pathway to be followed. The application of support devices has been included within Radiographer competencies to allow Reporting Radiographers to manage specific injuries and onward care without the requirement for the patient to return to EU colleagues.

What if any are the potential barriers?

Funding for this service has been secured for a period of 12 months, recurrent funding is required to ensure the pathway can become permanent. Data collection and analysis will be required to demonstrate proof of concept at this site. It has been vital to undertake this project as a joint venture between Radiology and Unscheduled Care to ensure the training of Radiographers encompasses all requirements and pathway design is optimised for the needs of this hospital.


What's next?

Undertake data collection and analysis to evaluate the impact of the service and secure recurrent funding, aiming to extend to provide a 7-day service with hours of operation linked to the requirements of the unit. Advanced Practitioners are also increasing their scope of practice to include plain film radiographs from all referral sources (In-Patients, Out-Patients and General Practitioners) for skeletal, abdominal and chest radiographs.

Final Thought: *Cardiff and Vale UHB continues to strive for excellence, investing time and resources to enable staff to fulfil their potential and benefit patients and service users.*

Lesley Harries, Superintendent Radiographer

Workforce Solution Radiology – Good Practice Example

<p>Organisation: CTMUHB</p> <p>Role: Radiographer Led Hot Chest Reporting</p>	 <p>GIG CYMRU NHS WALES</p> <p>Bwrdd Iechyd Prifysgol Cwm Taf Morgannwg Cwm Taf Morgannwg University Health Board</p>
<p>Why Introduce?</p> <p>This new role in CTMUHB is providing hot reporting for all Chest X Rays. Initially the USC CXRs were reported immediately enabling faster diagnosis and onward referral. The aim of this new role led by the reporting Radiographer is to provide instant reports for all CXR's.</p>	
<p>What if any are the potential barriers?</p> <p>Time is the biggest barrier. Staff shortages due to Covid 19 and workload pressures often interfere with this service as the Radiographer is sometimes called away to a clinical area.</p>	
<p>What's next?</p> <p>Staff intake in the summer will support this new role and enable the Radiographer to work closely with the Lung Cancer pathway. Engagement with the MDT is already underway and audits to support the workforce solution are in progress.</p>	
<p>Final Thought:</p> <p><i>Advanced practice can really take a service forward and support the SCP and patient journey"</i></p> <p style="text-align: right;">Sharon Donavan, Superintendent Radiographer</p>	

Workforce Solution Radiology – Good Practice Example

Organisation: Hywel Dda UHB

Role: CT Head Reporting



It's difficult to recruit Radiographers who want to work and stay in our area. We would like to train more Radiographers in advance/extended practice, and we have staff keen to develop, but it's difficult to get cover to do this. We may need to grow our workforce from the local population, so they would want to stay and build their life in the local area. The current Radiography graduates are not choosing to work in Hywel Dda. We have recently appointed band 3 Radiology Assistants with a view to training as Assistant Practitioners, but Cardiff has recently announced that they are not running the Assistant Practitioner course this year. The reason for the change of the Assistant Practitioner course to align with the first year of the undergraduate Radiography degree was to ensure the future of this course given the relatively low numbers that enrol and therefore the latest news was disappointing. At this time, we have no alternative means for training Assistant Practitioners in Wales.

Why Introduce?

We introduced the role to help with throughput of CT Head reporting, which leads to timely and effective patient care. We have another member of staff who wishes to train in this clinical area, but it is difficult to prioritise non-medical CT Head reporting at present.

What if any are the potential barriers?

The barrier to further development is having capacity to train/mentor staff and being able to realise the staff from core radiographic duties.


What's next?

We intend to send someone on a barium swallow reporting course because she currently performs outpatient examinations but cannot report them. Again, the barrier is having time to train/mentor and the time needed to report. We have contacted HEIW to enquire regarding alternative solutions for Assistant Practitioner training/funding.

Final Thought: *We are fortunate to have keen and proactive staff who are always willing to go the extra mile to ensure continuity of service provision. These same staff are keen to extend their role, as management are to support them to aid retention and improve service delivery. We need to be able to find new ways of filling general band 5 vacancies to allow staff to be released for training and provide solutions for 'grow your own' Assistant Practitioners and Radiographers as the current training system is not working for many Health Boards in Wales.*

Gail Roberts-Davies, Head of Radiology & Sarah Proctor, Site Lead Superintendent Radiographer

Workforce Solution Radiology – Good Practice Example

<p>Organisation: Public Health Wales</p> <p>Role: Consultant Practice Radiographers</p>	 <p>GIG CYMRU NHS WALES</p> <p>Iechyd Cyhoeddus Cymru Public Health Wales</p>
<p>Breast Test Wales (BTW) stands out in terms of the adoption of these consultant level practice roles. These are not titled officially in ESR as non-medical consultants, but at a clinical level we have people operating very highly in terms of responsibility and autonomy. We needed to develop people to this level and the support from our medical colleagues was key to us succeeding. There are currently 4 such roles across the BTW centres in South Wales. The service also has a strong base of advanced practice roles.</p>	
<p>Why Introduce?</p>	
<p>One of the biggest drivers was the lack of breast Radiologists. We took the approach that we needed a hybrid workforce which involved medical and non-medical consultant roles to help with recruitment pressures and provide the level of service required. The service would be in a much poorer place had we not been proactive in trying to develop these roles.</p>	
<p>What if any are the potential barriers?</p>	
<p>We need to make the system easier to accredit and authorise the use of the non-medical consultant title. Understanding where we need this role and not having a Wales level plan where and when to introduce this clinical level role within Radiology, is a barrier. BTW has been very lucky in having supportive clinical leads to introduce this pathway.</p>	
<p>What's next?</p>	
<p>In North Wales there are 2 people who are currently working towards consultant level practice – over the next few years we are looking to move them onto running their own clinics. We are looking at other areas and having a core workforce at consultant level practice, will contribute hugely. Consultant practice Mammographers act as the responsible assessor in breast clinic, support the vacuum assisted biopsy service and they truly manage their own caseload of work. They can also present at MDT and make decisions in clinic about what to further image and biopsy.</p>	
<p>Final Thought: <i>These highly specialised roles should be driven by service need and deliver measurable benefits for patients. The roles should be well defined and allow phased progression to develop the individuals towards the required level of clinical practice and autonomy. The standards to which clinical performance is measured and quality assured should be like a medical colleague undertaking the same duties.</i></p> <p>Dean Phillips, Head of Programme, Breast Test Wales</p>	

Workforce Solution Radiology – Good Practice Example

Organisation: Powys Teaching Health Board



Role: Reporting Radiographer

Powys Teaching Health Board (PTHB) commission a proportion of the Radiology reporting to neighbouring DGH's via commissioning through SLA's. In addition to the existing reporting radiographer, PTHB have recruited an additional 1.0 wte reporting radiographer. Agreed as part of an internal business case approval with a view to repatriation of radiology reporting within an agreed scope of practice. This increased capacity within PTHB will reduce report turnaround times and support patient pathways. In addition, PTHB is currently supporting a vascular one stop clinic using the ultrasound service. By working collaboratively with a vascular surgeon from a neighbouring DGH, has reduced waiting times, and enabled a reduction in the carbon footprint by keeping services local in line with PTHB Health and Care Strategy.

Why Introduce?

This has increased reporting capacity and reduced report turnaround times for results for the patients in Powys offering a more equitable service pan Powys., improving patient pathways and supporting patient outcomes.

What if any are the potential barriers?

Powys can sometimes have significant recruitment issues due to the rurality of the services. Work is continuing developing the services offered, the culture and making Powys a more attractive place to work for staff at all stages within their career.

What's next?

Increase the one stop clinic capacity within a Multi-disciplinary (MDT) collaborative approach working alongside other services. Increase scope of practice of existing advanced practitioners Working alongside the Universities to develop locally "home-grown" Radiographers from PTHB Health Care Support Workers (HCSW) with innovative training routes and methods.

Final Thought: *PTHB continues to develop and improve the services offered to Powys patients through staff training, preceptorship, robust governance, and leadership opportunities, aiming to keep services local in line with the health and care strategy.*

Michelle Kirkham, Professional Head of Radiography

Workforce Solution Radiology – Good Practice Example

Organisation: SBU HB

Role: Cardiac MRI advanced practice radiographer



**GIG
CYMRU
NHS
WALES**

Bwrdd Iechyd Prifysgol
Bae Abertawe
Swansea Bay University
Health Board

Why Introduce?

Increasing numbers of cardiac MRI examinations required across the health board. Limited number of radiologists and cardiologists to post process and report these examinations. Training is ongoing for an experienced cardiac MRI radiographer to complete cardiac MRI post processing and produce a pre report using a set template. The pre report will be checked by the radiologist,

What if any are the potential barriers?

Similar projects have been introduced in NHS England but no formal training course is in place yet. Each organisation is following a bespoke pathway.

Time to release the radiographer to train due to reduced staffing levels.

What's next?

Continue with training following a similar pathway used for reporters. Develop a business case to provide backfill to allow the radiographer more time to perform this advanced practice role.

Final Thought:

Advance Practice Radiographers can be a cost-effective solution to some capacity issues.

Janine Sparks, Radiology Service Manager

Workforce Solution Radiology – Good Practice Example

Organisation: Velindre NHS Trust



Role: Radiographer Led Reporting for Stereotactic Radiotherapy Scans

The demand for this service was growing and was around 20% of MRI demand.

Why Introduce?

Following costings and a robust business case submitted to “Moondance” a charitable Cancer fund supporting innovation. This was approved and revenue was awarded for 2-years, to undertake self-learning and Radiologist supervision to be able to report these scans. COVID didn’t help but it’s proven a real success.

What if any are the potential barriers?

The training was well considered and needed significant self-learning and was need for a comprehensive number of blind reports to assure of competence. However, this role does not have a succession plan when the funding ends. Also cover annual leave and sickness can be an issue.

What’s next?

Potential for plain film reporting but low daily demand and limited referral criteria could complicate training competence.
Potential to develop patient pathway for Radiographer led MR reporting for spine/head. Would require formal qualification and in-house training.

Final Thought:

A well-conceived project for service improvement achieved through an individual’s application and hard work with support from charitable funds to deliver positive, measurable “Patient Related Outcomes”.

Michael Booth, Radiology Manager