



Department of
Health

An Roinn Sláinte

Mánnystrie O Poustie

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Summary of responses to the consultation on the

Draft Strategic Framework for

Imaging Services in

Health and Social Care

May 2018

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List of abbreviations

ACRONYM	EXPANSION
DoH	Department of Health
GP	General Practitioner
HSC	Health and Social Care
HSCB	Health and Social Care Board
IPEM	Institute of Physics and Engineering in Medicine
ISAS	Imaging Service Accreditation Scheme
MRCN	Modernising Radiology Clinical Network
NHS	National Health Service
NI	Northern Ireland
NICE	National Institute for Health and Care Excellence
NIECR	Northern Ireland Electronic Care Record
PCC	Patient and Client Council
PHA	Public Health Agency
QA	Quality Assurance
R&D	Research & Development
RCR	Royal College of Radiologists
SCoR	Society and College of Radiographers
SOR	Society of Radiographers

1. INTRODUCTION

Consultation enables an assessment to be made of the views of those who are affected by policy decisions or changes to services. It can help policy makers to become aware of issues and problems that policies may pose for various groups, which they might not otherwise discover.

The Department of Health, referred to in this document as “the Department” or “DoH”, ran a consultation to engage with patients, clinicians, stakeholders and the general public about the *Strategic Framework for Imaging Services in Health and Social Care*.

This report explains the approach to the consultation and provides a summary of the issues raised through written consultation responses and a series of public meetings held around Northern Ireland.

This report concludes with the Department’s response to those issues.

BACKGROUND

In 2013 the then Minister for Health Social Services and Public Safety, Edwin Poots, commissioned a review of Health and Social Care (HSC) imaging services in Northern Ireland in response to public concern at delays in the reporting of plain x-ray images in a number of HSC Trusts. Following a comprehensive scoping exercise the Department established a formal project board to take forward the review, which met for the first time in February 2014.

The clinically led review was aimed at enhancing and improving the delivery of medical imaging in Northern Ireland. The objective of the review was to produce recommendations for service development and configuration which would form the basis of a 10-year strategy for imaging services.

On 25 October 2016, the then Minister of Health, Michelle O’Neill launched the 10-year approach to transforming health and social care entitled *Health and Wellbeing 2026: Delivering Together*. *Delivering Together* was based on the report *Systems, not Structures: Changing Health and Social Care* (also referred to as *The Bengoa Report*, 2016).

One of the key actions in *Delivering Together* is to improve the current and future configuration of imaging services, through public consultation, taking account of advances in technology, demographics and demands, and looking to both national and international best practice.

Consultation

The Department published a draft *Strategic Framework for Imaging Services in Health and Social Care* in October 2017, setting out eight key guiding principles to underpin the configuration and delivery of imaging services in Northern Ireland, and 19 recommendations to ensure these services are safe, effective and sustainable. It ran a public consultation on this draft from **26 October 2017** until **22 January 2018**, including a consideration of equality and rural impacts.

The Department carried out a Rural Impact Assessment Screening and Equality Impact Assessment Screening on the draft framework. For the purposes of this strategy, the Department defined ‘rural’ as open countryside and settlements of less than 5,000 people. As geographical location is not a major factor overall in the strategy, it was not expected that implementation would present any specific or differential rural impacts. In relation to equality, no section 75 categories were expected to benefit from or be adversely affected by the intended policy, as its

purpose is to strengthen patient safety and enhance patient experience. Any information to the contrary, gathered from the consultation exercise, has been examined as part of the consultation process.

Responses were invited using either the questionnaire form provided, by letter or email. An overview of the written consultation responses can be viewed in Section 2.

The Department held a series of public meetings at various locations throughout Northern Ireland. A summary of the issues raised through these public meetings is contained in Section 3.

The Department's response to the issues raised is set out in Section 4.

2. WRITTEN CONSULTATION RESPONSES

The Department received 47 written responses from a range of consultees as follows:

	Category	Number of responses
1	Individuals/members of the public	27
2	HSC organisations	7
3	Health professional representative groups	4
4	Individual HSC professionals	3
5	Voluntary sector	2
6	Public sector	1
7	Trade Unions	2
8	Political Parties	1

A list of respondents is at Annex B.

Both written responses and feedback gathered through the public meetings reflect a range of views. Not all respondents used the response questionnaire provided, nor did all respondents choose to respond to every question. The 47 written responses can be further arranged to:

- 13 completed questionnaires;
- 24 standard template letter representing a single view;
- 8 emails or letters detailing comments;
- 1 was not relevant to the consultation;
- 1 was a general complaint about services.

The consultation questionnaire contained 25 questions as detailed in this section:

Recommendation 1: Theme - Workforce

It is recommended that the HSC takes urgent action to close the unfilled vacancy positions in the radiology workforce. This should include:

- **further increases in the total number of national training places in radiology in the NI Radiology Training Scheme up to 46 by the intake of August 2017, increasing to 54 by 2020;**
- **an international recruitment campaign commencing in year 1 of the framework aimed at filling at least 15 clinical radiology posts over the next 4 years;**
- **by 2017 the HSC should develop local and regional workforce retention strategies to promote and facilitate recently retired radiologists to continue to work on a reduced basis following their retirement. This should aim to deliver on average 3 PAs per week per radiologist for at least 3 years after their retirement.**

This recommendation focuses on the radiology component of imaging services. The framework states that *“a key thematic focus of the imaging review has been on its workforce, primarily clinical radiologists and radiographers who are principally responsible for the delivery of imaging services.*

This analysis has shown significant workforce pressures across the spectrum of imaging services which are mirrored across the UK and wider. Acute problems have been identified in sub-specialty areas such as paediatric, interventional and breast radiology however these challenges are part of a larger workforce deficit in clinical radiology posts across the province.

Over the period of the review the number of unfilled vacancies in clinical radiologist posts has risen from 21 to 42. This means that over that time approximately 25-30% of all clinical radiologist posts in Northern Ireland were vacant and there has been a significant reliance on locums. This is an unsustainable situation.”

In relation to this recommendation the Department took action to increase radiology training posts by two in 2015, three in 2016, four in 2017 and three in 2018; therefore since August 2015 the number of doctors in national training places for radiology has risen from 37 to 49 in Northern Ireland in line with recommendation 1.

Q1. Do you agree that radiology training places should be increased?

	Strongly Agree	Agree	Neither	Disagree	Strongly disagree
Responses	7	7	2	0	0

Of the 47 written responses, 16 responded directly to this question with 87.5% agreeing/strongly agreeing, and none disagreeing.

Comments include:

“...demand for imaging services ...has increased faster than the growth in the radiology workforce...As it takes at least five years for an individual to complete their training, it is important that planning an increase of training places is regularly reviewed to look ahead to contextual changes in clinical practice and the population.

“We would advise consulting with clinical guideline and policy makers (such as NICE or the UK National Screening Committee) and professional bodies such as the Society and College of Radiographers (SCOR), Institute of Medical Physicists (sic) (IPEM) and The Royal College of Radiologists (RCR) to establish the appropriate number of trainees needed to keep up with imaging demand...Medical research organisations such as Cancer Research UK would be able to provide advice on potential future changes in clinical practice research.”

“NI has the added issue that people from the rest of the UK are significantly less likely to move here for a job than elsewhere. We need to train our own.”

Q2. Do you agree that an international recruitment campaign is needed in an effort to close the unfilled radiology vacancies? If so, do you have any suggestions which might assist with this campaign?

	Strongly Agree	Agree	Neither	Disagree	Strongly disagree
Responses	2	6	3	2	0

Of the 47 written responses, 13 specifically replied to this question. 61.5% agreed or strongly agreed.

Comments include:

“International recruitment efforts may need central coordination to overcome shared issues, such as arranging visas and best practice examples to encourage international recruits to settle in.”

“NI has a poor image abroad and people are much less likely to come here than elsewhere in the UK. A campaign would need to focus heavily on the benefits of life here and counteract the historic impression of NI as a whole.”

“An open and transparent network should be set up that Trusts with difficulty in recruitment/short staffed should first offer ad-hoc sessions to other radiologists in other trusts who might be able to help first rather than having the fear that their services will be eventually taken over by another trust. Spending more money in recruiting overseas doctors who might not even be GMC accredited is not wise and may eventually create more work/lead to unsafe practice.”

Q3. Do you agree with the proposal to develop retention strategies for recently retired radiologists?

	Strongly Agree	Agree	Neither	Disagree	Strongly disagree
Responses	5	5	3	1	0

Of the 47 written responses, 14 responded directly to this question with 71% agreeing with this proposal. Most were positive about using this kind of available resource in the short-term until such time as localised training had filled the current staffing gap.

Comments include:

“Due to the current vacancy rate in radiology in Northern Ireland and the projected number of those who plan to retire by 2021, it is essential that imaging services retain recently retired radiologists.”

“We recommend that other solutions are also explored to help retain current staff, such as telerreporting so staff have the ability to work from home.”

“It is also unclear if there has been an exploration of the number of qualified radiologists who are currently not working in the health service – whether this is because of a career change or because they are employed privately. This could be another potential source of radiologists who could return to practice relatively quickly.”

Recommendation 2: Theme - Workforce

HSC Trusts should put in place the necessary arrangements to ensure that there is a clear understanding of the deployment, education and training of radiographers at all levels, together with the associated resources and implications.

- **This should include a structured career progression pathway for radiographers, through locally available specialist training in specific areas and at all levels to promote and optimise skill mix opportunities within imaging teams.**
- **Building on the progress made with fluoroscopy and ultrasound reporting, the HSC plan should include working towards ensuring that between 20-40% of plain film examinations are reported by radiographers by 2020.**

This recommendation focuses on the radiography component of imaging services. The framework identifies “pressures include the changing professional roles of the radiologist, radiographer, ultrasonographer and specialist nurse as they continue to adapt to the pace of change in modern medical practice. This manifests itself in the form of increasing levels of specialisation and sub-specialisation of practice as well as in new roles in the multi-disciplinary care and clinical management of patients”.

“Within radiography there are shortages of specialist staff in key modalities which restrict skill mix optimisation, as well as a lack of locally based opportunities for training advanced practitioners.”

Q4. Do you agree that the structured career progression pathway for radiographers should be implemented with the aim of optimising skill mix opportunities? If so, should this pathway be managed at Trust level or at a regional level?

	Strongly Agree	Agree	Neither	Disagree	Strongly disagree
Responses	7	4	2	0	0

Of the 47 written responses, 13 responded to this question. No-one disagreed, and those who agreed were very positive about this suggestion. Of those who agreed, the consensus seems to be that this be managed at a regional level.

Comments include:

“Guidance for the pathway into advanced roles for reporting radiographers must be developed at a Northern Ireland-wide level. Delivery should be overseen at a trust level.”

“...there is a growing body of evidence supporting radiographer advanced practice and clinical reporting of skeletal x-rays and also of chest x-rays, CT and MRI examinations... trained reporting radiographers interpret skeletal x-rays with high levels of accuracy [which has] improved patient safety, departmental performance and cost savings.”

“Research has demonstrated excellent performance by reporting radiographers... [and] found comparable performance to consultant radiologists (Woznitza 2014 & Woznitza 2017). The University of Ulster, in a collaborative project with Canterbury Christ Church University, has also constructed a training tool using eye-tracking that may contribute to the training of reporting radiographers in this rapidly developing practice.”

“Reduction in time to diagnosis for lung cancer was found at Homerton University Hospital when chest X-rays referred by general practice received an immediate report by a reporting radiographer. Fewer patients without lung cancer were also referred urgently to respiratory medicine under the lung cancer pathway.”

“Regional oversight will allow best practice to be shared, limited financial and training resource to be used effectively and facilitate the development of a cohesive plan that will benefit all residents of Northern Ireland. Local champions will be required to deliver service improvements and workforce strategies.”

Q5. Do you agree with the plan that radiographers should be trained to report up to 40% of plain film examinations (where it is safe and effective to do so)?

	Strongly Agree	Agree	Neither	Disagree	Strongly disagree
Responses	2	5	5	0	1

Of the 47 written responses, 13 responded directly to this question with more than half agreeing and only 1 expressly disagreeing.

The need for appropriate training was highlighted by the respondent who disagreed; they took the view that no-one should report on plain film examinations unless they have the necessary professional qualifications and experience. So, in actual fact, they seemed to agree with the proposal rather than disagree because the proposal sets out a requirement for training.

There were differing opinions expressed over the 40% limit; some respondents felt it was not appropriate to limit it to 40%, while others felt that 40% was too high.

Comments include:

“We cannot comment on the appropriateness of the target being set at 40%, but trust it is based on clinical safety and effectiveness.”

“To set the level of reporting to 40% of plain film examinations is restraining. If radiographers are able to report more than 40% it is felt they should be empowered where it is safe and effective to do so.”

“Only for extremity reporting. Not for chest xrays (sic).”

Recommendation 3: Theme – workforce

The HSC should put in place the necessary training and workforce planning mechanisms to ensure that sufficient numbers of cardiac physiologists and medical physics staff are available to meet the needs of service with respect to functional imaging techniques and medical physics support for imaging services including ultrasound.

The review found that *“Outside of radiology, the workforce challenges in functional cardiac imaging, obstetric imaging and medical physics continue to reduce the effectiveness and efficiency of the services which we need to provide to our patients.*

Whilst the particular causes of each of these problems may be different and specific to the individual relevant clinical area, there are fundamental and underlying reasons and issues behind them.”

Q6. This recommendation focuses on the cardiac physiology, ultrasonography and medical physics workforce as areas outside radiology. Do you agree with this recommendation?

	Strongly Agree	Agree	Neither	Disagree	Strongly disagree
Responses	1	6	5	0	0

Of the 47 written responses, 12 responded directly to this question with 58% expressly agreeing but none disagreeing.

Comments include:

“More resources are required to train sonographers and indeed to attract them to the specialty. The problem with workforce challenges in sonography is broader than obstetric imaging, it is apparent in all ultrasound services.”

“All staff that provide or support imaging need to be included in a holistic workforce plan.”

Q7. Apart from radiology, cardiac imaging, obstetric imaging and medical physics, do you agree that the review has fully considered the workforce needs of diagnostic imaging services? If not, which areas need to be further considered?

	Strongly Agree	Agree	Neither	Disagree	Strongly disagree
Responses	2	4	4	1	1

Of the 47 written responses, 12 responded directly to this question with 50% agreeing and 17% expressly disagreeing.

Comments include:

“It would be helpful if it’s made clear that these changes could allow Northern Ireland to follow NICE’s suspected cancer recognition and referral guidelines, which we understand are currently not being utilised due to concerns for the impact on diagnostic services.”

“...The use of assistant practitioners in departments needs to be increased to allow for radiographers to concentrate on working towards advanced practice...a training course is required in Northern Ireland to develop assistant practitioners as there is a clear need for this in all the trusts.”

Recommendation 4: Theme – Networks of Care

The HSC should put in place a regional hub and spoke network model for the delivery of interventional radiology services in Northern Ireland by 2018/19.

The interventional radiology workstream report concluded that *“the extent and persistence of the workforce challenges in that sub-specialty means a regional hub and spoke network model is the most effective way to deliver safe and sustainable services to the people of Northern Ireland.”*

Q8. Do you agree that a hub and spoke model for interventional radiology is the most effective way to deliver a safe and sustainable service for the population of Northern Ireland?

	Strongly Agree	Agree	Neither	Disagree	Strongly disagree
Responses	2	4	3	2	1

Of the 47 written responses, 12 responded directly to this question. 25% disagreed and 50% agreed. Those who disagreed expressed concerns around how this model would work in practice (insufficient detail was given in the draft framework), and whether or not it should be limited to specialist interventions only.

Comments include:

“Yes SOR agree that a hub and spoke model could help to ensure safe and sustainable interventional radiology services across Northern Ireland. This would also support helping to reduce inequality as shared network wide protocols could be implemented. It is important to ensure the appropriate number of radiographers are trained in interventional radiology before this is implemented to ensure a complete streamline of services.”

“Specialist Interventions only. (i.e. not simple drainages).”

“I don’t agree with the use of the regional hub and spoke model used in the Southern Trust, as Centralisation (sic) of services leaves vulnerable patients without full services.”

Recommendation 5: Theme – Networks of Care

The HSC should put in place appropriate clinical pathways and supporting network models to ensure children can access safe clinical paediatric radiology services, in and out of hours.

The framework notes that *“In paediatric radiology similar challenges in maintaining safe and effective in-hours services in some Trusts and out-of-hours services regionally means that the HSC must consider an increased role for regional network solutions.”*

Q9. Do you agree that clinical pathways supported by regional networks, such as hub and spoke models, will provide safe and effective paediatric radiology services in the future?

	Strongly Agree	Agree	Neither	Disagree	Strongly disagree
Responses	1	7	3	1	1

Of the 47 written responses, 13 responded directly to this question. There were some concerns expressed about the ability to provide the necessary cover for the service to be readily accessible and safe, particularly in relation to paediatrics. Concerns were also raised about the availability of services in the more rural hospitals, notably Daisy Hill.

Comments include:

“There are far too few people in peripheral hospitals to provide anything like a comprehensive or safe service and it is unrealistic to think this will be solved by employing a few more people – there just are not the people out there to employ even if trusts wanted to.

General radiologists are increasingly less happy or likely to do imaging in one of these areas when on call or even during the working day. Even young consultants who would have covered these areas as registrars are not prepared to do so. Centralising services and building up enough staff at these centres to allow reasonable on-call rotas to make the posts attractive is the only feasible solution.

Plain film and even MR reporting can be networked across NI but the problem is that much emergency paediatric imaging is fluoroscopy and ultrasound, and therefore needs someone experienced on-site to do it. This means that on-call cover can never be networked without transferring patients.”

Recommendation 6: Theme – Networks of Care

The HSC should build on the work of the Modernising Radiology Clinical Network (MRCN) in prioritising the development of specialist reporting networks for key radiology modalities including:

- **regional plain x-ray reporting network by September 2018**
- **MRI regional reporting network by end 2019**
- **CT regional reporting network by end 2020**

The framework identifies the move towards models of care that are ‘wrapped around’ the patient and designed to maximise access to services and notes *“Central to this vision, is the expansion of network solutions which support the delivery of care for patients”* and references a key paper published by the Royal College of Radiologists in September 2014 which *“outlined the case for a new service model for imaging services in the UK. They noted that as imaging procedures increased in complexity, it was becoming challenging for individual hospitals to deliver the range of specialist support in a timely fashion across all clinical presentations. This was most evident in relation to out of hours services. The RCR proposal was that existing radiology services should collaborate to form networks of expertise serving much larger populations”*

Q10. The first phase of this recommendation, regional plain x-ray reporting network, has been piloted, with an expanded pilot to be considered subject to pilot evaluation. Do you agree with the proposed model?

	Strongly Agree	Agree	Neither	Disagree	Strongly disagree
Responses	4	5	2	2	0

Of the 47 written responses, 13 responded directly to this question with 69% agreeing.

Comments include:

“It is important that reporting radiographers are included in this network unlike what has happened in the pilot with only the use of radiologists.”

“For general adult on-call this is very feasible and NI is an ideal size to do it. 1 or 2 consultants sitting in a central location with a few registrars could report all the on-call imaging for NI. This would give a very busy on-call but it would happen very infrequently. There could be another rota for neuro cover.”

“There must be an opportunity for non-medical professionals reporting to attend discrepancy and MDT meetings as appropriate.”

Recommendation 7: Theme – Networks of Care

The HSC should establish a regional obstetric imaging clinical network to take forward the development of a new service model for obstetric imaging and ensure regional uniformity in the quality and provision of care.

The framework comments that *“Networks of care solutions apply equally to clinical areas outside of radiology. The work of the obstetric imaging workstream has identified the need for both local and regional network solutions to ensure appropriate levels of scanning for all expectant mothers. These linked local networks supported by regional professional networks will be critical in the delivery of effective obstetric imaging services.”*

Q11. Do you agree with the recommendation that a clinical network should be established and a new service model developed for obstetric imaging?

	Strongly Agree	Agree	Neither	Disagree	Strongly disagree
Responses	2	3	5	1	0

Of the 47 written responses, 11 responded directly to this question with only 1 disagreeing.

Comments include:

“Additional training capacity may be required for this. Work has been underway in England developing a separate profession for Sonography. SOR would expect all sonographers to have followed CASE-approved programmes.”

“South Eastern H&SC Trust have been heavily involved with the current Obstetric Imaging Workstream which has already made significant impact in relation to key aspects of the obstetric ultrasound service. The Trust would therefore support the establishment of an Obstetric clinical network to enable the continued development of a regional approach to policies and guideline which will benefit the workforce and ensure consistency of practice across Northern Ireland. This network can also play a key role in identifying future developments for the service.”

Recommendation 8: Theme – Networks of Care

The HSCB should finalise the implementation of local service models for cardiac magnetic resonance and echocardiography by 2017. The planning estimates for these services should be reviewed on a yearly basis.

The framework notes that *“The cardiology workstream has also identified the key service benefits to be achieved through the use of hub and spoke models in cardiac magnetic resonance imaging (CMR) and in echocardiography.”*

Q12. Do you agree with the recommendation that the cardiology workstream has also identified the key service benefits to be achieved through the use of hub and spoke models in cardiac magnetic resonance imaging (CMR) and in echocardiography?

	Strongly Agree	Agree	Neither	Disagree	Strongly disagree
Responses	1	4	5	0	0

Of the 47 written responses, 10 responded and no-one disagreed.

Comments include:

“Resources for ageing equipment and staffing must be included in the planning estimates.”

Recommendation 9: Theme – Networks of Care

The HSC should put in place enhanced pathways for patients with chest pain which include early access to imaging investigations in line with the regional model developed by the cardiology workstream.

In addition to Recommendation 8 relating to cardiac CMR and ECG, the framework comments that *“Considerable work has also been undertaken by the workstream to develop enhanced local pathways for patients presenting with chest pain. These pathways aim to maximise the clinical benefits afforded by early access to appropriate imaging investigations, and will benefit from effective local access arrangements for CT.”*

Q13. In relation to chest pain imaging investigations do you agree with this recommendation?

	Strongly Agree	Agree	Neither	Disagree	Strongly disagree
Responses	1	5	3	1	0

Of the 47 written responses, 10 specifically replied to this question with 60% agreeing. Some of the respondents expressed concerns around the travel time required to implement this proposal, stating that patients should be treated within the ‘golden hour’. There were also concerns about the need for this to be regionally planned between cardiology and radiology, as there are clear ramifications for wider imaging services.

Comments include:

“The department must take into account that with the increasing number of patients (approximately 2000 annually) for cardiac MR scans, it would be advisable to ensure that the equipment and number of MR trained radiographers are assessed so that demand can be met appropriately in each trust.”

Recommendation 10: Theme – ICT

The HSC should aim to put in place a single regional Northern Ireland Picture Archiving & Communication System (NIPACS) solution across all sites in Northern Ireland with sufficient integration with the Electronic Care Record (ECR) system so that both images and reports can be reviewed on ECR alongside other patient information.

The framework discusses the background and need for a single RIS/PACS system to fully develop networks and create a single solution imaging service to *“improve efficiency and patient safety through the elimination of workflow impediments, reduction of unnecessary requests, avoid duplication of examinations and enhanced resiliency of services. It is particularly relevant to note that until this is achieved, the radiotherapy centre in Altnagelvin and the Cancer Centre in Belfast will be operating different PACS systems.”*

Q14. Do you agree that a single NIPACS solution should be implemented?

	Strongly Agree	Agree	Neither	Disagree	Strongly disagree
Responses	5	2	3	2	0

Of the 47 written responses, 12 specifically replied to this question. 58% agreed and 17% disagreed. Of those who agreed, the vast majority strongly agreed.

Comments include:

“It is vital that there is a single NIPACS system as the two radiotherapy centres treat patients from across Northern Ireland. It is crucial that patient records can be transferred easily between Health and Social Care Trusts to ensure consistency of care.”

“... strongly agree that a single NIPACS solution be implemented without delay. This will ensure a safer service with the reduction of unintentional re-imaging of patients.”

“NIPACS works well but having the 2 major tertiary centres not on it is ridiculous and significantly limits its use.”

Q15. Do you agree that NIPACS should be integrated with the NIECR which is being rolled out across the HSC?

	Strongly Agree	Agree	Neither	Disagree	Strongly disagree
Responses	4	6	1	2	0

Of the 47 written responses, 13 specifically replied to this question, with 10 agreeing. Those who disagreed expressed concerns over the cost of this integration.

Comments include:

“It is crucial that patients’ notes are transferrable across Health and Social Care Trusts and integrated with their imaging records to ensure efficient delivery of treatment. The imaging data collected should have the ability to be linked with the Regional Information System for Oncology and Haematology (RISOH).”

“As part of the Regional Hub and Spoke approach it would be advantageous for all technology used in DXA scanning to be accessible across the NI Trusts and across Primary and Secondary care to better facilitate decision making. This is not currently the case across the Trusts and indeed there are some difficulties within trusts linking with PACS and ECR and these issues have been difficult to resolve despite considerable efforts.”

Recommendation 11: Theme – ICT

NIPACS should also be expanded to include the administration, storage, processing and viewing of all appropriate medical images in obstetrics, cardiology and other appropriate fields.

The framework notes that the review identified significant benefits from expanding access to a single RIS/PACS solution for obstetrics, cardiology and other relevant specialties.

Q16. Do you agree with this recommendation? If so, do you have any view on timescale and/or appropriate field which could be considered for expansion?

	Strongly Agree	Agree	Neither	Disagree	Strongly disagree
Responses	2	4	3	2	0

Of the 47 written responses, 11 specifically replied to this question with the majority agreeing and only two disagreeing.

Comments include:

“Currently there is no storage of ultrasound images for obstetrics. These could be utilised if stored for training and audit purposes. This would ensure the most effective and safe practice for patients.”

“If all radiology images must be kept and reported then the same should apply to all.”

Recommendation 12: Theme – Investment

Proposals for the future development of the imaging needs of the population must be considered in line with the guiding principles outlined in section 1 of the framework.

Section 1 of the framework describes eight guiding principles for the development of any and all imaging services. These guiding principles provide support for decision making processes to ensure safe and effective imaging services.

Q17. Do you agree that the eight guiding principles will effectively underpin safety and quality for imaging services in Northern Ireland?

	Strongly Agree	Agree	Neither	Disagree	Strongly disagree
Responses	2	4	2	2	1

Of the 47 written responses, 11 specifically replied to this question. Most agreed, caveated with resource planning should be based on clinical demand and best practice, not on affordability.

Q18. Having considered the eight guiding principles do you believe that any further guiding principles are necessary? If so, please comment in the box below.

	Strongly Agree	Agree	Neither	Disagree	Strongly disagree
Responses	1	1	1	0	0

Of the 47 written responses, only 3 specifically replied to this question.

Comments include:

“Embedding research in imaging services should be included as a guiding principle to ensure imaging services remain at the cutting edge, in terms of safety, governance and quality of healthcare for patients. Section 4.57 of the framework recognises that:

- *Research is an important indicator of good clinical governance in imaging services.*
- *Patients who receive care in research-active institutions have better health outcomes than patients who are treated in a non-research environment.*
- *Participation in research gives patients a better understanding of their condition, improves patient satisfaction and contributes to the development of better treatments.”*

“This consultation should consider the regional development of guidance regarding requests for clinical imaging from nurses and other non-medical health care professionals. The guiding principles (particularly 5), should reflect that care pathways have changed, and that non-medical practitioners requesting imaging investigations (both ionising and non-ionising), is an integral part of modern care pathways. This needs to be supported by robust guidance, and governance (principle 8).”

Recommendation 13: Theme – Investment

Recurrent funding should be made available so that imaging services can provide the required level of examinations and reports to meet current and projected demand and address backlogs where they exist. This will include optimising use of the imaging equipment base, promoting skill mix, and ensuring that requirements for 7 day access to services and out of hours arrangements are able to be delivered.

The framework comments that workforce capacity issues, advances in clinical practice and annual increases in demand which will require new models of care to be developed to address the current and future demand for imaging services and facilitate increased access for patients and referrers as part of the strategy to deliver 7-day access to services. To achieve this it is important that “all

aspects of service provision are effectively quantified and funded appropriately to ensure out of hours, unscheduled care and extended access to service is secured.”

Q19. Do you agree that recurrent funding is required to maximise the potential for imaging services to provide the required level of service now and into the future?

	Strongly Agree	Agree	Neither	Disagree	Strongly disagree
Responses	7	5	1	0	0

Of the 47 written responses, 13 specifically replied to this question with no respondent disagreeing.

Comments include:

“It is projected that by 2034, that there will be over 14,000 people diagnosed with cancer in Northern Ireland each year.”

“It is important that Northern Ireland creates a long-term plan to maximise the imaging services and provide the recurrent funding needed to make service changes based on clinical demand and best practice, not on affordability.”

“Ongoing financial investment is vital to ensure the integrity of the obstetric imaging service moving forward.”

“I propose that Daisy Hill Hospital is given adequate funding for CT scanner, MRI scanner and all other scanners required for a functioning acute hospital to cater for the needs of its growing population. Newry & Mourne locality is projected to be the 3rd highest population in NI by 2023 (after only Belfast and Lisburn).”

“An imaging service which does not operate efficiently is a hold up to all other parts of the NHS.”

Recommendation 14: Theme – Investment

HSC Trusts should continue to implement the strategic planning framework for major diagnostic imaging equipment. There should be regional oversight and co-ordination of the capital base to ensure that imaging assets are utilised effectively.

The framework comments that the Department’s Strategic Asset Management of Medical Devices (SAMMD) initiative resulted in significant improvements in the age profile and the technology utilised in a range of diagnostic imaging modalities and that *“scheduling of replacement and the investment in new equipment needs to be carefully planned to ensure service continuity, balanced against the opportunities for achieving further value for money through regional procurement, leasing arrangements or consideration of a regional/cluster Managed Equipment Service (MES) programme which would need to be explored as part of the business case process.*

To assist HSC Trusts a strategic planning framework for major diagnostic imaging equipment such as MRI and CT scanners has been developed to meet the objective of maintaining the equipment age profile within acceptable limits. Its successful implementation will require the co-ordinated

approach of all stakeholders including regional and local planning teams, Trust Directors of imaging services and imaging professionals.”

Q20. Do you agree that the strategic planning framework (which replaced SAMMD) will meet the capital equipment needs of the imaging service in the future? If not, what arrangements need to be considered?

	Strongly Agree	Agree	Neither	Disagree	Strongly disagree
Responses	1	5	2	0	2

Of the 47 written responses, 10 specifically replied to this question. The greater number of respondents agreed.

Comments include:

“I strongly disagree that the strategic planning framework (which replace SAMMD) will meet the capital equipment needs of the imaging service in the future because it focuses only on the replacement and /or purchase of new CT and MRI equipment. Annex D (equipment Management document) proposals show that there are only four years 2018 - 2021/22 left of the proposed replacement programme for existing CT or MRI machines. The strategic planning framework should not be a replacement for SAMMD - it should be in addition to so that other types of imaging equipment also conform to safety and legal requirements in use both for staff and patients. It should be up to the health and safety executive, Public Health and legal offices in Trusts to make sure every Diagnostic Imaging Medical Device Age is safe to use. Trusts should be compelled to plan for replacement at least two years in advance of all medical devices which are considered to be technically and clinically redundant because they are more than 10 years old.”

“There has been a very unequal allocation of Image scanning equipment across the 2 acute hospitals in the Southern Trust.”

Recommendation 15: Theme – Governance

The HSC should develop and implement a regional phased programme of imaging accreditation by year 1 of the framework with all HSC Trust sites accredited by December 2019.

The framework comments that “Accreditation is an important quality indicator, both for HSC Trusts as providers and for the HSC as a whole. It is also a vehicle for ensuring that there is an appropriate level of standardisation in practice regionally. This consistency of approach, both clinically and organisationally, will be an important supporting component to networks of care. Accreditation can also provide an evidentiary mechanism for ensuring services are planned and provided in line with our strategic guidelines.”

Q21. Do you agree that a regional accreditation programme for diagnostic imaging should be put in place?

	Strongly Agree	Agree	Neither	Disagree	Strongly disagree
Responses	1	5	3	2	2

Of the 47 written responses, 13 specifically replied to this question. The greater number of respondents agreed.

Comments include:

“HSC should consult with both the RCR and the SCoR when developing a programme of accreditation, as both the RCR and SCoR developed the national Imaging Service Accreditation Scheme (ISAS). This accreditation of professional standards is supported by the health service in Northern Ireland and therefore it may be unnecessary to develop another imaging accreditation scheme.”

“Five band 7 leads have been employed to deliver accreditation for each trust. Currently these leads are on a temporary 3 year contract. It is essential that funding and resources are made available to make this role permanent to guarantee all ISAS standards are met.”

Recommendation 16: Theme – Governance

Where regional or local networks of care are established they must be accompanied by robust clinical guidance and appropriately agreed care pathways.

The framework discusses the benefits of networks of care in terms of risk mitigation, quality improvement and service resilience. The development of referral guidelines and clinical pathways for imaging procedures are considered an essential governance component of these network approaches.

Q22. Where regional or local networks of care are established they must be accompanied by robust clinical guidance and appropriately agreed care pathways. Do you agree with this approach?

	Strongly Agree	Agree	Neither	Disagree	Strongly disagree
Responses	5	5	3	1	0

Of the 47 written responses, 14 specifically replied to this question. 71% agreed.

Comments include:

“GPs should have direct access to the right diagnostic imaging test to help them diagnose or exclude cancer at an earlier stage. Guidance and pathway approaches must be developed for primary care staff on how to refer patients who have vague symptoms.”

“(1) All DXA scans, in addition to scan print outs, should have a report that includes sufficient information to support the development of a management plan and treatment decisions and should include a statement regarding rescan time, specific for the patient rather than a generic statement that could potentially result in inappropriate use of scanning resources. Currently the quality and details of any reporting across the region vary widely but the referrers are unaware of this lack of consistency and are concerned that they could be making prescribing and treatment decisions on the basis of inaccurate information.”

“Consideration should be given to developing robust guidance and agreed care pathways that will include non-medical professionals who are involved in the clinical imaging process.”

“Regional clinical guidance and care pathways support consistency of practice benefiting junior staff and students as they move across Trusts. They also provide the evidence base for clinical audit”

Recommendation 17: Theme – Governance

HSC Trusts in collaboration with an imaging network board (see recommendation 19) should undertake detailed local consultation with primary and secondary care imaging referrers to ensure robust referral pathways are in place including appropriate methods of results acknowledgement.

The framework notes that *“evidence suggests that further development of clinical pathways within appropriate clinical environments has the potential to deliver significant quality improvements including increased decision support for referrers, appropriate and timely primary care access to complex imaging and greater multi-disciplinary working.”*

Q23. Do you agree that working in partnership with referrers will ensure robust referral pathways and that clinicians should comply with requirements relating to results acknowledgement?

	Strongly Agree	Agree	Neither	Disagree	Strongly disagree
Responses	4	5	2	1	0

Of the 47 written responses, 12 specifically replied to this question with three quarters agreeing.

Comments include:

“NICE guidance on the recognition and referral for suspect cancer – NG12 – should be adopted so patients with suspected cancer are referred by their GP for investigation according to evidence-based risk thresholds. GPs should have direct access to the right diagnostic imaging test to help them diagnose or exclude cancer at an earlier stage. Guidance and pathway approaches must be developed for primary care staff to refer patients who have vague symptoms.”

“There is concern that currently Referrers, especially in Primary Care, are unaware that they may be making treatment decisions on a Scan print out which does not even meet the needs of a minimum technical report.”

““Referrers” should cover medical and non-medical professionals who are involved in the clinical imaging process including:

Acute Care Practitioners

Advanced Nurse Practitioners

Physiotherapists with extended roles

Chiropractors

Osteopaths.”

Recommendation 18: Theme – Governance

HSC imaging services should foster a research culture with close integration between clinical and research departments.

The framework comments that “...research is an important indicator of good clinical governance in imaging services. The evidence suggests that patients who receive care in research-active institutions have better health outcomes than patients who are treated in a non-research environment. Participation in research has also been shown to give patients a better understanding of their condition, improve patient satisfaction and allow all of us as service users to give something back to our NHS by contributing to the development of better treatments. Research also raises much needed funds to help sustain critical services.

By embedding research in imaging services therefore we can drive up the standard of healthcare for our patients, improve the patient experience and leverage income for the HSC.”

Q24. Do you agree that a research culture should be fostered in imaging services?

	Strongly Agree	Agree	Neither	Disagree	Strongly disagree
Responses	4	5	2	0	1

Of the 47 written responses, 12 specifically replied to this question with only one disagreeing. There was some concern expressed over the detail of how this would be implemented.

Comments include:

The SOR quoted its own strategy:

“AIM 1: Embed research at all levels of radiography practice and education

AIM 2: Raise the impact and profile of radiography through high quality research focused on improving patient care and/or service delivery.

AIM 3: Expand UK radiography research capacity through development of skilled and motivated research-active members of the profession.”

Recommendation 19: Theme – Governance

The Department should establish a regional medical imaging network or ‘imaging board’ to oversee implementation of the recommendations of the review to provide continuing professional advice and support on issues such as workforce, equipment and strategic planning.

The review has concluded that there is a compelling case for the establishment of a regional imaging board for Northern Ireland. This body would fulfil a range of governance roles and functions which will be vital to achieving the vision in this framework, including:

- working at regional and local planning levels to deliver a 5 year workforce and investment plan for imaging services which takes account of the recommendations of this review;
- working at regional and local planning levels to support the establishment of appropriate regional networks of care across the region, including adult, paediatric and interventional radiology, cardiology and obstetrics networks;

- overseeing the development of appropriate clinical guidance and regional patient imaging pathways to support networks of care;
- advising on quality and safety of imaging services including service accreditation;
- encourage collaborative research to enhance evidence-based practice and its rapid diffusion into clinical practice;
- providing professional leadership for, input to and influence over imaging services and development at policy, strategic and operational levels;
- planning and implementing cross-professional training and education.

Q25. Do you agree that a regional ‘imaging board’ should be introduced to focus on the delivery imaging services for the population of Northern Ireland? If so, do you have any comments you wish to make on suggested membership or functions of the proposed ‘imaging board’?

	Strongly Agree	Agree	Neither	Disagree	Strongly disagree
Responses	4	7	2	2	0

Of the 47 written responses, 15 specifically replied to this question. Several who disagreed or said ‘neither’ did so because of lack of detail in the draft framework. Those who agreed commented that they did so as long as the Imaging Board would have sufficient influence.

Comments include:

“the imaging board should include researchers, research managers as well as those with experience of imaging used in clinical research.”

“it would be useful for there to be representatives from outside of government and the health service – potentially representatives for professional bodies. It is also essential to have patient and public voices represented on the group, potentially through third sector organisations. It should publish a short report annually on progress in delivering the recommendations of the review.”

“Membership should include non-medical professionals who are involved in the clinical imaging process to ensure cross-professional guidance can be developed in line with changes in health care delivery. This will enhance the safety and delivery of patient services.”

General comments

At the end of the consultation response document an open text section invited respondents to insert general comments in relation to the recommendations or wider content of the evaluation report.

Comments included:

“Detailed modelling of the projected demand for imaging in relation to suspected cancer must be conducted.”

“In the short term you may need to engage with external education providers in order to rapidly add to the pool of practitioners and build the critical mass required. Canterbury has a strong track

record of radiographer clinical reporting, having established the first accredited skeletal reporting course in 1996 and remains at the forefront, offering adult chest x-ray, abdominal x-ray, MRI knee and lumbar spine and other reporting qualifications.”

“Mentorship is crucial in the education and training of advanced practitioner radiographers. Departments with an established cohort of advanced and consultant practitioner radiographers can often manage this without an onerous contribution from consultant radiologists. In order to support departments without this critical mass of existing practitioners the Diagnostic Capacity Fund grant supported the development and implementation of a centralised model to support trainee chest X-ray reporting radiographers and has funded the first cohort of 14¹. The successful model developed could be readily expanded to other Cancer Alliances/Vanguards or adapted to other aspects of radiographer advanced practice, for example radiographer reporting of barium swallow for the diagnosis of upper GI cancer or training MRI reporting radiographers to support MSK pathways. There are options for this mentorship to be provided remotely, using existing telemedicine facilities used for MDT discussions.”

“Funding to support course fees, backfill for trainees and management of centralised training models is essential. The time from recruitment to completion of study and post-qualification audit/mentorship for a reporting radiographer, to maximise quality and safety through this period, can take between 15-20 months depending on the qualification. In the short term, in order to provide improvements in patient care, it may be helpful if a system of radiographer preliminary clinical evaluation (PCE) could be introduced...Although not a replacement for a definitive clinical report, this system has been shown to reduce diagnostic errors, decrease patient recalls and improve A&E performance.”

“Daisy Hill Acute Hospital, Newry City is in the largest locality in the Southern Trust in Newry & Mourne, and also provides for the wider catchment population which also includes South Armagh and Banbridge. The allocation of funding for imaging equipment investment and replacement planned for the Southern Trust area must include Daisy Hill Acute Hospital.”

“It is essential that any workforce recommendations are linked closely to the Workforce Strategy plan from the department of health.”

“Through role redesign, we now have a growing workforce of non-medical practitioners working in all areas of health care. The strategic review should consider developing regional guidance / governance to assist professionals, reducing regional variations in the provision of care within the field of imaging, and enhancing care pathways.”

“Review the current 'time for reporting' which dictates the cost paid per x-ray or scan reported. Re. efficiency of the process, senior finance and HR should be included in the working group to ensure payments remain within standing financial instructions and do not sit outwith terms and conditions of the various staff, nor raise issues with the European WTD.”

Equality Impact

Of the 47 respondents, only eight commented on equality issues. Of those eight, three felt that there were equality implications.

¹ http://www.cancerresearchuk.org/sites/default/files/homerton_ucl_hub_and_spoke_model_v2.pdf

One respondent felt that storage of patients' details in a 'cloud' could compromise privacy, and that everyone is entitled to privacy of personal medical information. Another concern raised was that persons with a disability or persons with dependants would be impacted as they may have more limited ability to access online facilities.

3. STAKEHOLDER CONSULTATION MEETINGS

Stakeholder consultation meetings were held as follows:

12 December 2017 - NICVA, Duncairn Gardens, Belfast
14 December 2017 - Enniskillen Town Hall
18 December 2017 - Adair Arms, Ballymena
21 December 2017 - Lagan Valley Island, Lisburn
03 January 2018 - Craigavon Civic Centre
08 January 2018 - Canal Court Hotel, Newry
10 January 2018 - Guild Hall, L/Derry
15 January 2018 - Fermanagh House, Enniskillen

Preparation for Consultation Meetings

In consultation with stakeholders, the initial consultation plan was to hold one large public event in a central location aided by a professional facilitator, with a panel of clinical and policy advisors to provide clarity and advice. This decision was based on the view that the Strategic Framework was considered a technical and clinical assessment of imaging services for Northern Ireland and that public interest would be poor. However the Project Board overturned this decision in the interests of transparency and accountability, preferring to employ a more typical consultation approach and holding open public meetings throughout the province in order to give people an opportunity to express their views.

The venues and timings noted above were selected to offer the best practical choices and opportunities for patients, families and representatives to attend and participate in the public meetings. The format adopted was informal, with cabaret style round tables where possible to encourage discussion and interactive conversation to share views and offer feedback from the panel on each of the Strategic Framework's recommendations.

Attendance at Public Meetings

Each meeting was facilitated by Patricia Donnelly on behalf of the Department.

The Department was represented at each meeting by Alastair Campbell (Director of Secondary Care) and/or Joe Magee (Head of Policy and Legislation, Secondary Care Directorate), and/or Helena Brown (Policy and Legislation, Secondary Care Directorate), who responded to questions relating to the Departmental policy. Each meeting was also attended by a Departmental rapporteur.

At each meeting a Consultant Radiologist offered their advice and shared their input into the review process and their operational experiences. Attending Consultants were John Lawson, David Gracey, Anton Collins, Maria Wright, Adam Workman, Raymond Nethercott, Gareth Loughrey, Mark Harbinson, Jeanette Robinson, Dan McLaughlin, Niall MacKenzie, and Ciara McLaughlin.

In addition to the Department's website and Twitter account, details of the public meetings were shared with MLA's personal boxes at the Assembly and relevant voluntary groups and other organisations who in turn publicised events through email/social media. The Department also issued press announcements with event details to local newspapers ahead of each meeting.

The public meetings were attended by a broad mix of people including patients and/or their carers, patients' relatives, charity representatives, councillors and MLAs, media, unions and Trust employees as follows:

Date	Meeting place	Attendees
12 Dec 2017	Belfast	0
14 Dec 2017	Enniskillen	27
18 Dec 2017	Ballymena	3
21 Dec 2017	Lisburn	1
03 Jan 2018	Craigavon	0
08 Jan 2018	Newry	6
10 Jan 2018	L/Derry	2
15 Jan 2018	Enniskillen	53

Format of Meetings

The background and recommendations were introduced via power-point presentation followed by open discussion around a series of questions as per the consultation questionnaire.

The process was interactive using an improvement model where feedback at the end of each meeting on the process allowed changes to be made to improve the engagement of consultees at future meetings. Comments and feedback was captured by a rapporteur.

The following notes provide a summary of the key questions, comments and concerns raised at the consultation meetings. They are not intended as a verbatim minute.

In the main, participants at the stakeholder meetings were supportive of and positive about the draft framework. Salient comments from those meetings included:

Guiding Principles for Imaging Services

“In regard to plain film imaging, there are a number of outreach centres in the Northern Trust area, such as the Dalriada site, with equipment in place which perhaps is not being optimally used.”

Workforce – recommendation 1 – unfilled vacancies in radiology workforce

“50% of SWAH recruits are international. We are very dependent on international recruits – it’s very difficult to recruit into SWAH, there is a lot to consider, including work/life balance.”

“We need more investment for Daisy Hill - our consultants are overworked. They have to cover all the time - in Belfast they only have to cover one week in several. There has been under investment in Daisy Hill in particular.”

“In the last 18 month period recent changes to On Call provision at Antrim Area Hospital has seen support provided by a private company which has greatly aided imaging staff.”

Workforce – recommendation 2 - deployment, education, training of radiographers

“Re. 20-40% reporting radiographers – good to see career progression opportunities but it is important that barriers are removed. Unison wants to see colleagues adequately rewarded. Our main concern is

that this is moving towards getting things on the cheap. We want to see the role of radiology protected – digital and reporting radiographers will see services eroded.”

“If we increase the number of radiologists - will this mean that reporting radiographers will not be needed anymore?”

“A structured career pathway is very important and needs to be delivered in NI. There are difficulties in obtaining funding. There is a real need in NI for an Assistant Practitioner course. If there was an on-line course you wouldn’t need 12 staff required to send to England for training (Stakeholder has brought this to the attention of Ulster University). We need more funding for reporting radiographers courses in NI, really important to get training budget.”

“The older generation of radiologists have reported on lots of plain films; the younger generation of radiologists tend to report on MRI, CT and more complex studies therefore they are not getting the level of exposure to plain film and are not working on the easier examinations, which may have some impact on burn-out. This might affect the ability of radiologists to supervise advanced practice radiographers.”

Workforce – recommendations 3 - cardiac physiologist and medical physics staff

“Compared to US/Canada and Western Europe we do very little imaging particularly in the fields of stroke, cardiac and other conditions - we need to do more.”

Networks of care - recommendation 4 – hub and spoke for interventional radiology

“We heard about hub and spoke models in TYC and the spoke was downgraded. The language used is not good.”

“Re. 24/7 access to radiologists, there are colleagues that we can talk to on the phone when appropriate. This is needed, for example, when a very sick child/baby requires a surgeon and post-operative care.”

“This is not something we can do nor is it something that happens on a daily or regular basis. We are NOT doing this currently and we are not proposing to do it – this would be viewed as dangerous.”

“There are issues with reporting networks. We would like to see co-operation from everyone.”

Networks of care - recommendation 5 – clinical pathways to ensure children access safe paediatric radiology services 24/7

“Talking about 24/7 access to radiologists.”

“Children are not just small adults and often their ailments are unique to them as a group. Moving children is not desirable. Implementation of NIPACS has greatly aided not having to move children.”

“The informal Paediatric Imaging Group has been very good and is growing. They have produced very useful trauma guidelines and the treatment of non-accidental injuries here is the best in the UK. Paediatric radiology is a narrow specialism which is hard to attract individuals into. Paediatric radiology is quite different from radiology on adults as children are more likely to suffer long term

damage from radiation, so the number of scans they undergo must be very limited. Scans cannot be done remotely so a regional approach works with a child being moved short term for imaging to be done”

Networks of care – recommendation 9 – pathways for patients with chest pain

“NICE have said chest pain should have CT scans – these recommendations means we need to push this forward”

“How can you reconcile this with new models and adopting radiography standards and increasing quality? Is this document not a rationalisation model?”

“Scanning has proved more effective than many manual tests (Treadmill for example) and the new model represents a major step change in cardiology. A hybrid model using either/or tests will see a gradual uptake in capacity for the new model. Additional CT time is required.”

“With regard to specific challenges to rural communities we cannot sign up to this. We are being kept in the dark and asked to agree. There are 4 or 5 acute hospitals recommended in the Bengoa report.”

Governance – networks of care, robust clinical guidance and clinical pathways

“There is some confusion about what type of image to order. An educational tool is needed to advise the best pathways and what to order. We need to use ICT to ensure the right tests are being ordered. ICT could ensure the results are transmitted in time for the patient’s next appointment.”

ICT – single picture archiving and communications system (PACS) and integration with electronic care records (ECR)

“The contract for the Royal Hospital IT system runs out in 2021 - the City Hospital contract runs out in 2030. Need to think about the cost of contracts. NI PACS should be across region by 2022.”

Investment - Trust to continue to implement the Strategic Planning Framework (SPF) for major diagnostic imaging equipment with regional oversight

“There is advantage in renting rather than owning machines.”

Governance HSC Imaging Services to foster research culture

“While there was consensus this was a good goal there was a suggestion that funding and clinical time may be an issue.”

Governance - Establishment of regional imaging network ‘Imaging Board’ to oversee implementation of recommendations and provide continuing advice

“We would like to see representation from SOR and professional bodies on membership. Needs resources, time and funding. Its function should be to deliver the service, there is an educational aspect lacking – these messages don’t get across to clinicians and they need to.”

“There is a big piece of work needed on how information is received and results given to patients.”

“Clarification – not another Board or Trust?”

Slide 34 – Governance - Trusts and the Imaging board undertake consultation with primary and secondary care imaging referrers

“When results are received we are in limbo between paper and IT. We need to be able to annotate – currently paper is noted and the IT record is not.”

General Comments/Queries

“Are there cross-border issues? There may be some technical items vis-à-vis equipment and treatments. Additionally the respective leads in NIPACS and NIMIS (in Rol) can discuss.”

“Would there be merit to include imaging representation from the HSE?”

Rural Impact

As noted above, one respondent commented in connection with recommendation 9, “Networks of Care”, that they felt that there was insufficient information on how this strategy would impact upon rural communities.

4. DEPARTMENTAL RESPONSE

The Department is grateful to all organisations and individuals who participated in this public consultation, and highly values the views of those with professional or personal experience in this field. The Department's response to the range of issues raised is set out below.

The Strategic Framework aims to provide guidance to enhance and improve the delivery of radiological imaging in Northern Ireland, with a number of high level recommendations and supporting guiding principles for service development and configuration over the longer term.

The table on page 34 provides a summary of responses to the consultation. Assessment of the responses demonstrates a clear endorsement of the strategic framework, with positive feedback in most areas. Some minor dissatisfaction and/or misunderstanding around descriptive terms and the absence of detail was evident and potential solutions to these are noted below. However it is important that the purpose of a 'strategic framework' is defined in the first instance to assist understanding.

The purpose of this strategic framework is to provide a vision, guiding principles and key elements for the provision of a safe and effective imaging service for Northern Ireland which is sustainable, resilient and has the capability to continue to improve into the future (at least 10 years). The strategic framework is not intended to be prescriptive and does not detail how this will be accomplished. The detail is for those who are tasked with implementing the recommendations to determine, therefore the high level recommendations in the strategic framework are sufficiently broad to be equally applicable today and into the future. The detailed expert reports which informed the review remain available on the Department's website at the following link:

<https://www.health-ni.gov.uk/consultations/consultation-draft-strategic-framework-imaging-services-health-and-social-care>

Comments on detail

The review of imaging services was a significant project involving input from many different medical and clinical departments, with the five themes of the strategic framework being condensed from a larger number of recommendations of the individual expert reports. Although most are common to all areas, each recommendation will require substantial scoping and the development of comprehensive implementation plans relating to the source information (i.e. the original expert reports). For example, the recommendations on workforce recruitment and training needs are not limited to the medical/clinical professions but must encompass all aspects of the imaging workforce, including backfill and support staff.

Therefore, to address respondents' comments relating to detail, the Department would advise that during the next number of years further important work will be required to calculate the full implications of each recommendation, coupled with ensuring the advancements are coupled and take cognisance of the ongoing work of other Departmental strategies, such as *Delivering Together*. This will take time and mitigates commencing some emerging, critical time-bound recommendations before the review had concluded, for example, increasing the number of trainee radiologists, which is currently on target, and the first of these should join the workforce shortly.

Descriptors

Comments from both written responses and public engagement meetings across the province highlighted the need for clarity on language such as 'networks' and 'hub and spoke', with some people associating these with a reduction in service or removal of scanning equipment. In fact the opposite is true, the strategic framework is expected to improve access to imaging services closer to the patients' home and in some instances will introduce a service where currently none exists.

There are, however, some very specialist areas that need to be sited in regional centers due to the small number of patients requiring treatment. Clinical competence and availability of specific expertise alongside expert technical support and infrastructure requirements for specialist equipment mean these highly specialist areas are safer and more viable in regional centers. However this is mitigated by the use of digital technology (NIPACS) and much of the imaging required pre and post treatment can be provided close to the patient's home, where it is safe to do so. Therefore in the fullness of time the services provided will be superior, ensuring that patients are treated by appropriately trained healthcare professionals, leading to better patient outcomes.

The long-term vision is that imaging services will be consistent and standardised (where appropriate) across the region, supported by an external, independent patient-focused assessment and accreditation programme designed to help imaging services provide consistent high quality services, delivered by competent staff working in safe environments.

Non-medical professionals

There were some comments relating to skill-mix and the use of non-medical professionals in terms of attending discrepancy and multi-disciplinary team meetings, and also in relation to referring patients for imaging tests. The Department is pleased to advise that these comments have been forwarded to the Modernising Radiology Clinical Network (MRCN) to take forward.

Cross-border and Brexit issues

Some respondents commented that cross-border relationships had not been addressed in the strategic framework. While it is true that there are some challenges relating to compatibility between the digital systems of the two jurisdictions (Northern Ireland and the Republic of Ireland) there are also opportunities, particularly in border regions. The Department will therefore strengthen the framework in this regard to highlight the intention to make the most of such opportunities where possible.

The associated potential impact of Brexit may also requires further consideration. However, as this is a cross-cutting issue that goes far beyond imaging, it is not proposed to alter the framework to accommodate this.

Rural and Equality issues

Any rural and equality issues raised have been considered and will form part of the finalised Strategy document.

Financial considerations

A high-level implementation plan has been developed to provide a broad insight into the financial implications of the strategic framework. This will be the basis for taking forward comprehensive implementation plans in the diverse range of clinical areas, both in primary and secondary care settings, to identify further costs.

Implementation of some of the recommendations will carry capital and revenue costs; these will necessarily be subject to contractual and procurement requirements as well as availability of resources. Other recommendations carry little or no additional cost and can be taken forward by healthcare professionals as soon as is reasonable to do so, and according to the implementation plans. Some scoping groups have commenced work to examine these and will bid for funding, where applicable, under normal procedures.

Summary

The Department expresses gratitude to everyone who took part and/or provided their views during this consultation. We conclude that there is widespread support for the eight guiding principles and

the 19 recommendations, but would reiterate the view that leadership from key stakeholders will be required to take forward implementation of the recommendations in a meaningful way.

Imaging is the backbone of modern healthcare and it is the intention of the strategic framework to provide guidance for safe, effective and sustainable imaging services into the future. Given the current political climate, the financial uncertainty and continuous rise in demand implementing this policy remains a challenge now and into the future. Nevertheless this strategic framework provides an ambitious pathway for the future where Northern Ireland has the potential to lead the UK in imaging matters such as digital technology, accreditation and workforce recruitment and retention strategies.

Summary table of responses

Totals by recommendation for all categories	strongly agree	agree	neither	disagree	strongly disagree	no comment or n/a	Total	total minus no comment or n/a
Question 1	7	7	2	0	0	31	47	16
Question 2	2	6	3	2	0	34	47	13
Question 3	5	5	3	1	0	33	47	14
Question 4	7	4	2	0	0	34	47	13
Question 5	2	5	5	0	1	34	47	13
Question 6	1	6	5	0	0	35	47	12
Question 7	2	4	4	1	1	35	47	12
Question 8	2	4	3	2	1	35	47	12
Question 9	1	7	3	1	1	34	47	13
Question 10	4	5	2	2	0	24	47	13
Question 11	2	3	5	1	0	36	47	11
Question 12	1	4	5	0	0	37	47	10
Question 13	1	5	3	1	0	37	47	10
Question 14	5	2	3	2	0	35	47	12
Question 15	4	6	1	2	0	34	47	13
Question 16	2	4	3	2	0	36	47	11
Question 17	2	4	2	2	1	36	47	11
Question 18	1	1	1	0	0	44	47	3
Question 19	7	5	1	0	0	34	47	13
Question 20	1	5	2	0	2	37	47	10
Question 21	1	5	3	2	2	34	47	13
Question 22	5	5	3	1	0	33	47	14
Question 23	4	5	2	1	0	35	47	12
Question 24	4	5	2	0	1	35	47	12
Question 25	4	7	2	2	0	32	47	15

Project Board Members

Professional representation		
Name	Representative role	Other relevant information
Dr John Lawson	Co-Chair and lead clinician for the imaging review	Radiology Specialty advisor to the CMO
Dr Ronan McNally	Adult radiology workstream radiology lead	Consultant Radiologist South Eastern Trust
Jeannette Robinson	Adult radiology workstream radiography lead	Radiographer Manager Southern HSC Trust
Dr Seamus McAleer	Adult radiology workstream cancer advisor	Senior Lecturer and Consultant in Clinical Oncology Belfast Trust
Dr Mark Harbinson	Cardiology workstream lead	Senior Lecturer QUB and Consultant Cardiologist Belfast Trust
Dr Anne Paterson	Paediatric workstream lead	Sub-directorate lead for Paediatric Radiology in the RBHSC and Specialty Co-ordinator for Radiology in the Belfast Trust
Dr John Manderson,	Obstetrics workstream joint lead	Consultant Obstetrician (Fetal Medicine Subspecialist) and Lead for Obstetric Ultrasound South Eastern Trust Chairman NI Obstetric Ultrasound Forum
Dr Stephen Ong	Obstetrics workstream joint lead	Consultant Obstetrician, Belfast Trust
Jackie McGeagh	Obstetrics workstream joint lead. Public Health Consultant	PHA
Dr Anton Collins	Interventional radiology workstream lead	NI Medical and Dental Training Agency (NIMDTA) training Programme Director for Radiology
Dr Adam Workman	Medical Physics advice to all workstreams	Regional Medical Physics Service – Head of Radiological Sciences and Imaging
Hall Graham	Head of Primary Care	Regulation and Quality Improvement Authority (RQIA)
Dr Eddie O'Neill	Primary Care	HSCB
Des O'Loan	ICT Strategy and Programme Control	HSCB
Beth Malloy / Sara Long	Commissioning	HSCB
Maria Wright	Service Improvement	HSCB and Modernising Radiology Clinical Network (MRCN)
Dr Muhammad Sartaj	Public Health Consultant	PHA
Nicky Harvey	Imaging ICT	Business Services Organisation, NIPACS Regional Service Manager
Professor John E Moore	Patient representative	Patient Client Council (PCC)
Department of Health representation		
Catherine Daley / Deborah McNeilly	Senior Responsible Owner and Co-Chair	Healthcare Policy Group
Jackie Johnston	Project Director	Healthcare Policy Group
Sean Ferrin	Project Manager	Healthcare Policy Group
Helena Brown	Researcher and Assistant Project Manager	Healthcare Policy Group
Peter Barbour	Workforce	Healthcare Policy Group

Dr Martin Bradley	Medical advisor	Chief Medical Officer's Group
Brian Godfrey	Safety Strategy Unit	Chief Medical Officer's Group
Jennifer McCrea	Hospital Information	Resources and Performance Management Group
Adrian Murphy	Infrastructure Investment Directorate	Resources and Performance Management Group
Hazel Winning	Allied Health Professional Lead	Nursing, Midwifery and AHP Advisory Directorate
Jemima Keyes	Nursing Officer	Nursing, Midwifery and AHP Advisory Directorate
External expert reference group		
Dr Pete Cavanagh	Retired consultant radiologist (England)	Former vice-president of the Royal College of Radiologists
Dr Richard Clements	Consultant radiologist (Wales),	Chair of the Welsh Standing Committee of the Royal College of Radiologists.
Mr Richard Evans OBE	Professional Body Representative	Chief Executive Officer of the Society and College of Radiographers
Dr Beatty Crawford	Former Associate Professor of Radiology, University of Connecticut, USA	Retired Consultant Radiologist

Respondents

Category 1	Members of the public
	27 Individuals
Category 2	Health and Social Care Organisations
	South Eastern Health and Social Care Trust x 2 responses
	HSC Research and Development Division – Public Health Agency
	Homerton University Hospital and Canterbury Christ Church University
	Belfast Health and Social Care Trust
	Regional Vascular Surgery Unit – Belfast Health and Social Care Trust
	Northern Health and Social Care Trust
Category 3	Health Professional Representative Bodies
	Northern Ireland Osteoporosis Consensus Group – National Osteoporosis Society
	The Society and College of Radiographers
	Royal College of General Practitioners Northern Ireland
	Northern Ireland Standing Committee of the Royal College of Radiologists
Category 4	Individual Health and Social Care Professionals
	Caroline Wheeler
	Caroline Corry
	Melvyn Ang
Category 5	Voluntary Groups
	Parenting NI
	Cancer Research UK
Category 6	Public Sector
	Fermanagh and Omagh District Council
Category 7	Trade Unions
	British Medical Association Northern Ireland
	Unison
Category 8	Political Party
	Sinn Fein

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