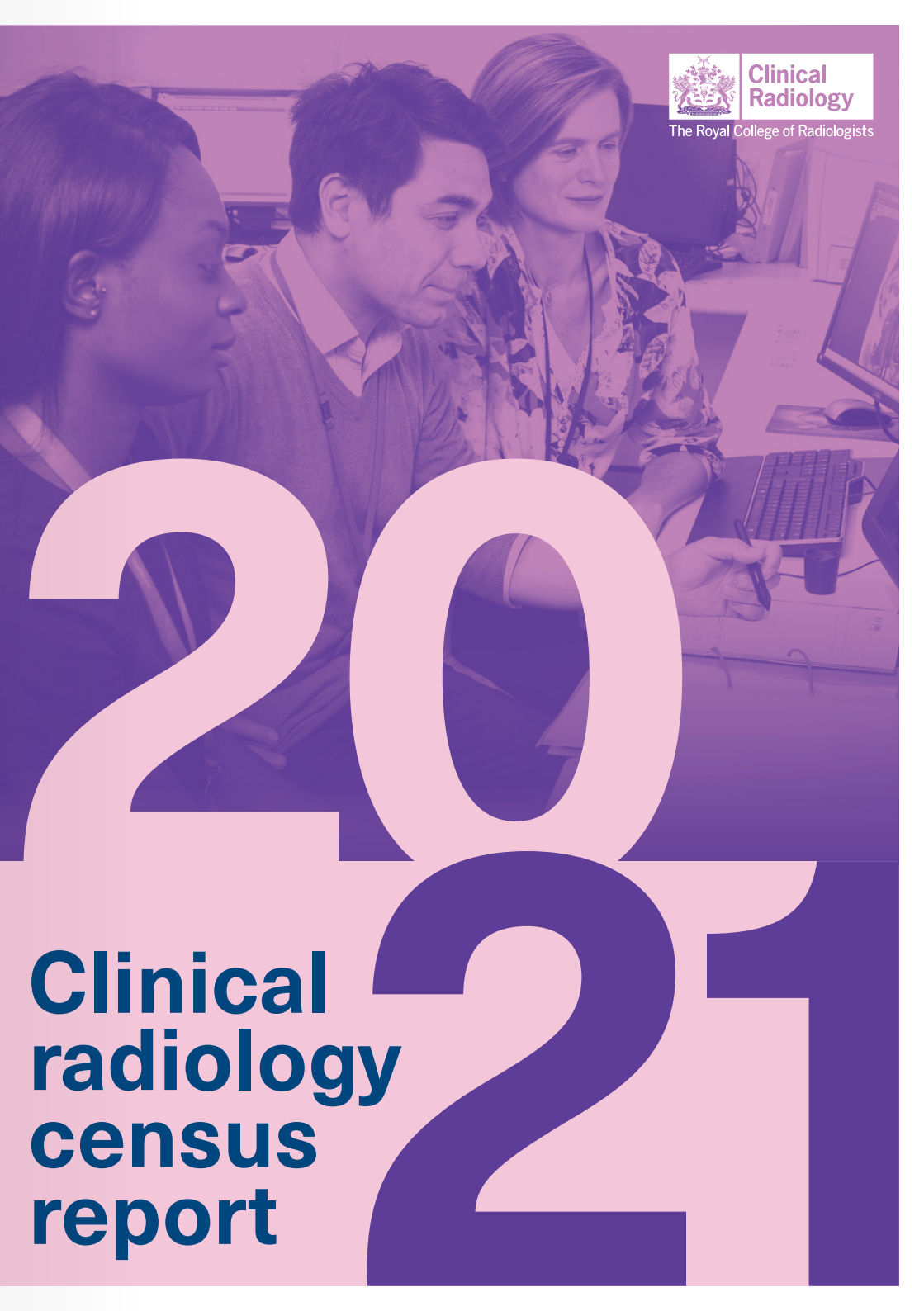




**Clinical
Radiology**

The Royal College of Radiologists



2021

**Clinical
radiology
census
report**

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Introduction

Clinical radiologists (CRs) are an integral part of patient pathways and care across the four UK nations; they are intertwined into the fundamental makeup of each of the UK's health systems.

We estimate that around 80% of hospital pathways involve imaging, its interpretation and intervention, making clinical radiologists central to the management of patients with cancer, heart disease, stroke and COVID-19 complications, amongst others.

For over 10 years, The Royal College of Radiologists (RCR) has collected key clinical radiologist workforce data from clinical directors across the UK to identify trends, issues and make evidence-based recommendations.

With a 100% response rate, this year's data reflects the workforce as it stood on 1 September 2021.

Our 2021 census reveals an increasingly worrying picture of staff shortages, leading to increasing workforce pressures impacting on patient safety and quality of patient care, resulting in reduced staff retention. Until these issues are resolved, backlogs will continue to rise, and patient outcomes will continue to be adversely affected. ■

Foreword

Clinical radiology is central to the delivery of safe and effective healthcare. Around 80% of hospital pathways rely on medical imaging, and in many cases complex imaging not only enables accurate diagnosis, but also guides surgical and other treatment. It was clinical radiology that identified the key markers of COVID-19, and clinical radiology is crucial for tackling the cancer backlog as well as other killers, including heart disease and stroke.

Interventional radiology now plays an increasingly crucial role in the treatment of a wide range of diseases, delivering minimally invasive treatments and improving the quality of life, if not saving lives. These treatments are often delivered as day case procedures, which proved to be effective and crucial during the COVID-19 pandemic. Simply put, if radiology departments are not functioning effectively, hospital treatment will not operate effectively, which is why it is so worrying that 63% of clinical directors report such significant shortages in workforce that patient safety is being compromised. In 2020, this figure stood at 58%; if the issue is not addressed, the picture could be even bleaker by 2023.

The RCR census received a 100% response rate from clinical directors (the doctors who lead radiology departments) – it is the authoritative state of the nation with regards to clinical radiology and provides a unique insight into the challenges they face in delivering care.

The census report covering the period 2021 should provide a stark wake-up call to government and the NHS as to the scale of workforce shortages and the impact they have.

Recent increases in training numbers have been welcome and important. However, unless this investment is sustained and long-term, it will do little to alleviate the pressures, especially as training new doctors takes time and pulls clinicians away from their day-to-day work.



The census report covering the period 2021 should provide a stark wake-up call to government and the NHS as to the scale of workforce shortages and the impact this has.

Unless urgent action is taken, workforce shortages are set to get much worse. Currently we are seeing a shortfall of 1,669 clinical radiologists and over 200 vacancies across the UK that have been unfilled for a year or more. We estimate that without action, the shortfall could hit 39% by 2026 – equal to 3,166 clinical radiologists.

These shortfalls are directly impacting patients. An overwhelming 97% of clinical directors told us that they are concerned about the backlogs and delays patients are facing on a daily basis. A lack of clinical radiologists results in thousands of patients waiting longer for diagnosis and lifesaving care. This is untenable for them and their families.

Interventional radiology (IR), meanwhile, a medical sub-specialty that undertakes minimally invasive procedures using medical imaging guidance, is facing such challenging shortfalls that half of health boards and trusts are not providing adequate 24/7 IR services. This alone is compromising patient safety, denying patients important treatments, creating a postcode lottery and adding huge costs to patient care and rehabilitation.

The strain of working under unsustainable levels of pressure is taking its toll on doctors themselves, with almost all clinical directors (98%) saying they are concerned about workforce morale, stress and burnout in their departments. As one clinical director told us: *'We have an exhausted workforce, low morale and we're losing faith in senior management. We have constant complaints regarding delayed appointments and reporting turnaround from both patients and consultant colleagues within the trust.'*



A lack of clinical radiologists results in thousands of patients waiting longer for diagnosis and lifesaving care.

This needs to be addressed urgently, along with strategies for enabling more clinicians to continue working after retirement age. Tackling workforce – whether through training more doctors or establishing new ways of working – takes time and resource at a time when clinicians are facing unprecedented pressure. Tackling the workforce crisis needs a holistic approach to ensure we don't lose more doctors through burnout than we can recruit and train.

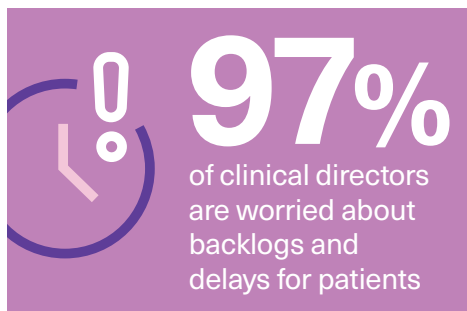
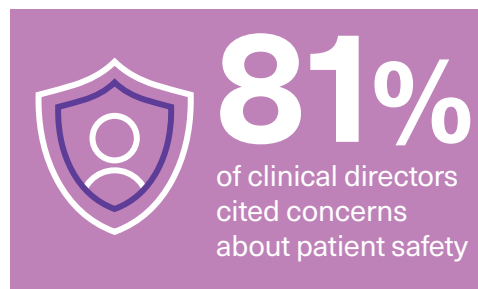
If the picture appears bleak, that is because it is, and action is needed urgently. The RCR is calling for long-term, sustained and planned investment in workforce, including a sustained increase in trainee numbers, a clear strategy for global recruitment and outsourcing, and a focus on doctor retention, particularly for those approaching retirement.

Failure to tackle these issues will inevitably lead to unacceptable wait times and, ultimately, poorer outcomes for patients. ■



Dr Raman Uberoi
Medical Director for
Professional Practice,
Clinical Radiology

Key findings



“
Everyone is very highly pushed and only just coping.
 ”

98% of clinical directors are worried about workforce morale, stress and burnout

1. The consultant radiologist workforce shortfall currently stands at 29% (1,669 whole-time equivalents). The current workforce is under immense pressure due to this level of understaffing, and we estimate that without further investment, it will increase to 39% (3,166 WTE) by 2026 factoring in rising demand.
2. The total number of UK whole-time equivalent (WTE) consultant radiologists has increased by 225 consultants, or 6% of the workforce from 3,902 in 2020, to 4,127 in 2021. More consultants have entered the UK CR workforce, but not enough to address the overall shortfall.
3. We welcome the increased numbers of interventional radiologists (IRs), with a further 43 consultants (6% growth), but this increase is not enough to address the IR shortfall which is estimated at 28% (288 WTEs). Interventional radiologists carry out critical minimally invasive procedures, reducing the requirement for surgery and its associated risks and recovery time. Failing to address this shortfall will impact the backlog and patient outcomes.
4. The funded vacancy rate is still high at 10% (436) of available CR posts; this figure has remained relatively unchanged over the past five years. Furthermore, there are still more than 200 posts which have been vacant for over a year.
5. The UK has a growing reliance on international consultant radiologists; the percentage of doctors who obtained their primary medical qualification outside of the UK has increased from 29% in 2016 to 35% in 2021.
6. 98% of clinical directors are worried about workforce morale, stress and burnout in their departments, all of which impact negatively on workforce retention and patient safety.
7. There are growing concerns about patient safety. 97% of clinical directors said they are concerned about the backlogs and delays patients are experiencing; 81% cited worries about patient safety.
8. There are growing concerns about IR, with 55% of clinical directors telling us that they do not have sufficient numbers of interventional radiologists to deliver safe and effective patient care. Half of trusts and health boards do not provide 24/7 IR services which has a detrimental impact on emergency care, patient safety and outcomes.

Struggling to keep up with demand

In 2021, there was a 29% shortfall of consultant radiologists against demand. In real terms, that's 1,669 consultants less than is required.^{1,2} On the surface, this looks like an improvement on 2020's 33% shortfall, but when we factor in the reduced demand during the pandemic (2020–21), it is a minimal improvement.

During 2021, the UK added 239 radiologists to the workforce, comprising 225 consultant radiologists and 14 SAS-grade doctors. However, growth was not distributed equally across the UK, for example, while England added 181 CR consultants in total, the West Midlands only added six in comparison to 62 in London.

While there are more staff to diagnose and treat patients, the UK vacancy rate remains worryingly unchanged, despite clinical directors consistently arguing the case for more staff across the UK. The vacancy rate has remained fairly steady since 2016, varying from 9% to 11% with clinical directors reporting 436 funded CR consultant vacancies in 2021. For context, in 2021 the North East of England experienced the highest vacancy rate at 17%. While there are some positives to highlight on a national level, with Scotland's 12% and Wales' 10% vacancy rates in 2020 both dropping to 8%, Northern Ireland's has increased from 8% to 13%.

It is extremely concerning there are still over 200 vacancies across the UK that have been unfilled for a year or more.

These shortages are significant and have an impact on both patients and all clinicians. For patients, this means increased wait times and extended treatment; for doctors in all specialties it means they are under prolonged and escalating pressure. As a result of these shortages, the UK is increasingly reliant on outsourcing and international recruitment.

While international doctors make an invaluable contribution to health services, the recruitment process is expensive and slow because of visas and lengthy General Medical Council (GMC) registration processes, and they are less likely to stay in post for a prolonged period of time and pass on their long-term experience. As one clinical director put it: *'We are having to pay agencies to find staff from overseas which Ireland's has increased from 8% to 13%.*

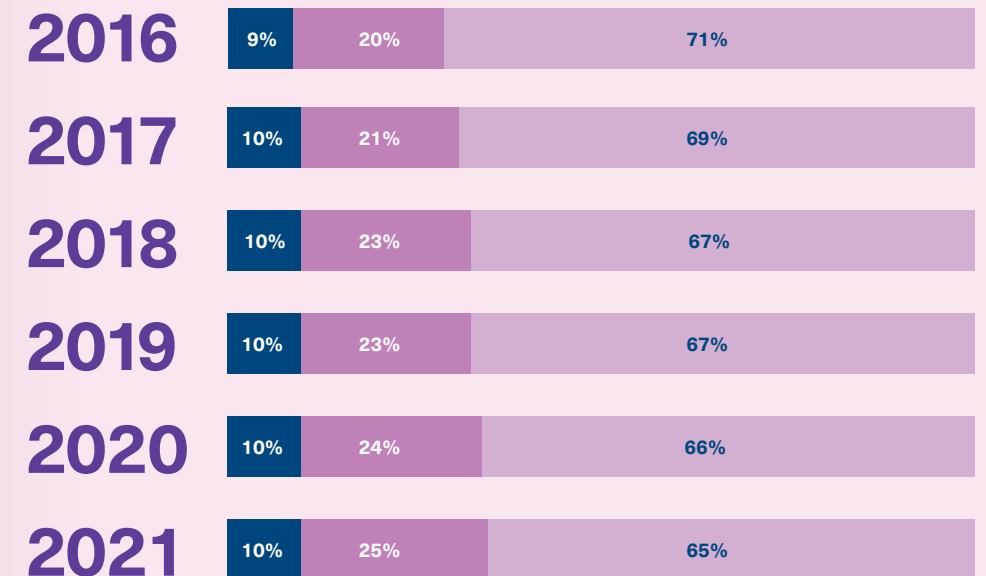
radiologists then need considerable input to get them up to speed, with no guarantee that they will stay'. Over the past five years, 67% of CR consultants joining the workforce were trained here in the UK and 33% were recruited globally. Of these, just over a third came from India, and the proportion of non-European Economic Area CRs has risen from 20% in 2016 to 25% in 2021.

Global recruitment is likely to increase further because of the urgent need to fill vacancies and keep up with demand, but significant, long-term and consistent investment in more training numbers is required to secure the future CR workforce. Pressure will increase in the short-term

as training the next generation of doctors significantly impacts consultants' day-to-day work, and international recruitment is likely to be key to enabling this. Increasing training numbers will also require additional trust funding, both for the trainees themselves and to fund the essential additional training capacity needed in the consultant workforce to support them.

Outsourcing to the independent sector continues to be used to fill gaps along with insourcing (overtime) and ad-hoc locums. UK expenditure on these resources more than doubled between 2016 and 2020, reflecting the worsening workforce shortage going into the pandemic. ▶

Increasing reliance on outsourcing and international recruitment



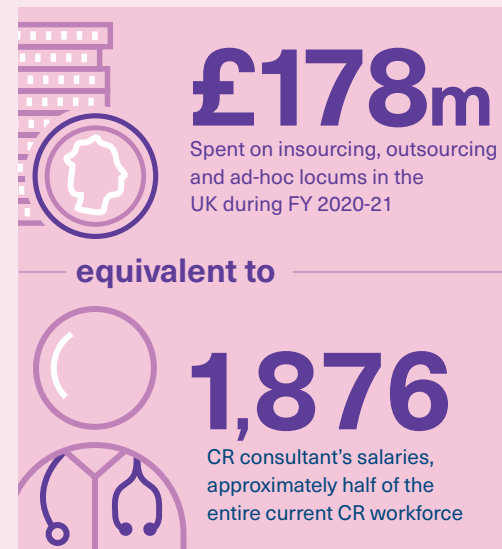


...short-term fixes are helping to manage workload, but demand for imaging in the UK continues to increase, and these measures will ultimately not be sustainable.

One clinical director, reflecting the experience of many, commented that they *'are only able to manage workloads by taking on trust locums and by outsourcing'*. Due to decreased imaging during the COVID-19 pandemic, outsourcing costs fell by 13% in the financial year 2020-21, but insourcing, outsourcing and ad-hoc locums still accounted for £178 million of radiology expenditure in the UK. For context, this is equivalent to the salaries of 1,876 CR consultants, a staggering figure equating to more than the entire CR workforce shortfall of 1,669 consultants (WTE).

These short-term fixes are helping to manage workload, but demand for imaging in the UK continues to increase, and these measures will ultimately not be sustainable. The RCR estimates that around 80% of hospital pathways require imaging and their subsequent interpretation. In England alone, between 2016 and 2019, the number of X-ray, CT and MRI imaging examinations per year increased from 31 million to nearly 34 million.³ This number dipped significantly during the pandemic, but our figures suggest that 2021 would have seen around 37 million imaging examinations required had the pandemic not hit. These 'missed scans', plus the continued upward trajectory of imaging requirements, mean that patients will require millions more complex imaging and analyses of results year on year into the future. This will result in yet more pressure on the CR workforce and will inevitably further impact on waiting times and patient outcomes.

Welcome additional training numbers are being announced. In England, for instance, clinical radiologists are working to allocate the additional trainees granted in the 2020 and 2021 Comprehensive Spending Reviews,



in which 110 additional training places were promised for both years.⁴ For Wales, Health Education and Improvement Wales have again committed to fund 22 additional training places, although decision-makers in Scotland and Northern Ireland have not yet offered additional trainee numbers. The challenge of accommodating these new trainees cannot be taken lightly. While trainees save costs for trusts over the course of their training, there is an initial outlay, and they need significant time from consultants, workstations to work from and space for training facilities. A long-term approach to training is essential. To genuinely tackle long-term shortages and historic underfunding of the imaging service, training places need to be expanded permanently.

The net increase of 225 WTE CR consultant posts in 2021 was much needed. These doctors will play a vital role towards relieving the pressures and shortfalls identified in our 2020 census. ▶

However, these numbers are still very far away from enabling a full clinical radiology workforce that will benefit patients with quicker diagnosis and greater access to interventional procedures.

The UK government's own commissioned report by Sir Mike Richards, '*Diagnostics: Recovery and Renewal report 2020*', found that by 2025 England will require 2,000 more radiologists in order to meet the expected demand.⁵ To achieve the figure of 2,000 additional clinical radiologists in England, we would need to be training CR doctors at a much higher rate, some three times as many as we currently are, up to 2025 and beyond. Training the next generation of CR consultants requires significant time from existing clinical radiologists, which takes them away from their day job. Training three times this number when the workforce is already significantly under capacity is a tall order. However, research shows that while the financial and time investment required to increase the workforce will require higher spending initially, it will produce long-term savings. Indeed, when compared to continued spending on plugging workforce caps, a strategy which delivered just 45% of

the required workforce increase, long-term investment would save £526 million by 2030.⁶ To enable consultants and trainees to be as productive as possible, we also need to ensure they have the imaging equipment and connectivity needed. For many years the RCR has campaigned for investment in cutting-edge imaging equipment so that the UK can be a world leader in imaging. We support Sir Mike Richards' recommendations for a 100% expansion in CT scanning over the next five years, increasing other imaging in line with pre-pandemic growth rates and replacing equipment older than 10 years.

Action is required urgently to meet demand. We estimate that if nothing further is done to increase staffing, the current 29% (1,669 WTE) gap will become a 39% shortfall by 2026 – equal to 3,166 consultant radiologists. For every radiologist we are short, there are hundreds, if not thousands, of patients waiting longer for diagnosis and subsequent care. No patient should be waiting longer than six weeks for complex imaging, but to reduce six week waits in one month in England alone would require an extra 500 consultants overnight.^{7,8} ■



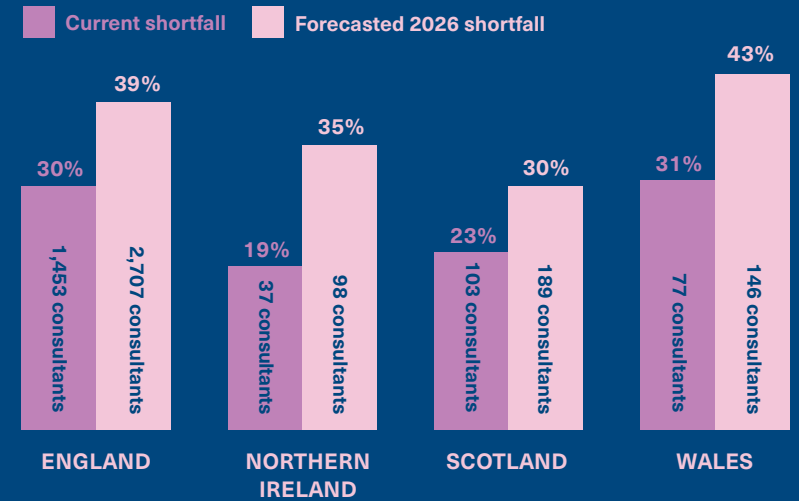
The UK government's own commissioned report by Sir Mike Richards, '*Diagnostics: Recovery and Renewal report 2020*', found that by 2025 England will require 2,000 more radiologists in order to meet the expected demand.



To ensure safe and effective patient care, workforce shortfalls must be addressed. To achieve this, the RCR recommends:

1

All four nations must develop fully funded long-term workforce plans for clinical radiology. Over the next five years they must begin funding additional training places to address the forecasted shortfall of 3,166 consultants in 2026, broken down across the four countries this is:



2

These funded plans must include additional trust funding to ensure that budgets are sufficient to employ the expanded pool of trainees, including the hardware and software essential to allow them to train.

3

The four health services should work with the RCR, trusts and health boards and health education organisations to develop a plan to fill long-term vacancies, including continuing the use of international recruitment and insourcing.

4

All four nations and their respective health education bodies must ensure funding supports regional recruitment and that they address regional disparities in long-term funding strategies.

Missed diagnoses

One of the lasting impacts of COVID-19 has been increased imaging waiting times for patients. 97% of clinical directors told us that they are concerned about the backlogs and delays patients are facing on a daily basis.

As one clinical director put it: *'[There are] backlogs. [There are] long delays in routine chest CT reporting [and there are] multiple cases of cancers going undiagnosed for two months after scanning while waiting for a report'*. If we examine England waiting lists as an example, the figures paint a bleak picture, with the total number of patients waiting for a CT or MRI examination rising from 292,000 in 2016 to 462,000 in 2021 – a 58% increase.

There has also been a significant increase in the number of patients waiting six or more weeks for CT or MRI imaging: in 2021 it stood at nearly 118,000 people, (just over a quarter of the total number of patients waiting for imaging) whereas in 2016 it was just 4,000 (1% of those waiting). In December 2021, there were 39,000 patients waiting 13 or more weeks for complex imaging, whereas in 2016 the number was approximately 200.

These increases reflect the impact of COVID-19 but also the underlying increase in demand. In addition to long waits for imaging examinations, some patients then also wait several weeks for their results to be reported due to the sheer size of radiology workforce

shortages. Without immediate action, these numbers are likely to get even worse.

Unsurprisingly, 81% of clinical directors cite concerns about patient safety in their trust or health board, primarily due to workforce shortfalls. Our census data show that 63% of clinical directors believe they do not have sufficient clinical radiologists in their departments to be able to deliver safe and effective levels of patient care, rising from 58% in 2021.



63%
of clinical directors believe they do not have sufficient clinical radiologists in their departments to be able to deliver safe and effective levels of patient care

These concerns increase as we drill down to sub-specialty expertise, with 90% of clinical directors concerned about being able to provide a full radiology service. For example, paediatric radiology has a vacancy rate of 12%, with 70% of posts unfilled for over a year. For non-vascular interventional radiology (IR), the figures are similarly concerning at 11% and 70% respectively. One clinical director told us: *'This has led to a number of near misses with patient harm only avoided through sheer luck'*.

Innovation is key to improving patient outcomes, efficiency and effectiveness of pathways and treatments. Service improvements are opportunities for clinical directors and their colleagues to try, test and innovate in their care setting, speeding up or improving patients' care. This work is crucial to patient outcomes and saving money through the implementation of new processes, procedures and ways of working which can then be rolled out. Yet 97% of clinical directors told us that they do not have time for this vital work.⁹

One positive finding in this year's census is the development of imaging networks, which pool and redistribute images across the network, helping to increase access to sub-specialty expertise. They are an integral part of the imaging system of the future, helping to ensure patients are seen in a timely manner and playing a key role in dealing with the hefty imaging backlog. However, we should note that the images are being redistributed across the same stretched workforce. Since our last census in 2020, the use of imaging networks as a means of managing excess reporting has more than doubled from 6% to 13% in 2021.

This is a positive sign and shows networks are starting to be used more widely.

Their effectiveness should be showcased and their use expanded across the UK. But for imaging networks to truly benefit and speed up the reporting of patient images, more workforce to staff them will be crucial. ■



To improve patient safety, the RCR recommends:

- 1 Patient safety is central to workforce planning and a key driver for long-term investment in workforce.
- 2 All trusts and health boards increase time available in work plans for service improvements. RCR guidance states full-time consultants should have 2.5 supporting professional activities (10 hours) per week, the bare minimum needed is 1.5.¹⁰ This allows sufficient time for all vital supporting professional activities, including service improvements.

Interventional radiology

There is currently a 28% shortfall of interventional radiology (IR) consultants.¹¹ Interventional radiologists are essential specialist radiologists who complete additional training to perform minimally invasive image-guided procedures and are split into several types: vascular IR, non-vascular IR and interventional neuroradiologists.

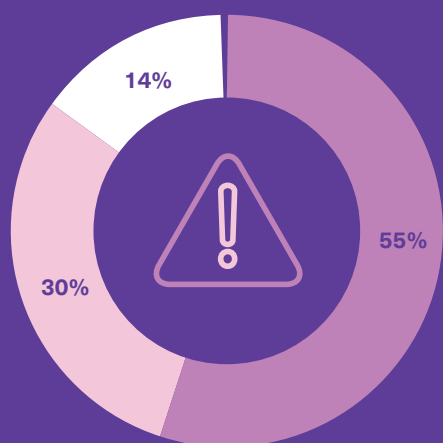
Examples of areas they treat include haemorrhage control and stroke. It is a pivotal service in the management of emergency patients as it improves patient outcomes and reduces hospital stays in comparison to more invasive procedures. For instance, replacing invasive surgery (such as open surgical treatment of aneurysms) with pinhole surgery for aneurysm repair carried

out by an interventional radiologist. A study found this reduces operating theatre time by 19%, length of hospital stay by 50% and the overall cost decreases by 23%.¹² These savings are significant for both hospitals and patients, effectively meaning more procedures can be undertaken in less time. The risk to patients is also reduced, as is the recovery time.

Clinical director views:

There are currently sufficient interventional radiologists employed by my trust/health board to deliver safe and effective patient care

Disagree Agree Neutral



The number of IR consultants (WTE) has grown by an average of 4% per year over the past five years. There are now 728 IR consultants (WTE) in the UK compared to 580 in 2016, a welcome increase. However, more investment is needed: 55% of clinical directors say they still have insufficient interventional radiologists in their trust/health board to deliver safe and effective patient care. One clinical director told us they have had to stop a 24/7 IR rota 'due to a lack of interventional radiologists' and another said '[there is a] risk to patient safety, including mortality'.

Half of trusts and health boards did not provide adequate 24/7 interventional radiology services in 2021.¹³ This means they neither operated a fully staffed 24/7 IR rota nor had formal networked arrangements in place to transfer patients to another hospital for their crucial IR procedures.

A new question this year also found just 41% of IR teams in the UK had access to both day and inpatient beds, with an additional 35% saying they have access to only day case beds and 5% to inpatient beds. 18% said they have access to neither. South Wales is the worst affected as 67% reported no access to either bed type.

Worryingly, both Wales and Northern Ireland collectively reported 50% with no access to either. Limited access and availability to these beds ultimately affects timely treatment of patients; one clinical director noted that a 'lack of IR beds causes delays for simple procedures such as biopsy as well as non-vascular [interventional] radiology'.

Preventing quick access to biopsies and other vital IR procedures can delay treatment and, in some cases, affect the likelihood of saving a life. ■

The RCR recommends trusts and health boards:

1

Urgently review their IR capacity and seek to train additional interventional radiologists – 288 to address the current shortfall. This will need to be aided by funding from health education budgets.

2

Offer 24/7 access to interventional radiology with a fully staffed IR team on rota. Alternatively, they must enter into a robust networked agreement with another provider for transferring patients.

3

Improve access to IR day and inpatient bed access to achieve 100% access by the end of 2025.



Demoralised workforce

98% of clinical directors say they are concerned about workforce morale, stress and burnout in their departments. This figure is one of the most alarming from our 2021 census, bringing to light what many organisations, professionals and others have been warning throughout the pandemic – that the health and social care workforce is under ever-increasing stress. This was the first time we had asked a question on stress, and the response reveals the extent of the crisis.

Managing stress and burnout are key factors in the retention of doctors. In March 2021, the British Medical Association (BMA) found that 25% of surveyed members were considering a career break and 21% said they were considering leaving the NHS altogether.¹⁴ Respondents to the clinical radiology census echoed those feelings with one saying, *'staff pull out all the stops to ensure patient safety to their own detriment, for example returning from annual leave to provide on-call cover and late finishes'*. The impact of stress and fatigue is linked to decreased productivity, medical errors, early retirement, reduced staff retention and system failure.¹⁵

Many organisations have highlighted these mental health and wellbeing issues in recent years and have put forward ways to support staff.

Unfortunately, much of this work has been affected or halted by the pandemic, meaning that aside from isolated good examples, stress and burnout are not being sufficiently addressed. We must reinvigorate that work as we learn to live with COVID-19. However, given the key driver is lack of workforce, that must remain a priority to address the mental health and wellbeing issues.

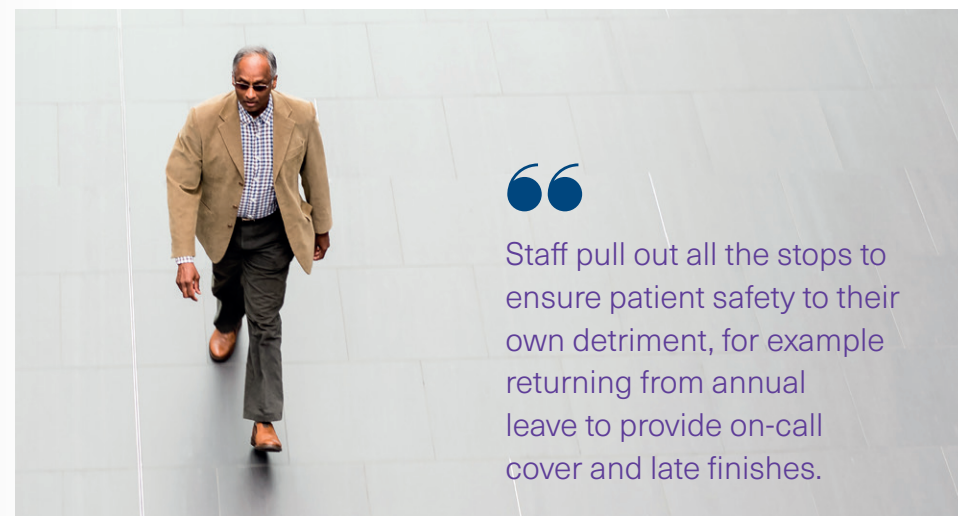
In addition to increased workforce numbers, addressing these concerns will encompass greater work-life flexibility and support for staff. Homeworking, which radiologists are able to take advantage of, is an important tool in supporting the workforce and it facilitates greater flexibility for those staff who might have otherwise had to reduce their hours. It is encouraging to see that there has been a 20% rise in the availability of homeworking

across the UK from 50% in 2020 to 70% in 2021. However, our members tell us that homeworking often leads to clinical radiologists working evenings and weekends to get through their work. While not all radiology work can be done from home, homeworking is a beneficial tool to support flexibility. However, it should not be used to work outside of contracted hours.

A further flexibility measure is less than full-time working (LTFT), which has risen from 24% to 31% over the past five years and it is most common in the 55+ age group where it has grown to 50% over the same period. It is again a tool which can positively help with retaining staff, especially those near retirement and those with dependents or caring responsibilities. For these reasons we expect LTFT working to increase as doctors continue to seek a better work-life balance, especially later in their careers. However, this shift to LTFT needs to be reflected in workforce planning. Most of those working LTFT will

be senior and experienced consultants, and even larger numbers of trainees will be required to manage additional workload if the trend towards LTFT working continues.

Good leadership is vital for supporting staff and addressing issues which contribute to burnout; the GMC highlighted it as essential to mental health and wellbeing in their 2019 report which advocated implementing 'a programme of compassionate leadership across all healthcare sectors'.¹⁶ But enacting such a programme takes time and some trusts and health boards are not making that time available to clinicians. Almost a quarter (23%) of radiology leaders say their trusts/health boards allocate less than a day per week (across all roles) to leadership activities in job plans, against an average of three days per week across the UK. Many clinical directors have raised concerns about these time constraints, one reflecting that the significant volumes of work and meetings required in their role are not accounted for in their job plans, ▶



Staff pull out all the stops to ensure patient safety to their own detriment, for example returning from annual leave to provide on-call cover and late finishes.

leading them to conduct this work out of hours. Another advised that the time allocated for the work of a clinical director *'is nowhere near adequate for the demands of the job and as such clinical work suffers'*.

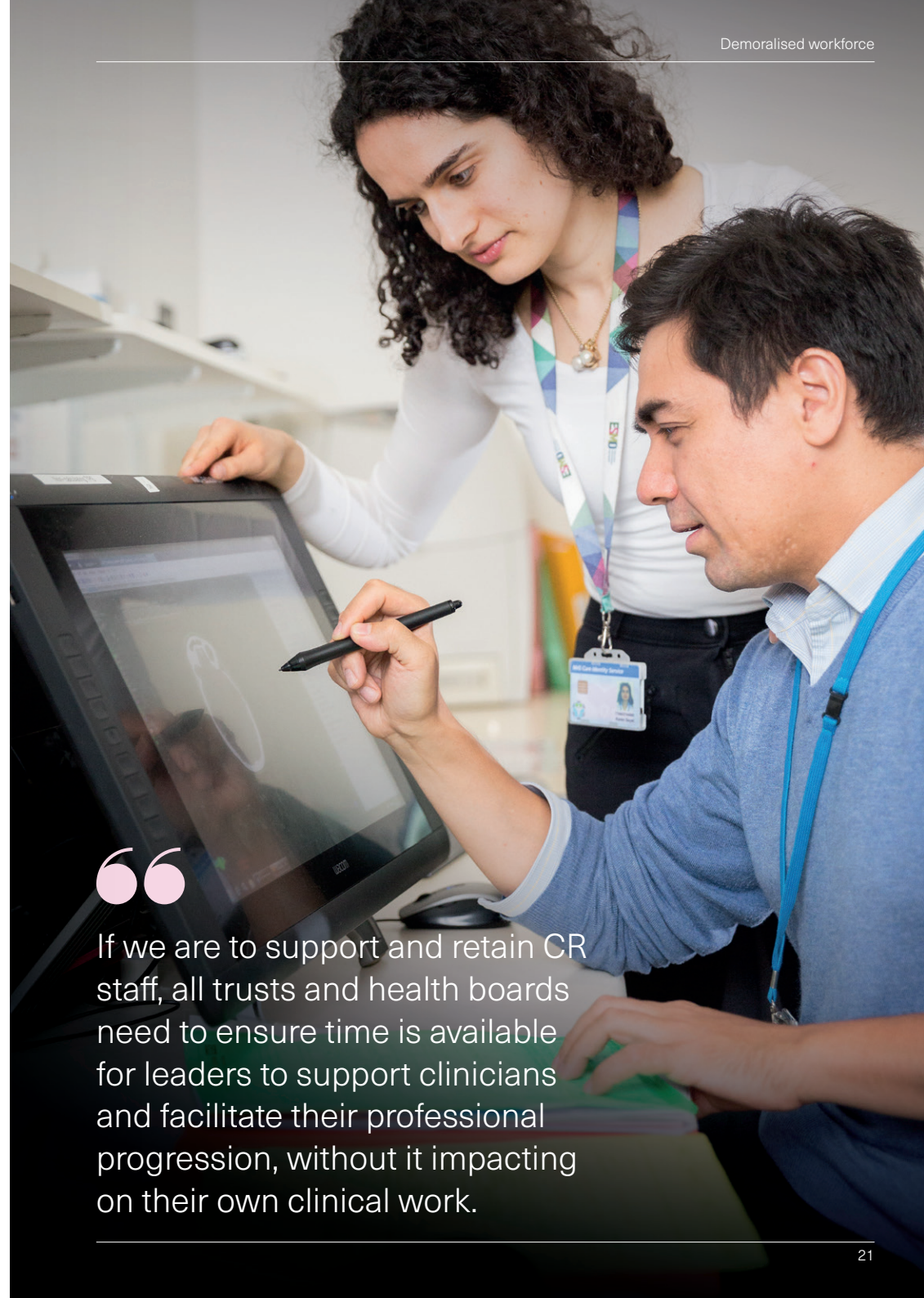
If we are to support and retain CR staff, all trusts and health boards need to ensure time is available for leaders to support clinicians and facilitate their professional progression, without it impacting their clinical work. ■



To address issues around staff morale, stress and burnout, the RCR recommends:

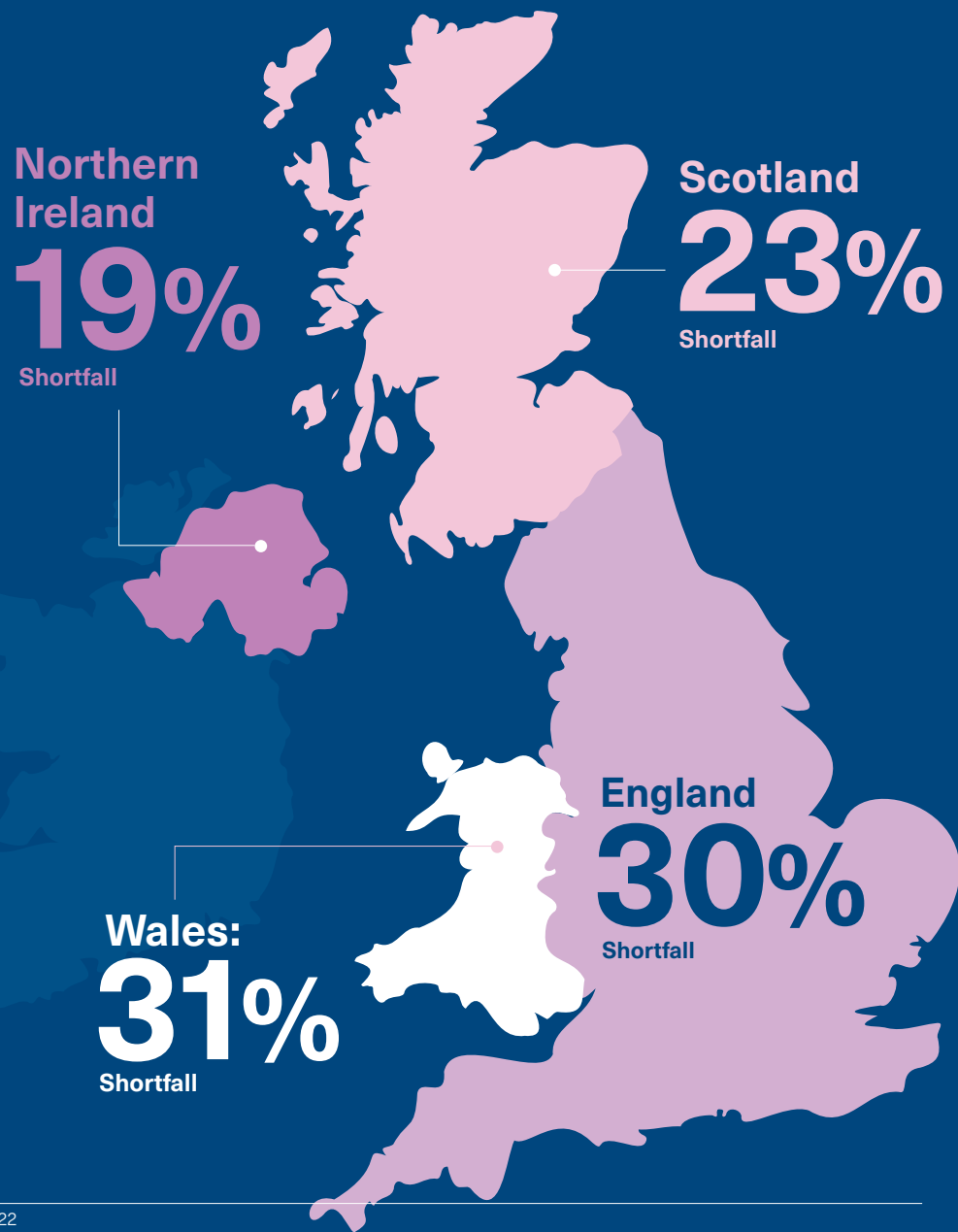
- 1 Awareness**
Improve awareness that homeworking is available, but with controls in place to ensure that it is not a tool to push clinicians to work out of contracted hours or leave.
- 2 Flexibility**
Give consultant radiologists the option of less than full time working to enable them to remain in the profession longer, where workforce numbers and incoming trainees allow.
- 3 Leadership**
Increase time available for leadership activities in job plans: all trusts and health boards who fall short of the UK average, which is 36 minutes per week per SAS grade doctors or consultant CR, should review job plans to ensure there is sufficient time for crucial leadership activities.¹⁷

- 4 Enact the RCR's 'Care is not just for the patient' recommendations, most notably:**
 - Monitor radiologists' workloads and restructure job plans accordingly where they are overworked.
 - Strong leadership to ensure effective team working, autonomy and participation in decision-making.
 - Use quality improvement and process improvement techniques to improve systems and pathways bit by bit for the benefit of both doctors and patients.
 - Work towards a supportive environment with a culture of supportive leadership and positive change.¹⁸



“If we are to support and retain CR staff, all trusts and health boards need to ensure time is available for leaders to support clinicians and facilitate their professional progression, without it impacting on their own clinical work.”

The four nations



Wales

Over the past five years, Wales had some of the slowest growth in the UK in terms of consultant radiologist workforce numbers at only 2% per annum.

This is further compounded by Wales having an older CR workforce, with the highest number due to retire in the next five years (23%). However, in 2021 there were some moves in the right direction with 12 new clinical radiologists, representing an 8% increase. There are now 168 CR consultants (WTE) in Wales, 16 more than in 2016. But this alone is not enough to alleviate the estimated 31% shortfall of consultants in Wales, the highest shortfall in the UK. This was highlighted by the fact that 90% of clinical directors (CDs) in Wales told us they are concerned about patient safety. In particular, they were highly concerned about workforce shortages which are causing backlogs and delays, sub-specialty shortages, insufficient time for service improvements and preventing a full radiology service being provided. These were the worst levels of CD concern in the UK.

Wales is also behind the curve in Interventional Radiology (IR) CR figures, with three fewer vascular IRs (WTE) and one fewer interventional neuroradiologist (WTE) than five years ago. More than half of health boards in Wales do not provide adequate 24/7 IR services, leading to an inequity of access to these vital lifesaving services.

Scotland

Workforce growth for CR in Scotland has been at the low level of 3% per annum; between 2016 and 2021, the number of WTE clinical radiologists has only increased from 298 to 350.

There is also cause for concern with regards to 67% of vacancies being unfilled for 12 months or more, meaning that there are areas of Scotland that are facing more chronic long-term workforce shortages. Furthermore, Scotland is falling behind in IR consultants per million population as it stands at 8.6 in 2021, which is significantly lower than England's 11.2.

Despite the above there are some positive trends in other areas. Scotland has comparably lower outsourcing costs (per capita) compared to the rest of the UK, totaling approximately half of England's. Scotland's workforce shortfall is 23%, 6% lower than the UK overall shortfall of 29%. However, this still represents a significant gap, made more concerning by the fact that these shortages are more prevalent in remote regions.

Finally, it is important to mention that imaging networks in Scotland seem to be going from strength to strength, as 2021 figures show their use for managing excess reporting has increased to 75% from 45% in 2020 – an impressive increase in just a year considering England's usage grew from 3% to 8% in the same period.

Northern Ireland

Northern Ireland (NI) has historically had the best outlook of the four nations for CR workforce; the five-year trend has been 7% growth per annum. NI has also enjoyed the lowest overall shortfall; 19% in 2021, compared to England's 30%.

In 2021 there are 162 WTE CRs compared to 2016's 112, which is reassuring when factoring in the small population size. But there are concerns for the future as their projected five-year growth in CR consultants (based on current training pipeline) is only 2%, compared to 4% for England. When we factor in the increasing use of CT and MRI and the fact that 21% of the NI workforce is retiring soon, it is concerning as there is traditionally not a great deal of mobility in NI and therefore less resilience in the system.

This will be an issue in the years to come if NI does not invest in trainee places now and continue to fund international recruitment in the meantime. Northern Ireland has the highest vacancy rate in the UK at 13%, with over half vacant for 12 months or longer.

These current and future worries are heightened by all clinical directors in NI saying they are concerned about backlogs, insufficient time for service improvements and the morale, stress and burnout of their staff.

England

England makes up 85% of data submitted in the RCR census; for that reason, the majority of England trends closely mirror the UK summary.

There are, however, some specific issues to highlight. England closely follows Wales by having the second highest overall shortfall of WTE clinical radiologists in the UK at 30%. Additionally, England is experiencing the highest costs in the UK for outsourcing; per head of population, it is spending £1.89 per person. In comparison, the other three nations have a combined average of £1.19.

As mentioned in the UK summary, expanding the CR workforce is key to mitigating these costs and shortfalls. Lastly, considering the focus on staff wellbeing and good leadership, it is concerning that compared to the other UK nations, England provides less time than the UK average for leadership programmed activities per trust with significant regional differences; an average of three PAs, equivalent to 12 hours per week.

Conclusion

Clinical directors are a powerful voice. These are the experiences of senior doctors seeing backlogs and workforce shortages first-hand. The pressure on them is immeasurable.

For our members, inadequate workforce numbers and the huge post-pandemic backlog are creating stress, burnout and a monumental workload, leading to increasing and serious patient safety concerns.

Demand for complex imaging is high following the pandemic, but the upward trend was already occurring before 2020. Imaging is central to diagnostics and is the key to correct, efficient and effective treatment. Simply put, if clinical radiology departments are not fully staffed, the impact is felt across the entire health service.

For trusts and health boards, late diagnosis leads to more complicated and expensive treatment. For patients, the shortages, countrywide inequalities and their wider ramifications damage their hopes of being diagnosed and treated in a quick and timely manner, posing a real risk to their outcome.

The recommendations in this report are vital to improving clinical radiology and interventional radiology in the UK. Increasing the radiology workforce is the fundamental key to improving patient care and ensuring timely treatment for all.



References

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17. For example, a trust or health board with a total of 20 consultants CRs and SAS grade doctors would need 12 hours of leadership activities per week to meet the UK average.
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