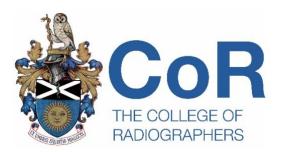
# The College of Radiographers

# Radiotherapy Radiographic Workforce UK Census 2020



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## **1** Executive summary

We, the College of Radiographers (CoR), carried out a census of the radiotherapy radiographic workforce in the UK as of the census date 1 November 2020. The objectives were to establish the size, structure, nature and vacancy rate of the workforce. This document presents an analysis of the results and compares them with similar surveys carried out annually from 2012 to 2019 (see <u>references</u>).

We wish to thank the service leads at the 62 radiotherapy providers who responded to the online questionnaire. The data they supply can provide important evidence to workforce planners, clinical boards, government departments, educators, commissioners and providers of radiotherapy. Due to the significance of the results, every year we aim for a full response from all UK radiotherapy providers. To achieve this year's response rate of 90%, we extended the census deadline, which in turn contributed to a delay in publishing this report.

The following bullet points highlight the main findings:

NHS findings:

- The total NHS radiotherapy radiographic workforce is 3538.5 whole time equivalent (WTE) comprising 3476.2 WTE therapeutic radiographers and 62.3 WTE assistant practitioners and trainee assistant practitioners (APs/TAPs).
- The NHS radiotherapy radiographic workforce grew by 24% between 2012 and 2020.
- The current vacancy rate for the NHS radiotherapy radiographic workforce is 7.7% with 271.0 WTE radiotherapy radiographic positions vacant. This is the highest recorded vacancy rate since we began collecting data in this format in 2012. The rate grew by 1.6% between 2018 and 2020: from 6.1% in 2018 to 7.7% in 2020.
- The current vacancy rate for NHS therapeutic radiographers is 7.6% and for associated APs/TAPs it is 9.8%.
- The NHS current vacancy rate varies by UK country: England 8%, Northern Ireland 7%, Scotland 3% and Wales 10%.
- For the first time, this report breaks down the picture within England by NHS radiotherapy network partnership. The Thames Valley / Wessex network has the highest current vacancy rate at more than 17%, over twice the English average.
- The three-month vacancy rate for the NHS radiotherapy radiographic workforce is 4.3%. This is a decrease of 0.4% from the 2019 census three-month vacancy rate of 4.7%.
- 87% of the NHS radiotherapy radiographic workforce is employed in Agenda for Change (AfC) bands 5 to 7.

Findings including both NHS and non-NHS radiotherapy providers:

The percentage of the radiotherapy radiographic workforce (headcount) on long-term leave is 5.2% (comprising 0.6% on a career break, 1.8% on long-term sickness absence and 2.8% on parental leave).

- 0.9% of the radiotherapy radiographic workforce is due to retire in the coming year and 1.0% in the subsequent year.
- The radiotherapy radiographic workforce turnover is 9.7% by headcount. This compares with 10.5% in the 2019 census. The highest turnover rate of 19.5% is seen at AfC band 5.
- The most common reasons selected by radiotherapy providers for therapeutic radiographers leaving posts are personal circumstances and promotion in another radiotherapy centre.
- 'Therapeutic radiographer' is the most used job title by respondents. Its use has increased from 75% of respondents in 2018 to 87% in 2020. Conversely, the use of the job title 'therapy radiographer' has decreased from 54% to 26% of respondents over the same period.
- As of the census date, 36% of respondents are using agency therapeutic radiographers. This compares with 34% in the 2019 edition of the census. The most frequently selected reason for using agency staff is existing vacancies in the therapeutic radiographer establishment.
- There are 321 therapeutic radiographers (headcount) working in dosimetry in the 61 providers who responded to this question. These figures include both those working within and those working outside the budgetary control of the radiotherapy service manager. In addition, 81 therapeutic radiographers are reported to work in cancer services (such as research) outside the budgetary control of the radiotherapy service manager (and are therefore unlikely to be included in figures elsewhere in this report).

# 2 Introduction

This report presents an analysis of an online census of the radiotherapy radiographic workforce in the UK run by the CoR in November 2020. It is intended to update the UK radiotherapy workforce annual surveys from 2010 to 2019 (see <u>references</u>). The census was targeted at radiotherapy providers in England, Northern Ireland, Scotland and Wales in the NHS and other healthcare sectors. Respondents were asked about the size and nature of their radiotherapy radiographic workforce. The results are deemed to be of interest to the NHS England Radiotherapy Clinical Reference Group and similar groups in the other UK countries, the Radiotherapy Board, NHS Digital, Health Education England, the Migration Advisory Committee and commissioners and providers of radiotherapy.

# 3 Methodology

The 2020 workforce census captures data about the radiotherapy radiographic workforce in the UK at a census date of 1 November 2020. Data collection was performed between November 2020 and March 2021 by means of a SurveyGizmo<sup>®</sup> online questionnaire distributed to radiotherapy service managers. This census asked for the total numbers of therapeutic radiographers, APs and TAPs (together referred to as the 'radiotherapy radiographic workforce' in this report) within the budgetary control of the radiotherapy service manager. Radiotherapy helpers and administration staff are not included in the figures.

Respondents were asked:

- Their contact details and job title
- The name of the radiotherapy provider on whose behalf they were responding
- Establishment figures by AfC band WTE and headcount
- Vacancy WTE figures by AfC band current and three-month
- Long-term absence headcount figures by AfC band career break, long-term sickness absence and parental leave
- Headcount predicted to retire in the coming year and in the subsequent year by AfC band
- Headcount of leavers in the previous year by AfC band and reasons for leaving
- Job titles in use
- Use of agency therapeutic radiographers
- Therapeutic radiographers employed in dosimetry and other cancer services not within the budgetary control of the radiotherapy service manager

This report assumes that numbers reported in AfC band 3 refer to TAPs, numbers reported in AfC band 4 refer to APs and numbers reported in AfC band 5 and above refer to therapeutic radiographers.

This report excludes the physics and engineering radiotherapy workforce and clinical oncologists. Enquiries about the physics and engineering workforce in radiotherapy should be directed to the Institute of Physics and Engineering in Medicine. Enquiries about the clinical oncology workforce should be directed to the Royal College of Radiologists.

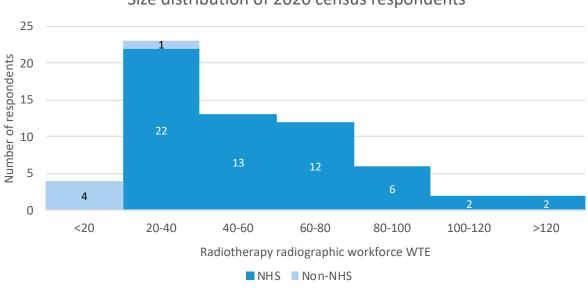
Links to the full set of questions for the 2020 census and a spreadsheet with a breakdown of the principal figures by radiotherapy provider can be found in the <u>Downloads</u> section of this report.

Of the 62 NHS providers of radiotherapy services in the UK, 57 submitted data to the CoR census. In addition, five private (non-NHS) providers of radiotherapy services responded (out of a maximum of seven), giving a 90% response rate overall.

Radiotherapy services provided at Colchester Hospital and Ipswich Hospital are counted as two separate services in this edition of the census. Although the two trusts have merged to form East Suffolk and North Essex NHS Foundation Trusts, separate responses were received from Colchester and Ipswich and so are reported as two separate radiotherapy services for the purposes of this census. Similarly, HCA International provided three responses from the three branches of their radiotherapy provision: these are counted as three respondents.

Where data is not available from a provider for a question, the figures from the previous census date of 1 November 2019 are used in section 4 where available. The number of respondents whose data is being used in each question is shown by the 'n' figure below tables and graphs. This 'n' figure is the number of respondents to the question in the current census edition plus the number of non-respondents whose data from the previous census is being used.

Figure 1 shows the distribution of the 62 respondents to the 2020 census in terms of the size of their radiotherapy radiographic workforce WTE. Over four-fifths of the NHS respondents to the survey have fewer than 80 radiotherapy radiographic workers WTE. All five of the non-NHS respondents have fewer than 40 radiotherapy radiographic workers WTE.



Size distribution of 2020 census respondents

Figure 1 Radiotherapy radiographic workforce WTE size distribution of 2020 census respondents (n=62)

# 4 NHS radiotherapy radiographic workforce data

### 4.1 NHS workforce by country

Table 1 shows the total NHS WTE of 3538.5 broken down by country. The headcount, vacancies and vacancy rate are also displayed.

Country	Workforce	WTE	Headcount	Vacant WTE	Vacancy rate	
England	Therapeutic radiographers	2900.1	3133	231.6	8.0%	
	APs/TAPs	58.7	71	6.1	10.4%	
	Total	2958.9	3204	237.7	8.0%	
Northern Ireland	Therapeutic radiographers	126.7	140	9.4	7.4%	
	APs/TAPs	0.0	0	0.0	0.0%	
	Total	126.7	140	9.4	7.4%	
Scotland	Therapeutic radiographers	274.9	308	7.2	2.6%	
	APs/TAPs	3.6	5	0.0	0.0%	
	Total	278.5	313	7.2	2.6%	
Wales	Therapeutic radiographers	174.4	194	16.7	9.6%	
	APs/TAPs	0.0	0	0.0	0.0%	
	Total	174.4	194	16.7	9.6%	
UK NHS	Therapeutic radiographers	3476.2	3775	264.9	7.6%	
	APs/TAPs	62.3	76	6.1	9.8%	
	Total	3538.5	3851	271.0	7.7%	

Table 1 NHS radiotherapy radiographic workforce establishment WTE, headcount, vacant WTE and vacancy rate by UK country (n=62)

### 4.2 NHS England by radiotherapy network partnership

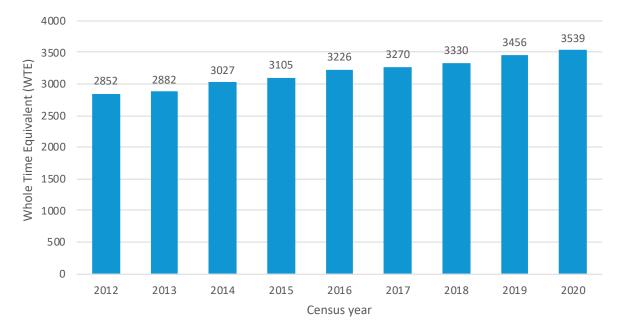
Table 2 shows the situation in England by radiotherapy network partnership. Each network includes at least two NHS radiotherapy providers and is aligned to cancer alliance(s). The Thames Valley / Wessex network has the highest current vacancy rate at 17.4%, which is over twice the English average.

Radiotherapy network partnership aligned to cancer alliance(s)	WTE	Headcount	Vacant WTE	Vacancy rate
East Midlands	232.4	272	11.1	4.8%
East of England	278.6	313	25.2	9.1%
Humber, Coast and Vale	267.4	293	24.5	9.2%
West Yorkshire				
South Yorkshire, Bassetlaw, North Derbyshire and Hardwick				
Lancashire and South Cumbria	427.5	485	21.3	5.0%
Greater Merseyside				
Cheshire and Merseyside				
North Central and North East London	261.2	275	12.6	4.8%
North East and Cumbria	147.1	163	6.2	4.2%
North West and South West London	312.8	333	28.6	9.1%
Surrey and Sussex				
Peninsula	295.6	322	18.6	6.3%
Somerset, Wiltshire, Avon and Gloucestershire				
South East London	184.1	188	17.0	9.2%
Kent and Medway				
Thames Valley	296.5	287	51.5	17.4%
Wessex				
West Midlands	255.6	273	21.1	8.2%
NHS England	2958.9	3204	237.7	8.0%

Table 2 NHS radiotherapy radiographic workforce establishment WTE, headcount, vacant WTE and vacancy rate by English radiotherapy network partnership (n=52)

### 4.3 NHS workforce size trend

Figure 2 shows that the NHS radiotherapy radiographic workforce grew by 687 WTE (24%) between 2012 and 2020.



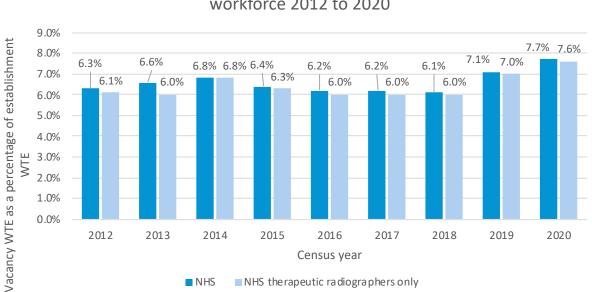
Size of NHS radiotherapy radiographic workforce 2012 to 2020

Figure 2 Size of the UK radiotherapy radiographic workforce WTE 2012 to 2020

### 4.4 NHS vacancy rate trend

Figure 3 shows that the current vacancy rate for the NHS radiotherapy radiographic workforce is 7.7%.

This is the highest recorded vacancy rate since we began collecting data in this format in 2012. The rate grew by 1.6% between 2018 and 2020: from 6.1% in 2018 to 7.7% in 2020.



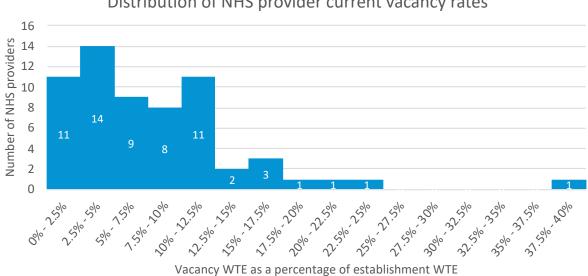
Current vacancy rate of NHS radiotherapy radiographic workforce 2012 to 2020

Figure 3 Current vacancy rate of NHS radiotherapy radiographic workforce 2012 to 2020

Respondents to the census also reported the number of posts which had been vacant for three months. The results show a three-month average vacancy rate of 4.3% for the NHS radiotherapy radiographic workforce. This is a decrease of 0.4% from the 2019 census three-month vacancy rate of 4.7%.

#### **NHS vacancy rate distribution** 4.5

Figure 4 shows the distribution of NHS provider current vacancy rates. Three NHS providers have current vacancy rates above 20%. This includes an outlier, a small radiotherapy provider (establishment WTE <20) with a vacancy rate of 37.5%. Note that this provider did not respond to the 2020 census. So, the 37.5% vacancy rate is from figures they supplied to a previous census.



Distribution of NHS provider current vacancy rates

Figure 4 Distribution of NHS provider current vacancy rates (n=62)

### 4.6 NHS workforce by Agenda for Change (AfC) band

Table 3 and figure 5 illustrate that 87% of the NHS radiotherapy radiographic workforce is in AfC bands 5 to 7.

AfC band	3	4	5	6	7	8a	8b	8c	8d	9	N/A*	Total
NHS radiotherapy radiographic workforce (WTE)	30.1	32.2	882.2	1257.2	942.2	277.2	89.4	26.9	1.0	0.0	0.2	3538.5

 Table 3 NHS radiotherapy radiographic workforce WTE by AfC band (n=62)

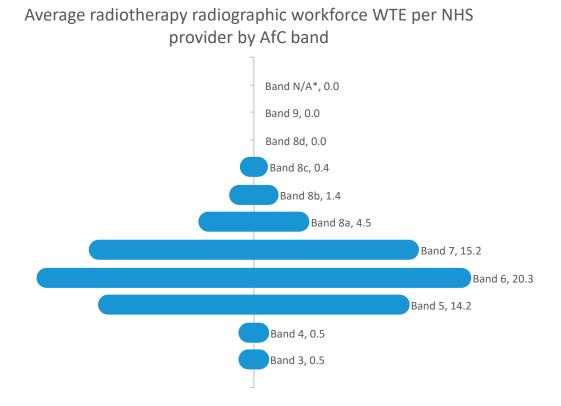


Figure 5 Average radiotherapy radiographic workforce establishment WTE per NHS provider by AfC band (n=62)

#### Note on table 3 and figure 5:

• \*N/A refers to roles where AfC bands are not applicable.

# 5 Radiotherapy radiographic workforce in non-NHS radiotherapy providers

There are five non-NHS providers of radiotherapy in the UK, of whom three submitted data to the CoR census this year. Separate responses were received from the three branches of HCA Healthcare UK; they are counted separately for the purposes of this census. Thus, five responses were received from non-NHS providers (three of which were from branches of HCA Healthcare UK).

Due to the data missing from two of the five non-NHS providers, no attempt is made this year to provide an overall picture of the radiotherapy radiographic workforce in the non-NHS sector. The establishment (WTE and headcount) and vacancy (WTE) figures provided by the non-NHS respondents are given in the <u>data</u> <u>spreadsheet</u> that accompanies this report.

From this point onwards, the analysis in this report incorporates the data from both NHS and non-NHS respondents.

### 6 Reasons for long-term absence

The census asked about reasons for long-term absence: 22 post holders by headcount are on a career break (0.6%), 62 are on long-term sickness absence (1.8%) and 96 are on parental leave (2.8%). A total of 5.2% of the establishment, by headcount, is absent long term due to career break, sickness absence or parental leave.

Reason for absence	Headcount	Percentage of establishment headcount
Career break	22	0.6%
Long-term sickness absence	62	1.8%
Parental leave	96	2.8%

Table 4 Long-term absence by headcount and percentage of establishment headcount (n=61)

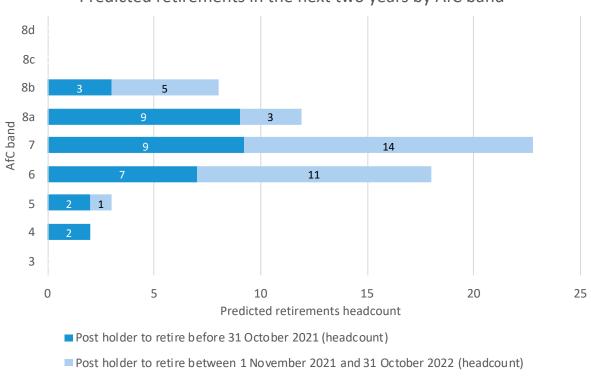
Other reasons for long-term absence given in the free text by respondents are:

- One band 7 seconded to radiotherapy network manager post for two more years (backfilled).
- One WTE band 6 on secondment in the trust due to medical issues.
- One band 5 redeployed due to Covid-19.
- One working from home (due to high risk from Covid-19).

## 7 Future expectations – retirement

Respondents were asked the number of radiotherapy radiographic workforce posts with the post holder due to retire between 1 November 2020 and 31 October 2021. They were also asked the number of radiotherapy radiographic workforce posts with the post holder due to retire between 1 November 2021 and 31 October 2022. Figure 6 presents the results stratified by AfC band.

For the 61 respondents to this question, 0.9% of their radiotherapy radiographic workforce by headcount is due to retire in the coming year and 1.0% in the subsequent year.



Predicted retirements in the next two years by AfC band

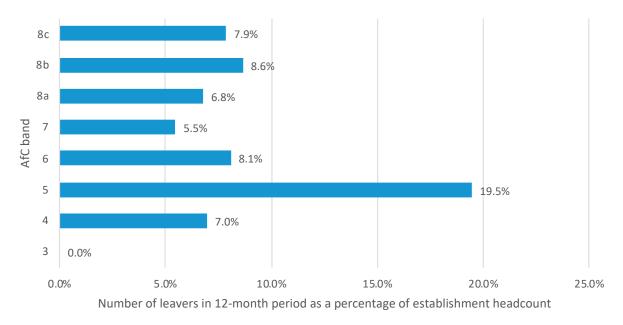
Figure 6 Predicted retirements (headcount) in the next two years by AfC band (n=61)

### 8 Leavers

Respondents were asked for the number of radiotherapy radiographic workforce posts where the post holder has left since the last census date (1 November 2019). These responses are used to calculate percentage turnover, defined as:

 $Turnover = 100 \times \frac{Number \ of \ leavers \ in \ previous \ 12 \ month \ period \ (headcount)}{Establishment \ headcount}$ 

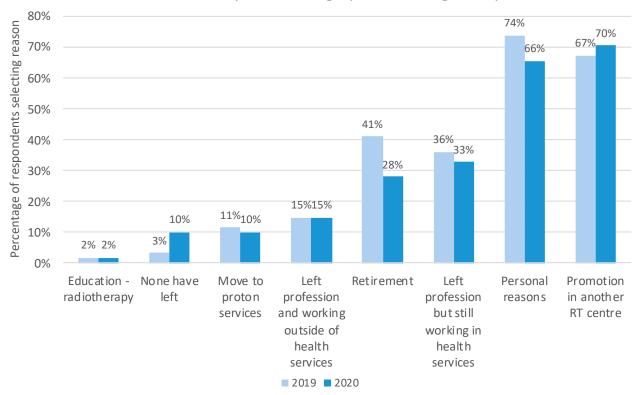
The average turnover for the 61 respondents to this question is 9.7%. This compares with 10.5% in the 2019 census. Figure 7 breaks this down by AfC band; the highest turnover rate of 19.5% is seen at AfC band 5.



### Radiotherapy radiographic workforce turnover by AfC band

Figure 7 Radiotherapy radiographic workforce turnover by AfC band (n=61)

Figure 8 shows that the most common reasons selected by radiotherapy providers for therapeutic radiographers leaving posts are personal circumstances and promotion in another radiotherapy centre.



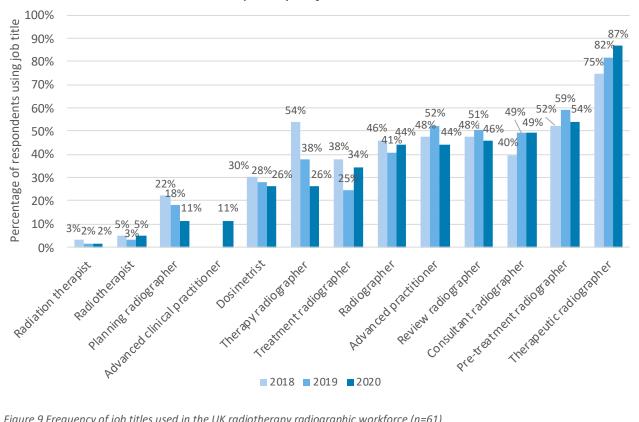
Reasons for therapeutic radiographers leaving their posts

Figure 8 Reasons for therapeutic radiographers leaving their posts (n=61)

#### **Protected titles** 9

The two protected titles within the radiotherapy radiographic workforce are 'therapeutic radiographer' and 'radiographer'. (See the Health and Care Professions Council website https://www.hcpc-uk.org/ for more information about protected titles.)

Figure 9 shows that 'therapeutic radiographer' is the job title most used by respondents. Its use has increased from 75% of respondents in 2018 to 87% in 2020. Conversely, the job title 'therapy radiographer' has decreased in use from 54% to 26% over the same period.



Frequency of job titles used

*Figure 9 Frequency of job titles used in the UK radiotherapy radiographic workforce (n=61)* 

#### Note on figure 9:

Advanced clinical practitioner was added as an option in the 2020 edition of the census. •

## **10 Use of agency therapeutic radiographers**

As of the census date, 36% of respondents are using agency therapeutic radiographers. This compares with 34% in the 2019 edition of the census.

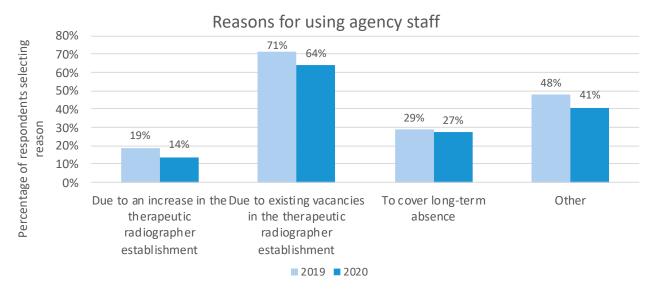


Figure 10 Reasons for using agency staff (n=22)

The reasons for using agency therapeutic radiographers are given in figure 10. The most frequently selected reason for using agency staff is existing vacancies in the therapeutic radiographer establishment. Under 'other', the reasons reported include: Covid-19 (seven respondents); increased demand (two respondents); service development projects (two respondents); and maternity leave cover (one respondent).

Figure 11 shows that most agency therapeutic radiographers are the equivalent of AfC band 6 or higher. Overall, 88% of the agency therapeutic radiographers reported by respondents were trained in the UK.

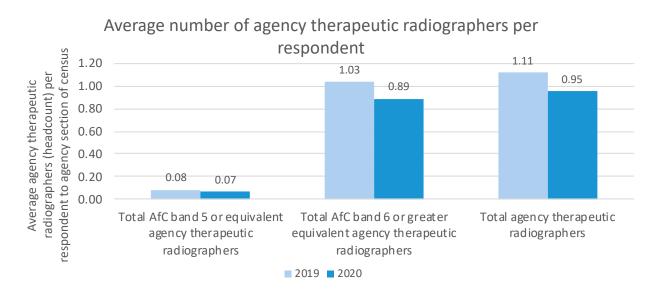


Figure 11 Average number (headcount) of agency therapeutic radiographers used (n=61)

## 11 Therapeutic radiographers employed in dosimetry

As of the census date, there are 321 therapeutic radiographers (headcount) working in dosimetry in the 61 providers who responded to this question. This is an average of 5.3 therapeutic radiographers working in dosimetry in each radiotherapy provider. These figures include both those working within and those working outside the budgetary control of the radiotherapy service manager. They may not, therefore, be included in the figures given elsewhere in this report.

# 12 Therapeutic radiographers outside budgetary control of the radiotherapy service manager

The 61 providers responding to this question reported that 81 therapeutic radiographers (headcount) work in cancer services in the UK outside the budgetary control of the radiotherapy service manager. This is an average of 1.3 therapeutic radiographers per radiotherapy provider.

These figures include therapeutic radiographers working in research, for example, at a radiotherapy provider, but exclude those working in dosimetry (which was covered in the previous section of this report). As they are outside the budgetary control of the radiotherapy service manager, they are unlikely to be included in the figures given elsewhere in this report.

### **13** General comments

At the end of the census questionnaire, respondents were asked for any general comments relating to their submission. They were also asked if they are 'over-established' at any AfC bands. Twenty-seven respondents made comments, and themes mentioned by three or more respondents are listed below with an illustrative comment:

- Service is over-established (seven respondents): "Over-established at band 6 but this is mainly to cover maternity leave. This is not reflected in establishment numbers but is in local worked WTE numbers."
- **Covid-19** (four respondents): "We have had lots of sickness this year which although it falls under the 28 days on 1 Nov 2020 has had an impact on staffing. We have also had many radiographers who have had to leave the department at 28 weeks pregnant. They are often contributing from home. This year will always be difficult to record, but would it be worth looking at the number of homeworkers as this has an impact on staffing? Not sure how."
- **Covering parental leave** (four respondents): "0.48 over-established at band 5 to cover the band 6 0.8 WTE maternity leave."
- Advanced practitioner posts (three respondents): "In terms of job titles, we also use advanced therapeutic radiographer."
- **Consultant posts** (three respondents): "Two consultant radiographer posts (breast and urology) being piloted within the department."

- **Covering time lag between vacancy and recruitment** (three respondents): "In addition to our establishment we have two extra band 5 posts that allow us to reduce our vacancy lag. I have not quoted these posts in my figures."
- **High staff turnover** (three respondents): "High turnover challenging due to the amount of time spent on recruitment and induction and training for new starters."
- **Recruitment difficulties** (three respondents): "Ongoing difficulty in recruitment specifically at band 5. The cause is multi factorial: Covid-19; quality of candidates; geographic area and competition with other larger centres. Unable to offer recruitment and retention premia."

# **14 References**

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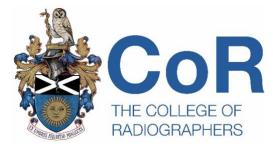
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# **15 Downloads**

Accessible from <a href="https://www.sor.org/learning-advice/professional-body-guidance-and-publications/reports-and-surveys?searchTerm=radiotherapy&sort=Newest">https://www.sor.org/learning-advice/professional-body-guidance-and-publications/reports-and-surveys?searchTerm=radiotherapy&sort=Newest</a>

- CoR radiotherapy radiographic workforce UK census 2020 questionnaire (PDF)
- CoR radiotherapy radiographic workforce UK census 2020 spreadsheet (Excel)



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