REAL Centre Workforce pressure points

Building the NHS nursing workforce in England

Report • December 2020 James Buchan, Jane Ball Nihar Shembavnekar Anita Charlesworth



About the REAL Centre

The Health Foundation's REAL Centre (research and economic analysis for the long term) provides independent analysis and research to support better long-term decision making in health and social care.

Its aim is to help health and social care leaders and policymakers look beyond the short term to understand the implications of their funding and resourcing decisions over the next 10–15 years. The Centre will work in partnership with leading experts and academics to research and model the future demand for care, and the workforce and other resources needed to respond.

The Centre supports the Health Foundation's aim to create a more sustainable health and care system that better meets people's needs now and in the future.

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^{*} The REAL Centre has commissioned Decision Analysis Services Ltd to develop a nurse supply model for England. The model will provide projections of the future nursing workforce supply in England under alternative policy scenarios over a 10 to 20-year timeframe. https://www.health.org.uk/what-we-do/real-centre/nurse-supply-model

Key points

- In December 2019, the government committed to increase the number of registered nurses working in the NHS in England by 50,000 by 2024/25.
 Coronavirus (COVID-19) has since underlined the urgent need to address critical nursing shortages.
- From 2010/11 to 2017/18, the number of full-time equivalent (FTE) nurses in the NHS barely changed, even as NHS hospital and community sector activity levels increased by 26%. Since 2017/18, nurse numbers have increased, with the number of FTE nurses and health visitors in the NHS rising by 4.8% in the year to June 2020.
- Disparities between service areas continue to widen. The number of FTE nurses working in adult hospital nursing grew by 5.5% in the year to June 2020, while the number working in community nursing grew only by 1.6%, and by 3.8% in mental health. Over the past 10 years, only adult nursing and children's nursing have seen increases in FTE nurse numbers, while the numbers in community nursing, mental health nursing and learning disability nursing are all lower than they were in June 2010.
- Vacancy rates are one measure of staff shortages as they highlight posts
 that the NHS is funding but cannot fill. Across all staff groups, the NHS
 had 83,591 FTE vacancies in June 2020. Registered nurse FTE vacancies
 accounted for close to 38,000 (45%) of these. A quarter of all nursing
 vacancies are in mental health. This is particularly concerning as COVID-19
 is likely to lead to further demand for mental health services.
- The overall skill mix of the NHS nursing workforce continues to become more diluted. The number of FTE nursing support staff increased at over twice the rate of growth in registered nurse numbers in the year to June 2020.
- The main 'supply' of new nurses to the NHS comes from undergraduate university degree courses. In 2020 there was a 23% increase in the number of students accepted onto nursing degree courses in England (relative to 2019)

 the highest annual number of acceptances since 2011.
- The UK ranks below the average of high-income OECD countries in terms of the number of practising nurses and the annual number of new nurse graduates relative to its population. On both counts, the UK reports lower ratios than comparable countries such as Germany, the USA and Australia.

- To achieve the required increase in the number of new graduate nurses from domestic education, the UK needs to find solutions to the long-term bottleneck that makes expanding the numbers in training challenging. These solutions could include increasing the use of simulation-based clinical experience, or reducing the total clinical hours required to be on a par with undergraduate nursing courses in the USA and Australia.
- The UK has been highly reliant on recruiting nurses trained outside the UK.
 About 15% of registered nurses in the UK are trained outside the UK more than double the OECD average.
- Our analysis shows that achieving the government's target of employing 50,000 NHS nurses by the end of the parliament will only be possible with sustained investment and policy action on domestic supply, including a marked improvement in retention of the current nurse workforce.
 Coordinated, ethical and effective international recruitment will also be required. To meet the 50,000 target the government will need an average of 5,000 international recruits a year up to 2024/25.
- But the 50,000 target will be insufficient to meet increased demand. As such it represents a political attempt to galvanise a system drifting from one reactive measure to the next. We argue there needs to be a shift in focus, away from a single top-down target to a more sustainable, long-term approach. This should start with robust, independent projections of the future demand for and potential supply of nurses.

1. Introduction

In November 2019 we published *Falling short: the NHS workforce challenge,*¹ our annual detailed assessment of the NHS workforce in England. The report highlighted that staff shortages had become more pronounced compared with previous years, and were increasing the risk of service delivery being compromised. In particular, the report highlighted the shortfall in registered nurses. Modest growth in NHS nurse numbers had not kept pace with demand and nursing vacancies had increased to almost 44,000 in the first quarter of 2019/20, equivalent to 12% of the nursing workforce.

1.1 No end to shortages

The need to address these shortages was highlighted in December 2019, with an election commitment by the current government to deliver 50,000 more registered nurses to the NHS by 2024/25 through a combination of increased supply, recruitment and retention.² At the time of the election, Health Foundation projections on NHS nurse staffing were that the 50,000 target was only achievable if there was a rapid and sustained increase in international recruitment, alongside policy efforts to provide financial support to student nurses, reduce attrition and improve retention. The 50,000 target in itself would be insufficient for staffing growth to meet increased demand by 2024/25.³ We revisit and update these projections later in this report.

The 50,000 target was translated into a workforce policy objective by Health Education England⁴ and confirmed by HMTreasury in the Spending Review announcement in November 2020.⁵ Although the target does not specify the types of nursing posts, specialities, sectors and geographic regions that should be prioritised, it does give a sense of the scale of the policy ambition. It also gives a benchmark to measure recent overall trends in the NHS nursing workforce.

The central aim of this report is to examine the supply of nurses to the NHS in England. The current shortfall of nurses represents a major long-term and growing problem for the NHS.⁶ Nursing shortages have been prevalent for so long that we have become accustomed to them being part of the daily backdrop to service delivery in the NHS. Unless otherwise specified, where we refer to 'nurses' in this report we specifically mean registered nurses,* as opposed to midwives, nurse associates and support staff, which we discuss in chapter 2.

^{*} Nurses trained in the UK may initially join the NMC register as a registered nurse or 'Level One' nurse: https://datadictionary.nhs.uk/nhs_business_definitions/nurse%20_level_one_.html

The impact of COVID-19, however, has brought the urgent need to deal with the identified critical nursing workforce shortages into sharp focus. As the pandemic first hit the UK, the NHS in England still had a shortfall of more than 40,000 nurses, as measured by vacancies. Subsequent urgent policy action has led to an increase in the NHS nursing workforce, as detailed in chapter 2. The pandemic has also highlighted the importance of the nursing workforce's contribution, both in responding to the pandemic and as part of the system's response to the waiting list of accumulated demand.⁷

The pandemic has exposed the risk of trying to operate services with long-term underlying nursing shortages. The system had significantly fewer registered nurses than government and health services estimated were needed, and no 'spare' capacity in the workforce to respond quickly to the increase in demand.

There are different measures and indicators of nursing shortages or staffing shortfall. In this report we highlight two in particular: NHS vacancy data, which give an indication of funded but unfilled posts at a point in time,* and the top-down 'target' of 50,000 more nurses, which was an election commitment made in December 2019. These measures both have limitations, which we will cover in more detail in the report in addition to other data constraints.

A more robust assessment of nurse demand and supply across the longer term can be developed using a model that enables different scenarios and policy options to be analysed. The Health Foundation recently published *Nurse supply model:* progress so far,⁸ which will be developed further next year and used increasingly to inform and assess nurse workforce policy.

^{*} The NHS defines vacancies and vacancy rates as follows: 'A vacancy is defined as a post that is unfilled by permanent or fixed-term staff. Some vacant posts may be filled by agency or temporary staff, but these posts are still considered to be vacancies. The number of vacancies is the difference between the number of reported full-time equivalent (FTE) permanent or fixed-term staff in post and planned workforce levels (i.e. the total funded or budgeted establishment on an FTE basis). The number of vacancies is on an FTE basis. The vacancy rate is a calculation of the FTE number of vacancies as a percentage of planned FTE workforce levels.' (https://files.digital.nhs.uk/0C/FF9F89/nhs-vac-stats-apr15-jun20-eng-rep.pdf)

1.2 Recent assessments of the NHS nursing workforce in England

Several independent reports published in 2020 give a summary before and during COVID-19 summary of key developments in the NHS nursing workforce in England, provide some pointers to changing and emerging trends in the NHS nursing workforce, and served as a foundation for this report.

- National Audit Office (NAO) report, published in March focuses on pre-COVID challenges.⁹
- NHS Pay Review Body report, published in July covers the early phase of the COVID-19 pandemic.¹⁰
- House of Commons Public Accounts Committee (PAC) report, published in September¹¹ – covers the impact of COVID-19 and nurse shortages.
- The Migration Advisory Committee (MAC) report, published in September

 advised the government on which occupations should be listed on the
 Shortage Occupation Lists.

Table 1 summarises the key points from the first three reports listed.

Table 1: Key points from recent NHS nursing workforce reports

Report	Date published	Key points
NAO: The NHS Nursing Workforce	March 2020	 'Despite increases, the NHS did not have the nurses it needed.' While the NHS long term plan had signalled the need for a step change in the recruitment of overseas nurses 'recent national initiatives to increase numbers had not met targets.' NHS England and NHS Improvement (NHS E&I) and Health Education England have been working to produce a full NHS People Plan for the period up to 2025, but this had not been published as scheduled. It is anticipated that the NHS People Plan, when published, 'would detail new workforce-related roles for national, regional and local bodies, as well as responsibilities for delivery of the overall plan.'
NHS Pay Review Body: 33rd report	July 2020	 It 'has been struck by the persistence of the Agenda for Change staff workforce gap, in particular for nursing staff All parties acknowledge the need to front-load initiatives to bridge this gap.'12 'The extent to which graduate entrants will contribute towards the government's nursing target and to closing the workforce gap, meeting increasing demand for services and delivering on new service models is not clear.' 'Front-loaded solutions that rely on overseas recruitment might be at risk from the impact of COVID-19 and the UK's exit from the EU'.¹³
House of Commons PAC: NHS nursing workforce – 18th report of session 2019–21	September 2020	 'NHS E&I and Health Education England should update and publish the results of their modelling work on the demand for NHS nurses, including details for regions and specialisms and any impacts arising from the COVID-19 outbreak.' 'As part of the published people plan, the Department, NHS E&I and Health Education England should include a set of costed and detailed action plans for each of the different supply routes for nursing, and how many nurses each route is expected to contribute to the overall nursing workforce. They should consider what national actions, for example on pay, they may need to take to increase recruitment and retention.'

The NAO and NHS Pay Review Body reports both echo some of the main findings of our previous report *Falling short*. Both highlight the significant shortfall, or 'gap', in NHS nurses over several years. Both point to the 50,000 target as giving impetus to an increase in international recruitment, while also questioning the capacity to increase domestic training levels and to sustain marked improvements in staff retention. The House of Commons PAC report, published in September 2020¹⁴ stressed that: 'The pace of progress on increasing the number of nurses in the NHS is too slow, given the years it takes for some actions – such as on undergraduate nursing degrees – to come to fruition...The Department and its arm's-length bodies must also quickly learn the lessons from the COVID-19 outbreak, which present both challenges and opportunities in how we recruit and retain the nurses we need.'¹⁵

The report from MAC, also published in September, advised the government which occupations should be listed on the Shortage Occupation Lists for the UK.¹⁶ It advised retaining all types of nursing on the Shortage Occupation Lists, a clear indication that its analysis had indicated the nursing workforce should be prioritised for international recruitment.

It is obvious that the NHS in England is committed to sustaining the growth in active international recruitment of nurses and in late September £28m was made available to NHS trusts to support three areas of recruitment.¹⁷

- To accelerate the arrival of nurses already appointed, but who have not yet travelled to the UK.
- To support trusts who are starting or expanding their overseas recruitment programmes and to make sure 'we can safely and sustainably recruit and onboard international nurses in an ethical manner'.
- To offer support to overseas trained nurses already working in the NHS in non-registered roles.

1.3 The COVID-19 period

In response to the COVID-19 pandemic, a range of emergency initiatives were implemented across subsequent months to enable a rapid temporary expansion of the nursing and midwifery workforce. These included a joint statement issued by the Nursing and Midwifery Council (NMC), Chief Nursing Officers, Council of Deans of Health, Department of Health and Social Care, Royal Colleges and trade unions highlighted the key actions that were agreed. 18, 19

These measures included:

- legislation to enable the NMC to set up a COVID-19 temporary emergency register and invite those nurses and midwives who have left the register in the past 3 years to opt in if they wish
- setting up a student emergency register for student nurses and midwives in the final 6 months of their programme

- encouraging nurse and midwife 'returners' currently on the register but not working in clinical care to take up clinical practice
- changing the programme for undergraduate nursing and midwifery students so they could opt to spend the final 6 months of their programme on a clinical placement
- inviting overseas nurses and midwives who had completed all their NMC registration process apart from the final clinical examination onto the NMC temporary register
- inviting nurses and midwives who had left the register within the past 4 and
 5 years onto the NMC temporary register
- some NHS international staff having their visas extended so that they could continue working.

We examine the impact on NHS nursing numbers in chapter 2, reflecting the overall increase, partly driven by returners to the temporary register, and fast tracking international nurses who were already in the process of application. We also consider the impact on staff wellbeing.

Even before COVID-19 hit the NHS, there were concerns about nurse workload and stress. A survey of 6,000 nurses who had left the register in 2019, published by the NMC, reported that workloads and job stress (and the impact of these on mental health) were the main reasons that nurses had left the register.²⁰

The impact of the pandemic on NHS staff has added to these concerns among NHS trust senior management. A recent report by NHS Providers²¹ highlighted that 99% were either extremely or moderately concerned about the current level of burn out across the workforce. In addition, 94% of NHS trust leaders were either extremely (56%) or moderately (38%) concerned about the impact of seasonal pressures on their trust and local area over winter.

Some indication of the impact on individual NHS nurses can be gauged from a survey of 42,000 members published by the Royal College of Nursing (RCN) in August.²² It reported that:

- 38% of respondents indicated that staffing levels worsened during the pandemic
- 62% said the needs of people they cared for had become more complex
- 76% reported an increase in their own stress levels
- 33% said they worked longer hours
- 34% said they worked at a higher level of responsibility
- 91% said they were concerned about the wellbeing of those in the nursing profession generally.

In October, the Healthcare Safety Investigation Branch (HSIB) warned that COVID-related staff fatigue and emotional distress 'may impact on the NHS's ability to mitigate against nosocomial transmission of COVID-19 and its ability to respond to a further rise in COVID-19 activity'.²³

An immediate effect of COVID-19 was to disrupt the supply of nurses being recruited to the NHS from abroad, mainly India and the Philippines. Our analysis published in July²⁴ highlighted that international inflow to the UK nursing register had dropped from about 1,000 international nurses per month at the beginning of 2020, down to less than 100 in March 2020. The high level of reliance on international recruitment and the impact of COVID-19 is discussed further in chapter 3.

Despite the negative impacts of COVID-19 on the current nursing workforce, there have also been indications that the positive image of nursing during the pandemic may be a factor in explaining an increase in applications to pre-registration nurse education.²⁵ This will also be examined in more detail in chapter 3.

At time of writing, the full NHS People Plan for England had not been published, but it is anticipated it will set out NHS staffing objectives in more detail. A second interim NHS People Plan was published in July,²⁶ to take account of the impact of COVID-19 and set out how the NHS would support its people, highlighting that 'the NHS needs more people, working differently, in a compassionate and inclusive culture'.²⁷This second interim People Plan was essentially a stop gap and did not include any staffing data, projections, plans or commitments.²⁸

One central issue not detailed in the interim versions of the People Plan is the approach to NHS staff pay determination. Pay is a major and highly visible element of the contract between the organisation and the nurse, and it can be a powerful policy lever. The approach to pay determination should be aligned with an overall agreed approach to NHS workforce development. However, the history of NHS nurses' pay determination reveals a boom and bust approach that often did not address underlying workforce challenges.²⁹ For example, there were four reviews of NHS nurses' pay in the 1960s and two further independent reviews in the 1970s. These reviews were essentially one-off 'catch up' exercises, with NHS nurses pay falling behind that of other workers in the time between each review.³⁰The establishment of the review body to advise on nurses' pay in 1983 provided some stability,³¹ but there is currently uncertainty about the outcome of the next cycle of NHS nurses' pay determination.³²

While we await the full People Plan for the NHS in England and clarity over NHS nurses' pay, this report goes beyond the headline of the 50,000 target to examine the structural issues that have led to repeated nurse shortfalls in recent decades. This report emphasises the need to consider the NHS as only one part of the nursing labour market, and to recognise that any push to increase the size of its own nursing workforce will have a direct and indirect impact on other employers

of nurses in the UK, perhaps most evidently the adult social care sector. Recent Skills for Care research highlights major recruitment and retention issues around registered nurse roles in social care.³³

The main focus of this report is on how we can develop a sustained and effective approach to achieving the necessary supply of nurses working in the NHS. This has implications for other health and social care labour markets in England, although we do not focus on those in this report.* We use publicly available data from a range of sources, primarily NHS Digital, the NMC and UCAS. We aim to take a 10 to 20-year 'long' view and highlight instances where the data do not allow for that. While COVID-19 will inevitably have major implications for the nursing workforce, we do not discuss these in detail given lags in data availability.

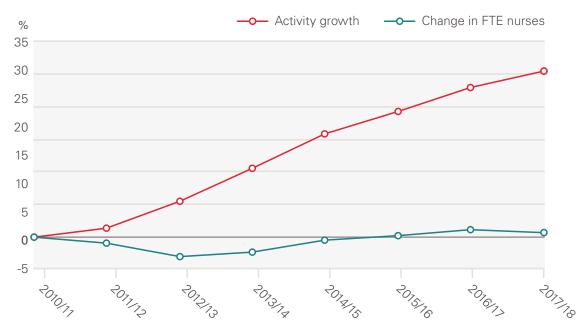
^{*} The House of Commons Health and Social Care Committee inquiry on Social Care: funding and workforce, for instance, published a report in September 2020 highlighting the Secretary of State's commitment to increased alignment between NHS and social care staff training. (https://committees.parliament.uk/publications/3120/documents/29193/default/)

The scale and nature of the shortfall of nurses

The future sustainability of the NHS relies on the people who work in it. Even before the COVID-19 pandemic, workforce issues were identified as being the single biggest challenge for the NHS and social care in England.³⁴ Analysis emphasised the key role of the workforce in providing safe, effective and timely care. In this chapter, we present updated nurse workforce data and emphasise the evolving nature of the nurse staffing shortfall. However, it is too early to discern the full implications of COVID-19 for nurses and the wider NHS workforce.

The gap between activity growth and nurse numbers has widened.³⁵ Public service health care output increased by over a quarter (26%) between 2010/11 and 2017/18 (the latest year of data availability), while FTE nurse numbers increased only marginally (Figure 1). While these data predate the impact of COVID-19, research undertaken after the pandemic took hold in 2020 highlights that workload and burn out remain major concerns for the NHS workforce.³⁶

Figure 1: Activity and FTE nursing staff numbers in the NHS hospital and community health service sector, 2010/11 to 2017/18



NHS Digital, NHS Workforce Statistics; ONS, Public service productivity: healthcare, England. Note: activity is cost and quality adjusted.

2.1 The nursing workforce: a profile

The NHS workforce statistics for June, covering NHS Hospital and Community Health Service (HCHS) staff groups in England, show a total workforce of 1.32 million (headcount) and an overall increase of 6.7% (73,217) in the FTE workforce since June 2019. This is by far the largest annual increase in the NHS workforce in the past 10 years.

Importantly, unlike last year, professionally qualified clinical staff (5.4%) and clinical support staff (10.6%) have grown at a more rapid rate than NHS infrastructure support staff (4.1%) (Table 1). This is likely to reflect the rapid response to COVID-19 in recent months, which has included policies to attract back 'returners' to the newly established 'temporary' NMC nursing register.

The trend of increases in the numbers of managers appears to have reversed (although the number of senior managers rose by 3%). However, the increases in nurse and health visitor (4.8%) and midwife (2.3%) numbers have been well below the average overall FTE workforce growth rate of 6.7%.

Conversely, nursing support staff numbers grew significantly up to June 2020 (12.6%). Most visibly, the number of FTE nursing associates more than doubled, from 857 to 1,832 (an increase of nearly 114%).

Table 2: Change in staff groups (FTE) in the NHS in England (%), June 2019–June 2020

Staff group	2019	2020	Change	Percentage change
Professionally qualified clinical staff	578,875	610,267	31,392	5.4
HCHS doctors	111,860	121,142	9,283	8.3
Nurses and health visitors	288,646	302,471	13,825	4.8
Midwives	21,632	22,128	497	2.3
Ambulance staff	15,763	16,971	1,208	7.7
Scientific, therapeutic and technical staff	140,975	147,554	6,580	4.7
Support to clinical staff	336,504	372,075	35,571	10.6
Support to doctors, nurses and midwives	254,598	283,463	28,865	11.3
Nursing support staff*	157,636	177,509	19,873	12.6
Nursing associates	857	1,832	974	113.7
Trainee nursing associates	2,890	5,012	2,123	73.5
Nursing assistants/auxiliaries	46,145	52,142	5,997	13.0
Nursing assistant practitioners	6,117	7,787	1,669	27.3
Health care assistants	68,020	74,709	6,689	9.8
Support workers	29,701	32,118	2,417	8.1
Nursery nurses	3,906	3,909	3	0.1
Support to ambulance staff	22,262	23,932	1,670	7.5
Support to scientific, therapeutic and technical staff	59,644	64,680	5,036	8.4
NHS infrastructure support staff	176,711	184,029	7,317	4.1
Central functions	87,246	93,774	6,528	7.5
Hotel, property and estates	54,908	57,308	2,400	4.4
Senior managers	10,825	11,151	327	3.0
Managers	23,732	21,795	-1,937	-8.2
Other/unknown	3,098	2,035	-1,063	-34.3
TOTAL	1,095,189	1,168,406	73,217	6.7

^{*} See our 2019 report *Falling short*³⁷ for definitions of these terms. Source: *NHS Digital, NHS HCHS monthly workforce statistics – June 2020*

While the total number of nurses increased in the 12 months up to June 2020, there is significant variation across work areas. For instance, while the number of FTE nurses employed in adult nursing grew by 5.5%, learning disability nurse numbers only grew by 2% (Figure 2). Over the past 10 years, only adult nursing and children's nursing have seen increases in FTE nurse numbers, while the numbers in community nursing, mental health nursing and learning disability nursing are all lower than they were in June 2010. Some of the decline in community nursing numbers will be accounted for by a transfer out of some services from the NHS, but data are not readily available to assess the impact of this shift.

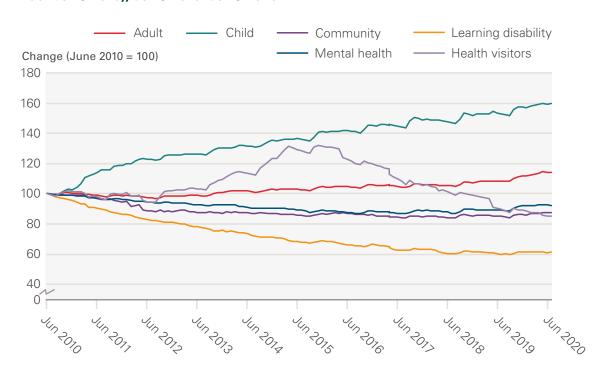


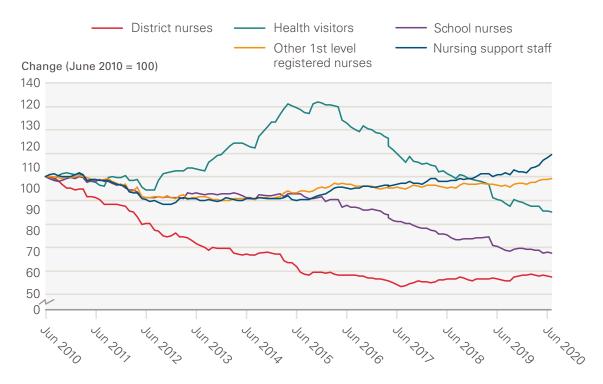
Figure 2: Change in registered nursing workforce (FTE) by work area (index 100=June 2010), June 2010–June 2020

Source: NHS Digital, NHS HCHS monthly workforce statistics – June 2020

Moving care from hospital to community settings has been stated to be a policy priority for successive governments, but the nurse staffing data do not point to this having been translated into practice.³⁸ Figure 3 shows that the number of district nurses has increased slightly over the past year (by 92 to 4,388 FTE nurses), but the number of health visitors has continued a long-term decline, falling 5.3% in the past year (to 6,652 FTE).

In previous reports we have also highlighted a declining trend in school nurse numbers. This persists: the number of school nurses fell by a further 3.1% in the year to June 2020 and now stands at only 2,016 FTE nurses.

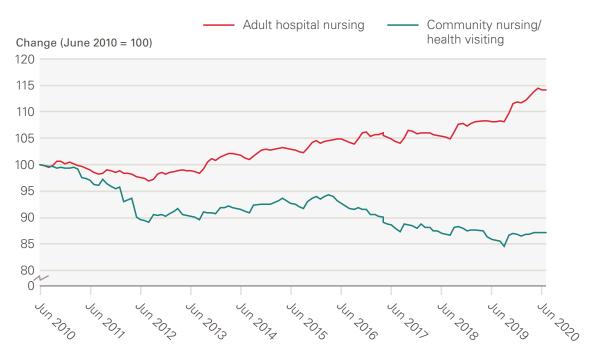
Figure 3: Change in community nursing and health visiting (FTE), selected roles (index 100=June 2010), June 2010–June 2020



Source: NHS Digital, HCHS monthly workforce statistics - June 2020

As a consequence, the relative sizes of the hospital and community nursing workforces have diverged even further over the past year (Figure 4). While the number of FTE nurses working in adult hospital nursing (acute, elderly and general) grew by 5.5% to 193,779, the number working in community nursing (including school nursing and health visitors) only grew by 1.6% to 43,078 FTE nurses.

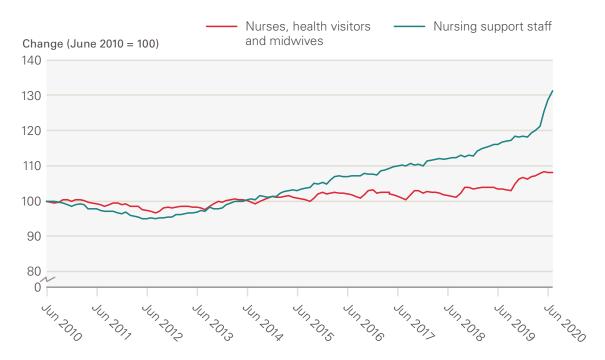
Figure 4: Change in adult hospital nursing and community nursing (FTE), including school nursing and health visitors, in the NHS in England (index 100=June 2010), June 2010–June 2020



Source: NHS Digital, NHS HCHS monthly workforce statistics – June 2020

Last year, we highlighted that the FTE number of nursing support staff (including nursing assistants and auxiliaries, nursing associates, nursing assistant practitioners and health care assistants) had increased at over twice the rate of growth in FTE-registered nurse numbers from March 2018 to March 2019.³⁹ The gap in these two growth rates has only widened since then. In the 12 months to June 2020, FTE nursing support staff numbers increased by 12.6% (19,873 FTE), the biggest increase in 5 years. To some extent, this could be a proxy for increased nurse associate and temporary nurse hiring during the COVID-19 pandemic, which raises important questions around the dilution of the nursing workforce skill mix given the potential for skill substitution between registered and support nursing staff. This is reflected in the NMC's temporary register that featured over 14,000 nurses at 2 July,⁴⁰ which we discuss further in chapter 3.

Figure 5: Change in FTE nurses, health visitors, midwives and nursing support staff (FTE) in the NHS in England (index 100=June 2010), June 2010–June 2020



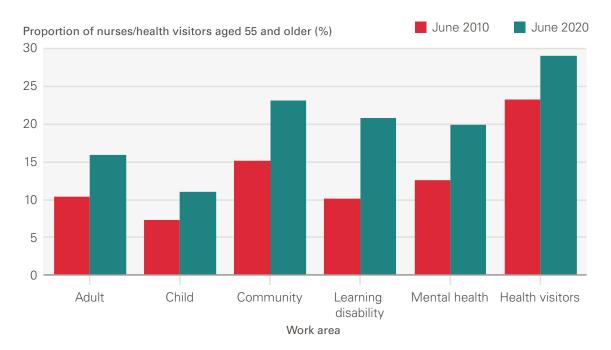
Source: NHS Digital, NHS HCHS monthly workforce statistics - June 2020

These trends matter all the more given the ageing profile of the nursing workforce. The proportion of nurses and health visitors aged 55 and older in the NHS in England increased from 12% to 17% between 2010 and 2020 (Figure 6). The NMC's latest permanent register data also reflect an ageing nurse workforce. The number of nurses aged 61 and older on the permanent register with an address in England increased by 38% between September 2015 and September 2020 to reach nearly 50,000, while the total number of nurses on the register increased only by 5% to 570,620.41 The introduction of the NMC's temporary register in response to COVID-19 led to an additional cohort of retired nurses rejoining the workforce (with 73% of those on the temporary register up to September 2020 being aged 51 and older).42

There is considerable variation across work areas. The proportion of learning disability nurses aged 55 and older doubled (from 10% to 21%) between June 2010 and June 2020 (Figure 6). This means that the learning disability nursing workforce has both declined in size and increased in age profile significantly over this period. The proportion of nurses aged 55 and older also increased substantially in community and mental health nursing, while the corresponding number for children's nursing rose more modestly from 7% to 11%.* This points to a fifth or more of staff in community, learning disability and mental health nursing potentially retiring within the next 10 years. In the absence of substantial workforce growth in these areas over the next decade, this poses a significant nurse supply challenge.

^{*} This is based on data from NHS Digital, available for 31 January 2018 (https://digital.nhs.uk/data-and-information/find-data-and-publications/supplementary-information/2018-supplementary-information-files/staff-numbers/nurses-midwives-and-support-staff-by-area-level-gender-and-age-january-18) and 30 June 2020 (https://digital.nhs.uk/data-and-information/supplementary-information/2020/nurse-and-support-staff-by-care-setting-level-gender-and-age-june-20-ah3530)

Figure 6: Age profile of nurses and health visitors in NHS England by work area, 30 June 2010–30 June 2020 (headcount*)



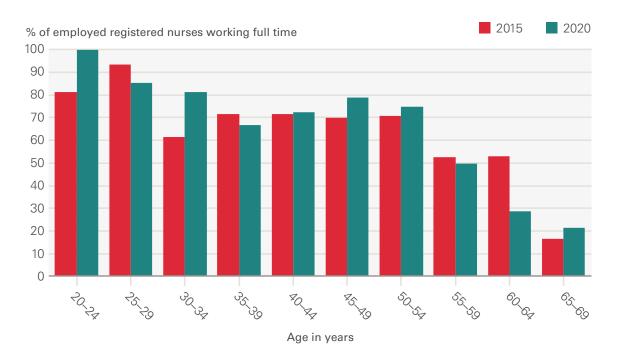
Source: NHS Digital, NHS HCHS (Nurses & health visitors, Midwives and Support to doctors, nurses & midwives, by staff group, care setting, level, gender and age band, in NHS Trusts and CCGs in England, as at 30 June 2010 and 30 June 2020. headcount)

*The data for this chart are available only as headcounts, hence we provide them for headcounts only and not for FTE nurses

The latest data from the ONS Labour Force Survey suggest that the change in the age profile of registered nurses may go hand-in-hand with shifts in labour market participation (Labour Force Survey data cover the whole of the nursing workforce, not just those in the NHS). Figure 7 plots the proportion of employed registered nurses in England who were reported as working full time (by age group) in the second quarter of both 2015 and 2020.* In the 20–24-year age band, the proportion of registered nurses employed full time increased from 81% to 100%, while in the 60–64-year category this proportion fell from 53% to 28%. This suggests that older nurses are more likely to work part time, which may pose questions for future nurse numbers given the ageing profile of nurses highlighted by the RCN and NMC data.

^{*} We use ONS Labour Force Survey data for 2015 and 2020, rather than for 2010 and 2020 as we do in Figure 1–6, as the Labour Force Survey data for 2010 are not fully comparable with 2015 and 2020 data due to a change in the occupational codes used between 2010 and 2015): https://link.springer.com/content/pdf/10.1057/elmr.2010.96.pdf

Figure 7: Proportion of employed registered nurses working full time in 2015 and 2020 (headcount*)

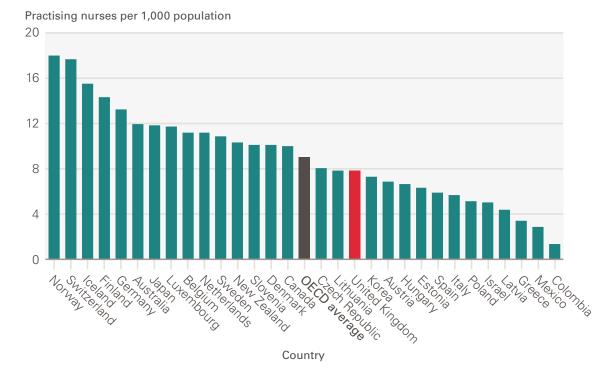


Source: ONS Labour Force Survey data for England (April to June 2015, and April to June 2020). https://www.ons.gov.uk/surveys/informationforhouseholdsandindividuals/householdandindividualsurveys/labourforcesurvey

* The data for this chart are available only as headcounts, hence we provide them for headcounts only and not for FTE nurses

International comparisons also suggest that the UK continues to be below the average of OECD countries when we compare the numbers of practising nurses and doctors in the UK with other OECD countries. The UK has approximately eight practising nurses per 1,000 population, well below commonly cited comparable countries such as Germany and Australia, where the ratio tends to be 10 or more nurses per 1,000 population (Figure 8).

Figure 8: Practising nurses per 1,000 population, 2019 or most recent year



Source: OECD Health Statistics 2020 - Health Care Resources, stats.oecd.org

2.2 What do vacancy data show?

So far, we have discussed the trends in nursing numbers and how they vary by work area. In this section we look at vacancy rates, which are an indicator of shortages as they highlight posts that the NHS is funding but cannot fill. This is important not only from a long-term systemic perspective, but also because of the associated increased risk of higher workload, job-related stress and burn out for existing staff.

Changes in nursing vacancy rates can give insight into broader shifts in nurse numbers – they may highlight nurse staffing shortages or planned service expansion (or both).⁴³ Across all staff groups, the NHS in England had 83,591 FTE vacancies in June 2020.⁴⁴ Registered nurse FTE vacancies accounted for close to 38,000 (45%) of these. While both these numbers have declined slightly relative to June 2019 (when overall FTE vacancies exceeded 100,000 and nursing accounted for over 40,000 vacant posts), nursing accounted for a higher share of all NHS England vacancies in June 2020 (45%) relative to June 2019 (40%).

There are difficulties in tracking vacancy rates across time because of changes made in 2017 relating to how the vacancy data are collated and interpreted.

Table 2 shows the breakdown of the national registered nurse FTE vacancy numbers by service area. The overall total has moved with seasonal fluctuation, but as noted, was about 38,000 in June 2020. Acute care accounted for just over two-thirds (68%) of England's FTE nursing vacancies in June 2020, down from 74% in June 2017. Conversely, mental health care accounted for 26% of FTE nursing vacancies in June 2020 – an increase of seven percentage points relative to June 2017.

Table 3: Registered FTE nurse vacancies by service area in England, percentages* and overall total, June 2017–June 2020

	Jun- 2017	Dec- 2017	Jun- 2018	Dec- 2018	Jun- 2019	Dec- 2019	Jun- 2020
Overall total*	38,328	35,934	42,587	39,685	44,195	38,740	37,821
Acute	74%	73%	74%	74%	73%	70%	68%
Ambulance**	-	-	-	-	-	-	-
Community	5%	4%	3%	3%	3%	3%	3%
Mental health	19%	20%	21%	21%	22%	24%	26%
Specialist	2%	2%	2%	2%	2%	3%	3%

Source: NHS Digital. NHS Vacancy Statistics England April 2015–June 2020 Experimental Statistics – June 2020 (2020)

There is marked variation in the vacancy rates in different regions. In June the registered nurse vacancy rate in London (13%) was almost twice that in the South West (Figure 9).

^{*}The first row provides the absolute total number of FTE registered nurse vacancies

^{**} These numbers are less than 0.5% after rounding

North East and Yorkshire

North West

North West

North West

North West

South East

South West

North West

South West

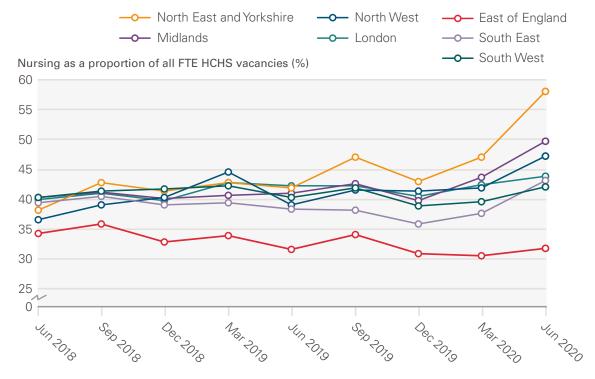
North West

Figure 9: Registered FTE nursing vacancy rates by region, 2018–2020

Source: NHS Digital. NHS Vacancy Statistics England April 2015–June 2020 Experimental Statistics – June 2020 (2020)

The relative significance of nursing vacancies in comparison with total NHS vacancies also varies across regions. Figure 10 shows that the proportion of overall NHS FTE vacancies accounted for by nursing in the North East and Yorkshire registered a marked increase (from 38% to 58%) in the 2 years to June 2020. The corresponding figures for the East of England show a slight decline (from 34% to 32%). This may derive in part from nursing, as a proportion of the NHS staff mix, being variable across regions and over time.

Figure 10: Proportion of NHS FTE vacancies accounted for by nursing by region, 2018–2020



Source: NHS Digital. NHS Vacancy Statistics England April 2015–June 2020 Experimental Statistics – June 2020 (2020)

Figure 11 presents the overall and registered nursing FTE vacancy rates for each region in June 2020. London and the Midlands stand out for having the highest nursing vacancy rates, while the East of England has a much smaller gap between the overall vacancy rate and the nursing vacancy rate relative to elsewhere in England. Again, this points to differences in the underlying nursing demand and the skill mix across regions, potentially dovetailing with COVID-19 pressures, all of which are fertile avenues for further research.

Figure 11: Overall and registered nurse FTE vacancy rates by region, June 2020



Source: NHS Digital. NHS Vacancy Statistics England April 2015–June 2020 Experimental Statistics – June 2020 (2020)

3. Nurse supply

In this chapter we assess the various sources of supply of registered nurses to the NHS in England to put the current target of 50,000 more nurses in context – and the options on filling the vacancies.

The nursing workforce is made up of degree-educated registered nurses and staff in nursing support roles such as health care assistants or nursing associates, who potentially have the opportunity to undertake additional training education to become registered nurses.

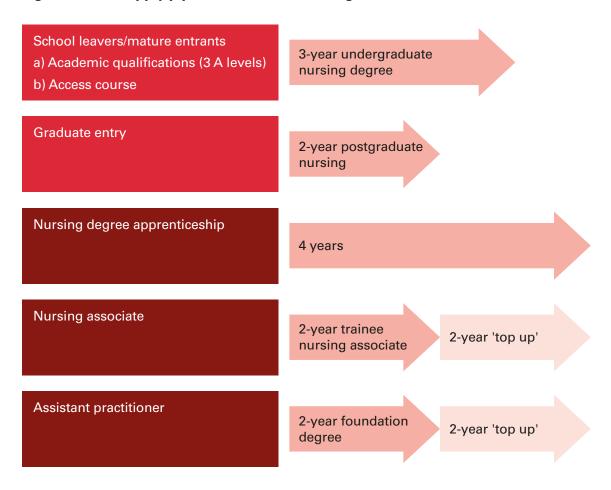
There are three main supply modes that can be drawn on to increase the size of the active registered nurse workforce in the UK.

- Create new registered nurses through education/training, with four options of route:
 - nursing undergraduate degree courses
 - graduate entry: accelerated (2-year) nursing degree courses for graduates from other disciplines
 - nursing degree apprenticeships
 - indirectly through additional education for nursing associates and assistant practitioners to become registered nurses.
- Increase the numbers of registered nurses who are currently active via 'return to practice' (including the current NMC's temporary COVID-19 register).
- 3. Use international recruitment to bring registered nurses to the UK from other countries.

The balance between domestic and international supply routes has been a long-term policy issue, and has been highlighted by several inquiries and reports. For example, the House of Commons Health Committee inquiry on NHS education and training reported in 2012 that 'we also welcome the government's view that planning of the UK health and care workforce should not be dependent on significant future flows of trained staff from overseas, both in order to improve security of supply and in order to avoid poaching skilled staff from developing countries'. When the MAC placed nursing on the Shortage Occupation List in 2016 it noted that it did so with reluctance, stating that the shortage had arisen primarily due to a sector failure to ensure an adequate supply of domestically trained nurses. 46

In this chapter supply of nurses in terms of domestic (UK-trained) supply, return to practice and international recruitment is examined. The current routes to becoming a registered nurse (Figure 12) are reviewed, beginning with university-based routes, then looking at employer-based routes that are either direct routes (nursing degree apprenticeships) or indirect routes, having trained as assistant or associate nursing practitioner first (nursing associate or assistant practitioner). Figure 13 shows the estimated size of each source.

Figure 12: The supply pipeline routes into the registered nurse workforce in the UK



23%
Postgraduate pre-registration
Nursing degree apprentices
Post vocational conversion (NA, AP)
Return to practice
International recruits

Figure 13: Estimate of annual supply of registered nurses in England by source

Source: Estimates by HF authors based on data from the NMC, UCAS, HEE and the Office for Students

We look at each of these routes, before considering the factors that affect flow rates and outputs – the bottlenecks, pinch points, and 'leakage'. The aim is to identify elements that could be open to policy action to enable an increase in the numbers of registered nurses entering and working in the NHS. The variation in detail on each source reflects the lack of information and data publicly available on registered nurse numbers.

It should be noted that these supply routes also provide new nurses for all other parts of the nursing labour market, including social care and nursing homes; roughly one-quarter of nurses work for employers other than the NHS.⁴⁷This has to be factored in, to help determine the total supply required to produce the target number of registered nurses specifically for the NHS.

Also critical in sustaining nursing numbers is the effort to reduce losses from the active workforce – from the very first stage of recruitment, during the course of a career and right through to the final exit point of retirement. In addition to reducing attrition during nursing education, consideration is also needed to reduce wastage of newly qualified and experienced registered nurses, through efforts to increase retention.

While reducing losses cannot help fill current vacancies, projects such as the Health Education England-led initiative reducing pre-registration attrition and improving retention (RePAIR)⁴⁸ and the NHS Improvement national retention programme⁴⁹ show that the sector recognises the importance of retention in trying to ensure that the gap between workforce needed and workforce in post is not widened.

3.1 How to become a registered nurse in the UK

All registered nurses in the UK are registered on the professional register maintained by the NMC, into four branches: adult nursing, children's nursing, learning disability nursing and mental health nursing. UK university-based degree programmes are offered for each of the branches. Student nurses must make an early decision, at the outset of their degrees, to determine which of these four fields of nursing they want to qualify for. Some student nurses opt to study for a dual-field registration, qualifying them in both adult nursing and one of the other branches.

Registered nurse education and training requires a mix of academic and clinical hours. ⁵⁰ The minimum training and competency requirements for registered nurses responsible for general care is governed by EU legislation. The EU directive* stipulates the total number of hours (4,600) and that half of the education programme should be spent in clinical practice. Each undergraduate nursing student in the UK is therefore required to have completed 2,300 hours in clinical placements during their degree programme (typically 3 years, but 4 years for dual field).

Figure 12 shows the routes to becoming a registered nurse, but does not present the additional complexity of specialty (or field) as determined by branch on the register: adult, children's, mental health and learning disability. Applicants to nursing degrees (both undergraduate and graduate entry) apply for a specific course according to their chosen field. A single field undergraduate nursing degree takes 3 years to complete full time and results in registration on the relevant branch of the NMC register.

3.1.1 Entry by undergraduate degree course

This is the most important supply route, in terms of numbers. Data from the Universities and Colleges Admissions Service (UCAS) can be used to assess trends in the numbers of undergraduate student nurses. There are two main indicators that can be derived: applications and acceptances. The latter is of greater relevance as it shows how many new student nurses are entering the education system on an annual basis. In comparison, applications data give a looser indication of overall numbers who may be interested in entering nursing as a career.

In 2020, the number of applicants to 3-year undergraduate nursing degree courses in the four countries of the UK increased by 15% compared with 2019. In England, the largest of the four UK countries, 17% more people applied through UCAS to do a nursing course in 2020 than in 2019. The number of applicants for nursing degrees, while significantly up on last year, remains 16% lower than in 2016, and is a lower total relative to every year between 2011 and 2016 (Table 3).

^{*} Directive 2005/36/EC, amended by Directive 2013/55/EU, is transposed into UK legislation through two statutory regulations: the European Communities (Recognition of Professional Qualifications) Regulations 2007, and the European Qualifications (Health and Social Care Professions) Regulations 2007

Table 4: Number of applicants for nursing degrees by country of domicile

											Change (%)	(%)	
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2019- 2020	2015- 2020	2011- 2020
England	48,890	47,950	48,940	52,550	51,160	5,1840	4,0060	3,5260	3,6810	4,2970	17	-16	-12
Scotland	5,910	5,380	5,290	5,860	5,820	5,600	5,470	5,600	6,160	7,130	16	23	21
Wales	2,990	3,090	2,980	2,950	3,040	3,270	2,940	2,980	3,130	3,290	2	8	10
Northern Ireland	1,970	2,010	2,950	2,770	2,710	2,750	2,590	2,400	2,610	2,500	4	φ	27
EU (exc. UK)	1,660	1,680	1,910	1,810	1,650	1,690	1,290	1,180	1,190	1,260	9	-24	-24
Not EU	009	200	490	550	580	480	029	750	066	1,400	41	141	133
Total	62,020	60,610	62,560	66,490	64,960	65,630	53,020	48,170	50,890	58,550	15	-10	%9-

Source: UCAS, 2020

UCAS reported that applications to nursing courses almost doubled in the period between March 2020 (when COVID-19 started to impact the UK) and June 2020, representing the largest growth in any major subject.⁵¹ In particular applications from men, and from mature applicants, increased in the period between January and June (more so than in previous years).

Our analysis points to a number of differences in the profile of applicants in 2020. In the years following the change in student nurse funding and loss of the bursary, there was a reduction in mature entrants (defined here as 21 years or older) as a proportion of all applicants and acceptances. Based on analysis of the September 2020 data (for applicants domiciled in England), 60% of applications to nursing degrees were from those aged 21 years or older. This is up from 2019, when 57% of the places accepted were to students who were 21 years or older, but still lower than in 2016 (62%). Men accounted for 11% of this year's applicants from England, compared to 10% in 2019.

Trends in nursing applicants do not necessarily correlate with trends in acceptances. In recent years, as applicant numbers fell, universities have accepted a higher proportion of applicants; the decline seen in applications was therefore not mirrored in a similar reduction in the number of acceptances to nursing degree courses.

Final figures on numbers of students accepted on to nursing degree courses starting in 2020 were released by UCAS on 24 September 2020 (Figure 14). The total number of applicants with accepted places on nursing degree courses at UK universities was 34,190 – 22% higher than at the same point in 2019 and 21% higher than 2016. The number of accepted students (28 days after results day) for nursing degree courses in England is 26,590, which is an increase of 23% since 2019. Figure 14 shows the trend in numbers of acceptances by universities in England (by place of study, not place of domicile) since 2011 and highlights that 2020 is the year with the highest number of placed applicants by the end of August.

Figure 14: Acceptances to nursing degree courses in England (28 days after A level results)



Source: UCAS 2020 (UCAS, 2020, daily statistical releases (final 28 days after results - 10/09/2020, published 24/09/202) https://www.ucas.com/data-and-analysis/undergraduate-statistics-and-reports/statistical-releases-daily-clearing-analysis-2020)

The most significant change in acceptances is the growth in students aged 35 years or older over the last year. A total of 18% and 19% of acceptances in 2018 and 2019, respectively, were students aged 35 years or older, but this year 22% of all students accepted onto nursing degrees were from this age group. Men accounted for 9.5% of acceptances in England, similar to the figure reported in 2019 (8.8%).

3.1.2 Entry by graduate (accelerated) programme

Graduate entry (accelerated) programmes are based on universities being able to accredit an applicant's previous theoretical and practice learning, such as a relevant degree or relevant practical experience. Accreditation of prior experiential learning (APEL) means that students can complete the course in a shorter time (typically 2 years). These programmes are typically offered at postgraduate diploma or master's degree level. 52

One estimate suggests that up to one-fifth of university-based nursing students in the UK are enrolled on postgraduate courses, as opposed to undergraduate nursing courses. However, data on the number of graduate entry pre-registration numbers are not routinely published.

According to data from the Higher Education Students Early Statistics (HESES) survey for 2017 to 2018, postgraduate-taught course enrolments accounted for 8% of all enrolments in nursing and midwifery disciplines in England. The significance of postgraduate courses varies by branch, but between 2017 and 2018 postgraduates accounted for:

- mental health (16%)
- learning disability (10%)
- adult (7%)
- children's nursing (6%).⁵³

The graduate-entry supply route into nursing was given a further boost when NHS England launched the Nurse First programme in 2017 to attract high-achieving graduates into a nursing career through a postgraduate programme.⁵⁴

The graduate entry route is seen by many as ripe for expansion. The Council of Deans of Health say: 'Postgraduate entry is often a route to registration that is overlooked. This is typically the quickest route to qualification (2 years as opposed to 3 years).'55 The Council have also highlighted ways to stimulate growth, such as an additional support package to include upfront payment of tuition fees or an additional maintenance grant to support living costs.

In reviewing options for increasing nurse supply in the UK to 'close the gap', leading US nursing workforce expert Linda Aiken has highlighted the importance of graduate-entry nursing programmes in the USA. She reports that close to half of the applicants to university nursing programmes in the USA already have a degree in another field.⁵⁶

3.1.3 Entry by nursing degree apprenticeship

Nursing degree apprenticeships offer an alternative route for employees in health and social care to become graduate-registered nurses. Apprentices are released by their employer to study part time with an NMC-approved higher education institution, and train in a range of practice placement settings. To become registrants, they must achieve the same standards as student nurses on undergraduate programmes.

The first nursing degree apprenticeships started in September 2017. A 2020 review of apprenticeships in the NHS described the availability of the nurse degree apprenticeship as being 'patchy'. The number of nurse degree apprenticeships has increased from 304 in 2017/18, to 1,041 in 2018/19. The first few apprentices graduated from the scheme in February 2020. 58

The main challenge with expanding the number of apprenticeships is, reportedly, that employers find it difficult to finance and find staff to cover the times when apprentices are supernumerary, or absent for study days or blocks. Although some trusts are reported as seeing apprenticeships as a means of attracting new employees, there has been greater emphasis on using apprenticeships to offer training opportunities for existing staff as a way of retaining them and providing career opportunities.⁵⁹

The NHS Pay Review Body report in 2019 described an absence of firm evidence as to how the apprenticeship programme had impacted on health care staff recruitment and retention. One year on, they note that while trusts are using apprenticeships to build supply and capacity, there continue to be problems in using the apprenticeship levy introduced in 2017. Challenges include: covering backfill costs, resources for supervisory capacity and access to and use of training providers. In a survey of apprenticeship leads, three-quarters of respondents reported that their NHS trust was very unlikely to spend the levy in the financial year 2019/20.

In August 2020 the government announced additional funding to double the number of nursing apprentices trained in England each year (from around 1,000 per annum to 2,000 per annum) for the next 4 years. Increased funding is also being used to boost specific sectors: Health Education England is giving £3,900 on top of the £8,300 paid per year to health care employers for each nursing degree apprentice in learning disability. 44

3.1.4 Entry from nursing support roles

A variety of assistive roles complement the registered nursing workforce: these are health care assistants; health care support workers; nursing assistants/ nursing auxiliaries; nursing assistant practitioners; and nursing associates. Two of these roles have an explicit potential 'bridge' to registered nurse status: assistant practitioner and nursing associate.

The introduction of the nursing associate role was announced as a new government policy in 2015⁶⁵ and, after a pilot scheme, the first courses to train nursing associates started in September 2017. It is described as a 'bridging role'; a half-way house between health care assistants (who receive on average just 2 weeks' training for the role) and degree-educated registered nurses (who receive a minimum of 4,600 hours education and training – half clinical, half theoretical). Once trained, nursing associates can undertake further education (the 2-year shortened course to registered nurse or a nursing degree apprenticeship) to become a registered nurse.

The nursing associate role is the only nursing support role qualification that is registered and regulated by the NMC. The first registrants on the NMC nursing associate register were in 2019, and between 1 April 2019 and 30 September 2020 the number of nursing associates having an address in England on the permanent register grew by 2,213 to a total of 2,691.66 In January 2020, there were 1,093 FTE nursing associates reported to be working in the NHS in England and 4,300 trainees. Most nursing associate training is delivered though an apprenticeship,67 but it can be self-funded with applicants applying directly to universities.68

Health Education England report that 47% of trainee nursing associates surveyed said they intended to then enrol onto a pre-registration nursing degree programme within 3 years of qualification.⁶⁹

Similarly to nursing associates, assistant practitioners (or associate practitioners) can also enrol in an additional 2-year university-based programme to become a registered nurse. The assistant practitioner role was introduced in 2002 as an advanced support role, positioned between health care assistant roles and the registered nurse or other nonmedical professions. Assistant practitioners are required to obtain a level 5 qualification,⁷⁰ typically through a 2-year foundation degree.

Training to become an assistant practitioner is offered to staff who are already working, for example in a clinical support role such as a health care assistant, dietetic assistant or maternity support worker – and they will continue to be employed. Most (60%) of NHS trusts employ between one and 30 assistant practitioners.⁷¹

Assistant practitioners can follow an allied health professional therapy or nursing pathway, undertaking a 2-year foundation degree in health or social care, which – like nursing associates – can be as an apprenticeship.

In June 2020, there were 7,787 FTE assistant practitioner posts recorded in the NHS (see chapter 2). As with nursing associates, no data have been found on the number of assistant practitioners who have subsequently enrolled on the 2-year programme to become a registered nurse, but one estimate suggests that around 30% may convert to become a registered nurse.

3.2 Returning to practice

Many nurses decide to return to nursing practice, either after career breaks or other jobs. More recently, there have been policy efforts to support 'returners' as a supply route. In 2014 Health Education England launched an initiative to increase levels of nurses returning to practice, stating that 'returning nurses to practice could form an important component of workforce strategies' but noting that 'return to practice is poorly understood and has received comparatively little evaluation'.⁷²

Around 40 universities in England deliver return to practice courses. The one-off cost of completing the course can be between £1,500–2,000, although Health Education England can offer some financial support. Return to practice courses focus on enabling lapsed registrants (who have left the NMC register and have not practised for some time) to achieve the competency standards required to renew their registration. Courses usually take approximately 3–6 months to complete, depending on clinical placement hours required, the length of time out of practice and the length of time previously spent in practice.⁷³

There is little data available to evaluate the scale or efficacy of return to practice courses. The Health Education England website notes: 'To date more than 4,200 have commenced the practice programme and over 2,400 have completed and entered NHS employment. This programme is being expanded with a target of 1,000 each year.'⁷⁴

The COVID-19 pandemic created a new impetus for urgent and immediate increase in the nursing workforce, and this was facilitated by the establishment of a temporary COVID-19 register that mainly comprised returners. In July 2020, the NMC recorded 14,243 people on the temporary register; its survey of these nurses suggested that the majority did not plan to move on to the permanent register.⁷⁵ In the 6 months to September 2020, 1,985 nurses had moved from the temporary to the permanent register.⁷⁶

3.3 Factors influencing domestic supply

Supporting the policy objective of increasing the supply of nurses from domestic sources requires action on two fronts. First to identify and remove obstacles and constraints that deter people from entering nurse training, or that impede the volume or flow through training and into the workforce. Second, potential levers to incentivise increased entry and retention must be considered.

Table 5 outlines the stages along the domestic supply pipeline for undergraduate nurses (the biggest source), from initial interest in nursing through to preceptorship⁷⁷ (structured support) of a newly qualified nurse. The table also highlights possible policy interventions and actions.

Table 5: Key stages in the domestic registered nurse supply pipeline and related policy options

Supply pipeline stage		Potential policy interventions	
•	Perceptions of nursing as career/ profile/status Public image	Generic recruitment campaigns	
•	Level of interest in nursing by different groups	Targeted recruitment campaigns (eg campaign to increase number of male applicants into nursing)	
•	Financial support for nursing students (eg fees, cost of living/maintenance grants, accommodation, expenses associated with clinical placements)	England: Loan-based model of £5,000– £8,000 annual maintenance grant every year during students' course	
•	Entrants make choice of branch(es) Currently there are under-recruited branches in mental health and learning disability	Specialty/branch-related incentives	
•	Increasing nurse supply in region with greatest shortages	Regional incentives to increase capacity	
•	Staying on and completing course (attrition during nursing education)	RePAIR* project recommendations (eg manage prospective student/nurse expectations of programme and career; buddy schemes for student nurses)	
•	Staying in nurse employment once qualified (ie not leaving the profession in first few years)	Enhance preceptorship Professional development Skills and experience acquisition (rotation) Career paths for progression	

^{*}RePAIR: Reducing pre-registration attrition and improving retention

3.3.1 Attrition

At each stage of the supply pipeline there are potential losses as individuals leave. Assessment of attrition from pre-registration education is undermined by the absence of standardised publicly-available data on attrition from different undergraduate nursing courses and institutions. This critical weakness limits the accuracy of workforce planning, as it is difficult to determine accurate estimates of the number of UCAS acceptances to nursing courses that will subsequently complete and become registered nurses. The absence of standardised comparative data also makes it more difficult to identify courses and institutions where the problem of attrition is more pronounced. This shortcoming has been highlighted several times in recent years, 78 but there has been no sustained improvement.

In the absence of standardised data on attrition in pre-registration courses, the *Nursing Standard* has used freedom of information legislation to obtain data on attrition to calculate institution level and national rates. Using this approach, and with a simple definition of attrition – the percentage not completing their course in the expected timeframe – the average rates of attrition from nursing degree courses in the UK were estimated to be steady at around one in four students over the last 3 years (24% in 2020, 2019 and 2018).⁷⁹The estimated rate, however, varied from 5% to 50% between universities and courses.⁸⁰

The 2018 Health Education England RePAIR initiative⁸¹ to reduce attrition from nursing found that the reasons for non-completion of courses were failure of assessment, wrong career choice and financial difficulty. In their survey of 3,477 students, the three top reasons given for considering leaving were: student finances (see section 3.3.4), academic difficulty/progression, and clinical placements (see 3.3.2).⁸²

The RePAIR assessment also identified the first few years following qualification and registration as a particularly vulnerable time, coining the term 'the flaky bridge'. The project identified the quality of the preceptorship programme offered to support newly qualified registrants as key. The degree of opportunity (eg through rotation schemes), structure, level of support and administrative burden varied greatly. A domino effect was noted: 'Very often the pressures in the service and the staff shortages mean that the service is left with no choice but to expect the preceptees to 'step up' and take more responsibility. This can result in the newly qualified member of staff feeling extremely anxious, worrying that the patients are not safe and then resigning from their post'.⁸³

The scheme is still running; in July 2020 Health Education England said 'We are investing an additional £10m into systems for placements, rolling out the RePAIR programme to reduce course attrition.'84

Accurate data on both entrants and attrition rates is needed, in relation to each of the different preparation routes set out in Figure 12, and in relation to branches of nursing and different education institutions.

3.3.2 Acquisition of clinical skills and experience

One challenge in attempting to increase nurse supply is the difficulty in scaling up the resource needed to deliver clinical placements.

The total hours in a pre-registration nursing degree (4,600 hours), including the hours spent in clinical placement (2,300), are far greater in the UK than in some other countries. For example, in Australia the minimum clinical placement for student nurses is 800 hours, ⁸⁵ in New Zealand it is 1,100 and in the USA it is 868. A recent review of nursing education in Australia commented: 'When it comes to placement hours, quantity is not a guarantee of quality. Students may spend many hours on placements, but gain little if the venues are inappropriate, supervision poor, and durations short.'⁸⁶

Debate is ongoing about how to improve the quality of clinical placements for student nurses to ensure they deliver a quality experience and develop the competencies required. However, COVID-19 has made the provision of supernumerary* clinical placements even more problematic as providers struggled to reconfigure services to deal with the pandemic. This has renewed attention on the bottleneck that is created by having a relatively large requirement for the number of clinical hours based in practice. For example, the Council of Deans for Health has said: 'We support increased regulatory flexibility around theory and practice hours in nursing education, including a reduction in practice hours and in the total number of hours (4,600) for NMC professions. Competencies, not hours, should be the focus.'⁸⁷

Aside from the need to review the total hours of clinical placement, there is also a major restriction on the use of simulated clinical practice as part of the total clinical practice hours. Greater use of technology and laboratory-based simulation could take the pressure off finding clinical placements, if simulation can be effective and deliver suitable quality. Earlier this year, in their submission on the nursing workforce to PAC, the Council of Deans of Health highlighted that 'there should also be more scope for simulation and online/virtual learning that would count for practice and theory hours. Increased flexibility could reduce pressure on practice placements'.88

In support of this point, a review supported by the US National Council of State Boards of Nursing examined the potential of simulation in undergraduate nurse education and concluded that 'there were no statistically significant differences between the groups using 10% or less of simulation (control), 25% simulation or 50% simulation with regard to knowledge acquisition and clinical performance'. It concluded that 'the literature gives evidence that simulation is a pedagogy that may be integrated across the pre-licensure curriculum, provided that faculty are

^{* &#}x27;Supernumerary': defined by the NMC as not counted as part of the staffing required for safe and effective care in that setting. https://www.nmc.org.uk/supporting-information-on-standards-for-student-supervision-and-assessment/student-empowerment/what-to-expect/supernumerary-protected-learning-time/

adequately trained, committed and in sufficient numbers; when there is a dedicated simulation lab which has appropriate resources; when the vignettes are realistically and appropriately designed; and when debriefing is based on a theoretical model'.89

3.3.3 University capacity

The Council of Deans of Health survey of 84 member universities in 2019 profiled the academic workforce and highlighted the ageing profile of academics in UK universities (many with a high proportion of staff nearing retirement age) and relatively poor pay in comparison with the NHS. These were considered to be the factors creating recruitment challenges, particularly in relation to recruiting clinically specialist posts, such as posts related to advanced clinical practice or non-medical prescribing. Aside from retirement, the main reason for losing nurse education staff was due to competition from the private and public sector. Employment packages offered in clinical practice are seen as significantly more attractive than those in higher education.⁹⁰

In small and specialist subject areas (eg learning disability) and senior positions, the Council of Deans of Health report that universities struggle to recruit, to the extent that some courses have had to close where staff could not be replaced. It also highlights the potential risk this poses to workforce supply, regardless of student interest or applicants. Capacity constraints in the sector outlined above may explain why the survey found a 'significant proportion of universities' unsure of their ability to increase nursing student numbers – even if additional placements were available. There is also a timing issue: based on interviews with a selection of higher education stakeholders, the NAO reported earlier this year that, in some instances, announcements about opportunities to increase placement capacity had come too late in the academic cycle for universities to respond.

3.3.4 Financial support

Unlike most other undergraduates, the lengthy hours and extended academic year makes undertaking paid work alongside a degree course challenging for nursing students. The Council of Deans of Health say: 'Health care courses are unique, so students require more financial support than most to access and complete their studies owing to course length and intensity and placement requirements. Students have higher contact hours in both academic and practice settings to meet professional regulatory requirements. Extended programme length over the academic year, irregular placement working patterns and time spent travelling to placements and working away from home all inhibit students from taking on paid part-time employment'.⁹⁴

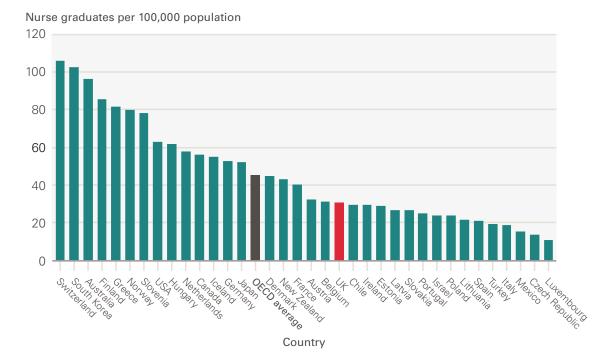
In England, the removal of the student bursary in 2016 was followed by a reduction in applications to pre-registration nurse education. In response, in December 2019 the government announced that a cost of living grant for nursing students of at least £5,000 per student for each year of their courses would be introduced, starting

in September 2020.⁹⁵This echoes our previous work *Closing the gap: key areas for action on the health and care workforce (2019).*⁹⁶ Here we had recommended that such a grant should be introduced in recognition of the time spent on clinical placements and to facilitate full-time students receiving up to the National Living Wage after factoring in maintenance loans, income tax and National Insurance.

3.3.5 How does UK training compare to other countries?

Comparative international data published by the OECD on nurse graduations suggests that the UK is significantly undertraining nurses compared to many other OECD countries (Figure 15).

Figure 15: Number of nurse graduates per 100,000 population, OECD countries, 2019 or most recent year



Source: OECD data on health resources – nursing graduates (https://doi.org/10.1787/777a9575-en)

Using the indicator of new nurse graduates per 100,000 population (the number of students who have obtained a recognised qualification required to become a licensed or registered nurse) gives a broad brush league table of how many new graduate nurses are potentially entering the labour market in each OECD country.

OECD data show that the UK is towards the bottom of the table, with about 30 new nurse graduates per 100,000 population graduating annually. This is a third of the output in Australia (where there are more than 90 graduates per 100,000 population) and half the output in the USA (63 graduates per 100,000 population).

3.4 International recruitment

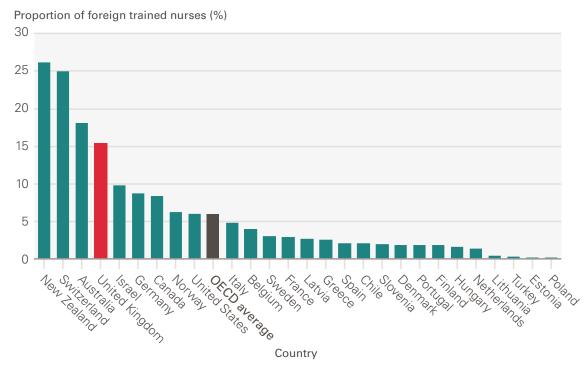
The UK has a long-term reliance on international nurses. International recruitment can be attractive to policymakers looking to rapidly expand the workforce because it is a relatively cheap, and quick solution in terms of increasing nursing numbers compared to supporting domestic training. At an estimated cost of £12,000 per non-European Economic Area (EEA) nurse recruit,⁹⁷ international recruitment can be a relatively quicker and cheaper than investment in domestic training of nurses, which entails a cost of around £66,500 per nurse.⁹⁸

The pre-COVID-19 strategy to address nursing shortages in the NHS in England, as articulated in the interim People Plan, was essentially to buy time for longer term increases in domestic training by ramping up international recruitment. COVID-19, however, has disrupted international travel and the UK has witnessed a sharp reduction in new registrations from nurses trained outside the UK.

In September, the chief nurse of NHS England stated: 'We have an order book of over 6,500 [international nurses]⁹⁹ and in October more funding was made available for NHS trusts that wanted to use international recruitment. This strategy also has to adapt to migration policy changes and the impact of Brexit on migration flows.'

The UK is one of the most dependent countries in the OECD, with about 15% of registered nurses being trained outside the UK – more than double the average across the OECD (Figure 16).

Figure 16: Proportion of foreign trained nurses in OECD countries, 2019 or most recent year



Source: OECD Health Statistics 2020 - Health Workforce Migration, stats.oecd.org

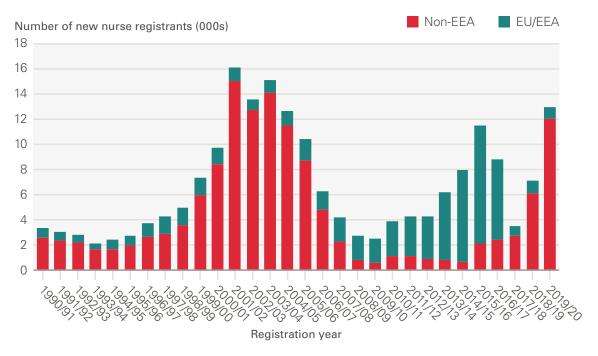
Analysis of the year-on-year pattern of international inflows of nurses can be assessed using data from the NMC. This highlights the long-term reliance of the UK on international nurses.

Figure 17 shows the annual number of international nurse registrants first registering in the UK from EEA and non-EEA countries since 1990. The pattern is clear. There was a rapid increase in the non-EEA international inflows in the period up to 2001/02 at a time of NHS-funded staff expansion. This was mainly driven by the active recruitment of nurses from the Philippines and India.

There was then a second phase of increased international nurse inflows (from 2010 to 2016) as UK employers struggled to address nursing shortages, but this was based on recruitment of nurses from EEA countries such as Romania, Spain, Portugal and Italy.

Finally, in the most recent period since 2016 and the Brexit vote, there has been a rapid decline in EEA-trained nurses registering in the UK, but a rapid increase in non-EEA international recruitment, mainly from India and the Philippines. The inflow of nurse registrants from non-EEA countries doubled in 2019/20 relative to the previous year (from around 6,150 to over 12,000). There was a sharp reduction in new international registrant numbers in April 2020, 100 when COVID-19 disrupted international travel, and this trend has continued. In the 6 months to September 2020, the number of new non-EEA international nurse registrants in the UK was 2,101, less than a third of the number in the previous 6-month period of September 2019 to March 2020 (7,438). 101

Figure 17: Annual number of new NMC registrants from EEA and non-EEA countries, 1990/91 to 2019/20



Source: NMC/UKCC data, authors' analysis

Comparing international registrants with new registrants trained in the UK shows the varying reliance on international nurses across the years. In every year since 1990, at least one in every 10 new entrants to the NMC register has come from other countries (Figure 18). In most years this percentage of inflows from outside the UK has been much higher, peaking at over 50% of the total in 2001/02. Most recently, international inflows have again risen in prominence, from 23% of new registrants in 2018/19 to 34% in 2019/20. This recent trend reflects a move away from a position of self-sufficiency, towards greater reliance on international recruitment.

UK Non-UK % of new NMC nurse registrants 100 90 80 70 60 50 40 30 20 10 10/0/40 10/0/06 2030200 2030200 2000 100 L 705 10/50 3030303030 3040506050 Registration year

Figure 18: Annual percentage intake of new NMC registrants from UK and non-UK sources, 1990/91 to 2019/20

Source: NMC/UKCC data, authors' analysis

Although the COVID-19 pandemic has cut across international supply lines, there is likely to be a continuing emphasis on fast-track international recruitment to support attainment of the 50,000 target. The fact that nurses are on the UK's Shortage Occupation List, 102 coupled with the fact that nurses will be eligible for the post-Brexit immigration system's 'Health and Care Visa', which includes an exemption from paying the Immigration Health Surcharge, 103 should further facilitate the fast-track recruitment of nurses trained abroad. But the new system will have implications for the balance of international recruitment. By making it more difficult to recruit nurses from the EU relative to the existing system, it could give further impetus to the recent switch away from EEA to non-EEA recruitment. Moreover, the UK will increasingly have to compete with other OECD countries, such as Germany, looking to reduce their own nurse staffing shortfalls. 104

4. Nurse supply and demand: are we closing the gap?

The government has committed to increase the number of registered nurses working in the NHS. In 2019, it was elected on a manifesto pledge to increase the number of nurses in the NHS by 50,000 by 2024/25, compared with the number in post in 2018/19.¹⁰⁵

The government's pledge is to grow the number working in the NHS through a mix of:

- Increased retention: 18,500 of the additional nurses working in the NHS are expected to result from reducing the annual NHS nurse leavers from 10.2% in 2018/19 to 8.5% ¹⁰⁶ by 2024/25. ¹⁰⁷
- International recruitment: 12,500 of the additional nurses working in the NHS are expected to result from additional recruitment of qualified nurses from overseas.¹⁰⁸
- Expanding the number of nurse training graduates: including undergraduate, postgraduate and degree level apprenticeships in the UK, accounting for around 19,000 of the extra nurses the government pledged to be working in the NHS by the end of the parliament. 108 This will come from a mix of more people starting nurse training and fewer people dropping out during the training programme.

In 2018/19 there were 311,000 nurses working in the NHS – 278,000 FTE staff adjusting for part-time working. ¹⁰⁹ The government pledge would mean 361,000 nurses working in the NHS in 2024/25 – 322,000 on an FTE basis assuming the same conversion ratio.

In this chapter we explore what the recent trends in the nursing workforce might imply for the nurse supply outlook and, in particular, how this compares with the government's pledge for 50,000 extra nurses. We also explore the impact of these trends in the supply of nurses on the shortfall relative to demand over the next decade.

In 2019 the Health Foundation, the King's Fund and NuffieldTrust projected that without significant policy change, the number of nurses leaving the NHS would substantially exceed the number expected to join domestically. We found that the pipeline of newly qualified staff was struggling to keep up with the pace at which

staff were leaving and the demand for health care growing. As a result, based on recent trends, the staffing shortfall would more than double to 70,000 FTE nurses in 5 years' time.¹¹⁰

Since the general election there have been some important changes to policy. In December 2019, the government announced the introduction of the nurse training grant for those studying undergraduate nursing degrees.¹¹¹ In addition, the analysis in chapter 2 and chapter 3 suggests that the impact of COVID-19 has been to significantly increase the number of people working in the NHS and the number of people accepted onto nursing degrees.

It is too early to be confident about what the longer term impact of COVID-19 will be on the nursing workforce. There may be higher rates of retirement and long-term absence than there might otherwise have been, but there may also be countervailing factors such as a potential increase in the number of newly qualified nurses joining the NHS.

4.1 Meeting the 50,000 target

This analysis assumes a 'best case' scenario, in which there are sustained and improved national policy efforts to retain nurses in the NHS, combined with a sustained increase in the numbers of new nurses being educated and employed in the NHS. It also assumes a reduction in the student attrition rate (the number of people who do not complete their training within 3 years). This reflects the possible impact of measures to reduce attrition, such as the increase in clinical placement funding for 2020 to support better quality placements – an important reported factor in attrition, ¹¹² and the provision of grant funding of at least £5,000 a year for nursing students from September 2020. ¹¹³ The new non-means tested grant will increase the income of students on a nursing degree. The grant funding is an important policy change, recommended by the Health Foundation, the King's Fund and Nuffield Trust, as the structure of nursing training makes combining studies with part-time working particularly challenging and financial problems were frequently cited as a reason for non-completion of a nursing degree. ¹¹⁴

Factoring in these positive assumptions, our analysis therefore suggests that:

• The number of newly qualified nurses joining the NHS each year almost doubles from just 14,000 in 2017/18 to 26,000 in 2024/25. This is the result of more nurses starting training and fewer leaving. UCAS data show that 2020 has seen 5,000 more students start a nursing degree compared to 2019. If this increase is sustained up to 2024/25 and the attrition rate falls from 1 in 4 students failing to graduate within 4 years to 1 in 5, and the numbers studying nursing as a post-graduate option after completing a previous degree in a different subject increases by 3,500 a year, this significant expansion is possible. Such an expansion would be in line with the government's pledge to increase nurses.

- The NHS is able to reduce the number of existing nursing staff leaving the NHS prematurely. Our analysis suggests that if the annual NHS nurse leaver rate declines from 10.2% to 8.5% between 2018/19 and 2024/25, this would deliver the government's ambition to grow the number of nurses in the NHS from improved retention by 19,000.
- International recruitment bounces back after the travel restrictions during the pandemic with 5,000 international nurses joining the NHS each year from 2021/22 to 2024/25.

It is therefore possible to increase the nursing workforce employed by the NHS by 50,000 by 2024/25 if:

- the government provides the funding, through the Spending Review process, for the expansion in nurse training to be sustained
- the COVID-19 context changes by early in 2021/22 so that international nurses can join the NHS, and
- the conditions for nurses in the NHS are such that retention improves.

If any of these assumptions do not hold, the government will struggle to meet its 50,000 pledge.

4.2 Can the NHS close the gap?

The pledge for 50,000 nurses working in the NHS is, however, the beginning not the end of resolving the nursing shortfall. Meeting the pledge would mean that the number of nurses working in the NHS would increase by an annual average of 3% a year between 2018/19 and 2024/25, more than three times the rate of increase in nursing numbers between 2010/11 and 2018/19 (as Figure 1 highlighted). And this is even higher than the growth rate in the preceding decade (the number of FTE nurses working in the NHS grew by 2.3% a year between 2000/01 and 2010/11).¹¹⁵

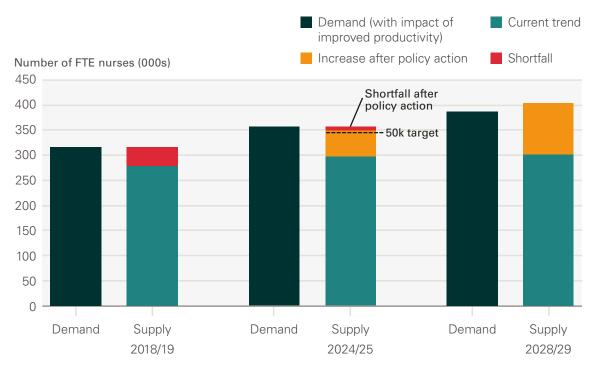
While comparisons with the past are important, what matters most is whether the number of nurses is matching growth in the demand for care. Beyond COVID-19, underlying demand for acute health care in the NHS is projected to increase by 2.7% a year between 2018/19 and 2024/25.¹¹⁶

Increasing the number of nurses in the NHS by 50,000 will mean that nursing growth matches future demand growth and makes some significant inroads into the pre-existing nurse staff shortfall. As a result, the shortfall of nurses in the NHS would fall to around a fourth of the current rate, to around 8,000 FTE nurses against estimated demand in 2024/25 (Figure 19). If COVID-19 increases demand pressures over the medium term, above our estimate, then nursing shortages will increase. This is a significant risk as the pandemic is likely to result in a backlog of elective care, increased need for mental health care and support for people with long COVID-19 and recovery.

While there is therefore a projected shortfall of 8,000 FTE nurses in 2024/25, if the expansion in nurse training is sustained and retention rates improve, it would be possible to close the nursing workforce gap over this decade and achieve a small excess of supply.* As Figure 19 shows, by 2028/29 the number of nurses working in the NHS could grow to around 16,000 FTE above projected demand. In the Annex we expand on this, showing how nursing supply might be brought into balance or modestly exceed the demand for nurses from NHS trusts by 2028/29 (Figure A1). This assumes a significant expansion in the number of people training to qualify as a registered nurse but also reform to nurse training and NHS employment so that a much greater proportion of those who start nurse training, complete the training and go on to work in the NHS.

But to achieve this, government will need to continue to invest in training and ensure that nursing in the NHS is an attractive option for existing staff and new entrants. To do this the medium-term outlook for nurses' pay will be critical. Moving from undersupply to oversupply would be a major change for the NHS in England, which has historically trained relatively few nurses and relied on international recruitment.¹¹⁷

Figure 19: Nursing demand and supply projections for England based on policy action to increase the supply of nurses, 2018/19 to 2028/29



Source: NHS Digital, UCAS and NMC data and authors' analysis (based on 'Closing the gap: key areas for action on the health and care workforce.' Health Foundation; Overview – March (2019), Figure 4)

Note: The chart shows demand after the impact of improved productivity, which we include in our 'increase after policy action' but not 'current trend' scenarios. As a result, demand is lower (by 4,000 in 2024/25 and 8,000 in 2028/29) than in our scenario based on current trends. Data are updated to June 2020, but we do not account for any short and long-term effects arising from the COVID-19 pandemic.

^{*} As discussed in chapter 3, NMC data show that international recruitment was well in excess of 5,000 in 2018/19 and 2019/20, but dropped sharply in 2020/21 due to the travel disruption caused by COVID-19. In the next few years, assuming international travel recovers at least to some extent in 2021 and thereafter, it appears reasonable to assume that the NHS can recruit an average of 5,000 international nurses annually up to 2024/25.

5. Conclusion

The current profile of the NHS nursing workforce is characterised by significant vacancies across the workforce. These vacancies are more noticeable in some specialties (eg learning disabilities and mental health) and some geographic regions (eg London). There has been some growth in the nursing workforce in recent months, in part as a result of rapid scaling up to meet COVID-19-related surge capacity, but concerns regarding shortages remain. The current government has set a growth target of 50,000 nurses by 2024.

The four domestic supply routes into UK nursing are markedly different in current volume, and in terms of scope for rapid scaling up. The main route is the undergraduate entry to a university degree course. This inflow has grown significantly this year (by about 20%) but has a 3-year time lag between entry and qualification and has capacity constraints, along with concerns about clinical placement requirements. The second route, via the 2-year graduate entry (accelerated) programme is smaller in number but has been identified as having scope for increase. The third domestic route is the apprenticeship scheme, which is relatively new and reportedly has funding constraint issues, but is now receiving some additional funding. The nursing associate route is the most recent, is growing in numbers and has scope for bridging to an undergraduate nursing course.

The other source of new nurses is international recruitment. This has varied over the years but has always been a source of nurses for the UK. An examination of recent trends highlights a significant growth in recruitment from non-EEA countries, and an upward trajectory of active recruitment, with policy changes and NHS funding allocated to support further increases. It is apparent that international recruitment, currently constrained by COVID-19, and potentially facing change driven by the post-Brexit immigration system, will be a critical determinant in the NHS meeting the 50,000 target.

5.1 Wrong target, wrong time?

COVID-19 has stress-tested the health and social care system in England, as it has done to varying extents in all countries. In the NHS in England, it has exposed weaknesses and pre-existing long-term problems related to nurse staffing. COVID-19 impacted soon after the 50,000 growth target was set by the government and added to the urgency of improving nurse supply, while also making the achievement of any sustained staff growth target more difficult.

COVID-19 has led to rapid policy intervention to increase NHS nursing workforce numbers, as highlighted in chapter 2, by creating a temporary register, fast tracking international nurses, and temporarily bringing student nurses into the workforce. This impact of COVID-19 on the current nursing workforce, which is also ageing (notably in the critical community and primary care settings), is likely to lead to more nurse burn out, reduced hours, long-term absence and early retirement. It has also disrupted the international supply chain.

These negative impacts may be counterbalanced to an extent by a short-term indirect benefit of COVID-19 attracting more applicants to undergraduate nursing programmes this year. There may also be a longer term 'recession benefit' as the attractiveness of nursing employment is often regarded as counter-cyclical. However, the net effect of these different factors, combined with the likelihood of very tight fiscal conditions in the public sector suggests that the next few years will be extremely challenging for those responsible, for both achieving the substantial increase in nurse supply required to meet the 50,000 target and sustaining rapid growth. As we have highlighted in the previous chapter, achieving the target will only be possible with sustained investment and policy action on domestic supply, combined with high level active international recruitment.

The national target approach itself has an inherent problem. It is not clear how it was determined. There is no link to any assessment of demand or to the rapidly growing activity rates and workload we highlighted in chapter 2. It represents a national politically led impetus, which was perceived as being needed to galvanise a system that, as both the NAO¹¹⁸ and PAC¹¹⁹ have noted, has been failing to deliver the necessary staffing increases and that otherwise appeared to be drifting from one reactive measure to the next. In addition, these measures were sometimes misaligned, such as the late allocation of additional funding for clinical placements in recent years, the cutting of the continuing professional development (CPD) budget for NHS nurses that was subsequently reversed soon after¹²⁰ and the poor coordination between domestic training and international recruitment.¹²¹

The staffing target is top down, and is not differentiated by geographical region, sector within the NHS, or branch of nursing. It is not scenario based and does not take account of profile changes, such as the impact of an ageing workforce in community nursing. The approach to meeting the target on time necessarily favours the policies and areas that can deliver most numerical growth quickly, rather than attend to the long-term system challenges that have prompted intervention. Pre-COVID-19, nursing workforce expansion focused on ramping up international nursing and it is clear that there will continue to be heavy emphasis on the quick fix of tapping into international labour markets.

However, this top-down, target-driven approach is unlikely to be a good match to the pattern of most urgent demand. There are significant regional variations in the level of nurse vacancies and differences between different branches and work areas – for example, there are increasing concerns specifically about learning disabilities, mental health, community and primary care (notably health visiting and

district nursing). International recruitment, even if it does ramp up again, is likely to continue to focus mostly on acute care and long-term care, as it is much less suited to fill community and primary care nursing where UK-specific specialist post-basic qualifications are often required.

Finally, the top-down target tends to draw policy attention to new supply, domestic or international, rather than support and investment in the current workforce, which may achieve an improvement in productivity, quality and contribution, but does not lead to a numerical increase. Retention, notably of early career and older nurses, also requires more consistent and targeted policy attention.

5.2 Policy shift

A shift in focus is required, away from a broad-based top-down target to a more sustainable and long-term approach that aims to invest in increasing the domestic supply of the nursing workforce. The *NHS long term plan* sets out policy priorities in addressing the identified staffing gaps to 2024/25. Our analysis has shown there is also scope to reach a small domestic oversupply, if action is initiated now, and then sustained. This action is needed to improve retention, attritions and increases from domestic training, while also focusing on coordinated, ethical and effective international recruitment.

For too long the approach to nurse supply in England has been reactive, with periodic recourse to active but uncoordinated international recruitment and relatively late funding allocations to try and 'top up' domestic training capacity. The policy emphasis at any one time has been, at best, only on certain elements in the supply chain and this has sometimes been disconnected and often not focused on those areas requiring most improvement.

One underlying problem is that the policy focus is shaped by a reactive and piecemeal approach using short-term measures to balance up staffing numbers from a starting position of significant vacancy levels (as high as 10% or more). Policy emphasis should shift to the aim of achieving a stable pattern of modest oversupply, which gives policy room for manoeuvre. This emphasis must take account of the supply requirements of the various non-NHS employers who share the UK nurse labour market: 'Undersupply and poor labour planning lead to unintended consequences such as poor labour productivity. As a result, there is a case for public policy to target an oversupply of nurses in the future.'

Migrant health workers have always been a significant part of the NHS workforce. While international recruitment of nurses has sometimes been characterised as a short-term measure, it has been an ever-present aspect of the labour market over the 30 year period of our analysis. It has contributed at least 10% of new registrants every year, and has been as high as 50%. The previous chair of the MAC described international recruitment of nurses as a 'get out of jail card, free' for the NHS when it faces nurse shortages. Our earlier analysis has highlighted several peaks in

international inflow. In addition, there has often been poor coordination between international recruitment activity and domestic supply, contributing to the 'boom and bust' of NHS staffing witnessed in the early 2000s.¹²⁴

The immediate problem is that COVID-19 has created a new barrier to international movement, at a time when international recruitment of nurses was on the increase. This happened soon after a marked switch from EEA to non-EEA recruitment in part as a result of Brexit. The more deep-seated issue, however, is that the long-term reliance on international inflow has enabled a relatively low output of new nurses from domestic training, resulting in a lower graduation rate than many other OECD countries. It is clear that the 50,000 target will drive a surge in international recruitment as and when travel is feasible, but this will not in itself be the solution to filling all nursing vacancies.

Responding to concerns that international recruitment can undermine capacity in low-income source countries, NHS England has its own Code of Practice on international recruitment¹²⁵ (currently under review) and the UK has endorsed the WHO Global Code of Practice on the International Recruitment of Health Personnel.¹²⁶ Both these policy instruments place limits on international recruitment, with an emphasis on ethical and effective international recruitment activity.

The UK has also endorsed the WHO Global Strategy on Human Resources for Health. One of the milestone indicators of the implementation of the strategy, approved in 2016, is that 'By 2030, all countries will have made progress towards halving their dependency on foreign-trained health professionals, implementing the WHO Global Code of Practice on the International Recruitment of Health Personnel. Yet, currently, the trend of dependency on internationally recruited nurses in England is increasing, not decreasing.

Against this background of policy concerns over 'brain drain' from low-income countries, and with a recognition that more needs to be done domestically to assure a secure supply of nurses, there is a need to make sure that active international recruitment is ethical, effectively managed and coordinated with domestic training capacity. The policy aim should be to use ethical and effective international recruitment to buy time to scale up domestic education. This could be achieved by committing to a tapered, reduced annual target of active international recruitment over the next 5 years, coupled with improvements in the scale and effectiveness of the domestic supply system.

5.3 Improve domestic supply options

This report highlights a significant increase in 2020 in acceptances to preregistration nurse education in England, and other UK countries. This is to be welcomed, but a continued focus on trends in the overall number of initial applications to pre-registration nurse education (particularly focusing on the impact of the shift from bursary to loan model in England) means there has been too little focus on:

- the availability of places
- the variations in regional and branch patterns of availability and acceptances
- the marked variation in attrition rates
- the actual limitations on growth created by clinical placement requirements and educational capacity.

The focus should be more clearly on the outputs from the pre-registration education system rather than the inputs, so that any areas with scope for improvement can be identified.

There is a need to examine the current system of domestic training, described in chapter 3, with its different possible entry points (3-year degree, 2-year graduation, apprenticeship, nursing associate). Clarification on who is responsible at different stages and entry points is required, with the aim to both streamline these processes and optimise the coordination between different stakeholders. This should include a specific focus on addressing critical blockages and inefficiencies, as well as a more fully developed plan for the relative contributions of the different domestic supply routes. As the PAC noted in its October report, currently 'the Department and HEE were unable to quantify how many nurses they expect from each of these different routes'. It should consider:

- Poor coordination of support between the different entry point options (eg
 why is there so little use of the 2-year graduate entry option and can funding
 for apprenticeships be expanded).
- The variable applicant and acceptance levels for different branches and regions (what can be achieved through targeted incentives and funding subsidies).
- The variable and sometimes high levels of attrition during training, with an obvious need for a standardised nationally applied measure of attrition.
 The publication of annual metrics by course and by institution, and scope to more fully and consistently implement some of the recommendations in the RePAIR report to improve the student experience.
- Examining university capacity limitations and clinical placement problems in supporting a further scale up. Assessing the impact of possible solutions (eg more joint appointments of clinical/educational staff, more uses of older nurse mentors, reduced clinical placement hours and more use of technology and simulation in courses).

5.4 Next steps

We argue that the focus on nurse supply should not be shaped by the tactical question of 'Will the 50,000 target be met?' It should be driven by a strategic focus on how we can sustain a more effective long-term and inclusive system for nurse supply.

A nationally coordinated approach is required, which takes account of demand for nurses across the whole domestic labour market (beyond the NHS, and including nursing homes, primary care, social care and nursing education). It also needs to capture regional and speciality variation, have scope for scenario modelling,* and be able to assess and shape the pattern of inflow from the different domestic supply entry points. In practice, several steps are required to make this happen.

- 1. Improvements in data on the nursing profession and the nursing workforce. There have been improvements in the registration-based data given by the NMC, but there is also scope to use the NMC register to develop a better and more detailed understanding of the profile of the profession, nationally and locally (the latter by postcode based analysis). Second, as already noted, effective planning requires standardised and complete student attrition data. Third, there is a need for NHS data to be more comprehensive. Although there are more frequent NHS workforce data reports than a few years ago, some detail has been lost, for example, age profile by main area of practice is not now published and turnover data is inadequate. Finally, there is a need for whole system data so the overall nurse supply (NHS and non-NHS) and labour market dynamics can be determined more effectively. Currently there is inadequate data on the numbers and distribution of nurses working in non-NHS sectors, such as nursing homes, social care and private sector independent hospitals, and poor data on the flows between these sectors. Without this data, supply scenarios are incomplete.
- 2. Clarity over who is responsible for aspects of national and regional planning and coordination of the NHS nursing workforce. This should be informed by a function-led audit of the current approach. In the past, any regional/national reforms of workforce planning have tended to be driven by structural change, rather than prioritising clarity and effectiveness of functions.
- 3. There should be a review of the domestic nurse education system to sharpen the focus, clarify the costs and benefits of the different entry points we have described in the report, streamline the student experience, expand the capacity and sustain a coherent approach to managing attrition. This should be underpinned by a perspective that modest over-supply would be less of a problem than long-term under-supply, switching the focus from 'How many applicants do we have?' to 'How many new registrants from domestic

^{*} The REAL Centre has commissioned Decision Analysis Services Ltd to develop a nurse supply model for England. The model will project future nursing workforce supply in England under alternative policy scenarios over a 10 to 20-year timeframe. https://www.health.org.uk/what-we-do/real-centre/nurse-supply-model

- training are employed and retained?' In this revised and less reactive approach, the training output and retention of early career nurses are the measures of success, not the initial input.
- 4. There must also be a sustained policy emphasis on investing in the retention of older and experienced nurses particularly in community nursing that has an older age profile. The risk in the current policy focus on a new nurse target is that the needs of current nurses are overlooked.
- 5. Agree a tapered target to 'manage down' NHS active international recruitment across the next 5–10 years, aligned with an increased emphasis on investment in domestic capacity and on early careers/CPD.
- 6. Pay is a central element in the employment contract: a highly visible sign of 'worth', a retention mechanism and an important policy lever. Sustaining a pay determination system that pays nurses equitably over the long term must be a critical element in the overall NHS strategy.

This year's report on nurse supply coincides with 2020 being declared the Year of the Nurse and Midwife. It comes at the end of a year that has seen unprecedented challenges for health systems and the nursing workforce around the world due to the COVID-19 pandemic. Our focus and emphasis in this report has been to retain a long-term perspective in the face of the immediate crisis. This does not diminish the challenge of COVID-19 and does not question the urgent need for many more nurses to be employed by the NHS. It does, however, argue that using a single top-down target is an inadequate approach to maintaining an effective supply of nurses over the long term.

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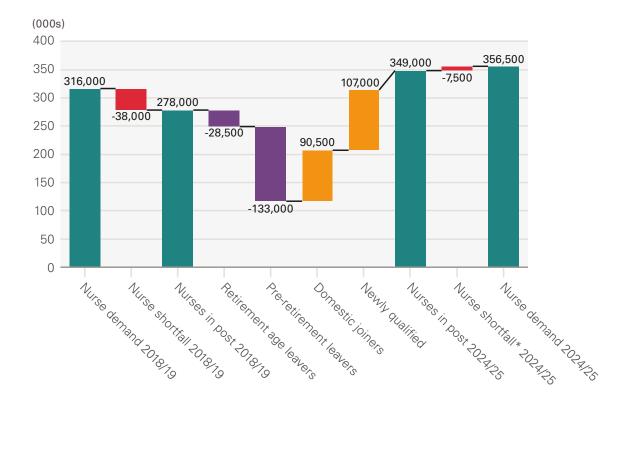
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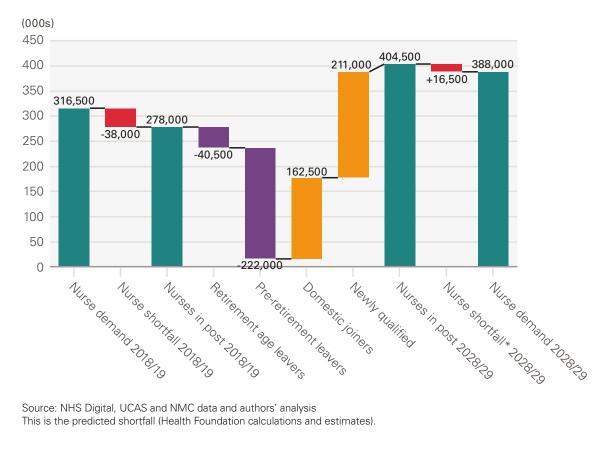
Annex: Nursing demand and supply projections

Figure A1: Nursing demand and supply projections for England based on policy action to increase the supply of nurses, 2018/19 to 2028/29

2018/19 to 2024/25



2018/19 to 2028/29



Source: NHS Digital, UCAS and NMC data and authors' analysis This is the predicted shortfall (Health Foundation calculations and estimates).

About the Health Foundation

The Health Foundation is an independent charity committed to bringing about better health and health care for people in the UK.

Our aim is a healthier population, supported by high quality health care that can be equitably accessed. We learn what works to make people's lives healthier and improve the health care system. From giving grants to those working at the front line to carrying out research and policy analysis, we shine a light on how to make successful change happen.

We make links between the knowledge we gain from working with those delivering health and health care and our research and analysis. Our aspiration is to create a virtuous circle, using what we know works on the ground to inform effective policymaking and vice versa.

We believe good health and health care are key to a flourishing society. Through sharing what we learn, collaborating with others and building people's skills and knowledge, we aim to make a difference and contribute to a healthier population.

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