



Research report October 2021

Recruitment of nurses from overseas

Return on investment

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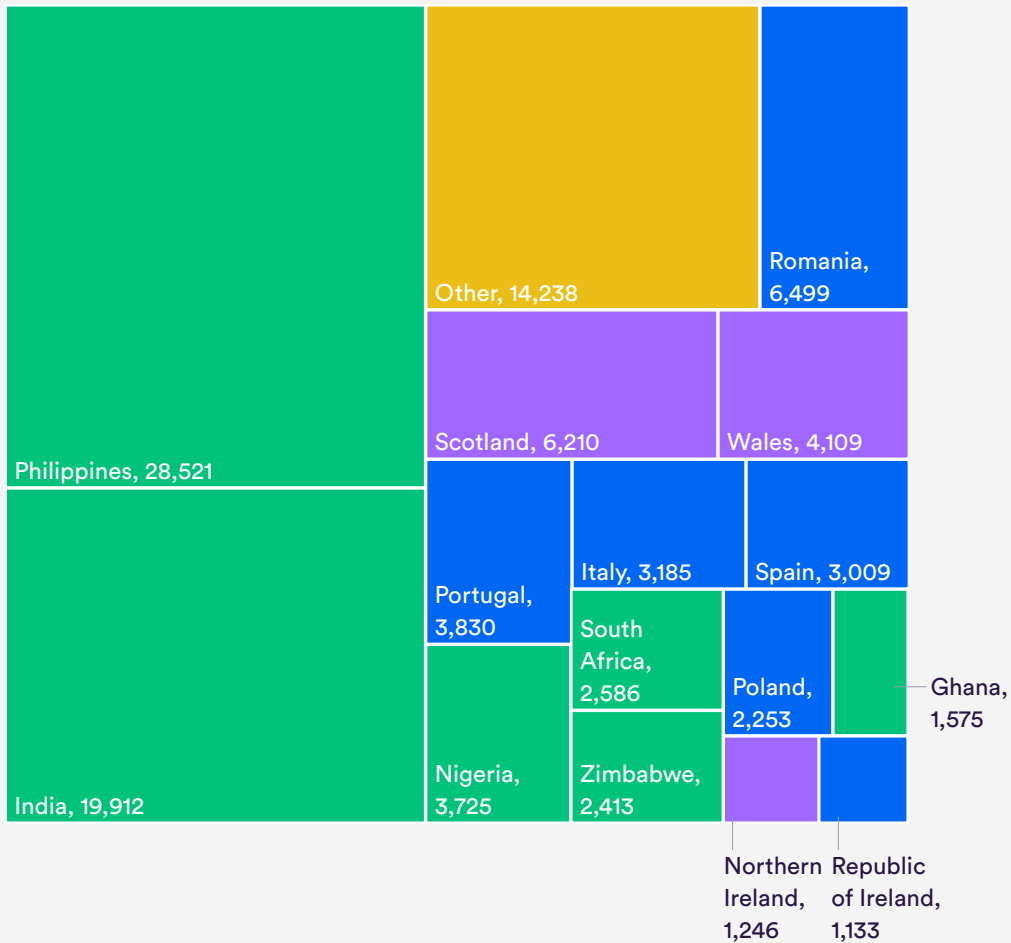
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Key points

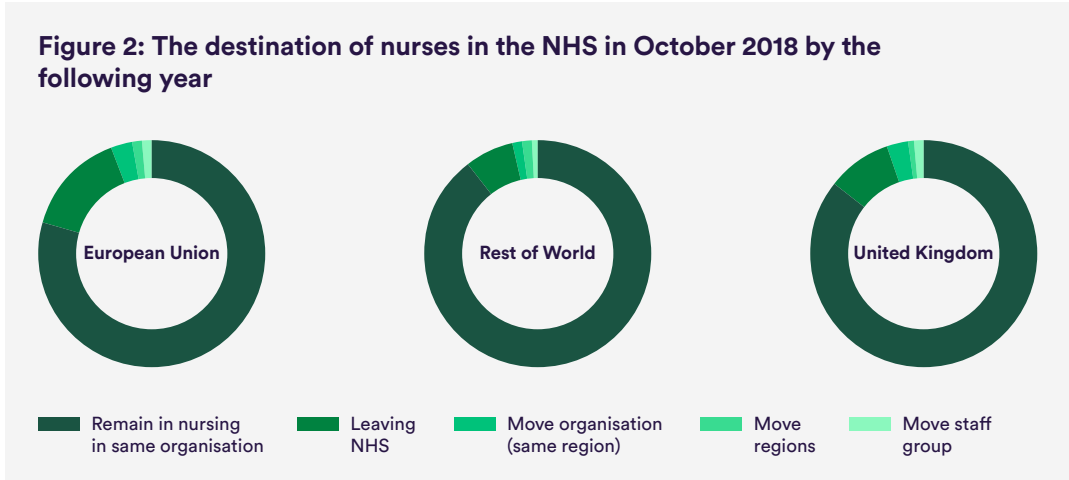
- 1 As of mid-2021, the vacancy rate for nurses was 10% – equivalent to 39,000 full-time equivalent posts. The NHS Long Term Plan committed to reducing this nursing vacancy rate to 5% by 2028 and, subsequently, the government pledged to increase the number of NHS nurses by 50,000 by 2025. Ensuring there is adequate nursing capacity will require comprehensive action around retention, return-to-practice, training and recruiting from overseas – our report focuses on the latter but, while important, it is not a silver bullet.
- 2 While there is an ambition for a sustainable, homegrown NHS workforce, overseas recruitment will have to be a major contributor if the goals on increasing nurse numbers are to be met. In the long-term, as we have previously stated, there will be the potential for international recruitment to return to lower levels, encouraging cultural exchange, but not overreliance (Beech *et al.*, 2019).
- 3 International nurses already play an invaluable role in the delivery of high-quality health care in England. Looking at the NHS hospital and community services in England specifically, nearly one in five (18.5%) nurses is an overseas national. This proportion may well continue to increase with overseas nationals accounting for around a quarter of nurse joiners in recent years.
- 4 The registered nurses living in England were trained in 141 different countries. The register includes large numbers from EU countries such as Romania (6,449), the rest of the world such as the Philippines (28,521), and also nurses who trained in the other UK nations (Figure 1).

Figure 1: The number of people on the nursing register living in England, by key countries of training (other than England) as at March 2021



Notes: Based on those with an address in England. Only countries with over 1,000 are named with the remainder aggregated into 'Other'. Excludes those with unknown country of training.
Source: Nuffield Trust analysis of NMC data (Nursing and Midwifery Council, 2021)

- 5 Based on data for the year to October 2019, compared with nurses of UK nationality, those from outside the EU are more likely to remain in the NHS as a whole (93% v. 90%) and in the same organisation (89% v. 84%). The converse is true – on average – for nurses with EU nationalities which perhaps suggests a need to better understand, and seek to meet, the expectations of this cohort.



Notes: for the purpose of illustrating the numbers, 'Move staff group' is assumed to be for those staying at the same organisation. See appendix for more detail on the data.

Source: Nuffield Trust analysis of data from NHS Digital (NHS Digital, 2021d)

- 6 Nurses from the rest of the world (i.e. not EU or UK) are contracted, on average, to work more hours than those from the UK (97% of a full-time contract v 88%, which equates to a 3-hour difference per week). Nurses with EU nationalities also have higher average participation (93%) than those from the UK. However, the implications of such variations need to be carefully understood and interpreted. It is not clear whether the higher levels of participation from nurses with overseas nationality is due to desire or lack of opportunity.
- 7 We estimated that, in the case of a nurse joining aged 30, on average an EU national may be expected to work in NHS hospital and community services for 6 years before leaving, compared to 9 years for a UK national and 12 years for someone from the rest of the world. Again, it is important to treat these comparisons with caution not least because there are some government to government initiatives specifically intended to give nurses the opportunity to come to the NHS to develop before returning to their country of origin.
- 8 In a given year, typically around 1-in-16 nurses (around 6%) are recorded as moving to another NHS organisation. While the rate of such internal NHS movement appears to differ between EU, UK and other nationals, these differences have not been consistent over recent years. The proportion of nurses staying within the NHS but moving to another region is lower among UK nationals; however, it is small – typically little over 1% – and has fallen in recent years.

- 9 While there can be considerable upfront costs in recruiting from overseas – likely to be around £10,000 to £12,000 – these need to be considered in the context of national funding to support such activities, and longer-term or broader costs of alternative routes to increase nurse numbers, such as use of agency nurses or increasing domestic training numbers. This cost equates to around just £1,000 per year – or 3% of the mean annual nurse salary – if considered over the typical average NHS career of a nurse from outside the EU (or in the region of £1,500 per year if spread over the expected time employed in the recruiting organisation).

- 10 While the upfront costs of employing a nurse trained domestically may be low for a Trust, seeking to meet the bold ambitions to increase numbers and reduce vacancy rates would take longer and be significantly more expensive to the public purse. The government typically spends at least £26,000 (and sometimes much more) on a single, typical undergraduate nurse training post and not all trainees will necessarily graduate or join the NHS. Other sources of nurses are also needed as a short-term solution to current high vacancy levels given that an undergraduate pre-registration nurse degree course is typically 3 years. Looking at other routes, it can cost a trust around £140,000 over and above the levy for a nurse apprenticeship.

- 11 It is expensive to use temporary staff to fill vacancies. The cost premium varies significantly depending on agency and bank rates but would typically write-off any saving from not recruiting internationally within six months to two-and-a-half years, with breakeven likely to fall at the later end of the range. Filling local posts by attracting staff from other NHS or public service providers is also zero-sum and can be expensive too, with some ‘golden hellos’ at comparable costs to recruiting from overseas.

- 12 Our analyses suggest that even where the costs of overseas recruitment are high, this can still represent a good return-on-investment for the recruiting organisation and for the NHS as a whole even in the medium term. However, the scope of costs and benefits of recruiting staff – whether from overseas or domestically – are broad and complex and our work only reflects some aspects of these. Certainly, more work is required to understand the expectations of, and the support needed for nurses from different overseas nations.

1 Introduction

The nursing workforce challenge

In September 2020, there were more than 530,000 registered nurses living in England. These cover adult, children’s, learning disability and mental health nursing fields of practice and include specialist practitioners such as district nurses and nurse independent prescribers (Nursing and Midwifery Council, 2021). Some 342,300 are recorded as working in NHS hospital and community health services in England (NHS Digital, 2021c) with 23,900 working in general practice (NHS Digital, 2021a).¹

There are ambitions to increase the number of nurses. There were 39,000 full-time equivalent nurse vacancies as of mid-2021, representing a 10% vacancy rate. The equivalent figure for doctors is 7% (NHS Digital, 2021b). The 2019 NHS Long Term Plan committed to reducing the nursing vacancy rate to 5% by 2028 (NHS England, 2019). Later that year, the government pledged to increase the number of NHS nurses by 50,000 by 2025 (National Audit Office, 2020).

The contribution of overseas recruitment

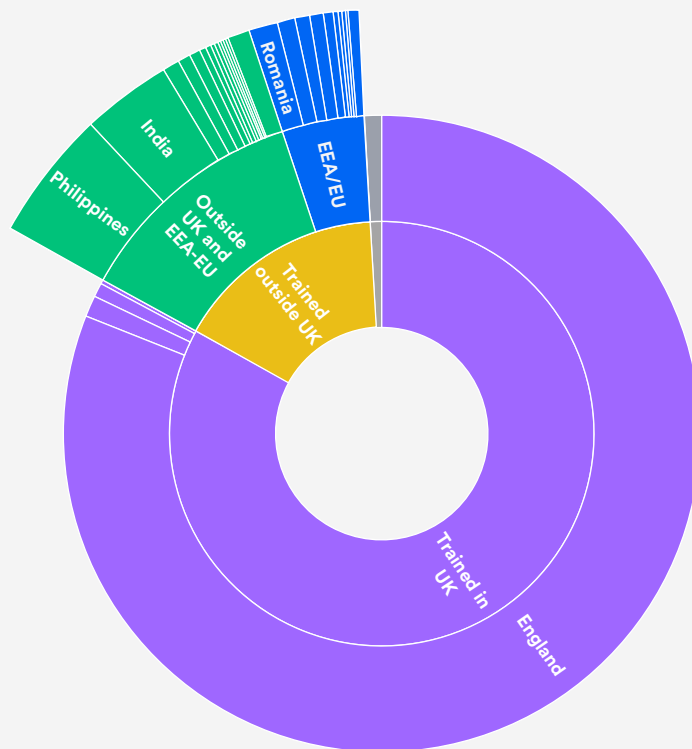
Achieving these goals will require sustained effort using the whole range of levers available, improved retention, an increase in the number of nurses being trained domestically and attracting previous NHS workers back into practice and employment. Given the time required taken to train new nurses, international staff are a key lever for dealing with current widespread vacancies (Beech *et al.*, 2019).

1 Excludes the small number employed by Primary Care Networks. The numbers for those working the NHS are for December 2020.

Indeed, the People Plan for 2020/21 acknowledged the importance of increasing our ethical international recruitment and building partnerships with new countries (NHS England 2020b).

Of those on the Nursing and Midwifery Council (NMC) register with an address in England,² the majority (around 84%) trained in the UK, around 1 in 8 (12%) trained outside the EU/EEA and 1 in 24 (4%) trained in the EU/EEA (Nursing and Midwifery Council, 2021). Looking at NHS hospital and community services in England specifically, nearly one in five (18.5%) nurses (by headcount) is an overseas national (NHS Digital, 2021d). This proportion is likely to continue to increase as in recent years, those with overseas nationalities have accounted for around a quarter of nurse joiners.

Figure 3: The proportion of people on the nursing register living in England, by country of training



Notes: Based on those with an address in England, as at March 2021.

Source: Nuffield Trust analysis of NMC data (Nursing and Midwifery Council, 2021).

2 The Nursing and Midwifery Council (NMC) professional register includes nurses, midwives and nursing associates although 94% are registered nurses (including those with dual registration).

Certainly, the NHS in England has benefited from recruiting nurses from a range of different regions. The registered nurses living in England were trained in 141 different countries. The register includes large numbers from EU countries – the highest number coming from Romania (6,449) and Portugal (3,830) – and from the rest of the world, particularly the Philippines (28,521) and India (19,912). It is also important to take account of the movement of nurses between the four UK nations. More than 6,000 nurses on the NMC register with an address in England originally qualified in Scotland (Figure 1, p3).

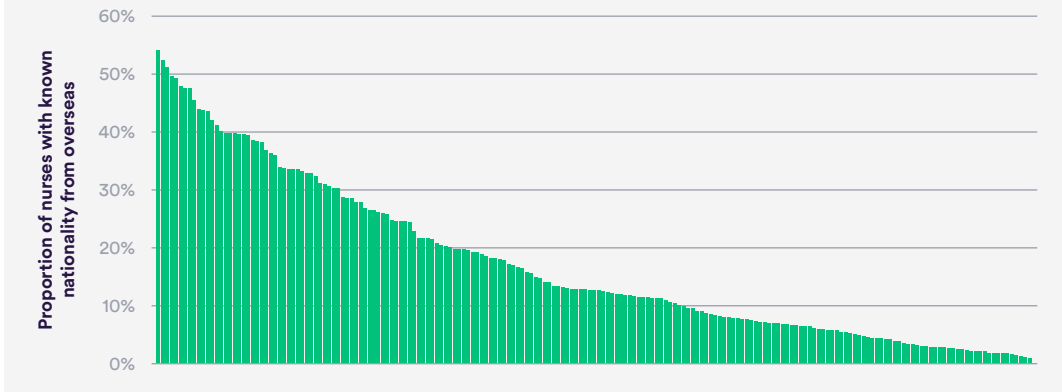
The scope for overseas nurse recruitment

The annual inflow of foreign trained nurses can have a material impact on capacity. At a peak between 2002 and 2005, some 48,800 nurses who qualified overseas were added to the UK register. Elsewhere, in the three years to 2008, the annual inflow of foreign nurses to the USA was 22,200.³

Data on NHS hospital and community services in England suggest that international recruits can account for a large proportion of the nursing workforce. Overseas staff account for over a half of nurses in a few NHS organisations and for over a third in 32 Trusts (Figure 4). However, in some organisations it is close to zero. Of course, there are many reasons why this variation may occur, including a Trust's specialty, location, and supply of UK nurses locally.

3 The number of nurses who have obtained a recognised qualification in nursing in another country and are receiving a new authorisation in a given year to practice in the receiving country. The number of people passing the NCLEX is used as a proxy indicator of how many foreign-trained nurses are entering the profession in the U.S. Further details on the data and sources are available [here](#).

Figure 4: Proportion of nurses as at October 2020 with known nationality from overseas



Notes: Excludes organisations with fewer than 500 nurses and health visitors. See appendix for more detail on the data.

Source: Nuffield Trust analysis of data from NHS Digital (NHS Digital, 2021d)

Responsibility for overseas nurse recruitment

NHS providers (and other employers) are responsible for overseas recruitment, although they may do so in partnership with other organisations. Both NHS England & NHS Improvement and Health Education England provide support for overseas recruitment planning through their regional teams. Health Education England also ran a national recruitment initiative, the *Global Learners Programme* (National Audit Office, 2020). In seeking to support providers, the Department and its arm’s-length bodies have developed procurement frameworks and best practice guidance. In the Interim People Plan, national bodies also pledged to work with professional regulators to help improve and streamline regulation processes.

About this report

Given the continued importance of overseas nurse recruitment, we set out to explore the business case, quantifying the various costs of recruitment and comparing these to the returns. While our primary analysis of ‘returns’ is

focused on one aspect – how long a nurse stays in post – we do discuss some of the wider returns as well as some of the limitations of this approach. For example, holding a position for only a short period of time may be desirable where the intention is that an overseas nurse learns new skills here before returning to their country of origin.

To ensure that decision-makers have a balanced understanding of the return-on-investment from their perspectives, these estimates are disaggregated to national, regional and local levels, to show where the costs and benefits actually fall and to whom. This should aid national and local workforce planning by revealing where there may be opportunities for recruitment or shortcomings in retention.

For this analysis, we separated out nurses from the EU and those from the rest of the world since the former have seen different employment dynamics which will have affected trends in numbers joining and leaving.

We recognise that drawing out such economic arguments is only part of the wider picture. Behind every overseas recruit there is a person and a country they came from. We have sought to highlight some of the moral and ethical points involved, but these should by no means be considered an exhaustive or balanced list.

Some key considerations

The costs and benefits were calculated, where appropriate, against counterfactuals of: the cost of employing domestically trained staff to fill shortfalls – such as training costs – and noting the different routes into professional registration; and the cost of employing temporary staff to fill shortfall. We recognise that there are different purposes and wider costs and benefits to each of these workforce levers and the comparisons are presented to give an indication of scale rather than to formulate a precise cost-benefit comparison.

The costs and benefits realised are disaggregated at provider, regional and national levels.

Our analysis was conducted at a time of, and following, significant change in the overseas recruitment landscape. For example, changes in the registration process, immigration policy, our relationship with the EU and the Covid-19 pandemic will all affect levels of recruitment and retention of nurses and their costs associated. We discuss the emerging effect of some of these contemporary factors in our accompanying report (see *Our programme of work below*).

We have typically presented – because of the limitations in available data – comparisons between nurses whose nationality or nursing qualification is from the UK, EU or rest of the world. These are extremely broad regions covering many countries, states and regions where multiple factors may affect recruitment levels and costs and subsequent retention.

Our programme of work

This report sits alongside two companion outputs: a shorter summary drawing out the lessons for the NHS and a research report exploring the drivers of overseas nurse recruitment. The work was primarily based on analysis of workforce data, literature review, and interviews with key experts, overseas nurse representative organisations and recruitment agencies. Our full methodology is set out at the end of the report.

2 The costs of recruitment

In this chapter we outline the costs of overseas recruitment – including who bears them – and, for context, outline the costs of some alternative short- and long-term means for an organisation or the NHS to raise staffing levels.

The costs to recruit from overseas

There are a number of sources for estimates of the costs of overseas nurse recruitment. Most only cover part of the actual or likely recruitment costs, such as competence testing and registration fees which can amount to £1,000 to £1,300. We have drawn on estimates from the Nursing and Midwifery Council (2019), Council of Deans of Health (2019), NHS Health Education England (2019), NHS Medway NHS Foundation Trust (2020) and St George's University NHS Foundation Trust (N.D.)

Other estimates (NHS Employers, 2021, NHS Professionals 2020) are more comprehensive and suggest costs of around £10,000 to £12,000 per nurse recruited. The government spending watchdog previous noted estimates from the Royal College of Nursing of between £2,000 and £12,000 to recruit one nurse from overseas (National Audit Office, 2016).

As we note below, actual recruitment costs will vary depending on a number of factors – such as individual trust decisions about the process of recruitment, support given to overseas nurses, countries of recruitment, the number of nurses recruited and so on. However, as a broad estimate, the upfront costs of recruiting an individual nurse from overseas are likely to be around £10,000 to £12,000.

As an example of how these costs breakdown for a particular recruitment programme, Table 1 – compiled by Health Education England – shows details of various cost items together with an indication of who bears the cost for recruiting. These levels are similar to a further case example – included in NHS Employers' toolkit (see Table 3, p48) – of recruiting a nurse from

the Philippines, However, costs can vary and some were inflated during the pandemic when higher flight costs and costs related to quarantine arrangements were incurred.

The breakdown of costs between payers

As noted, not only will the actual costs of recruiting from overseas vary but so too will where costs will be borne. In the examples presented (Tables 1 and 2), the exact split of the total costs of around £11,000 between the recruiting trust and the recruited nurse could vary depending on decisions by the trust over discretionary payments such as short-term accommodation support. Importantly too, the costs of training will be borne by the country of training – the split between the student nurse and public agencies varying depending on the country and training programme.

While not necessarily affecting the initial recruitment cost, some trusts have included contractual clauses to protect their investment or recoup some upfront recruitment costs in the event of a nurse leaving in the short term. For example, one trust inserted a £5,000 contractual repayment clause (albeit used extremely rarely) for candidates from the Philippines, which reduces after a year of employment (50 per cent) and then again after 18 months (25 per cent), before expiring after two years of employment (Gov.uk, 2020). However, any such contractual tool – even if unlikely to be used – should be considered through the lens of diversity and inclusion. Rather, NHS policy could instead reimburse regions or Trusts that typically lose out from onward staff movement and more should be done to understand and mitigate reasons for leaving.

Recently, as a response to plans to increase the nursing and midwifery workforce, NHS England & NHS Improvement (NHS England, 2020a) detailed extra financial support for trusts’ international recruitment in 2020/21 with funding available to trusts of: around £1,500 per nurse to accelerate the arrival of international nurses who have already been appointed but are waiting to come to the UK; and between £25,000 and £100,000 to support trusts’ future international recruitment. Such funding can help Trusts materially reduce their recruitment costs and improve the effectiveness of recruitment.

Table 1: Example of costs for NHS Trusts and nurses of overseas recruitment

Expected costs	NHS Trust	Nurse
IELTS exam		£155
NMC stage 1 – CBT		£83
NMC Application		£140
NMC Part 2 – OSCE exam	£794	
Travel and accommodation for OSCE exam	£225	
NMC registration fee		£153
Certificate of Sponsorship	£199	
Immigration Skills Charge payable to UK Government	£3,000 (£5,000 if sponsoring nurse for a 5-year visa)	
Visa (3-year Visa, costs paid in year 1)	£232	
Flight to the UK	£550	
Airport transfer on arrival	£30	
Accommodation support/settling-in package	£1,200	
Fee A (per Service Level Agreement)	£2,368	
Fee B (per Service Level Agreement)	£621	
Visa cost refund	-£232	£232
Additional potential costs	NHS Trust	Nurse
OSCE 2nd attempt	£397	
OSCE 3rd attempt	£397	
POEA*	£185	
Health Insurance*	£150	
Return flight to home country*	£550	
Total additional potential costs recouped from nurse (for OSCE 2nd and 3rd attempt)	-£794	£794
Total expected cost	£8,987	£763
Total additional potential cost	£885	£794
Total potential cost	£9,872	£1,557

Notes: Estimates effective as at August 2020 and based on the previous Global Learners Programme. Note that this example does not include some internal costs borne by the Trust, including the interview process which NHS Employers (2000) estimated at £300 in their example. Asterisk (*) denotes only applicable to recruitment from Philippines and, in the case of return flight, if the nurse completes the 3-year programme.

Source: Correspondence with Health Education England.

Variability in costs

Over time, certain fixed costs are amended or removed as a matter of national policy. The Immigration Health Surcharge (£1,200 for three years), previously payable by the nurse, was removed in May 2020 (Gov.uk, 2020). Also, visa fees have now been reduced with the introduction of the Skilled Health and Care Visa in August 2020 (Gov.uk, N.D.). Other factors that will affect recruitment costs will be supply constraints for different types of nurses and specific countries, and the ability of trusts to realise economies of scale in recruitment – through, for example, regional collaboration.

Ultimately, of course, individual trusts need to work up their own business case for international recruitment depending on their own circumstances and approach to recruitment.

The costs of not recruiting from overseas

There are, of course, alternatives to overseas recruitment, including return-to-practice programmes and apprenticeship, undergraduate or postgraduate degree courses. However, these will also involve a cost and likely differences in return, and their suitability will depend on the degree of urgency in filling vacancies and/or expanding the nursing workforce. Some forms of recruitment – such as enlisting those employed in neighbouring NHS services – are also zero-sum from an NHS perspective and will lead to staff shortfalls elsewhere.

Cost of domestic training

Recruiting domestically trained nurses can be done at much lower cost than overseas recruitment, amounting to hundreds rather than thousands of pounds. Initial training costs (see Table 2) are borne largely by the general taxpayer and individual students rather than trusts. The government typically spends at least £26,000, and sometimes far more, on a single nurse undergraduate training post. However, the supply of domestically trained nurses is constrained in the short/medium term and will not necessarily match the needs of trusts at any point in time. Not all nursing students will

graduate or join the NHS, with one estimate suggesting that for every 100 adult nurse training places, only 58 full-time equivalent (FTE) staff enter the NHS (NHS Pay Review Body, 2018). Domestic recruitment may also cost more if recruitment and retention incentives are deployed to compete with other organisations in a scarce labour market.

Table 2: Indicative costs of domestic nurse training using 2020-21 levels

Item	Cost, £	Payer
Tuition fees	27,750	Nurse ⁴
Living cost grant ¹	15,000	DHSC
Nursing, midwifery and allied health supplement	640	Office for Students
High-cost subject funding	729	Office for Students
2020/21 placement tariff	9,834	Health Education England
Additional funding ²	0 to 9,000	DHSC
Total	63,273³	

Notes:

1. In addition, students bear other living costs of ~£37,000 over three years.
2. For students entering specialities that struggle to recruit, people living in parts of the country which have seen a decrease in those accepted onto nursing degree courses, or to help students cover the costs of childcare, there may be a supplement of up to £3,000 per year (Department of Health and Social Care, 2019)
3. Another estimate (Curtis and Burns, 2020) based on alternative economic costing methods suggests a total cost of £66,544
4. Many students will use student loans to pay for tuition fees; however, around four-in-five of these students are not expected to pay back the full debt.

To illustrate the costs, we have focused on the costs of a typical 3-year undergraduate nursing course. In reality there are a range of ways to achieve a nursing degree, including a shorter postgraduate course. However, as we have noted previously, progress in expanding the quicker, postgraduate training route had also stalled (Beech *et al.*, 2019). The promotion of apprenticeships across the economy is a key government policy. However, its application to healthcare has been problematic. In particular, rules on

how the apprenticeship levy can be used has made some more intensive apprenticeship routes financially unviable. It would have cost a Trust around £140,000 over and above the levy for a nurse apprenticeship (the highest funding band only offers up to £27,000) compared with no cost for undergraduate nursing (Beech *et al.*, 2019). A new funding package worth £8,300 per placement per year for both new and existing apprenticeships was announced in August 2020 (Department of Health and Social Care, 2020), and this does partly decrease the discrepancy.

The level of costs and responsibility for paying them vary across the four UK nations. We have focused on English trained nurses working in the English NHS, although further research on migration between the UK nations appears a potentially fruitful avenue to understand the career motivation of nurses. At the very least, workforce planning needs to consider the levels of migration between nations.

Costs of using temporary staff

Another option is to employ some combination of agency and bank nurses, and while recruitment costs will be lower than for overseas nurses, higher fees for agency staff in particular mean that the cumulative costs of an agency/bank nurse start to exceed the costs of employing an overseas nurse after six months to two-and-a-half years, with the breakeven point likely to fall at the latter end of the range. The point at which overseas recruitment becomes less expensive depends on assumptions about agency, bank and overseas nurse costs and will vary from case to case. See the illustrative example in Figure 5.

Figure 5: Illustrative example of agency vs overseas nurse employment costs over 36 months



Notes: Key assumptions include: Upper/lower temporary nurse costs of around £62k/£43k; Overseas recruitment range various due to inclusion/exclusion of ~£7k initial short-term agency cost during overseas nurse induction/training. Inflation and pay spine changes over time are ignored.

Source: Nuffield Trust.

The costs of leaving the post unfilled

‘Do nothing’ is also always an option, but rarely one without direct costs and/or lost benefits. Leaving ongoing vacancies unfilled or failing to expand the workforce in the face of increased demand will affect the quality and volume of patient care and possibly the wellbeing of staff working in understaffed wards and departments. It can also affect the reputation and attractiveness of the service.

Concluding remarks

In terms of an upfront recruitment cost, overseas nursing can appear expensive. However, from a public purse perspective – which people in public sector roles should consider – it is far lower than domestic training, and small compared to ad hoc filling of posts using temporary staff.

There are limitations in comparing the costs of the various options for filling posts and/or expanding the nursing workforce as the option chosen will depend on the nature of the decision at hand and the particular circumstances of individual trusts. Expanding domestic recruitment for example is problematic in the short run, but more desirable in the longer term, and the option of filling vacancies in the very short term may only be feasible using agency or bank nurses. And while there are potentially cheaper alternatives, such as seeking to decrease the number of nurses leaving the profession in first place, and incentives to encourage nurses to return to practice, neither alone will be sufficient to meet the nursing targets.

Given the particular decisions facing particular trusts and the potential variability in the costs of overseas recruiting, it is clearly important for trusts to construct their own business cases. These need to be done with a clear understanding of all the options available for recruitment and be based on realistic cost estimates. However, as our illustrative example of the medium-term costs of employing either a nurse recruited from overseas or filling posts through some combination of agency and bank nurses, the initial upfront/training costs for overseas nurses can be recouped within a period ranging from six months to two-and-a-half years.

3 Lengths of career and time in post

In this chapter we explore how long nurses from different nationalities stay in their roles. This includes whether they remain in their nursing role, at the organisation, the region or the NHS as a whole. We have broken these down by the UK, EU and rest of the world. While we outline typical or average lengths in posts, there is considerable variation at an individual level.

Lengths in post or lengths of career are, of course, only a partial measure of the benefit of recruiting a nurse, but they can give insights that can support better workforce planning and help identify where support may be needed to improve retention. The analysis also shows the extent to which the benefit of overseas recruitment is realised by the recruiting organisation, other regional providers or the NHS as a whole, depending on patterns of career movement.

The findings need to be interpreted in light of important factors which will have affected joiner and leaver rates, including:

- Introduction of English test in 2016 for European nurses (Nursing and Midwifery Council, 2015).
- Improvement of working conditions for nurses in many European countries, such as Spain and Italy (OECD, 2020).
- Relaxation of visa restrictions, allowing non-EU recruitment to increase (Beech *et al.*, 2019).
- Competition and intensive nurse recruitment in several other high-income countries, such as Germany, France and the US (OECD, 2019).
- More recently, the increasing offer of nursing posts in the public sector in many European countries as a response to the Covid-19 pandemic (Dayan *et al.*, 2020).

For further discussion on the possible effect of these factors, please see our accompanying report on drivers of overseas recruitment. We draw out some of those wider considerations as discussion points at the end of the chapter.

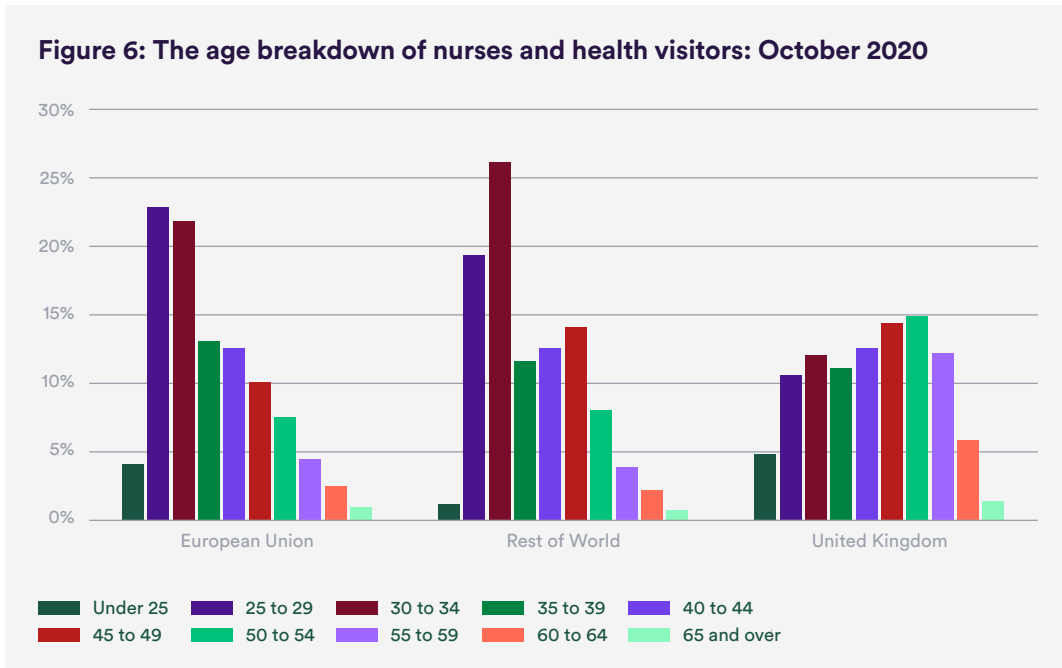
Overview of nurses joining the NHS

Age of nurses working in the NHS

For context, we describe the age of nurses within, and joining, the NHS. Of course, age is a protected characteristic and so cannot – nor should it – affect recruitment practice. However, it is important to understand it to help interpret lengths of career and the age people leave their roles.

Current workforce

In October 2020, over a quarter (27%) of EU nurses and health visitors working in hospital and community services in England were aged under 30. This is greater than the level for nurses and health visitors from the rest of the world (21%) and almost twice the level for UK nationals (15%) (Figure 6). These levels have changed in recent years; in 2017, the proportion of younger nurses from the EU was even higher (44%) but lower from the rest of the world (13%). This latter finding reflects the recent high levels of young EU nurses leaving whilst young nurses from the rest of the world joined. More detail on this trend is available in Figure 22 (p44) in the appendices.



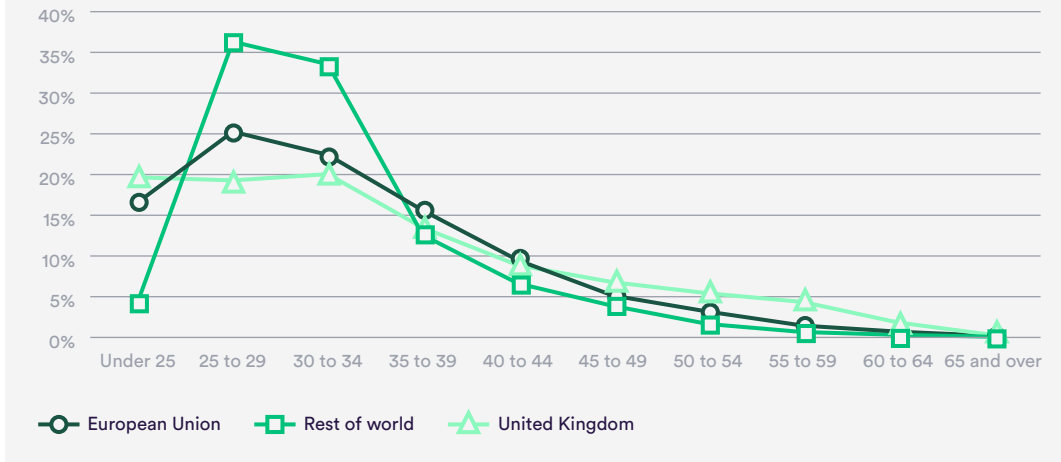
Notes: See appendix for more detail on the data.

Source: Nuffield Trust analysis of data from NHS Digital (NHS Digital, 2021d)

Joiners

In the three years to October 2020, over two-thirds (70%) of joiners from the rest of the world were aged between 25 and 34, around double the proportion for nurses from the UK and EU. However, only 4% of joiners from the rest of the world were aged under 25 which is far lower than for EU (17%) and UK (20%) nurses. This can be partly explained by requirements for registration with the NMC. Until recently, non-EU overseas nurses were required to have twelve months of post-qualification experience before coming to the UK. UK nationals joining the NHS as nurses are more likely to be from older age categories; for all the age categories over 45, the proportion of joiners was higher in the UK (Figure 7).

Figure 7: The age breakdown of nurses and health visitors joining the NHS from October 2017 to October 2020



Notes: See appendix for more detail on the data. This analysis might pick up some re-joining over the period.

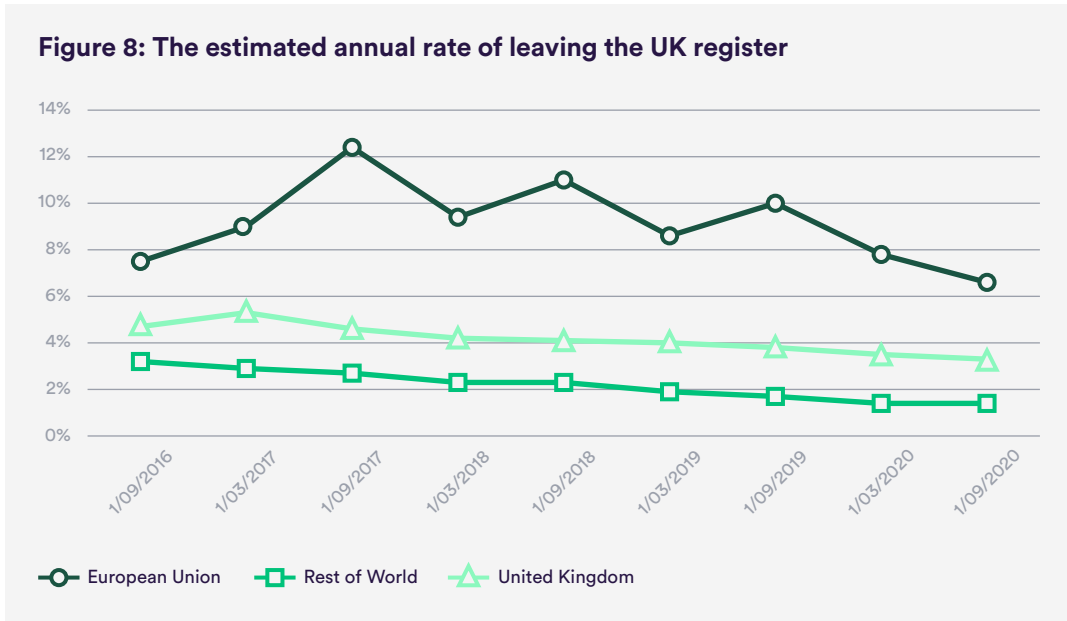
Source: Nuffield Trust analysis of data from NHS Digital (NHS Digital, 2021d)

Overview of nurses leaving the NHS

Leaving the register

Leaving rates vary between groups and over time and are influenced by differences or changes in the underlying age structures of the groups. Our analysis later in the chapter attempts to account for this but, as an interim and important step, we discuss the leaving rates.

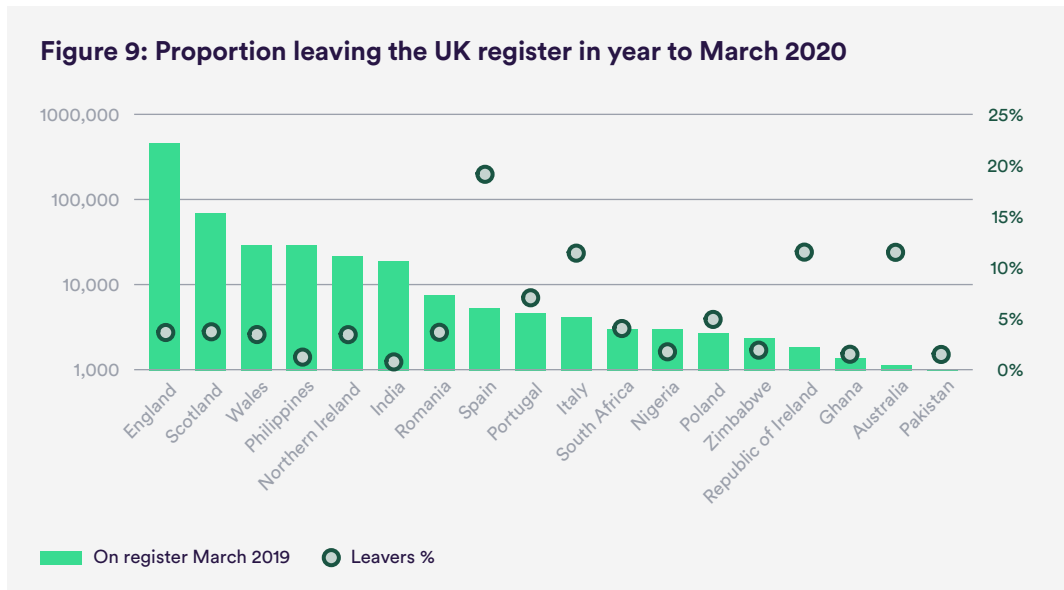
Over the last five years, the proportion of nurses leaving the register has fallen, but has been consistently higher for EU nurses and lower for those from the rest of the world (Figure 8). Taking the median rate since 2016, we see that, over a year, we might expect 1-in-44 nurses from the rest of the world to leave compared to 1-in-24 for those nurses who trained in the UK and 1-in-11 from the EU/EEA (Figure 8).



Notes: Calculated as the number of leavers in the previous six months multiplied by two (to convert from 6-months to a year) compared to the number of the register at that start of that period. Some people may join and leave the register within the same period, which would make the reported proportion above an overestimate. Based on whole UK nursing and midwifery register.

Source: Nuffield Trust analysis of data from NMC (*Registration data reports - The Nursing and Midwifery Council*, no date)

Within these large world regions, there is considerable variation. In the year to March 2020, nurses who trained in some countries, such as Spain, Italy, the Republic of Ireland and Australia all had notably high leaver rates (at least 1-in-10). However, leaver rates for nurses from some EU nations, such as Poland (5%), were lower than the average for that region. Figure 9 shows the leaver rate from the UK register for those countries with at least 1,000 nurses on the UK register.



Note: Numbers on register are displayed on a logarithmic scale.

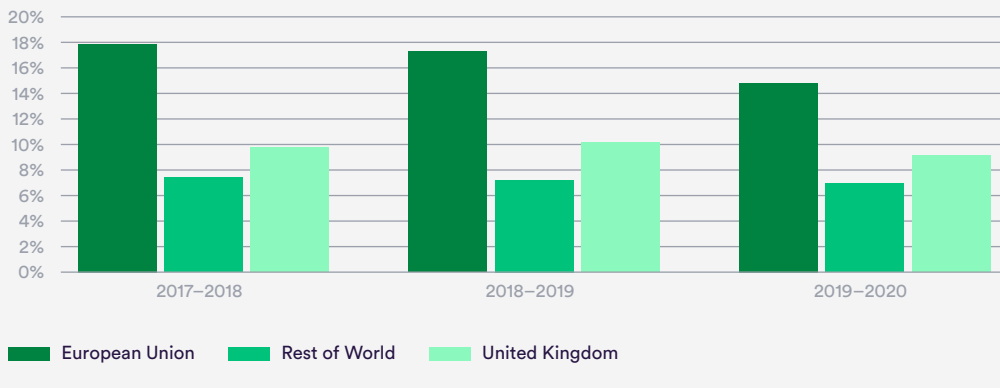
Source: Nuffield Trust analysis of data from NMC registration data reports

Within NHS hospital and community services

We requested (and were kindly provided) bespoke data from NHS Digital on the joiners and leavers from the NHS hospital and community services. This allowed us to get a far more detailed understanding of patterns of leaving, including movements between NHS organisations and regions. The data was extracted to try to exclude those going on or coming back from maternity leave from being counted as a leaver or joiner; however, there may be some circumstances where they are included. This, and other considerations about the data, are explained in more detail in the section on methodology (p40).

EU nurses are more likely than UK nurses to leave NHS hospital and community services altogether, while those from other nationalities are less likely to do so. In the year to October 2019, some 1-in-6 EU nurses left compared to 1-in-10 UK nationals and just 1-in-14 from elsewhere (Figure 10). This has been fairly consistent over the three years covered by the data, although leaving rates dropped in the year to October 2020 – a period which covers (amongst other things) the start of the Covid-19 pandemic.

Figure 10: The annual proportion of nurses leaving NHS hospital and community services, 2017 to 2020

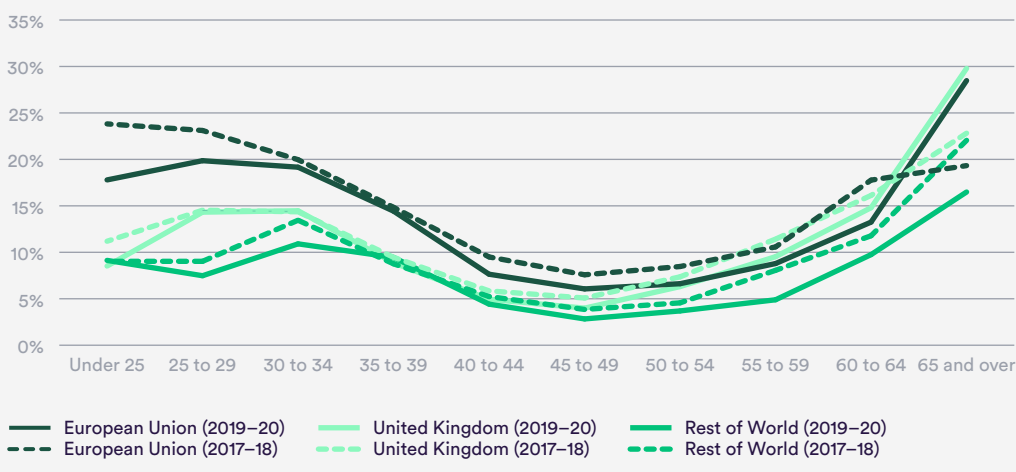


Notes: A leaver is classed as those staff who left the NHS in the nurse & health visitor staff group. See appendix for further detail on this data.

Source: Nuffield Trust analysis of data from NHS Digital (NHS Digital, 2021d)

The relatively low leaving rates for nurses with nationalities from the rest of the world applies across most age groups. Over the age of 50, the differences in leaver rates between UK and EU nurses are less clear (Figure 11). The largest differences in leaver rates are for the 25-29 years olds where there is marked difference between those from the UK, EU and rest of the world.

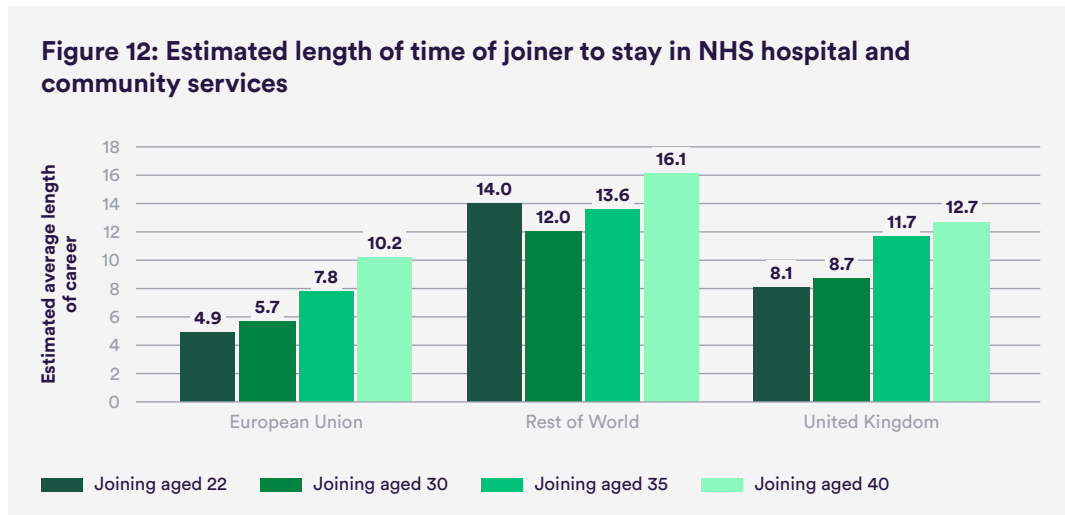
Figure 11: The annual proportion of nurses leaving NHS hospital and community services by age group in the year to October 2018 and year to October 2020



Notes: A joiner/leaver is classed as those staff who joined/left the NHS in the nurse & health visitor staff group. See appendix for further detail on this data.

Source: Nuffield Trust analysis of data from NHS Digital (NHS Digital, 2021d)

Nurses from the rest of the world stay longer, on average, in NHS hospital and community settings than UK nationals. For indicative purposes, and based on a novel calculation, we might expect that a nurse from the rest of the world who joins the NHS aged 30 will stay, on average, for 12 years compared to 9 years for a UK national. The estimates for nurses from the EU are particularly dependent on the age at which they join, with an estimated average length of career of around 5 years for a nurse joining aged 22 but twice this for one aged 40. Again, it is worth repeating the caveat that this is an average, with considerable variation between individuals within broad world regions of origin. In some cases, it may also be desirable to have some overseas nurses staying for short periods, particularly where the intention is that they return to their country of origin with greater experience.

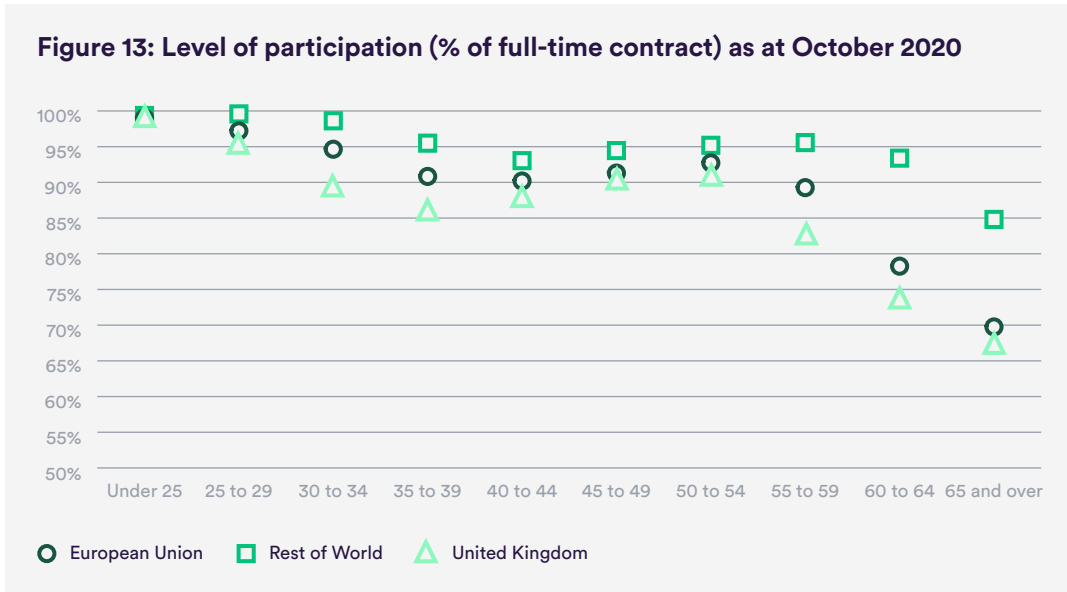


Notes: For detail on the calculation see methodology.

Source: Nuffield Trust analysis of data from NHS Digital (NHS Digital, 2021d)

Participation

Nurses with nationalities from outside the UK or EU are typically contracted on a more full-time basis. As at October 2020, their average contract was 97% of a full-time contract (typically 36 hours) compared to 93% (35 hours) for those from the EU and 88% for those from the UK (33 hours). This pattern is consistent across age groups. For nurses with UK and EU nationalities, it is fairly consistent at around 4.5 days per week before dropping after they reach their mid-50s. Those from the rest of the world are contracted to work about 3 hours more on average and that disparity rises to about 5 to 7 hours more for nurses in their 50s and 60s (Figure 13).



Notes: Calculated as full-time equivalent divided by headcount figures. See appendix for further detail on this data.

Source: Nuffield Trust analysis of data from NHS Digital (NHS Digital, 2021d)

Differences in levels of participation can make a material difference to nursing capacity but the implications of such variations need to be carefully understood and interpreted. The 2020/21 NHS People Plan outlined the benefits of flexible working for staff and, from September 2021, NHS staff will have the contractual right to request flexible working from day one (NHS Employers, 2021). It is not clear whether the higher levels of participation from nurses with overseas nationalities is out of desire or lack of opportunity. While the NHS staff survey reveals differences between some staff groups in the extent to which they are satisfied with opportunities for flexible working patterns,⁴ they do not currently collect data on nationality.

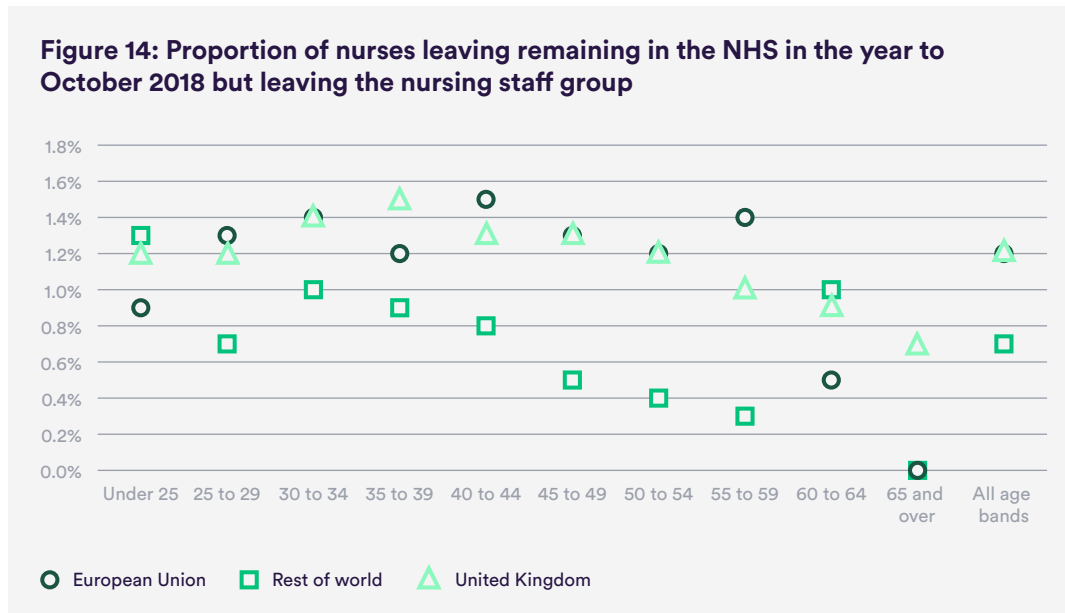
Beyond levels of participation, the data also give insights on the proportion of staff who, while staying in the NHS, move to a staff group other than nursing. These data need to be treated with caution as they capture a range of different career pathways including, for instance, if a nurse trained to become a cognitive behavioural therapist (CBT) or moved into a management role. However, they do warrant some further exploration. In a given year, we might expect 1.2% of nurses from the EU or UK who stay in the NHS to change staff group, compared to 0.7% for those from the rest of the world (Figure 14).

4 Reference forthcoming Nuffield Trust report

Again, there might be diversity issues with a risk that nurses from the rest of the world are being given fewer opportunities to develop valuable careers outside of nursing. As noted by NHS Employers:

Overseas staff make a significant contribution to the care of patients in the NHS. The system benefits greatly from their expertise and the new knowledge and skills they bring. In return, they must have access to support and development opportunities to enable them to progress their careers, either within the NHS or in their home countries, if they choose to return.

(NHS Employers, 2021).



Notes: A leaver is classed as those staff who left the nurse & health visitor staff group to move to another staff group. It does not include those who left the NHS altogether.

Source: Nuffield Trust analysis of data from NHS Digital (NHS Digital, 2021d)

Movements within the NHS

To understand return on investment it is important to understand where on whom the costs and benefits fall. In this section we explore whether the benefits – and by that we mean the length of time a nurse works for – differ at a local, regional and national level. For instance, if an overseas nurse was to join an NHS Trust but then move on to a neighbouring organisation soon thereafter then the return-on-investment from the perspective of the original

provider may be low but, from a regional, NHS or public purse perspective still be high. The regional and local analysis also helps understand some of the variability in the estimates for costs and leaver rates.

Proportion of nurses moving between NHS organisations

In any given year, the data suggest we might expect around 1-in-16 nurses (around 6%) to move to another NHS organisation. While the rate of such internal NHS movement appears to differ between EU, UK and other nationals, the differences have not been consistent over recent years (Figure 15). The data also need to be treated with caution. The “real life” migration between services may be lower than it appears as administrative changes in the name of the employer would count as leaving one organisation and joining another, even if the nurse remained in the same service.⁵ Further exploratory analysis suggests that a nurse from the rest of the world recruited aged 30 would stay, on average, around eight years at that organisation compared to five years for a UK nurse and four years for one from the EU.



Notes: Migration between services may be lower in reality as administrative changes in the name of the employer count as leaving one organisation and joining another. See footnote 19.

Source: Nuffield Trust analysis of data from NHS Digital (NHS Digital, 2021d)

5 For instance, on inspection of the data, we found artificially high levels of leavers from at least five Trusts in 2018-19 (North Cumbria University Hospitals NHS Trust; Royal Liverpool and Broadgreen University Hospitals NHS Trust; City Hospitals Sunderland NHS Foundation Trust; South Tyneside NHS Foundation Trust; Gloucestershire Care Services NHS Trust). Removing these and services with small number of nurses (<500) reduced rates to 5.3% for EU, 3.3% for rest of world and 4.8% for UK nationals).

Some areas have perhaps accepted there will be a degree of movement between local organisations. For instance, Surrey Heartlands and Care Partnership is collaborating across their system and actively trying to create a culture where loyalty is to the STP/ICS, as opposed to an individual organisation (NHS Employers, 2021).

Provider characteristics

To explore migration within the NHS further, we also looked at the leaver rates, by nationality, for individual employers. By chance, you might expect the rate of those leaving for another NHS organisation to be higher for overseas nurses in half of organisations. We found that, in the year to October 2019, in around half (51%) of NHS hospital and community services the proportion of EU nurses leaving for another NHS organisation was higher than for UK nationals (*i.e. where the dark green triangles are above the light green circles in Figure 16 below*). However, the proportion of nurses from the rest of the world staying within the NHS but leaving their organisation in that 12-month period outstripped that for UK nationals in only a quarter (27%) of employers. This tallies with the above bar chart (Figure 15) which showed moves between hospitals were most likely for EU nationals and least likely for those from the rest of the world.

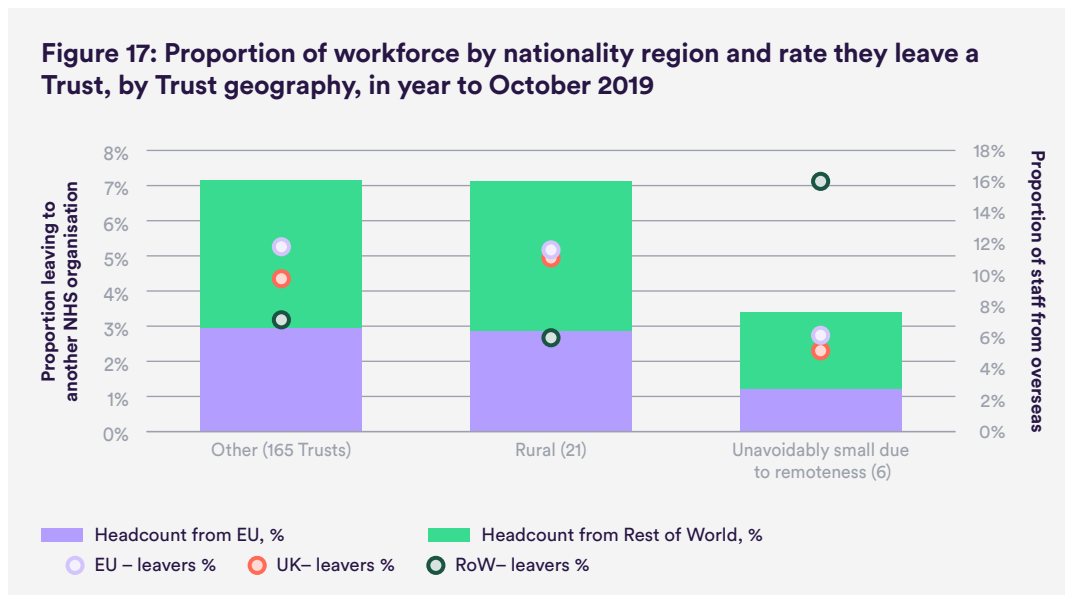


Notes: Include data from 197 NHS hospital and community services. Excludes organisations with fewer than 500 nurses and health visitors and five Trusts with apparent data quality issues. The vertical axis is cropped at 20% which is below the maximum for some organisations but aids visualisation of the remaining data.

Source: Nuffield Trust analysis of data from NHS Digital (NHS Digital, 2021d)

There is some evidence to suggest that nurses from the rest of the world are more likely to move to another Trust from small Trusts in remote locations. For other Trusts, the converse appears to be true (Figure 17). The data also suggest some variation between types of services. In acute trusts, the proportion of UK and EU nurses leaving for another Trust is higher although this does not appear to be consistent across some other Trust types (Figure 18). These differences should be treated with caution – particularly where the number of employers in a group is small – as they are susceptible to data quality issues.

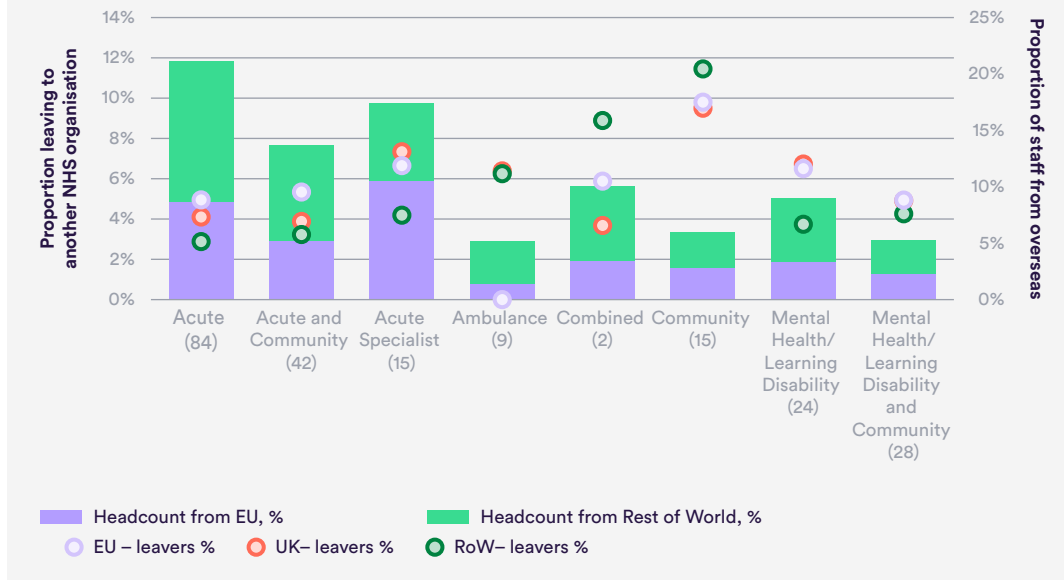
We explore the variation in recruitment between different Trust characteristics in our accompanying research report on the drivers of overseas recruitment.



Notes: Excludes five Trusts with apparent data quality issues. Differences should be treated with caution – particularly where the number of employers in a group is small – as susceptible to data quality issues. The category ‘unavoidably small due to remoteness’ is used by NHS England & NHS Improvement in funding allocations. Rural trusts are categorised by proportion of patients from rural areas. Proportion of staff from overseas may not tally with numbers quoted elsewhere due to exclusions.

Source: Nuffield Trust analysis of data from NHS Digital (NHS Digital, 2021d)

Figure 18: Proportion of workforce by nationality, region and rate they leave a Trust, by Trust type, in year to October 2019

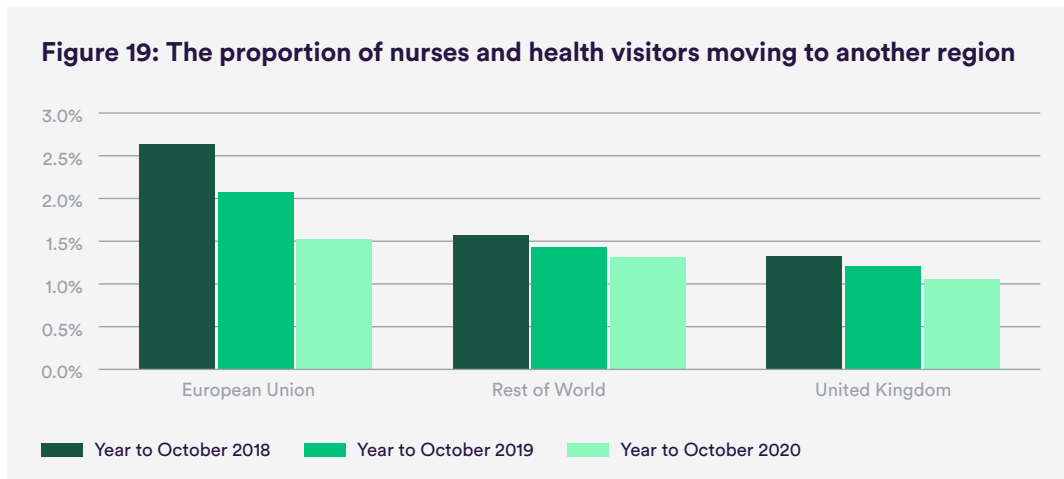


Notes: Excludes five Trusts with apparent data quality issues. Differences should be treated with caution – particularly where the number of employers in a group is small – as susceptible to data quality issues. Proportion of staff from overseas may not tally with numbers quoted elsewhere due to exclusions.

Source: Nuffield Trust analysis of data from NHS Digital (NHS Digital, 2021d)

Regional migration

The proportion of nurses staying within the NHS but moving to another region is small, typically little over 1%. Over the last few years the proportion has fallen. The data suggest that overseas nurses, particularly EU nationals, are more likely to make such a regional move (Figure 19).



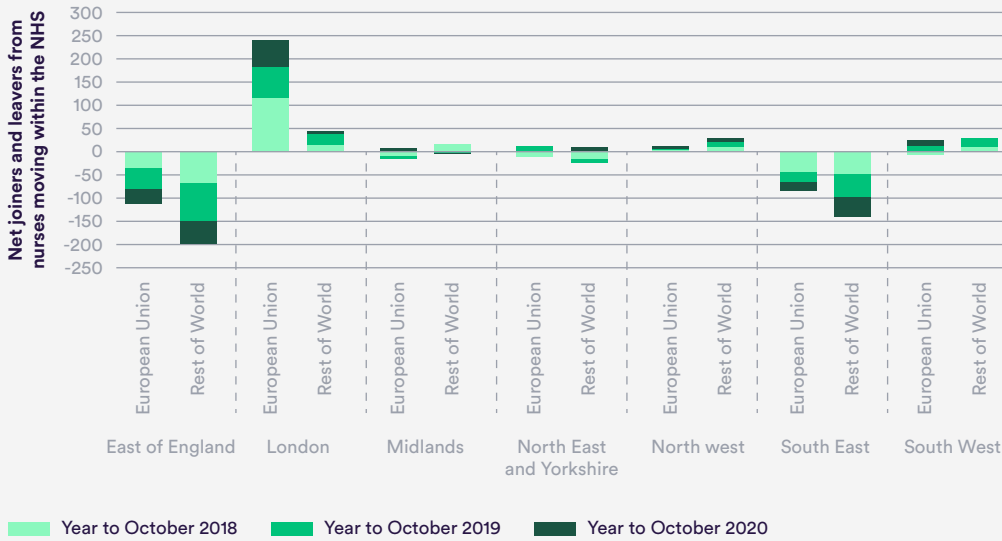
Notes: A mover is classed as a nurse or health visitors who has left the NHS England Region to move to another NHS England Region. It does not include those who joined/left the NHS altogether.

Source: Nuffield Trust analysis of data from NHS Digital (NHS Digital, 2021d)

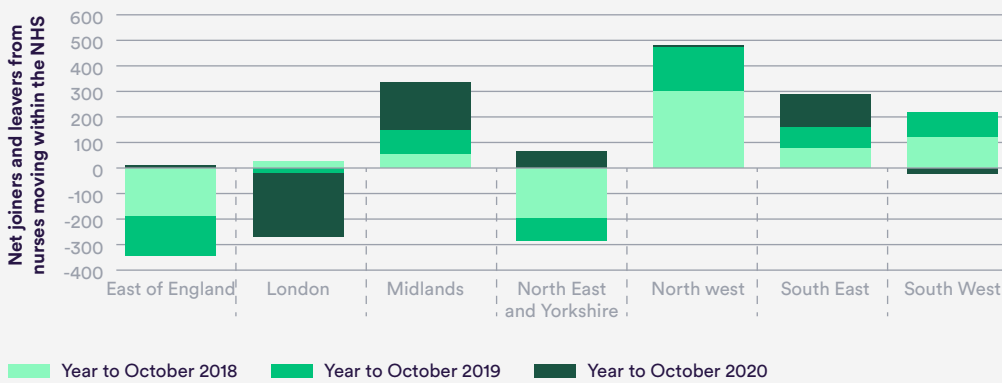
There are some winners and losers in this regional migration. For overseas nurses there is a drift from the East and South East primarily towards London. This pattern is not the same for UK nationals where the North West gains the most (Figure 20).

Figure 20: The proportion of nurses and health visitors moving to another region, by region and nationality

Overseas nationals



UK nationals



Notes: A mover is classed as a nurse or health visitors who has left the NHS England Region to move to another NHS England Region. It does not include those who joined/left the NHS altogether.

Source: Nuffield Trust analysis of data from NHS Digital (NHS Digital, 2021d)

If such regional migration is significant in nature, there may be grounds to fund migration nationally; focus on how to support retention in certain regions; or compensate those regions losing staff. This will be an important consideration as Integrated Care Systems (ICSs) mature given the expectation they will take on more responsibility for workforce planning and such bodies should reflect, for example, primary care and social care, when planning overseas recruitment.

Wider considerations on the returns from recruiting

In this chapter we have focused on length of stay in post and lengths of career as a measure of the benefits of recruiting. This, of course, is not the only benefit or factor to consider. For instance, a full assessment of return-on-investment would include quality of care and whether the recruitment contributes to broader policies around the inclusiveness of the workforce. There are also ethical dimensions such as whether or not recruitment from overseas affects the country of origin's ability to deliver healthcare or, conversely, whether it may contribute to upskilling of their workforce if they were to return. These are difficult factors to include in a return-on-investment calculation and employers must be mindful of their ethical, moral and diversity obligations.

To this end, the Code of Practice for the international recruitment of health and social care personnel in England, including the World Health Organization's list of countries from where no active recruitment is permitted is available [here](#).

Conclusion

While there is an ambition for a sustainable, homegrown NHS workforce, overseas recruitment will have to be a major contributor if the goals on increasing nurse numbers are to be met. In the long-term, as we have previously stated, there will be the potential for international recruitment to return to lower levels, encouraging cultural exchange, but not overreliance (Beech *et al.*, 2019).

Our analyses suggest that even where the costs of overseas recruitment are high – typically in the region of £10,000 to £12,000 for nurses via certain routes and countries – this can still represent a good return-on-investment even in the medium term. For example, any initial savings by filling the post instead with an agency nurse would typically be exceeded by the cost of the likely higher hourly rate of agency staff in a handful of months. Training more nurses domestically may well look economically appealing for Trusts in the long-term but there is a huge cost to the public purse and – with undergraduate courses typically 3 years – it is not a viable solution to address the immediate problems.

However, our work also suggests there is considerable variation in the estimates for costs and expected lengths in posts which appear, at least in part, to be influenced by the characteristics of the employer as well as the potential employee. Organisations will need to develop their own business cases for any overseas recruitment within their wider workforce plans, although these can draw on previous research and experience of their peers. We have also produced an accompanying paper on the lessons for the NHS.

We have typically presented – because of the limitations in available data – comparisons between nurses with nationality or nursing qualification from the UK, EU or rest of the world. These are extremely broad regions covering many countries, states and regions where many different factors may affect recruitment levels, costs and subsequent retention. More work is needed to explore the specific dynamics and, in particular, whether there is scope to better meet the expectations of certain groups from the EU who, on recent trends, have often stayed in post for shorter periods.

The costs were calculated, where appropriate, against counterfactuals of: recruiting domestically trained staff to fill shortfall, including the cost of training – and noting the different routes into professional registration; and employing temporary staff to fill shortfall. We recognise that there are different purposes and wider costs and benefits associated with each of these workforce levers and the comparisons are presented to give an indication of scale rather than to formulate a precise cost-benefit comparison.

The costs and benefits realised need to be considered in relation to who bears them. The small but relatively predictable movement of overseas nurses, particularly between certain regions, has policy implications. It may, for instance, suggest that the current national funding to support international recruitment is reasonable given it reduces the sunk cost for those regions with more existing overseas nurses leaving than joining their service. Moreover, it reinforces the need to understand the expectations of overseas nurses and why they might be inclined to move between organisations and regions.

Our analysis was conducted at a time of, and following, significant change in the overseas recruitment landscape. For example, changes in registration process, immigration policy, our relationship with the EU and the Covid-19 pandemic will all affect levels of recruitment and retention of nurses and the costs associated with that. For further discussion on the possible effect of these factors, please see our accompanying report on drivers of overseas recruitment.

The contribution of overseas nurses to the delivery of high-quality health care in England is undoubted. Given we expect this supply of clinicians to continue to help the NHS meet its objectives, we owe it to the providers, taxpayers and nurses themselves to continue to explore the motivations and challenges of all concerned.

Methodology

Overview

The following table outlines the key methods, which we follow with some further detail on the key data and calculations.

Return on investment	
Literature review	We conducted a pragmatic review of grey literature to collate previously identified costs and benefits of international nurse recruitment, including any quantification of these. Key sources included Personal Social Services Research Unit, NHS Employers, WHO, OECD, and existing summaries in grey literature.
Data analysis	We requested and analysed administrative data from the NMC and NHS Digital on retention (within organisation, NHS or nursing as a whole) and participation (part-time working) of nurses by country of qualification or nationality and, where possible, disaggregated by age. A more detailed summary of this data and some of the subsequent analysis is given below.
Expert panel and interviews	We presented and discussed emerging findings to panel including NHS Employers, NMC, RCN, and NHS England & NHS Improvement, a global recruitment agency and NHS Professionals. We also interviewed a range of stakeholders including NHS Professionals, Health Education England and NHS Employers.

NHS Digital data on NHS hospital and community services

NHS Digital kindly provided a supplementary dataset for the purpose of this report. It is available on their website (NHS Digital, 2021d): https://digital.nhs.uk/data-and-information/supplementary-information/2021/nurse--health-visitors-turnover-data-pack-oct17-to-oct20_ah4395

The data includes nurses and health visitors within, joining or leaving NHS Hospital and Community Health Services (HCHS) – specifically NHS Trusts and Clinical Commissioning Groups – in England by nationality group and age band at 31 October each year from 2017 to 2020. To analyse levels of participation, the data includes figures for headcount and full time equivalent (FTE). Within the data:

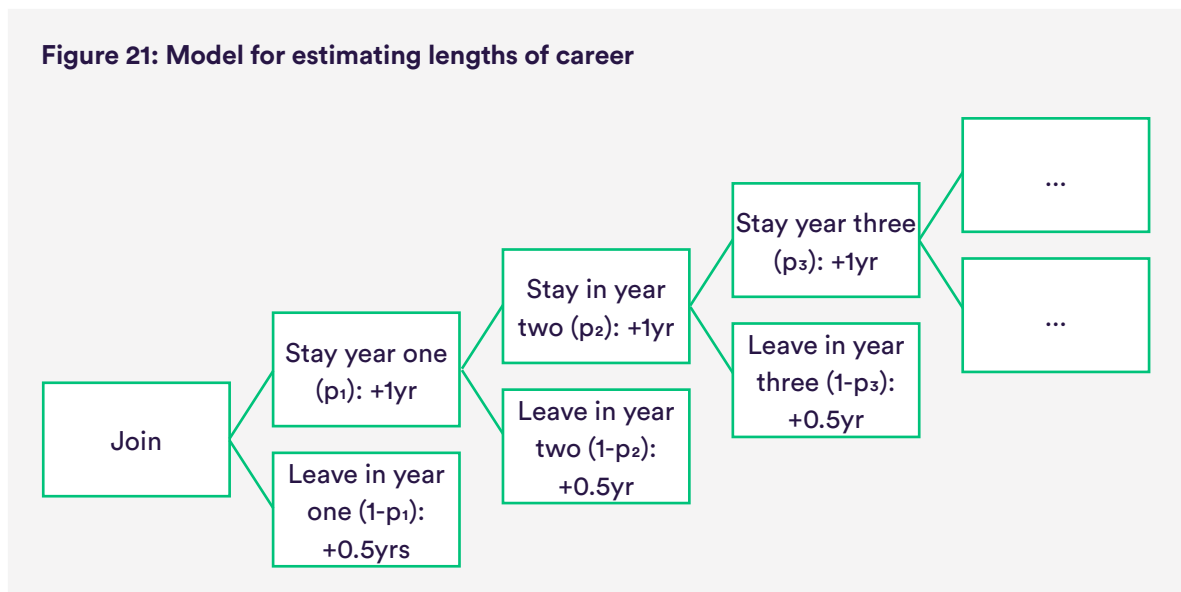
- United Kingdom nationals include any staff with the following nationalities; British, English, Northern Irish, Scottish or Welsh.
- European Union nationals include any staff with the following nationalities; Austrian, Belgian, Bulgarian, Croatian, Cypriot, Czech, Danish, Dutch, Estonian, Finnish, French, German, Greek, Hungarian, Irish, Italian, Latvian, Lithuanian, Luxembourg, Maltese, Polish, Portuguese, Romanian, Slovak, Slovenian, Spanish or Swedish.
- European Economic Area (EEA) which includes Iceland, Liechtenstein, Norway and Switzerland are not included in the analysis as numbers are very small.
- Rest of the World includes any countries outside the EEA, EU and UK. This includes the Crown Dependencies (Isle of Man, Bailiwick of Jersey and Bailiwick of Guernsey) and all British Overseas Territories. This excludes unknown nationalities.

The data does not include nursing information for Chesterfield Royal Hospital NHS Foundation Trust and Moorfields Eye Hospital NHS Foundation Trust.

While we sought to exclude those leaving from or joining maternity leave or career break, some will have been included. The data include staff-in-post figures recorded on the Electronic Staff Record (ESR) with a worked whole-time equivalent >0 who have earnings>0. Any employees still being paid basic pay as part of their maternity package whilst on maternity leave will still have a worked whole-time equivalent greater than 0 and earnings above 0 and would therefore be included in our monthly staff-in-post figures. Those staff on maternity leave who are not being paid any of their maternity package in this way would not be included in staff-in-post figures, and therefore would be classed as a joiner if their Unique Identifier was not visible in, say, October 2018 but then visible again in October 2019 (with a worked whole-time equivalent >0 and earnings >0 in October 2019).

Calculation of estimated length of career

Leaver rates are based on data for October 2018 to October 2019, and are similar to the year before and after. The estimates are based on the following probability tree (Figure 21). We developed our approach to this costing as part of an academic project around nursing training with London School of Economics in 2019 and would like to acknowledge the work of Alexandra Pew.



Note: p_1 is defined as the probability of leaving in year 1

The estimates should be treated with a degree of caution and are presented for indicative purposes. For instance, the probability of leaving at a particular age is based on estimates from 5-year age categories which may not reflect differences within the category, i.e. the probability of someone leaving at the age of 25 may not be similar to the average for 25 to 29-year olds.

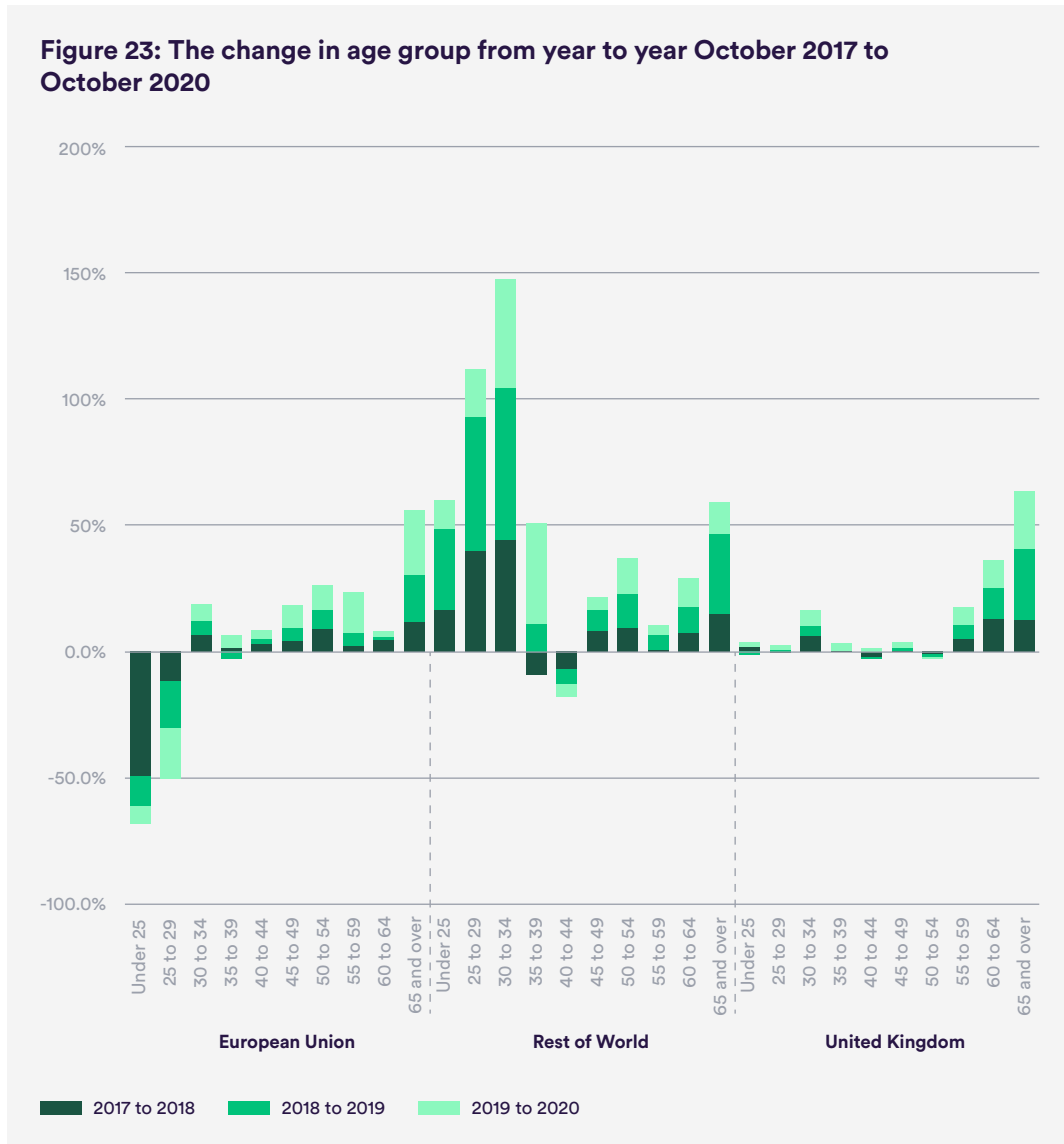
NMC register data

We also analysed available data from the NMC register. We primarily focused on those people with an address in England although it should be recognised that some of these may work across the border in the other UK nations (and vice-versa). The register also includes midwives and nursing associates (Figure 22).



At one point in the report we mention ‘Specialist practitioner’ – these are registrants who have a specialist practice qualification (SPQ). SPQs are post-registration qualifications that relate to particular fields of practice. However, gaining an SPQ doesn’t change the field a person is registered in.

Additional charts



Source: Nuffield Trust analysis of data from NHS Digital (NHS Digital, 2021d)

Table 3: International recruitment: Example costs: Recruiting from the Philippines based on a three-year health and care visa

Item	Cost	Payer
Agency fees	2,500	Trust
Overseas agency fees	1,000	Trust
Immigration skills charge	3,000	Trust
Certificate of sponsorship	199	Trust
Visa fees	464	Trust
Philippine Overseas Employment Administration fee	350	Trust
Flight/transfer	700	Trust
NMC Fee (Qualification evaluation)	140	Trust
Admission to NMC Register fee	153	Trust
Insurance	60	Trust
Documentation fee	90	Trust
Cost of interview process	300	Trust
NMC Part 1 Test of Competence Based Test	90	Trust/Nurse
NMC Part 2 Test of Competence – OSCE	794	Trust/Nurse
English Language test	320	Trust/Nurse
TB screening	50	Trust/Nurse
Discretionary elements (eg accommodation/support/salary advance)	660	Trust/Nurse
Total	10,870	

Source: (NHS Employers, 2021)

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