
Closing the gap

Key areas for action on the health and care workforce

Overview

March 2019

Key messages

Staffing is the make-or-break issue for the NHS in England. Workforce shortages are already having a direct impact on patient care and staff experience. Urgent action is now required to avoid a vicious cycle of growing shortages and declining quality. The workforce implementation plan to be published later this year presents a pivotal opportunity to do this.

In this report we set out a series of policy actions that, evidence suggests, should be at the heart of the workforce implementation plan. We focus on nursing and general practice, where the workforce problems are particularly severe. There are no silver bullets, but these are high-impact policy actions which, if properly funded and well implemented across the NHS would over time create a sustainable model for general practice and help to eliminate nursing shortages. **They will require investment of an extra £900 million per year by 2023/24 into the budget of Health Education England.**

Increasing nursing numbers

- On current trends, in 10 years' time the NHS will have a shortfall of 108,000 full-time equivalent nurses. Half this gap could be bridged by increasing the number of nurses joining the NHS from training. **This would require 5,000 more nurses to start training each year by 2021**, reducing the drop-out rate during training by a third and encouraging more nurses to join the NHS once they qualify.
- To achieve this, we recommend that the government significantly increases the financial support to nursing students with '**cost of living' grants of around £5,200 a year** on top of the means-tested loan system. Further action, including **covering the costs of tuition fees**, should be taken to triple the number of nurses training as postgraduates. This is essential to address the financial problems trainee nurses face while studying that deter students from starting a nursing degree and are a factor in the high drop-out rate (attrition) during training. The availability and quality of clinical placements is another key priority for reform as part of a wider strategy to increase the numbers completing training.
- While policy action and investment could transform the outlook for nurse staffing shortages over the next decade, the prospects until the end of the parliament are much more worrying. To avoid nurse staffing shortages acting as a major brake on the delivery of the NHS long-term plan, international recruitment will need to play a substantial role in the NHS workforce implementation plan. We estimate that **an additional 5,000 internationally recruited nurses will be needed each year until 2023/24**.

Team-based general practice

- National efforts to increase the number of GPs need to continue, but the stark reality is that even with a major focus on increasing the number of GPs in training, we project the **numbers of GPs in the NHS will fall substantially short of demand** and of the government's target of an additional 5,000 GPs.
- The only way forward is to make substantial progress towards a new model of general practice with an **expanded multidisciplinary team drawing on the skills of other health care professionals**. The new GP contract and The NHS long-term plan support this shift, but the key issue is the speed, consistency and quality of implementation across the NHS. The workforce implementation plan needs to clearly outline how this model will be rolled out safely across the country, and at pace.

Making the NHS a better place to work and build a career for all staff

- Beyond the specific actions on nursing and general practice, the workforce implementation plan must focus on how the NHS can become a better employer and a place where staff want to build a career. Building on what already exists in the NHS Constitution, the **NHS needs an explicit statement of the universal 'offer' to staff** – including, but not limited to, their legal rights. It should cover fair treatment for all staff but also what staff can expect in terms of pay and opportunity, continuing professional development, work-life balance and proper appraisal.

Other steps to boost retention include more focus on supporting staff who are at the beginning and end of their NHS career. Meaningful action on equality and inclusion must be at the heart of this, building on existing initiatives, so that all NHS organisations have concrete action plans to tackle discrimination and inequality.

- Pay and reward are tangible signs of how far staff are valued and have a clear impact on retention. The current Agenda for Change pay deal runs until 2021. Beyond then **pay in the NHS will need to continue to rise in real terms** in line with wider economy earnings.
- Alongside pay, the NHS pension scheme is frequently cited as a barrier to retention, particularly for more experienced staff, who have been impacted by changes to wider pension policy. In many instances these staff would like to stay. The NHS should urgently look at options for more flexibility, similar to the local government pension scheme.
- Rapidly changing patient needs and technological advances mean **all frontline staff will need to adapt and enhance their skills**. Current progress is much too slow. The failure to invest in the development of existing staff also sends a powerful, negative signal about the NHS's commitment to its people and their career development. A **fourfold increase in the current workforce development budget is required** to accelerate change and support people.
- **Compassionate and inclusive leadership will be key** to successful implementation of many of the recommendations we set out. The national arm's length bodies also need to deliver on their pledges to change their behaviour and approaches.

Social care

- We are highly aware of the close interrelationship between the NHS and social care. Addressing shortages in the NHS must not come at the expense of the already stretched social care workforce.
- We therefore recommend a series of policy changes to improve recruitment and retention in social care, including a **sector-specific route for international migration that works for social care post-Brexit**, as current proposals will not be adequate. More fundamentally, we recognise that workforce challenges in this sector reflect its poor pay, terms and conditions. This can only be addressed by government – first through **additional funding in the 2019 Spending Review**, and in the longer term through **comprehensive reform of adult social care funding**.

Workforce planning in the future

With policy action and investment, our analysis suggests the workforce challenges facing the NHS are not inevitable. But the cause of our current workforce problems goes deeper than individual policy failures. The workforce has not been a policy priority: responsibility for it is fragmented nationally and locally, the information the NHS needs to understand and plan its workforce remains poor, and the NHS has not invested in the leadership capability and skills needed to manage the workforce effectively. The government cannot continue to view education and training as an overhead cost to be minimised. The forthcoming NHS workforce implementation plan needs to address not just specific policy areas but also the roles, responsibilities, skills and capabilities needed across the system for more effective workforce planning. But above all, it is a plan that needs to be properly funded.

Introduction

When the NHS was first established in 1948, it was supported by a workforce of around 144,000 staff. Now, more than 70 years later, it is the largest employer in England, with around 1.1 million full-time equivalent (FTE) staff in hospital and community services (**NHS Digital 2018b**).¹ These people are the health system's greatest asset. Without its staff – the doctors, nurses, porters, clerks and therapists – there would be no health service.

And yet right now the NHS workforce is struggling to cope. In November 2018, The Health Foundation, The King's Fund and the Nuffield Trust jointly published a briefing on the health care workforce in England (**The Health Foundation et al 2018**) in advance of *The NHS long term plan* (**NHS England 2019c**). In it we reported that NHS hospitals, mental health and community providers are currently reporting a shortage of more than 100,000 FTE staff (representing one in eleven posts) (**NHS Improvement 2018**), severely affecting some key groups. One of the greatest challenges lies in nursing, with 41,000 nurse vacancies² (one in eight posts) (**NHS Improvement 2018**), but there are also problems in medicine, particularly in some specialties – eg, core psychiatry is now on the Migration Advisory Committee's list of occupations experiencing a shortage of staff – and geographical areas, as well as some allied health professions. These pressures also extend beyond NHS trusts, with serious staffing issues in general practice.

The adult social care sector is also under pressure and facing many of the same issues as the NHS. There are 1.1 million FTE jobs in adult social care (**Skills for Care 2018b**), and vacancies are rising, currently totalling 110,000, with around one in ten social worker roles and one in eleven care worker roles vacant (**Skills for Care 2018b**). There is also a registered nurse vacancy rate of 12 per cent in adult social care, implying around 5,000 nursing vacancies in this sector (**Skills for Care 2018b**).

The current level of vacancies looks set to worsen. Concerns about Brexit appear to have created additional risks in both the short and the medium term. Already a net inflow of nurses from the European Union (EU) into the NHS has turned into a net outflow: between July 2017 and July 2018, 1,584 more EU nurses and health visitors left their role in the NHS than joined (**NHS Digital 2018b**). Further, the government's efforts to increase the number of nurses and allied health professionals in training by up to 10,000 (by removing the NHS bursary for students starting courses from August 2017 – see Chapter 2 of our report for more detail) (**Health Education England 2017a**) have so far not been successful. In fact, the number of placed applicants for nurse undergraduate training in 2018 was 4 per cent lower than in 2016 (**UCAS 2018, 2017**).³

1 There are 1.1 million full-time equivalent staff in hospital and community services in the NHS in England. This excludes staff working in primary care, voluntary and independent sector.

2 Our November 2018 briefing referenced more than 36,000 nurse vacancies based on data published by NHS Improvement. In our modelling for this report we refer to 32,500 nurse vacancies. This figure comes from applying the nursing vacancy rate from NHS Improvement data to the nursing establishment data published separately by NHS Digital. We have used NHS Digital data on the nursing establishment because these are classed as official statistics and are consistent with other sources, whereas the staff numbers collected by NHS Improvement are reported as management information.

3 These figures are based on applicants permanently living in England, accepting a place at any university within the UK, using the latest available data for comparison (UCAS 2018, 2017).

Workforce challenges are currently the biggest threat facing the health service, and are already having significant consequences for both patients and staff. As the Care Quality Commission stated in its recent report on the state of health and social care in England: ‘Workforce problems have a direct impact on people’s care’ ([Care Quality Commission 2018, p 7](#)).

The latest GP Patient Survey shows clearly that patients have problems accessing general practice, with more than a third of patients struggling to get an appointment when they need one ([NHS England and Ipsos MORI 2018](#)). For services provided by NHS trusts, performance against key waiting-time standards has been in decline since 2012/13, with patients experiencing longer waits for both accident and emergency (A&E) and planned care. Mental health services are also under pressure – for example, national data published in November 2018 showed that 675 patients in acute need were admitted to a mental health unit outside their local area ([NHS Digital 2019a](#)), a practice that the government has committed to eliminate by 2020/21 ([Department of Health 2016](#)). In the longer term, if substantial staff shortages continue, we could see waiting lists continue to grow and a further deterioration in care quality, potentially undermining the future sustainability of services.

As we set out in our November 2018 briefing, the scale of the workforce challenges currently facing the health service pose a threat to the delivery and quality of care over the next 10 years. We also urged national leaders to use the long-term plan as an opportunity to address these issues.

The long-term plan was published in January, setting out far-reaching commitments to improve health outcomes and the quality of care. The plan rightly recognises that the NHS can only achieve these outcomes if it has enough staff with the right skills and they are given adequate support to work effectively. However, it acknowledges that conditions currently fall far short of this, with ‘our staff ... feeling the strain’ ([NHS England 2019c, p 8](#)).

To address this, the plan outlines a number of measures, including proposals to increase staff numbers through training and recruitment. It also proposes to make the NHS a better place to work, so that more staff stay and feel able to make better use of their skills and experience. It sets out some immediate actions, to be overseen by NHS Improvement and a newly established, cross-sector national workforce group, with membership from across the health sector, including representatives from our three organisations. The group will explore other actions, to be set out in an ‘interim’ workforce implementation plan in April 2019 and finalised in a ‘full’ plan following the Spending Review later this year. Wider changes are deferred until after the Spending Review, when the budget for training, education and continuing professional development (CPD) is set, alongside decisions on capital investment, public health and social care funding over the rest of this parliament.

The long-term plan has already been followed by ambitious goals in the new GP contract, which aims to bring many more physiotherapists, pharmacists and other staff into general practice, and in the Topol Review on training staff to use new digital technologies ([Health Education England 2019b](#)).

Scope of our report

Our report lays out a set of high-impact interventions that, if put into action now, could help to ameliorate the workforce crisis. We focus on the areas where severe national problems are having an immediate impact – in particular, nursing and general practice. Our recommendations do not amount to a full workforce strategy for the future or a plan for the NHS; this would be an enormous task, taking several years, and that is the job of system leaders.

In relation to the NHS, we focus on five main opportunities:

- supply of new staff: education and training
- pay and reward: ensuring pay policy supports recruitment and retention
- a good employer: making the NHS a better place to work and build a career
- workforce redesign: the right teams with the right skills and technological support
- supply of new staff: international recruitment.

In order to assess how many health care workers the NHS can secure through these actions and whether it will be enough, we project the potential demand for staff in the future. This is based on estimates of the size and age of the population, the rising burden of chronic disease, and ambitions for the quality and range of services which are in line with planned growth in spending. We then model the impact of our recommendations on the gap between supply and demand for nurses (in NHS hospitals, mental health providers, community trusts) and GPs.

The NHS long term plan (NHS England 2019c) and associated workforce implementation plan – which was introduced in the long-term plan and is due to be published later this year – are concerned with the NHS, and so this is the focus of our report. However, the NHS has a close interrelationship with social care and there are strong connections between the two workforces, with a flow of workers between the two sectors and day-to-day, side-by-side collaboration in care. While the fundamental structural differences between the two sectors mean they cannot currently be treated as one sector, the deep links between them necessitate workforce strategies that cover both. We therefore also look at measures needed to improve recruitment and retention in social care, albeit in less detail.

Opportunity areas

1. Supply of new staff: education and training

Training new staff plays a central role in providing the workforce the NHS needs. Expanding and improving this route into the service could make a decisive contribution to securing enough professionals to deliver the ambitions in the long-term plan.

But this is not a cheap or immediate solution. For example, training a hospital consultant requires more than £500,000 investment and takes 14 years (Curtis and Burns 2018). In that context the starting position is difficult: national funding for education and training has been falling in recent years – from 5 per cent of health spending in 2006/07 to 3 per cent in 2018/19, the equivalent of a £2 billion shortfall.⁴ Turning this around will require a larger, more efficient training pipeline backed by substantial investment in the upcoming Spending Review – but it can and must be done to create a workforce that matches patients’ needs into the future.

Since 2016, the year before the government implemented changes to how these training courses are funded and removed student bursaries, the number of English students accepted onto undergraduate nursing courses has fallen by 4 per cent.⁵ Progress in expanding the quicker, postgraduate training route has also stalled. To address this, *The NHS long term plan* proposes a range of measures aimed at getting an additional 4,000 people into training by 2023/24, including more clinical placements for undergraduate nurses and potentially further increasing the number of medical school places (NHS England 2019c). However, these may not be sufficient, given the nature of the problem and the scale of the shortages. Further research should analyse the decisions made by both prospective students and providers of training to determine how the necessary expansion of training can be delivered.

Action is needed to ensure the funding and availability of the clinical placements that students need to develop their skills are sufficient to avoid creating a bottleneck in the training pipeline, in particular for nursing. *The NHS long term plan* proposes funding for up to 50 per cent more nursing placements from 2020/21 (NHS England 2019c). However, the ability to support clinical placements is particularly challenging when services are already under pressure and budget cuts mean there are insufficient trainers (also called facilitators) available to supervise placements. Currently, providers receive around 10 times more funding for some medical placements per year than for a nurse placement (Department of Health 2017); in addition, for junior doctors only, Health Education England (HEE) funds half of basic salary costs. In the recommendations we set out in this overview and the accompanying report, we are therefore suggesting that the allocation of funding of clinical placements could be rebalanced towards nursing and some other non-medical staff to deliver more optimal value for money and support a more cost-effective mix of staff in the future. There should also be more transparency on where funding for medical placements goes.

4 Extrapolated from trends set out in a report by the National Audit Office (2016) and recent HEE and Department of Health and Social Care budget data. Total health spending in the National Audit Office’s estimates appears to be based on the total Departmental Expenditure Limit (DEL).

5 This figure is based on applicants permanently living in England, accepting a place at any university within the UK, using the latest available data for comparison (UCAS 2018, 2017).

Attrition during training is a significant issue and represents a waste of resources for the individual, the NHS and the taxpayer. Despite a policy push to reduce levels of attrition, rates have remained worryingly high. Roughly a quarter (24 per cent) of UK nursing students who were due to complete their three-year degree course in 2017 abandoned or suspended their studies before finishing ([The Health Foundation 2018](#)).

Financial problems are a key issue for nursing during training; the time demands of clinical placements make it hard for nursing students to take paid work alongside studying full-time. The current loan system provides means-tested maintenance loans to cover living costs but the maximum loan is just £8,430 a year (£11,002 in London). Research by HEE found that finances are ‘by far the most significant concern for students in all years of study’ ([2018, p 48](#)) and the number one factor cited by students for the high drop-out rate (attrition) during training. This is a particular issue for mature students, where we have seen the largest drop-off in nursing undergraduates since the abolition of bursaries ([UCAS 2018](#)).

If we are to reduce nursing shortages we need a significant expansion in the number of nurses in training and a reduction in attrition. It is therefore essential to address the financial problems trainee nurses face while studying. We therefore recommend that the government increases the financial support to nursing undergraduates. Alongside the current means-tested loan scheme we recommend that a ‘cost-of-living grant’ is introduced for all those studying for a nursing degree. We propose that this is set at around £5,200 a year; this would provide trainee nurses on the maximum loan with an income equivalent to the national living wage. It would recognise the impact of time spent on clinical placements on the scope for nurses to work part-time. This would cost HEE up to some £560 million in 2023/24. This is around half the reduction in HEE’s budget resulting from the reforms to nurse and allied health professional student financing, which abolished the bursary and made them eligible for tuition fees. In addition to this, we propose that the number of students studying nursing as a postgraduate is substantially expanded. To make postgraduate routes more attractive to students we recommend that they are exempt from tuition fees.

Our research highlighted views that the commissioning of training places may be helped – in many areas – by improvements in how higher education institutions, commissioners of training and the NHS work together. Better co-ordination between these bodies may improve decisions on the number of training places to commission; forecasts on the future demand for, and supply of, staff; and co-ordinated planning to address factors outside the control of the NHS as well as unexpected events within the NHS. *The NHS long term plan* signals an intent for local workforce action boards – responsible for supporting regional workforce plans – to ‘become more accountable’ to health and social care employers ([NHS England 2019c, p 78](#)), and it remains to be seen what effect this will have on planning. Existing initiatives show that there are positive examples of universities and health care providers collaborating to set up new, locally focused nurse training courses with the intention of attracting local applicants, to increase the supply of nurses.

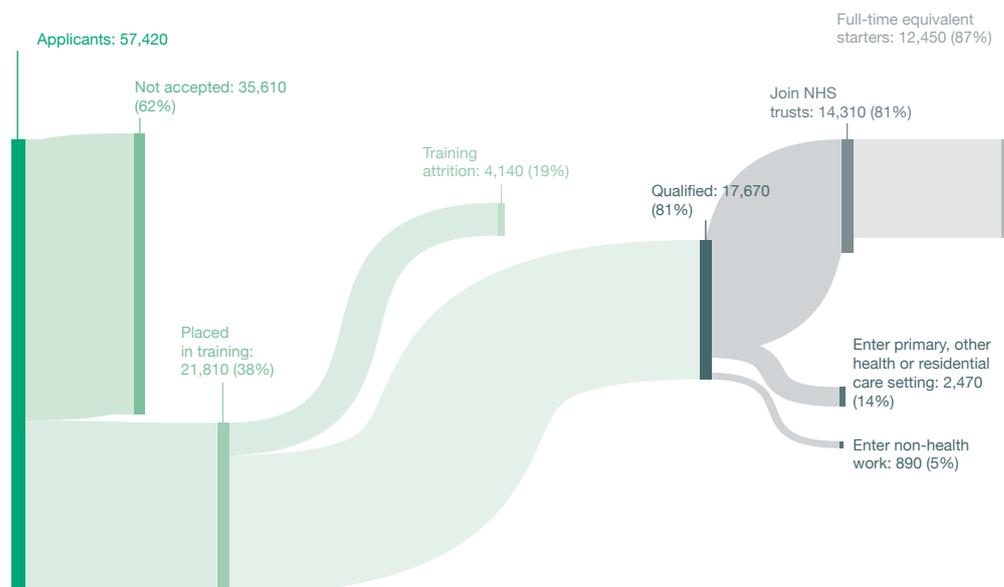
More needs to be done to ensure apprenticeships can help solve key workforce shortages. To date, the model has been delayed and numbers are low. Apprenticeships are potentially a significant route for widening participation and advancing social mobility, but the government has yet to act decisively to ensure some of the more

intensive apprenticeship routes appear to be financially unviable for employers. We welcome the recognition in *The NHS long term plan* that the terms of the apprenticeship levy may need to change if the NHS is to provide opportunities to more clinical staff in future (NHS England 2019c). We also support proposals from NHS Employers and the Education Select Committee to increase the maximum funding level and flexibility in how it is used, as well as improve regional co-ordination including between health and social care settings (House of Commons Education Committee 2018; NHS Employers 2018).

Lastly, the implications of an undersupply of staff are not the same as those for an oversupply of staff. While training too many staff may be costly, this appears less of a risk to the sustainability of the health service than higher temporary staff costs and poorer quality in the case of undersupply. Therefore, we suggest that it would be prudent for policy-makers and planners to plan for a degree of oversupply for some professions, such as nursing. The UK trains comparatively few nurses compared with many other countries: in 2014, there were 27 nursing graduates per 100,000 population in the UK compared with almost 50 per 100,000 population on average across the countries of the Organisation for Economic Co-operation and Development (Buchan et al 2017). Our analysis suggests that we need a significant expansion in the numbers training to be a nurse. But to be effective, this needs to be accompanied by changes to the system of nurse training and NHS employment so that a much greater proportion of those who start a nursing degree complete the training and go on to work in the NHS.

Currently, many of the proposals within *The NHS long term plan* related to training new staff are explicitly dependent on the level of the central HEE budget (NHS England 2019c).

Figure 1: Undergraduate nurse training pipeline, represented with estimates for students starting in 2014



Notes: The pipeline is for those students starting their degree at an English provider in 2014 and therefore joining the NHS in 2017 at the earliest. Our estimate for training attrition is the proportion of students accepting a place on a nursing course who do not qualify with a nursing degree; other existing estimates may be based on an alternative definition. Due to limitations in the underlying data, these figures should be treated with caution and are presented for indicative purposes only and rounded to the nearest 10.

Source: Nuffield Trust analysis of data from HEE, the NHS Pay Review Body and UCAS.

For more details about the supply of new staff from education and training, see Chapter 2 of our report. We set out our recommendations for this aspect of the NHS workforce below.

Recommendations	For action by
<p>1. In all areas and at all levels, higher education institutions, commissioners of training and the NHS need to work as partners.</p>	<ul style="list-style-type: none"> • HEE • Higher education institutions • NHS trusts and other providers
<p>2. The Secretary of State should urgently seek to increase the supply of nurses and other under-pressure professions. We recommend this includes:</p> <ul style="list-style-type: none"> • student funding – reinstating funding to cover tuition fees for postgraduate nursing courses and offering 'cost-of-living grants' of around £5,200 a year for undergraduate and postgraduate nursing degrees⁶ • placement-provider funding – resetting the level and balance of funding for clinical placements and salary support for clinicians in education and training (including potentially shifting funding from medical to nursing and other non-medical training if appropriate). 	<ul style="list-style-type: none"> • Deaneries • HEE • Secretary of State for Health and Social Care
<p>3. To reduce attrition during training and increase participation in NHS services on qualifying, commissioners of undergraduate and postgraduate medical, nursing and allied health profession courses and placements should set conditions on the quality, success and balance of the training. Nationally, HEE – as the single largest funder – should consider issuing guidance to help them with this, taking into account variation between institutions and being informed by accurate monitoring.</p>	<ul style="list-style-type: none"> • Deaneries • HEE
<p>4. For apprenticeships, we recommend an increase in the maximum funding level, that the government considers more flexibility in how the levy is used (including covering backfill costs) while protecting learning time, and greater regional co-ordination including between health and social care settings.</p>	<ul style="list-style-type: none"> • Department for Education • Institute for Apprenticeships and Technical Education

2. Pay and reward: ensuring pay policy supports recruitment and retention

More than £50 billion is spent on the pay bill for the NHS (**Department of Health and Social Care 2019c**), making pay a significant lever to attract, keep and incentivise staff if it can be properly deployed. However, because it is the biggest single cost in delivering health, at a time of funding constraint it is often one of the first ways in which costs are contained.

Until a new pay deal for Agenda for Change⁷ staff was agreed in 2018, pay in the NHS had been capped or frozen since 2010/11, resulting in the real-terms value of a nurse's starting salary decreasing by almost 10 per cent between 2010/11 and 2017/18.⁸ Of course, pay is not the main reason why people choose to work in the health and social care sectors, nor is it the main reason why most people leave

⁶ This level of funding would mean that, with the maintenance loan of up to £8,430 (£11,002 for London) for full-time students not living with their parents, they are able to receive up to the national living wage level after income tax and National Insurance for 21–24 year olds (£13,593).

⁷ Agenda for Change is the national pay system for NHS staff, excluding doctors, dentists and very senior managers.

⁸ Estimated using Agenda for Change pay banding and the Consumer Price Index (Office for Budget Responsibility 2018) as a measure of inflation.

the NHS, according to leaver data from NHS Digital (**NHS Digital 2018a**). However, it does have an impact on staff experience; we know that the number of staff either 'satisfied' or 'very satisfied' with their level of pay dropped 6 per cent between 2016 and 2017 to 31 per cent. This was its lowest level in 10 years (**NHS England 2018**).

The 2018 pay deal ends the 1 per cent cap on pay increases, at least until 2020/21. This has been a welcome increase to staff salaries and may help to improve recruitment and retention. The 2018 staff survey (**NHS England 2019b**) saw an increase in the percentage of staff who are satisfied with their level of pay, perhaps linked to the new pay deal. However, while the new deal may help in terms of retention and morale among staff, this can quickly be undone if pay growth stalls beyond the end of the current settlement period (2021/22). It is important, therefore, that pay keeps up not just with inflation after this point, but also with pay growth in the rest of the economy. Based on projections for whole-economy earnings by the Office for Budget Responsibility (2018), this would mean pay growth from 2021/22 onwards of around 1 per cent a year over and above inflation, on average.

While employment decisions are made locally by providers, much of pay policy is set nationally – by the Department of Health and Social Care. The department sets the remit for the NHS Pay Review Body and then decides what action to take in response to its recommendations. As a result, *The NHS long term plan* – led by NHS England and NHS Improvement – did not make any recommendations relating to pay (**NHS England 2019c**). However, while the NHS is constrained in its ability to set pay policy, it is not powerless, and the long-term plan could have done much more to set out the ambition and vision for how the NHS will use its pay and benefits levers to improve equality, retention and morale among its staff.

For example, there are opportunities to be more flexible and targeted – using a range of specific pay and non-pay measures to address existing shortages and problem roles for recruitment and retention. The NHS currently has shortages in specific staff groups, such as mental health and learning disability nursing. Pay could be targeted to focus on such shortage groups and specialties. Although financial incentives alone will not solve these problems, as part of the pay review process, targeted increases, pay premia, loan write-offs and 'golden hellos' should all be explored to encourage staff to join and stay in these shortage groups. As well as using the existing national capability and pay determination system in a more targeted way, more needs to be done to understand why local pay flexibilities are not being used.

Since 2018, large organisations have been required to publish data on their gender pay gaps – the difference in the average hourly wage of all men and women in their workforce. Data for the English NHS show these pay gaps favour men across a wide range of staff groups such as consultants, ambulance staff and managers (**Appleby and Schlepper 2018**). Gender pay gaps favouring men also exist for most ethnic groups, with Asian/Asian British and Chinese women experiencing the largest gender pay gaps.

Part of the reason for these pay gaps is that men are disproportionately represented in higher pay grades. This suggests a lack of equal treatment around progression and opportunities. Inequality has a negative impact on the experience of staff in these groups, who make up most of the workforce, and is inconsistent with the values of the NHS. Action should be taken urgently at all levels of the system to understand the causes of and solutions for this.

The NHS long term plan sets out a vision of integrated and fluid working across the health system and between health and social care (**NHS England 2019c**). It is one of ‘the “triple integration” of primary and specialist care, physical and mental health services, and health with social care’ (p 10). Pay and terms and conditions cannot on their own make integrated, fluid working happen – but they can be a barrier to it. If this is the future of health and care provision then pay and terms and conditions need to be taken seriously. This will not be straightforward – trying to do too much too soon is likely to do more harm than good as different pay systems will in some cases exist for a reason. Looking over a longer horizon, more thought needs to go into what the publicly funded health and social care system’s offer is to staff, and whether or not that involves guaranteed and consistent levels of pay, training and portability.

For more details on pay, see Chapter 4 of our report. We set out our recommendations for this aspect of the NHS workforce below.

Recommendations	For action by
1. Pay in the NHS should continue to rise in real terms after the end of the current pay deal for all staff, and should rise in line with wider-economy earnings.	<ul style="list-style-type: none"> • Department of Health and Social Care
2. The NHS Pay Review Body should identify shortage occupations and recommend appropriate incentives to tackle them. There also needs to be an examination of why local flexibility has not been used more with pay, and how local areas can be supported to respond to shortages of certain groups of staff.	<ul style="list-style-type: none"> • Department of Health and Social Care • NHS Pay Review Body
3. Inequality in progression opportunities for women and minority ethnic groups has been a cause of persistent inequity leading to pay gaps. Action should be taken urgently at all levels of the system to understand the causes of and solutions for this.	<ul style="list-style-type: none"> • NHS England • All levels
4. The Department of Health and Social Care should ask the NHS Pay Review Body to look into potential ways in which pay and terms and conditions could be a roadblock to working in a more joined-up way and how any barriers can be overcome.	<ul style="list-style-type: none"> • Department of Health and Social Care • NHS Pay Review Body

3. A good employer: making the NHS a better place to work and build a career

With the NHS facing increasing difficulties recruiting new staff, it is also important to improve the retention of the staff already working in the system. In 2017/2018, around one in nine staff leave the NHS each year (**NHS Digital 2018b**); the health service must therefore look at whether it can change that through becoming a better employer.

In this overview and our accompanying report we focus on key areas that need action now – either because it is long overdue (such as intervention to address inequality) or because immediate opportunities exist to make the NHS a place where more people want to stay working. A far wider range of measures could and should be taken to make the health service a better employer in the coming years.

In addition to personal reasons, there are a number of other reasons why staff leave their job and the NHS as a whole, including because they feel overworked, underpaid, poorly treated, unable to deliver good care, unable to progress or a combination of these. It is important to understand how all of these factors influence people’s desire to stay in the NHS.

One area where the NHS has consistently failed its staff is in its treatment of diversity and equality in employment and career opportunities. Across the NHS there continue to be inequalities in career progression by gender, race, ethnicity and occupation, which in some cases are resulting in significant pay gaps. Staff perceive these inequalities; the 2018 NHS Staff Survey showed that one in six NHS staff did not believe that their organisation provides equal opportunities for career progression or promotion ([NHS England 2019b](#)).

Since April 2015, the Workforce Race Equality Standard (WRES) has been mandated through the NHS standard contract and providers are expected to show progress against a range of indicators of workforce race equality. A number of NHS organisations have made progress and are providing visible and high-impact leadership on these issues, but across the NHS as a whole, progress is not as rapid as it needs to be and there is considerable variation. We recommend that the forthcoming workforce implementation plan focuses on strengthening NHS trust leadership on workforce race equality. It should build on the WRES so that best practice in tackling racial discrimination is identified and shared and trusts are provided with the support to adopt and adapt best practice so that they have effective, concerted action plans to address the problems of discrimination, harassment, exclusion and lack of progression for black and minority ethnic groups.

The single most malleable and powerful influence on the culture of modern organisations is leadership. It is therefore an essential part of any consideration of workforce retention issues. Evidence and experience from high-performing health systems demonstrate that compassionate, inclusive leadership enables teams to deliver better patient care and value for money while also delivering continuous improvements to population health ([National Improvement and Leadership Development Board 2016](#)).

The measures outlined in *The NHS long term plan* relating to leadership should contribute to creating a better leadership culture, with more support for leaders and a stronger pipeline of leaders for the future ([NHS England 2019c](#)). However, there is now a series of national reports (see, for example: [NHS Improvement 2016](#); [Kerr 2018](#); [Kark and Russell 2019](#); [Health Education England 2019b](#)) which include recommendations relating to leadership and culture. This presents local leaders with a prioritisation challenge in terms of the sheer number of recommendations. We recommend that the workforce implementation group undertakes a prioritisation exercise of the many recommendations now in existence to support NHS employers to understand where to focus their attention first. Shifting the culture to where it needs to be will take time, along with investment and relentless commitment from leaders at every level of the system in their everyday practice. Importantly, the national arm's-length bodies will need to deliver on their own pledges – in particular, those already set out in the national strategic framework, *Developing people – improving care* ([NHS Improvement 2016](#)) – to change their own behaviour and approaches.

Before introducing initiatives to improve retention, employers need to understand why their staff are leaving. Early evidence from NHS Improvement's ongoing Retention Collaborative programme suggests that better understanding of the reasons can lead to better, more targeted approaches to retention. Seventy-one per cent of the trusts participating in the first cohort of the programme have seen an improvement

in their turnover rate (**NHS Improvement, undated**). We therefore welcome the announcement in *The NHS long term plan* to extend the programme to all NHS employers (**NHS England 2019c**).

People are much more likely to leave the NHS at either end of their career, according to leaver data from NHS Digital (**2019b**). This is recognised by NHS Improvement, whose ‘seven steps to improving staff retention’ includes ‘development and career planning’ and tailoring the ‘offer to staff depending on the stage of their career’ (**NHS Improvement 2017, p 4**). Less experienced staff are not always given the required level of support – particularly in the period following their preceptorship and during transitions. This can result in problems in their engagement and mental wellbeing, which in turn makes them more likely to leave. More needs to be done to support newly qualified staff, including providing sufficient funding for continuous professional development and ensuring that staffing levels include adequate numbers of senior staff so that there isn’t an over-reliance on newly qualified staff.

Creating more opportunities for flexible working holds the potential to retain experienced staff who are nearing the end of their career. Staff at this stage often wish to continue working, but the rigid structure of NHS employment and rostering can result in employers taking an ‘all-or-nothing’ approach, requiring staff to work long shifts. Under these conditions, staff who need to be able to balance work with other commitments can find themselves seeking agency work or retiring from the workforce altogether.

While the opportunities may be highest for staff at either end of their career, the duty of the NHS to be a good employer exists throughout. The NHS employs a diverse group of people, including parents with child care responsibilities, people with adult caring responsibilities and people having to work multiple jobs. It is important that the NHS offers a career that is open to these people, and that it provides the flexibility to respond to the needs and expectations of today’s workforce.

Tackling these issues is not easy and they often reflect wider structural issues in society, but the NHS can and must do more to ensure that it is a fair, equitable employer. An employer that attempts to provide equal access for equal need should also provide equal pay for equal work and equal opportunities for equal ability. Part of this will be greater clarity to staff about what their rights are, and greater accountability when discrimination takes place. This can be done through existing routes but may require a new ‘compact’ between the NHS and its staff, which sets out the expectations of NHS employers and the NHS’s commitment to reducing these inequalities.

There are also unresolved issues with pensions policy – with an increase in voluntary early retirement among senior staff being attributed to changes in the wider pensions policy around lifetime and annual allowances (**NHS Employers 2019**). There is widespread confusion about this complex policy area, possibly leading to people leaving for the wrong reasons. The Department of Health and Social Care and the Treasury need to provide clarity on and more flexibility in the NHS Pension Scheme to support people to manage their pension benefits and avoid overexposure to financial shocks such as changes to the lifetime and annual allowance thresholds. Trusts should be supported to explore ways of encouraging staff to stay in work through providing additional flexibility and enabling staff to reduce the number of hours they work. Options and flexibilities

explored should include a ‘50:50 option’ where members pay half the contribution rate in return for half the benefit (a feature of the Local Government Pension Scheme) and an option to only opt in to the life assurance element of the scheme.

Finally, ‘return to practice’ is a promising route for staff to re-enter the NHS. Expectations of employers for return to practice are low, partly due to a lack of evidence on how to do it well. However, it has been much more successful in the past, suggesting that current targets underplay its potential.

We welcome *The NHS long term plan’s* emphasis on retention and its commitment to improve staff retention by ‘at least 2 per cent by 2025’ (NHS England 2019c, p 85). Early results from NHS Improvement’s Retention Collaborative programme suggest that, while ambitious, this target may be achievable (NHS Improvement undated). If employers implement the recommendations we make in this overview and our accompanying report, in particular by providing opportunities for flexible working and clearer career pathways for staff, the benefits to staff morale and retention could be considerable.

For more details on the NHS as a good employer, see Chapter 5 of our report. We set out our recommendations for this aspect of the NHS below.

Recommendations	For action by
<p>1. The NHS needs an explicit statement of the universal ‘offer’ to staff – including, but not limited to, their legal rights. The form of this should be explored with staff representatives and employers, but may be in the form of a ‘compact’ covering not just fair treatment for all staff with protected characteristics but also what staff can expect from the NHS in terms of equal pay and opportunities, continuous professional development, streamlining, supervision (especially early in their career and during key transitions), appraisal, work–life balance and non-financial benefits. This will require national leadership from NHS Improvement and NHS England in terms of both what this national offer is and how they will support local employers to achieve it.</p>	<ul style="list-style-type: none"> • NHS Improvement • NHS England
<p>2. The workforce implementation plan should map good practice examples of local action to tackle racial discrimination, harassment, exclusion and lack of progression in the NHS. It should build on WRES, to learn from the best of local initiatives and support NHS trusts to adapt and adopt successful approaches so that all NHS organisations have concrete action plans to tackle race inequality in the NHS.</p>	<ul style="list-style-type: none"> • NHS England • NHS Improvement
<p>3. More focus needs to be on supporting staff at the beginning and end of their career, particularly at transition points. For newly qualified staff this means increasing support beyond their preceptorship and making sure that there are adequate numbers of senior staff and sufficient CPD funding. For staff approaching retirement this means encouraging staff to stay in the NHS rather than leave through offering more flexibility and options for reduced participation, as well as doing more to support staff against external financial changes such as in pensions.</p>	<ul style="list-style-type: none"> • HEE • NHS Improvement • Department for Health and Social Care
<p>4. There should be a full review of return to practice to understand what works, what is realistic and how schemes can be improved.</p>	<ul style="list-style-type: none"> • HEE
<p>5. The national bodies should recommit to a revised set of actions (to be implemented within 12 months) against the national strategic framework on improvement and leadership development. This should include demonstrable action by the national bodies on changing their leadership approaches and developing compassionate and inclusive leadership.</p>	<ul style="list-style-type: none"> • National bodies
<p>6. A series of national reports have been published, each containing recommendations on leadership and culture. We recommend that the workforce implementation group undertakes a prioritisation exercise of the many recommendations now in existence to support NHS employers to understand where to focus their attentions first.</p>	<ul style="list-style-type: none"> • National workforce implementation group

4. Workforce redesign: the right teams with the right skills and technological support

Rapidly changing patient needs, alongside medical and technological advances, as recently outlined in the Topol Review ([Health Education England 2019c](#)), will require all frontline staff to acquire new skills and adopt new ways of working over the next 10 years. This will increasingly mean a blurring of traditional boundaries (both between and within sectors), with NHS staff needing to be equipped for more ‘boundary-spanning’ working, particularly with social care. Reshaping and reskilling the workforce has the potential to improve access to and the quality of care in all settings and reduce pressure on staff. But at present the NHS is struggling to make full use of the capabilities and potential of its staff and of new technologies. Progress is much too slow and will need better support to accelerate it. This underlines the need for a significant expansion of the workforce development budget to support the workforce and wider transformation agenda.

The immediate opportunities and evidence for the need for workforce and service redesign are most apparent in primary care. In the short to medium term, such redesign could help to reduce pressure on GPs and other staff and improve patient access. Other sectors, such as mental health and community services, are also facing immense challenges to which workforce redesign will be part of the solution. However, the way forward in these other sectors is less clear.

As we discuss below, the NHS in England has 2,500 fewer FTE GPs than it needs this year, and a projected gap of 7,000 FTE GPs within 5 years if current trends hold. These figures do not take account of the growing expectations of general practice as underlined in *The NHS long term plan* ([NHS England 2019c](#)). Unless action is taken, shortages of this scale represent a fundamental threat to the sustainability of primary care in England.

The government is seeking to address these shortages by increasing the number of, and filling, GP training places. Our projections suggest that even with these measures, the growth in demand for primary care cannot be met if we rely solely on GP expansion. We believe that the most plausible way to address the projected gap between supply and demand is, while increasing the number of GPs as much as possible, to make much greater use of an expanded multidisciplinary team. We support NHS England following a similar approach by making funding available for 20,000 additional staff in general practice through recent changes to the GP contract ([British Medical Association and NHS England 2019](#)). As both growing GP numbers and expanding the wider team carry risks, a mix of the two is important.

For example, we have calculated that a major contribution to meeting patient demand could be made through recruiting at least 3,000 more pharmacists and 6,000 physiotherapists into general practice, as well as significantly increasing the number of administrative and clinical support staff over the next 10 years. Our rationale for focusing on pharmacists, physiotherapists and support staff includes the large size of their current workforces, relatively strong future supply (at least at a national level) and the substantial work currently done by GPs, nurses and other staff in general practice that could be undertaken by these professionals. In this 10-year timeframe, new technology could also save clinical and administrative time and improve productivity ([Health Education England 2019c](#); [NHS England 2019c](#)). Our research suggests

that there are also considerable opportunities for others, such as nursing staff and paramedics, to make a major contribution to the wider primary care team. However, given the constraints on supply and other issues, we did not factor them into our modelling in Chapter 7. Also, as 90 per cent of adults with mental health issues are supported primarily in primary care (**The Mental Health Taskforce 2016**), mental health support must be part of the general practice team structure. There is a pressing need to explore new ways of meeting patient needs in primary care. We therefore recommend the introduction of large-scale pilots in practice aimed at exploring different models similar to the pilots being delivered via NHS England's Clinical Pharmacists in General Practice programme.

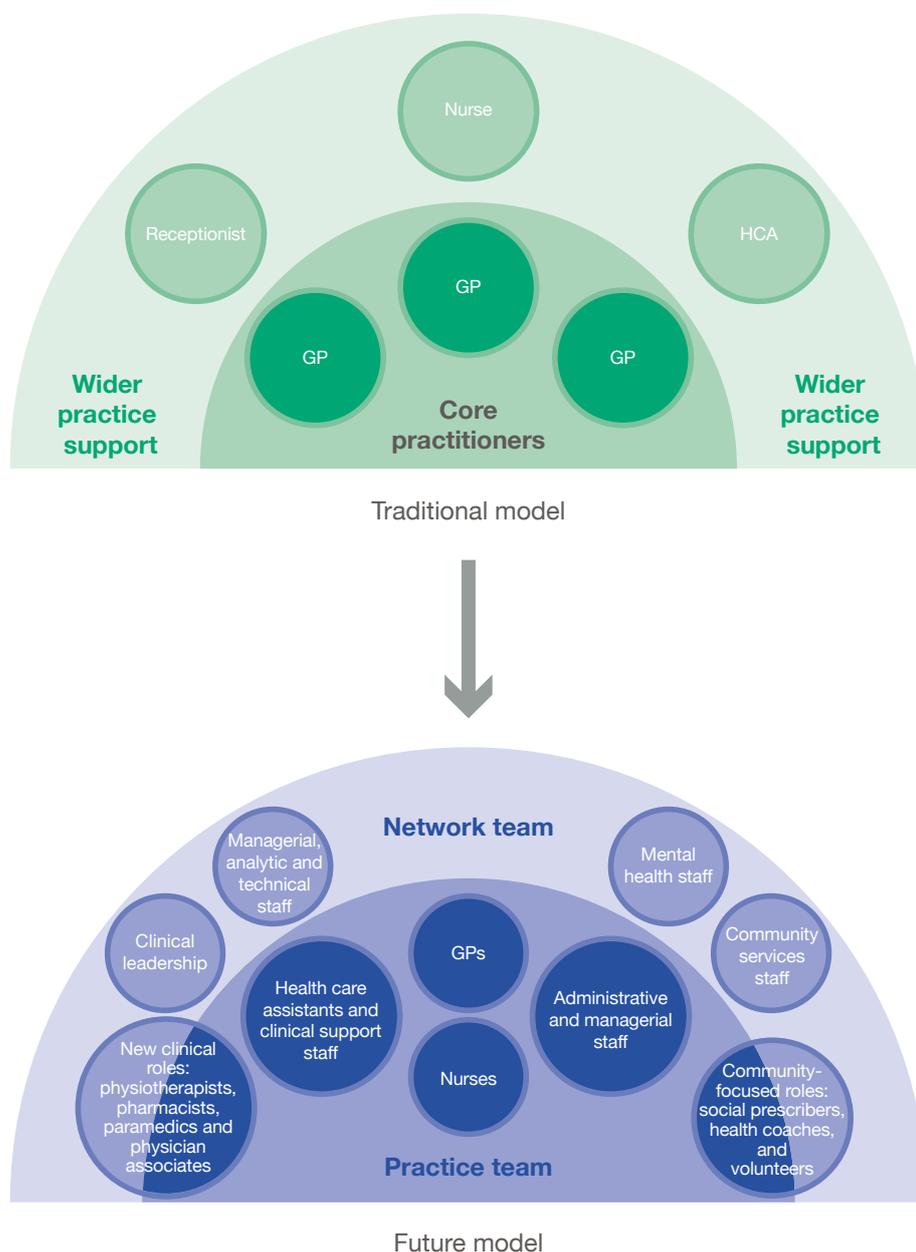
Generally, there should be no 'one-size-fits-all' solution to team composition. It will need to reflect both the local supply of staff and local health care need. Crucially, it is also about reducing unsustainable pressure on GPs and other practice staff to help both recruitment and retention. Figure 2 shows how the model of primary care will develop as multidisciplinary teams expand.

The proposed changes to the GP contract will encourage a more multidisciplinary approach in primary care, but achieving workforce change in primary care of the order we anticipate will be a significant undertaking. As well as the recently announced funding for the additional staff, workforce redesign will require investment in primary care capability development and infrastructure. Recent planning guidance states that clinical commissioning groups will be required to provide substantial recurrent cash allocations to developing and maintaining the new primary care networks (**NHS England 2019a**) and, clearly, workforce redesign is an important priority for this funding. Expanding the primary care team will also need flexibility around staff employment models. Significant investment in primary care estate will also be needed. These issues underline the challenges and consequent risks to bridging the gap in general practice and the importance of addressing them.

In acute hospitals and other settings, there are also considerable opportunities for nurses and allied health professionals to acquire additional skills and work across traditional boundaries to deliver more patient-focused care and take on tasks traditionally undertaken by other staff. As challenges to supply and retention are addressed, these staff groups have the potential for even greater impact over time. Again, technology can facilitate and enable this. However, there is professional and public confusion around advanced practice and new roles, with considerable variation in role title, role and training. The national framework for advanced clinical practice (**Health Education England 2017b**) and current initiatives to credential nursing and allied health professional staff, while helpful, are voluntary and will not remove this confusion. In the interests of patients and staff, consideration should be given to more formal national regulation of advanced practice. In addition, although the government has committed to statutory regulation (**Department of Health and Social Care 2019a**), there remains an urgent need to introduce the necessary legislation to support regulation of physician associates, enabling them to prescribe and achieve their full potential in the clinical workforce.

Figure 2 shows how the model of primary care will develop as multidisciplinary teams expand.

Figure 2: The changing workforce model in primary care



To support implementation of these initiatives, there needs to be a step change in the capability and capacity of local systems to deliver more effective and efficient care through evidence-based workforce redesign and equip their staff for a digital future. We therefore welcome the recognition in *The NHS long term plan* of the importance of investing in continuing professional development and its ability to 'deliver a high return on investment', as well as the commitment

to increase the proportion of HEE’s budget spent on workforce development (NHS England 2019c, p 85). However, we also recommend that the recent cuts to the workforce development budget should at the very least be reversed, returning the budget to its 2013/14 equivalent value – approximately £330 million in 2023/24.

When making changes to workforce composition, safe staffing levels are a critical consideration. Any change in practice should be evidence-based and will require a strong governance framework to protect patient safety. For example, current evidence suggests that professional nursing skills are highly important in an inpatient setting and should not be compromised – for example by direct replacement with lower-skilled staff (Griffiths *et al* 2017).

For more details on the need for the right teams with the right skills and technological support, see Chapter 6 of our report. We set out our recommendations for this aspect of the NHS workforce below.

Recommendations	For action by
<p>1. There should be a step change in the capacity and capability available within organisations and local systems to implement evidence-based workforce redesign and equip staff with the skills for a digital future – this includes a quadrupling of the workforce development budget.</p>	<ul style="list-style-type: none"> • Department of Health and Social Care • HEE
<p>2. Best use of the primary care workforce should be made through an ambitious expansion of multidisciplinary teamworking. The new GP contract and The NHS long term plan support this shift but these initiatives must be enabled with the right support, including investment in estate and flexible employment models.</p>	<ul style="list-style-type: none"> • HEE • NHS England • Primary care networks
<p>3. Greater formal regulation of advanced practice needs to be considered nationally and legislation is urgently required to support the regulation of physician associates.</p>	<ul style="list-style-type: none"> • Department of Health and Social Care • Professional regulators
<p>4. As the majority of adults with mental health issues are supported primarily in primary care, there is a pressing requirement to explore new ways of meeting these needs with a wider group of staff. We recommend the introduction of large-scale pilots in general practice aimed at exploring different models, similar to the pilots being delivered via NHS England’s Clinical Pharmacists in General Practice programme.</p>	<ul style="list-style-type: none"> • HEE • NHS England
<p>5. The National Quality Board should further develop and evaluate staffing tools, for the full range of settings: acute, community, mental health and primary care.</p>	<ul style="list-style-type: none"> • National Quality Board

5. Supply of new staff: international recruitment

Our modelling suggests that by investing in the workforce and acting on the recommendations we set out here and in our accompanying report, the NHS has the potential to be training, recruiting and retaining enough nurses domestically to meet health service demand by 2028/29. This would thereby reduce our reliance on international recruitment in the longer term – something which is desirable given the World Health Organization (WHO) has projected that, by 2030, all WHO countries could experience shortfalls of midwives, doctors and nurses ([World Health Organization 2016](#)).

However, the *short-term* picture for nurses is much more challenging. Our projections suggest that the NHS will not be able to close the gap between demand and supply for nurses by 2023/24. The ethical international recruitment⁹ of staff is the only realistic short-term lever available to the NHS for reducing nurse shortages. It has been used very effectively in the past and was an important source of growth in the early 2000s. For example, in 2002, we estimate that around 8,000 FTE nurses joined the NHS from overseas, compared with just 1,600 in 2017/18 ([Buchan 2009](#)). This suggests that there is scope for expanding our international recruitment efforts to support the NHS workforce in the short term.

International recruitment in the past was driven through national targets, supported by a strong national and regional infrastructure. The then Department of Health (now called the Department of Health and Social Care) made use of economies of scale in a way that individual organisations were not able to ([Buchan 2009](#)).

The NHS long term plan aims to hit the 5 per cent vacancy rate for nurses by 2028 ([NHS England 2019c](#)). We think that delaying this until 2028 is undesirable and that the NHS should be attempting to hit this target sooner, in 2023/24. To reach this 5 per cent vacancy rate by 2023/24 the NHS will need to aim to recruit an average of 5,000 international FTE nurses a year. Although we recognise that achieving these numbers won't be straight-forward, we believe it is possible to go further and faster than is currently planned. We recommend that an ethical international recruitment programme is carried out, regionally led but funded and co-ordinated nationally, to fill some of the vacancies within NHS organisations. For staff groups that are more challenging to recruit internationally, such as general practitioners (GPs), existing efforts should continue and evolve, but targets may need to be more realistic.

There are costs associated with the visa system that currently fall on employers and international recruits. The Royal College of Physicians has estimated that this currently amounts to an average of £4,409 per migrant over three years (in 2018/19 prices) ([Goddard 2018](#)). It is likely that these costs will be extended to EU citizens after Brexit. We recommend that the costs associated with migrating to work in the NHS are paid from central funding. The financial barriers to working in the NHS should be removed – for both the migrant and the NHS as an organisation.

⁹ International recruitment must be conducted to ethical standards. Codes of conduct have been developed to enable health organisations globally to take their commitment to ethical recruitment seriously and well-considered agreements between governments can also support sustainable recruitment efforts. Strategies for ensuring ethical recruitment are described in Chapter 3 of our report.

Visa restrictions have previously made it difficult for non-EU workers to come and work in the NHS. Some of these restrictions have recently been relaxed, making it easier for non-EU doctors and nurses to work in the NHS (Collins 2018). However, there are still barriers in the visa process for many health professionals and they are particularly excessive for some allied health professionals. Brexit may extend these challenges to EU health workers too. We recommend that all health care professionals are added to the shortage occupation list, with corresponding visa salary exemptions and that these exemptions are extended beyond January 2021.

As well as visa restrictions, there are other challenges that are preventing international recruitment from being used to full advantage. These include complexities in language requirements and the recognition of international qualifications.

Further action is needed from professional regulators to make this process easier. We recommend that they are given the support to standardise and streamline their processes for international recruits. This should include reviewing current language-testing requirements to ensure that they are proportionate, as *The NHS long term plan* suggests (NHS England 2019c).

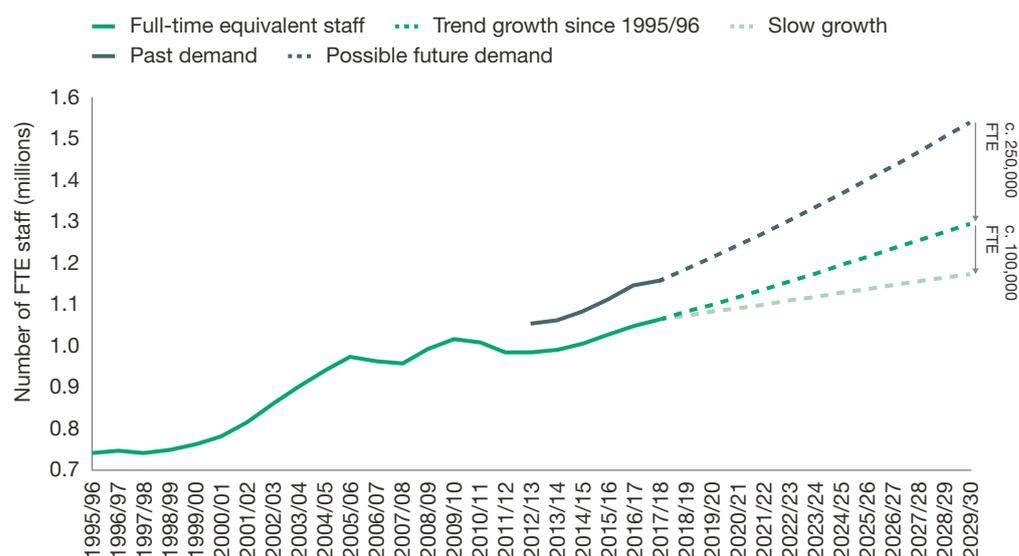
For more details on international recruitment, see Chapter 3 of our report. We set out our recommendations for this aspect of the NHS workforce below.

Recommendations	For action by
1. NHS England, NHS Improvement and HEE should establish a regionally led, but nationally funded and coordinated programme of ethical international recruitment. Local and regional bodies should work together to understand local need for international recruits and to co-ordinate recruitment regionally. National bodies should co-ordinate some elements of recruitment and make use of economies of scale.	<ul style="list-style-type: none"> • HEE • NHS England • NHS Improvement
2. The NHS needs to aim to recruit an average of 5,000 full-time, international nurses a year, if it is to achieve a 5 per cent vacancy rate target for nurses by 2023/24. National bodies and regions should share best practice to understand how new recruits can be supported and take an active role in ensuring that recruitment is being done ethically and with the authorisation of foreign governments.	<ul style="list-style-type: none"> • HEE • NHS England • NHS Improvement
3. All health care professions should be added to the shortage occupation list, with corresponding exemptions from the salary floor. These exemptions should be extended beyond January 2021.	<ul style="list-style-type: none"> • Department of Health and Social Care • Home Office
4. Professional regulators should be supported to standardise and streamline their processes for international recruits.	<ul style="list-style-type: none"> • Professional regulators • Department of Health and Social Care
5. The costs associated with migrating to work in the NHS – currently paid by employers and migrant workers – should be paid from central funding.	<ul style="list-style-type: none"> • NHS England • NHS Improvement

Closing the gap: modelling the impact of reform and funding on nursing and GP shortages

As we set out in our November 2018 briefing, if current trends hold, we project that, by 2030, the gap between the supply of and demand for the workforce in hospital and community health services could increase to almost 250,000 FTE staff (see Figure 3) (The Health Foundation et al 2018). As the National Audit Office has recently pointed out, shortages of this magnitude will undermine the health service’s ability to deliver fully on the commitments that NHS England recently set out in *The NHS long term plan* (NHS England 2019c), and mean that some of its additional £20.5 billion of funding is spent badly: even if commissioners have the resources to commission additional activity, health care providers may not have the staff in place to deliver it (National Audit Office 2019).

Figure 3: Future supply of and demand for NHS staff, 1995/96 to 2029/30



This year we estimate the nurse staffing shortfall to be 32,500 FTE nurses.¹⁰ If current trends continue, the number of nurses leaving the NHS will substantially exceed the number expected to join domestically – either following initial training or on return to the NHS from another role or a period out of the labour market. The pipeline of newly qualified staff is struggling to keep up with the pace at which staff are leaving and demand for health care is growing. As a result, the staffing shortfall would more than double to 70,000 FTE nurses in five years’ time.

¹⁰ Our November 2018 briefing referenced more than 36,000 nurse vacancies based on data published by NHS Improvement. In our modelling for this report we refer to 32,500 nurse vacancies. This figure comes from applying the nursing vacancy rate from NHS Improvement data to the nursing establishment data published separately by NHS Digital. We have used NHS Digital data on the nursing establishment because these are classed as official statistics and are likely to be more accurate than the staff numbers collected by NHS Improvement, which are management information collected from trusts on a rapid turnaround basis each quarter.

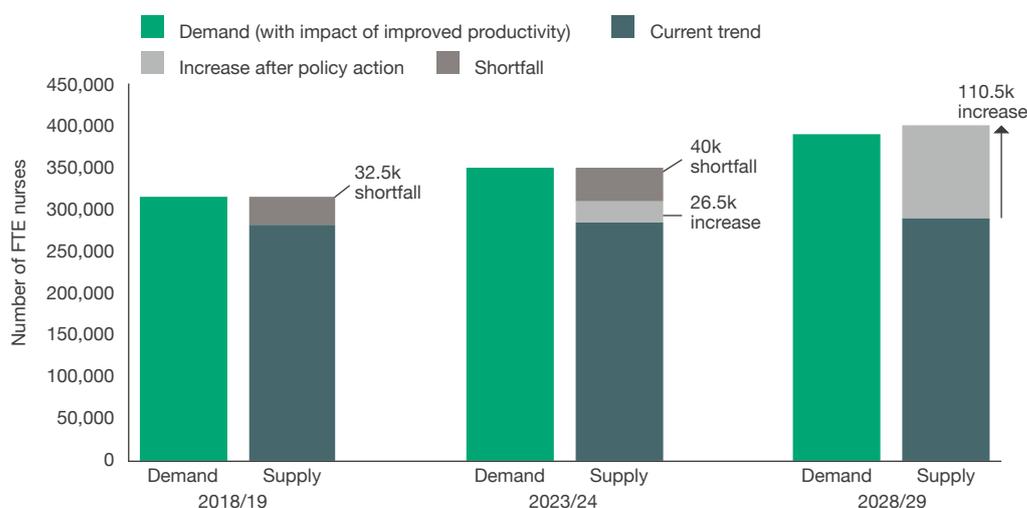
We estimate that this year the NHS in England has approximately 2,500 fewer FTE GPs than it needs. Our projections again suggest that, if current trends continue, the equivalent gap in five years' time would amount to 7,000 FTE GPs. In 10 years' time, this shortfall would increase to 11,500 FTE GPs.

It does not have to be this way, if action is taken now. Our work suggests that, by investing in the workforce, undertaking workforce redesign, harnessing new technology and acting on the recommendations we set out in this overview and our accompanying report, by 2028/29 the NHS has the potential to be training, recruiting and retaining enough nursing staff to eliminate the shortfall. By making much greater use of an expanded multidisciplinary team (in particular, pharmacists and physiotherapists) in general practice and continuing to increase the number of GPs as much as possible, our analysis suggests that by 2028/29 it would also be possible to compensate for the GP shortfall. However, the short-term picture is much more challenging. The policy proposals we set out here and in more detail in our report seek to progressively shift the balance of NHS staffing towards the recruitment and retention of health care workers who were trained in the UK and thereby reduce the reliance on international recruitment. Our report is not intended to contain a comprehensive set of opportunities – other policy interventions may be possible and where identified, should be implemented alongside our recommendations. It is possible these could result in gains that could reduce the gap further.

The outlook for nursing

With sufficient determination and additional funding, our analysis suggests that significant progress may be possible over the next decade. However, this is dependent on a significant expansion in the number of people training to become a nurse, as well as measures to reduce attrition from training and to improve the retention of the current workforce. With sustained action on the training pipeline, recruitment and retention, our modelling projects that it would be possible to expand the supply of nurses in England so that it broadly matches demand from around 2028/29 onwards (see Figure 4). Half of the additional nurses would come from increases in the training pipeline into the NHS and the rest from better retention and returners to the health service.

Figure 4: Nurse demand and supply, 2018/19, 2023/24 and 2028/29



Note: chart shows demand after the impact of improved productivity, which we include in our 'policy action' but not 'current trends' scenarios. As a result demand is lower (by 3,500 in 2023/24 and 8,000 in 2028/29) than in our scenario based on current trends.

However, the next five years will be extremely challenging. By 2023/24, our projections are that the NHS will not be able to close the gap between demand and supply for nurses working in hospitals, mental health and community trusts. Without international recruitment, the gap in 2023/24 would be around 40,000 FTE nurses, 7,500 more than in 2018/19. With 5,000 nurses a year recruited internationally the shortfall in 2023/24 could be halved. Reducing nursing staff shortages by this time would therefore be reliant on a considerable ramping up of international recruitment and sustained improvement in the NHS's ability to retain its staff. If the international recruitment of nurses remains at its current rate, our projections suggest that the gap between supply and demand for nurses over the next five years would remain unsustainably high, threatening the ability to deliver the ambitions for improvements in care set out in *The NHS long term plan* (NHS England 2019c). The plan aims to reach a nursing vacancy rate of 5 per cent by 2028, which we feel would be an undesirable delay for this objective.

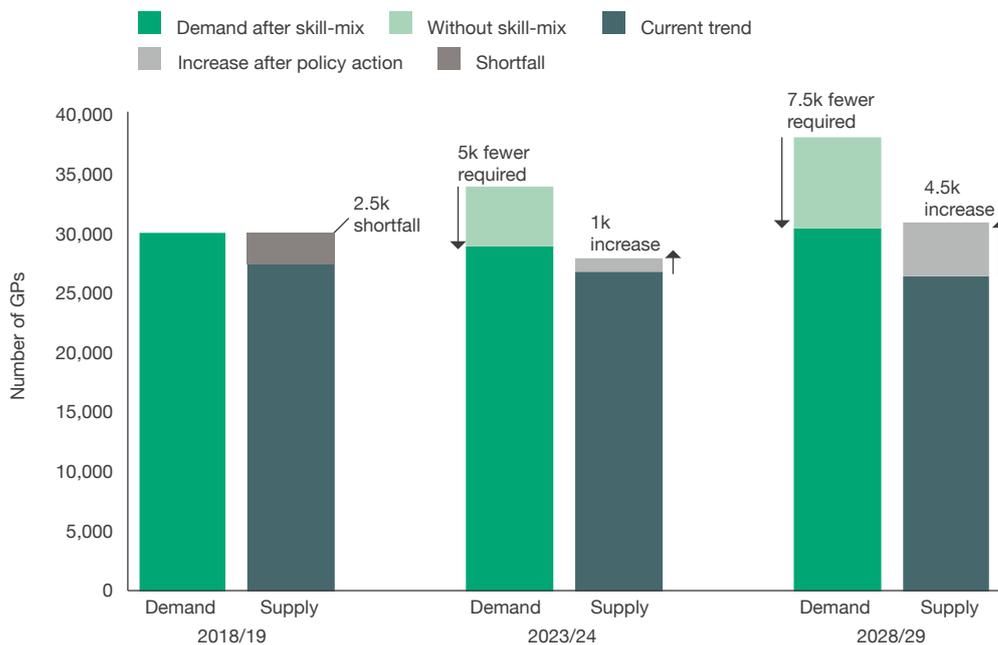
The outlook for GPs

This year the NHS in England has more than 2,500 fewer FTE GPs than it needs. Our projections suggest that on current trends this gap would increase to 7,000 FTE GPs in five years' time, and that in 10 years' time the shortfall would amount to 11,500 FTE GPs.

The government is increasing the number of, and filling, training places. But the length of training means that it will take between five and 10 years for these trainees to substantively add to the supply of GPs. In the meantime, the number of GPs retiring or leaving the NHS below retirement age is substantial and newly qualified GPs are electing to work fewer hours, even as demand continues to increase. There has also been a trend away from GPs taking partnership positions, with GPs opting instead for salaried or locum roles. Concerns around professional liability, workload and a perceived lack of flexibility have, in part, driven this trend (Department of Health and Social Care 2019b).

Our proposed policy actions are ambitious but, nonetheless, by 2023/24 we project only an extra 650 FTE GPs working in general practice, and by 2028/29 only an additional 3,500. This means that we are projecting that the government will not meet its target of an additional 5,000 GPs by 2020. This is as a result of a combination of long lead times for training additional GPs and no anticipated improvement in the rate at which GPs leave their training or choose to join the NHS following their training. As a result, the annual number of FTE new starters does not manage to match the number of GPs leaving until 2021/22. Our projections suggest, however, that it is not possible and that the supply of GPs cannot meet demand for GPs by 2028/29 (see Figure 5). This analysis does not take into account the policy implications of *The NHS long term plan* (NHS England 2019c) and other measures aiming to shift more care to primary care (and the growing expectation of general practice as a result).

Figure 5: GP demand and supply, 2018/19, 2023/24 and 2028/29



Policy will therefore need to look to alternative solutions to the substantial shortage of GPs. Closing the gap in demand will require ambitious changes to the workforce composition in primary care and leveraging the skills of a wider team. While it is not possible to substitute the fundamental role that GPs undertake in primary care, it is possible to substitute some of the tasks they undertake. The move towards multi-professional teams working in primary care makes it possible to offer patients greater access to high-quality care from the appropriate professional, including pharmacists and physiotherapists. Helped by technology, both existing established professionals as well as new staff roles can offer more clinical and administrative support, including as health care assistants, medical assistants, phlebotomists, pharmacy technicians and administrators.

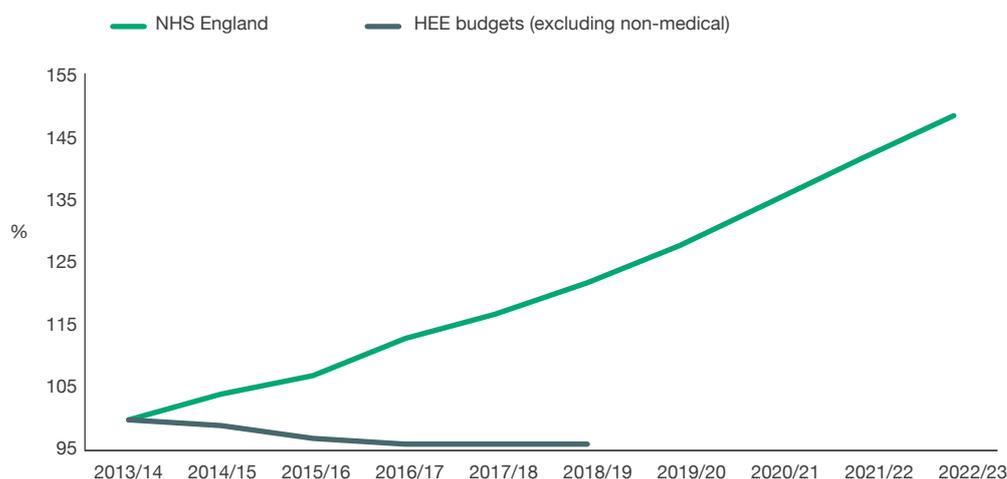
Our projections estimate that by 2023/24 3,100 more FTE pharmacists would need to be working in general practice and by 2028/29 6,000 more FTE physiotherapists, as well as increases in administrative and clinical support staff. The joint impact of these changes would absorb the activity undertaken. Rather than replacing GPs, this estimate aims to capture the amount of GP time that moving appropriate tasks to these staff groups would recover. Mitigating rising demand for GPs in this way would allow the NHS to bridge the gap between supply and demand and provide some hope of a sustainable model of primary care that meets patient needs and relieves current pressure on GPs, practice nurses and other staff. Alongside these changes we believe that there is also strong evidence that nursing staff (particularly at the nurse practitioner level) can make a major contribution to the wider primary care team and that there is emerging evidence for paramedics (Evans et al 2014). However, we have not included these groups (and others) directly in our modelling due to supply constraints in the short to medium term, which limit scope for rapid implementation.

We recognise that increasing access to new professionals and services in primary care carries the risk of uncovering unmet demand. To partially account for this in our analysis of the impact of new staff, we have included a ‘dampening’ effect¹¹. Further details can be found in Chapter 7 of our report.

Costs of our recommendations

Tackling NHS staffing shortages in the ways we recommend will require additional investment in centrally funded training and education, which was excluded from the funding commitments that the Prime Minister made in the summer of 2018 (**Department of Health and Social Care and HM Treasury 2018**), and which in turn informed *The NHS long term plan* (**NHS England 2019c**). The need for this extra funding is urgent; HEE’s budget in 2018/19 is £4.3 billion (**Health Education England 2019a**), representing a one-fifth real-terms reduction since 2013/14 (£5.3 billion) when it was first established as part of the Health and Social Care Act 2012 (**Health Education England 2014**).

Figure 6: Relative budget changes since 2013/14 for NHS England and HEE (compared with 2013/14 as Index – 1)



Clinical budgets (previously referenced as non-medical) have been excluded as they are significantly impacted by the policy changes in respect of commissioning undergraduate places and bursaries which are now funded through student loans. Figures are in cash terms.

Source: Health Education England (2019) Finance Report: HEE Board Meeting – 12 February 2019.

HEE’s budget for training and education for the upcoming years will be determined as part of the 2019 Spending Review led by the Treasury. Table 1 sets out our estimated additional costs to HEE resulting from the specific new policy measures outlined in this overview and in our accompanying report to expand the supply of nurses and GPs in England to 2023/24.

¹¹ This reduces the total impact of our workforce redesign recommendations by 10 per cent, meaning that while they still free up a considerable amount of GP time compared with not undertaking the changes, it is 10 per cent less GP time than we calculate is possible without uncovering unmet demand.

Table 1: Estimated additional funding pressures for HEE resulting from the specific new policy measures to reduce the gap between the demand for and supply of NHS nurses and GPs in England (£ million, 2018/19 prices)

	2019/20	2020/21	2021/22	2022/23	2023/24
Workforce development	£210	£220	£230	£240	£250
International recruitment	£10	£10	£10	£10	£10
Costs associated with the Tier 2 visa system	£10	£10	£10	£10	£10
Cost-of-living grants for nurses	£320	£350	£390	£410	£420
Other funding support for nurses (tuition fees for postgraduates, placement costs)	£40	£60	£110	£130	£140
Additional specialty training places for GPs	£20	£40	£60	£70	£70
Total additional cost	£610	£690	£810	£870	£900
HEE budget requirement	£4,920	£5,000	£5,120	£5,180	£5,210

These cost estimates exclude the nursing and GP pay bill as this is included within NHS England’s core budget and the Prime Minister’s funding commitment reflected the need to employ more staff and maintain pay (**NHS England 2019c; Department of Health and Social Care and HM Treasury 2018**). We estimate that the specific new policy measures outlined here and in our report would require around £900 million to be added to the annual budget for HEE in 2023/24. Increasing funding in the Spending Review in line with our cost estimates would see the HEE budget increase to £5.2 billion in 2023/24 (in 2018/19 prices).

Regarding changes to the workforce in primary care, we welcome NHS England’s commitment to funding for around 20,000 additional staff, including pharmacists and physiotherapists, as part of the new GP contract. Additionally, recent planning guidance for clinical commissioning groups (**NHS England 2019a**) requires that recurrent funding in cash is made available for developing and maintaining local primary care networks, which is an important source of funding for workforce and service redesign. Our recommendations require this funding to be used to secure change at pace and scale.

Social care: pay, recruitment and retention

The health care workforce is inextricably linked to that of social care. The most obvious overlap is the role of registered nurses, of whom there are an estimated 42,000¹² in the adult social care sector (**Skills for Care 2018b**), largely working in nursing homes, compared with 320,000 nurses in the NHS (**NHS Digital 2018a**).¹³

There are also similarities – and flows of individuals – between some other job roles, particularly between the health care assistant role in the NHS and that of care worker in social care. And NHS staff and those in social care will often in practice be working together, jointly providing direct care to individual members of the public, working as part of multidisciplinary teams to co-ordinate care or collaborating as managers to ensure that systems and processes between health and social care operate smoothly.

Yet there are also major differences and inequalities between the NHS and social care, particularly in terms of workforce and industry structure. It is therefore more accurate to think of health and social care as two interconnected sectors, themselves part of a wider overall labour market, than as a single sector.

Pay

Even more than in the NHS, poor pay and conditions are an area of ongoing concern in social care (**Low Pay Commission 2016**). Social care has worrying reports of minimum wage non-compliance and zero-hours contracts, and a high number of staff paid on or around the minimum wage. Almost a third of staff in this sector leave their job each year, in some cases for a role in the health sector or even retail (**Skills for Care 2018a**). The problems this creates for social care providers' ability to recruit and retain staff will be made worse by the comparatively generous recent NHS pay deal – local social care providers who try to match NHS pay increases will put more cost pressure on already financially distressed social care providers.

As a major employer, typically providing better pay, terms and conditions than social care can afford, the NHS can have a significant potential 'gravitational pull' on the social care workforce. Health care assistant roles in hospitals and other NHS roles that require few qualifications on entry can be extremely attractive to staff working in social care.

This raises the need for collaboration between the NHS and care sector on workforce planning. The NHS needs to understand its role as part of a wider labour market, and how it can work better with social care rather than competing with it for staff. Greater involvement of local authorities in integrated care systems and sustainability and transformation partnerships could provide a basis for more joined-up thinking on the workforce. NHS England should support local areas to develop workforce strategies that cross both health and social care, paying attention to the interdependencies between the two sectors.

¹² In other parts of this overview we refer to FTE roles; however, in this section we are using Skills for Care data, which refers to 'posts' or 'roles'.

¹³ The NHS figure relates to nurses and health visitors (headcount) working in hospital and community health services. It excludes staff working in primary care, voluntary and independent sectors.

Recruitment and retention

Finding and retaining staff is a critical issue in social care. There are now 110,000 vacancies, the majority of which are for direct care roles but with particularly high vacancy rates for registered managers (11.8 per cent) (**Skills for Care 2018b**).

As well as pay and conditions, public perception and the status of the sector will need to change. There is an opportunity to improve the recruitment performance of the social care sector not just through the development of employer skills but also through wider campaigns to change the image of adult social care as a sector in which to work. The current national recruitment campaign will be a valuable source of experience about how best to achieve this (**Department of Health and Social Care undated**) and should be robustly evaluated to improve our understanding.

International recruitment and Brexit

Against this background of difficulties in both recruitment and retention, social care has benefited from the bigger pool of relatively low-skilled workers able to work in the UK since the enlargement of the EU in the early 2010s. A recent report has argued that the contribution of nationals from the European Economic Area (EEA) is greater to social care than it is to the NHS (**Dolton et al 2018**). In social care, 18 per cent of the current total workforce were born outside of the UK, with 8 per cent from other EU countries and 10 per cent from outside the EU (**Skills for Care 2018b**).

Restrictions on free movement as a result of the Prime Minister's interpretation of the UK's decision to leave the EU puts this workforce at risk. Yet the government's recent proposals for an immigration system after Brexit do not create a specific entry route for social care (**Home Office 2018**) and over 90 per cent of care workers – including those from the EU – earn well below the proposed £30,000 salary threshold required to obtain a visa after Brexit (**Skills for Care 2018b**).

In its recent report on EEA migration, the Migration Advisory Committee recognises that Brexit seriously threatens the social care workforce (**Migration Advisory Committee 2018**). It argues that the sector needs a policy wider than just migration policy to fix its many problems and that, without it, migrant workers will continue to be needed. We agree with the Migration Advisory Committee's analysis that the basic underlying problems with recruitment and retention in social care are the poor pay, terms and conditions for workers in this sector, in turn caused by the difficulty in finding a sustainable funding solution. The only sustainable solution to social care's workforce challenges over the next 10 years is for the government to increase funding for adult social care. To achieve this, it must develop a comprehensive plan for social care funding in the 2019 Spending Review, and in the longer term it must fundamentally reform adult social care funding.

Unless and until this happens, however, there is an urgent need to consider a short-term international recruitment option that works for the social care sector. Social care is reliant on international staff who come to the UK and fill care worker positions, particularly in London. This is concerning given the existing workforce crisis for social care. There is currently no plan for how social care will avoid a deepening workforce crisis following the end of free movement. The government has suggested that care workers may benefit from a transitional 12-month visa scheme. However, this is a much less attractive approach in social care than in other industries such as construction

and agriculture. This is because the nature of the role requires consistency of provision and puts a premium on long-term relationships between individual care workers and service users. In addition, turnover of staff in social care is already too high and may only be worsened by limiting migrant workers to 12-month visas. The government needs to go back to the drawing board to design a sector-specific visa route that works for social care.

For more details on the social care workforce, see Chapter 8 of our report. We set out our recommendations for the social care workforce below.

Recommendations	For action by
<p>1. NHS England should support local areas to develop workforce strategies that cross health and social care, paying attention to the interdependencies between the two sectors.</p>	<ul style="list-style-type: none"> • NHS England
<p>2. There should be robust evaluation of the current social care recruitment marketing campaign to understand how best to improve the image of the sector and enhance recruitment.</p>	<ul style="list-style-type: none"> • Department of Health and Social Care • Skills for Care
<p>3. The government needs to develop a comprehensive plan for social care funding in the 2019 Spending Review, and in the longer term it needs to fundamentally reform adult social care funding.</p>	<ul style="list-style-type: none"> • Department of Health and Social Care • Ministry of Housing, Communities and Local Government
<p>4. The government should go back to the drawing board to design a sector-specific visa route that works to support the social care sector so that it can continue to benefit from international migration following the end of free movement.</p>	<ul style="list-style-type: none"> • Department of Health and Social Care • Home Office • Ministry of Housing, Communities and Local Government

Next steps and conclusion

The NHS long term plan recognises that, over the past decade, workforce growth has not kept up with the demands on the health service and that the NHS now needs a comprehensive workforce plan to tackle staffing shortages, improve staff working lives and better utilise the talents and skills of the million-plus people who work in the health service (**NHS England 2019c**). Few would disagree that the workforce is the make-or-break issue for the NHS over the coming years.

Over the past decade, day-to-day spending pressures have crowded out investment in the workforce. This must stop; such short-termism has not served patients, staff or taxpayers. The government has committed to a new pay deal for NHS staff and will be spending £20.5 billion more on NHS services by 2023/24. These are important and substantial first steps. But to tackle the current pressures in the workforce, much more action is needed, including more investment in training new staff and more support for the development and retention of existing staff. The health service cannot afford the government continuing to view education and training as an overhead cost to be minimised. There needs to be a fundamental shift in thinking to plan for the ‘oversupply’ of key staff groups. If this were done and education and training budgets were increased, broadly back to the funding level in 2013/14, our analysis shows that the NHS has the chance to eliminate nurse staffing shortages in a decade’s time. But this will not happen without investment, policy action and managerial focus now and sustained across the coming years.

In some other areas, the management of staffing shortages requires even more radical action. The government has had a target to increase the number of GPs by 5,000 since 2016 (**NHS England 2016**). It is clear that this is not achievable. Over the next decade, primary care will need to move to a wider team-based model in all parts of England. Transforming primary care to a team model, shifting to training for over-supply, paying people competitive wages and investing in all staff so that they have a rewarding job with pay, terms and conditions that reflect modern life – these are all critical to closing the staffing gap and delivering high-quality care.

But until the end of the parliament, we need to be realistic about what can be achieved – turning around the NHS’s staffing problems will not be a quick process. For the next few years, the NHS can only maintain services by recruiting and retaining enough staff internationally. A positive culture and supportive immigration policy are essential alongside NHS organisations that are ready to be good employers and help people to settle. Even with this, though, the workforce constraints will inevitably shape and hinder the speed at which health services can be transformed and quality of care can be improved in areas such as cancer and mental health.

There are no silver bullets for the workforce; addressing staff shortages requires consistent and concerted action across the system on pay, training, retention and job roles. While it is possible to point to individual policy failures in the past that have contributed to the current depth of the workforce shortages, the cause of our current problems goes deeper: the workforce has not been a policy priority, responsibility for it is fragmented nationally and locally, the information the NHS needs to understand and plan its workforce is poor and the NHS has not invested in the leadership capability and skills needed to manage the workforce effectively. The forthcoming

NHS workforce implementation plan therefore needs to address not just specific policy areas but also the roles, responsibilities, skills and capabilities needed across the system for more effective workforce planning.

Finally, a key part of good workforce planning and policy needs to include thinking through how the NHS can work much more effectively with partners outside the strict confines of the health service. The past few years have clearly shown that good health depends not just on the NHS but also on the social care system; and an effective training pipeline of skilled staff requires strong partnership with further education institutions and universities, especially if we want to broaden the opportunities to ensure that the NHS has a diverse staff group that properly reflects the society it serves. There are a number of actions that can be taken to improve recruitment and retention in social care. However, workforce challenges in this sector partly have their basis in the poor pay, terms and conditions for social care workers. This can only be addressed by government, first through additional funding in the 2019 Spending Review, and in the longer term through comprehensive reform of adult social care funding.

Appendix: approach and methodology

The report itself is structured along the five ‘opportunity’ areas we outlined earlier. These are:

- supply of new staff: education and training (Chapter 2)
- pay and reward (Chapter 3)
- making the NHS a better place to work and build a career (Chapter 4)
- workforce redesign, with a specific focus on building the right teams with the right skills and technological support (Chapter 5)
- supply of new staff: international recruitment (Chapter 6).

In addition, we set out our modelling assumptions in Chapter 7. In the final chapter (Chapter 8) we look at the implications of the interrelations between health care and social care in terms of staffing, setting out some measures that could be deployed to improve recruitment and retention. However, as explained earlier, the focus of the report is on the NHS.

In developing our recommendations, we have drawn on published literature and data. We have also spoken to national and professional leaders. Further, in September 2018 we held a roundtable, which brought together 55 participants from a range of organisations, including national statutory bodies, voluntary sector organisations, professional regulators, academia, trade unions and NHS provider organisations.

The modelling exercise that underpins this report provides new insights. When looking at the NHS, we have focused on the workforce employed directly by NHS hospitals, mental health and community providers and in general practice. We have based our analysis on data available from NHS Digital and NHS Improvement, which in turn focus on the workforce employed by the NHS and the contracted professions, including general practice. We have used this data to project forward the potential supply of key workforce groups using an approach that is consistent with the approach that HEE takes.

This approach starts with the stock of current staff in key groups and potential flows in and out of NHS employment, but it does not capture the demand and supply of health care workers across the economy as a whole (as well as working in the NHS, nurses, for example, can be employed in the private sector, in social care and by charities). Our starting point for nurses is one of shortage (based on the vacancy rate as produced by NHS Improvement and staffing data from NHS Digital). This is not intended to act as a precise estimate of vacant posts from a human resources perspective: this method approximates a gap between supply and demand for staff in a way that we can project forward, which we refer to as ‘vacancies’. We have taken a similar approach for GPs based on data from NHS Digital.

Our modelling is assumption-driven and involves little empirical analysis of incentive effects (for example, how much pay changes recruitment or retention). Improving these models and, more fundamentally, our understanding of the relationships underlying the data is critical to good workforce planning. Our quantitative work should therefore be seen as indicative, reflecting the art of the possible rather than the state of the art.

We have also modelled the number of nurses and GPs that are expected to join and leave the NHS over both the next five years (to 2023/24) and ten years (to 2028/29). This has allowed us to produce estimates that include the impact of our recommendations on these staff groups. This helps to show what can be done to close the gap between the supply of and demand for staff and has helped to guide our understanding of which areas are the most important to focus on. In particular, our modelling shows how the effects of our recommendations combine and the cumulative impact they could have.

We hope that this report will be of use to everyone involved in planning and supporting the NHS workforce. In certain instances, solutions go well beyond the remit of the NHS and will require policy engagement with government – in some cases because delivering them will require significant financial investment, and in others because they will require political support and leadership.

References

Appleby J, Schlepper L (2018). 'The gender pay gap in the English NHS.' Blog. London: Nuffield Trust. Available at: www.nuffieldtrust.org.uk/news-item/the-gender-pay-gap-in-the-english-nhs (accessed on 5 March 2019).

British Medical Association, NHS England (2019). *Investment and evolution: a five-year framework for GP contract reform to implement The NHS Long Term Plan*. London: NHS England. Available at: <https://www.england.nhs.uk/publication/gp-contract-five-year-framework/> (accessed on 5 March 2019).

Buchan J (2009). 'Achieving workforce growth in UK nursing: policy options and implications'. *Collegian*, vol 16, no 1, pp 3–9.

Buchan J, Charlesworth A, Gershlick B, Seccombe I (2017). *Rising pressure: the NHS workforce challenge*. London: The Health Foundation. Available at: www.health.org.uk/publications/rising-pressure-the-nhs-workforce-challenge (accessed on 5 March 2019).

Care Quality Commission (2018). *The state of health care and adult social care in England 2017/18*. London: Care Quality Commission. Available at: www.cqc.org.uk/publications/major-report/state-care (accessed on 6 November 2018).

Collins A (2018). 'Updated: Government to scrap visa cap for non-EU doctors'. *HSJ*, 14 June. Available at: www.hsj.co.uk/workforce/updated-government-to-scrap-visa-cap-for-non-eu-doctors/7022658.article (accessed on 15 October 2018).

Curtis L, Burns A (2018). *Unit costs of health and social care 2018*. Canterbury: Personal Social Services Research Unit, University of Kent. Available at: www.pssru.ac.uk/project-pages/unit-costs/unit-costs-2018/ (accessed on 5 March 2019).

Department for Education (2019). 'Apprenticeship framework/standard and sector subject area PivotTable tool: starts and achievements 2014 to 2015 to Q1 2018 to 2019'. Last updated 24 January 2019. GOV.UK website. Available at: www.gov.uk/government/statistical-data-sets/fe-data-library-apprenticeships#history (accessed on 5 March 2019).

Department of Health (2017). *2017–18 Education & training placement tariffs: tariff guidance and prices from 1st April 2017*. London: Department of Health. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/629492/2017-18_ET_tariff_guidance_FINAL_July_v2.pdf (accessed on 5 March 2019).

Department of Health (2016). *Guidance: out of area placements in mental health services for adults in acute inpatient care*. London: Department of Health and Social Care. Available at: www.gov.uk/government/publications/oaps-in-mental-health-services-for-adults-in-acute-inpatient-care/out-of-area-placements-in-mental-health-services-for-adults-in-acute-inpatient-care (accessed on 7 March 2019).

Department of Health and Social Care (2019a). *The regulation of medical associate professionals in the UK: consultation response*. London: Department of Health and Social Care. Available at: www.gov.uk/government/consultations/regulating-medical-associate-professions-in-the-uk (accessed on 8 March 2019).

Department of Health and Social Care (2019b). *GP partnership review: final report*. London: Department of Health and Social Care. Available at: www.gov.uk/government/publications/gp-partnership-review-final-report (accessed on 14 February 2019).

Department of Health and Social Care (2019c). The Department of Health and Social Care's written evidence to the NHS Pay Review Body (NHSPRB): 2019/20 Pay Round. Available at: www.gov.uk/government/publications/evidence-for-the-nhsprb-pay-round-2019-to-2020 (accessed on 6 March 2019).

Department of Health and Social Care (undated). 'Every day is different – working in adult social care'. Every Day is Different website. Available at: www.everydayisdifferent.com/consider.aspx (accessed on 4 February 2019).

Department of Health and Social Care, HM Treasury (2018). 'Prime Minister sets out 5-year NHS funding plan'. Press release. Available at: www.gov.uk/government/news/prime-minister-sets-out-5-year-nhs-funding-plan (accessed on 7 March 2019).

Dolton P, Nguyen D, Castellanos M, Rolfe H (2018). *Brexit and the health & social care workforce in the UK*. London: National Institute of Economic and Social Research. Available at: www.niesr.ac.uk/publications/brexit-and-health-social-care-workforce-uk (accessed on 8 November 2018).

Evans R, McGovern R, Birch J, Newbury-Birch D (2014). 'Which extended paramedic skills are making an impact in emergency care and can be related to the UK paramedic system? A systematic review of the literature'. *Emergency Medicine Journal*, vol 31, no 7, pp 594–603. Available at: <https://emj.bmj.com/content/31/7/594.long> (accessed on 3 February 2019).

Goddard A (2018). 'The £490 million question: is this the new cost of overseas health workers post-Brexit?'. Royal College of Physicians website. Available at: www.rcplondon.ac.uk/news/490-million-question-new-cost-overseas-health-workers-post-brexit (accessed on 28 November 2018).

Griffiths P, Dall'ora C, Ball J (2017). 'Nurse staffing levels, quality and outcomes of care in NHS hospital wards: what does the evidence say?' *Health Work: Evidence Briefs*, vol 1, no 1. Available at: <https://eprints.soton.ac.uk/412518> (accessed on 3 February 2019).

Health Education England (2019a). 'HEE finance report: 2018/19 month 9'. Board paper. Available at: www.hee.nhs.uk/about/how-we-work/board-meetings-papers/clone-hee-board-meeting-12-february-2019 (accessed on 5 March 2019).

Health Education England (2019b). *NHS staff and learners' mental wellbeing commission: final report*. London: Health Education England. Available at: www.hee.nhs.uk/our-work/mental-wellbeing-report (accessed on 5 March 2019).

Health Education England (2019c). *The Topol Review: preparing the healthcare workforce to deliver the digital future*. London: Health Education England. Available at: <https://topol.hee.nhs.uk/> (accessed on 5 March 2019).

Health Education England (2018). *RePAIR: reducing pre-registration attrition and improving retention report*. London: Health Education England. Available at: www.hee.nhs.uk/our-work/reducing-pre-registration-attrition-improving-retention (accessed on 12 February 2019).

Health Education England (2017a). 'Education funding reforms'. Health Education England website. Available at: www.hee.nhs.uk/our-work/education-funding-reforms (accessed on 30 January 2019).

Health Education England (2017b). *Multi-professional framework for advanced clinical practice in England*. London: Health Education England. Available at: www.hee.nhs.uk/our-work/advanced-clinical-practice/multi-professional-framework (accessed on 6 March 2019).

Health Education England (2014). *Health Education England (Special Health Authority) – annual report and accounts: 2013/14*. Annual Report. Available at: www.gov.uk/government/publications/health-education-england-annual-report-and-accounts-2013-to-2014 (accessed on 6 March 2019).

Home Office (2018). *The UK's future skills-based immigration system*. London: Home Office. Available at: www.gov.uk/government/publications/the-uks-future-skills-based-immigration-system (accessed on 16 January 2019).

House of Commons Education Committee (2018) *Nursing degree apprenticeships: in poor health? Eighth report of session 2017–19*. HC 1017. Available at: <https://publications.parliament.uk/pa/cm201719/cmselect/cmeduc/1017/1017.pdf> (accessed on 28 February 2019).

Kark T, Russell J (2019). *A review of the fit and proper person test – the Kark review*. London: Department of Health and Social Care Available at: www.gov.uk/government/publications/kark-review-of-the-fit-and-proper-persons-test (accessed on 6 March 2019).

Kerr R (2018). *Empowering NHS leaders to lead – The Kerr review*. London: Department of Health and Social Care. Available at: www.gov.uk/government/publications/sir-ron-kerr-review-empowering-nhs-leaders-to-lead (accessed on 6 March 2019).

Low Pay Commission (2016). *National minimum wage – Low Pay Commission report Spring 2016*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/571631/LPC_spring_report_2016.pdf (accessed on 4 March 2019).

Migration Advisory Committee (2018). *EEA migration in the UK: final report*. London: Migration Advisory Committee. Available at: www.gov.uk/government/publications/migration-advisory-committee-mac-report-eea-migration (accessed on 15 October 2018).

National Audit Office (2019). *NHS financial sustainability*. London: National Audit Office. Available at: www.nao.org.uk/report/nhs-financial-sustainability/ (accessed on 1 March 2019).

National Audit Office (2016). *Managing the supply of clinical staff in England*. HC 736, session 2015–16. London: National Audit Office. Available at: www.nao.org.uk/report/managing-the-supply-of-nhs-clinical-staff-in-england/ (accessed on 15 October 2018).

National Improvement and Leadership Development Board (2016). *Developing people – improving care: A national framework for action on improvement and leadership development in NHS-funded services*. London: NHS Improvement. Available at: <https://improvement.nhs.uk/resources/developing-people-improving-care/> (accessed on 6 March 2019).

NHS Digital (2019a). 'Out of area placements in mental health services – November 2018'. NHS Digital website. Available at: <https://digital.nhs.uk/data-and-information/publications/statistical/out-of-area-placements-in-mental-health-services/november-2018> (accessed on 19 February 2019).

NHS Digital (2019b). *Supplementary information – leavers from the nurses & health visitor staff group by age: September 2009 – September 2017*. Leeds: NHS Digital. Available at: <https://digital.nhs.uk/data-and-information/find-data-and-publications/supplementary-information/2019-supplementary-information-files/leavers-and-joiners/leavers-from-the-nurses--health-visitor-staff-group-by-age> (accessed on 7 March 2019).

NHS Digital (2019c). *Supplementary information – Leavers form [sic] the NHS and organisation, October 2017–October 2018*. NHS Digital: Leeds Available at: <https://digital.nhs.uk/data-and-information/find-data-and-publications/supplementary-information/2019-supplementary-information-files/leavers-and-joiners/leavers-form-the-nhs-and-organisation> (accessed on 1 March 2019).

NHS Digital (2018a). 'NHS workforce statistics – September 2018'. NHS Digital website. Available at: <https://digital.nhs.uk/data-and-information/publications/statistical/nhs-workforce-statistics/september-2018> (accessed on 30 January 2019).

NHS Digital (2018b). 'Nurse and health visitor joiners and leavers from the NHS'. NHS Digital website. Available at: https://digital.nhs.uk/data-and-information/find-data-and-publications/supplementary-information/2018-supplementary-information-files/leavers-and-joiners/nurse-and-health-visitor-joiners-and-leavers-from-the-nhs_ah2359 (accessed on 5 March 2019).

NHS Employers (2019). *NHS Employers' submission to the Doctors' and Dentists' Pay Review Body 2019/20*. Available at: <https://www.nhsemployers.org/case-studies-and-resources/2019/01/nhs-employers-submission-to-the-nhs-pay-review-body-201920> (accessed on 6 March 2019).

NHS Employers (2018). *Apprenticeships levy transfer option: opportunities and risks for employers*. London: NHS Employers. Available at: www.nhsemployers.org/-/media/Employers/Publications/NHSE-Apprenticeships-levy-10-transfer-option-Briefing-V5.pdf (accessed on 28 February 2019).

NHS England (2019a). *NHS operational planning and contracting guidance 2019/20*. London: NHS England. Available at: www.england.nhs.uk/operational-planning-and-contracting/ (accessed on 31 January 2019).

NHS England (2019b). *NHS staff survey 2018: national results briefing*. London: NHS England. Available at: www.nhsstaffsurveys.com/Page/1064/Latest-Results/2017-Results/ (accessed on 1 March).

NHS England (2019c). *The NHS long term plan*. Available at: www.longtermplan.nhs.uk/publication/nhs-long-term-plan/ (accessed on 28 February 2019).

NHS England, Ipsos MORI (2018). 'GP patient survey – national report, August 2018'. GP Patient Survey Website. Available at: <https://gp-patient.co.uk/> (accessed on 19 February 2019).

NHS England (2018). 'National NHS staff survey co-ordination Centre: 2017 results'. NHS website. Available at: www.nhsstaffsurveys.com/Page/1064/Latest-Results/2017-Results (accessed on 4 February 2019).

NHS England (2016). *General practice forward view*. London: NHS England. Available at: www.england.nhs.uk/publication/general-practice-forward-view-gpfv/ (accessed on 29 January 2019).

NHS Improvement (2018). 'Quarterly performance of the NHS provider sector: quarter 2 2018/19'. NHS Improvement website. Available at: <https://improvement.nhs.uk/resources/quarterly-performance-nhs-provider-sector-quarter-2-201819/> (accessed on 30 January 2019).

NHS Improvement (2017). *Retaining your clinical staff: a practical improvement resource*. London: NHS Improvement. Available at: <https://improvement.nhs.uk/resources/retaining-your-clinical-staff-practical-improvement-resource/> (accessed on 4 March 2019).

NHS Improvement (2016). *Developing people – improving care*. London: NHS Improvement. Available at: <https://improvement.nhs.uk/resources/developing-people-improving-care/> (accessed on 1 March 2019).

NHS Improvement (undated) 'Staff retention support programme: one year on'. NHS Improvement website. Available at: <https://improvement.nhs.uk/resources/staff-retention-support-programme-one-year/> (accessed on 26 February 2019).

Office for Budget Responsibility (2018). 'Economic and fiscal outlook – October 2018'. London: Office for Budget Responsibility. Available at: <https://obr.uk/efo/economic-fiscal-outlook-october-2018/> (accessed on 7 March 2019).

Skills for Care (2018a). *Adult social care workforce estimates: the adult social care sector and workforce by England and regional geographical areas, 2018*. Leeds: Skills for Care Available at: www.skillsforcare.org.uk/NMDS-SC-intelligence/Workforce-intelligence/publications/The-state-of-the-adult-social-care-sector-and-workforce-in-England.aspx (accessed on 5 March 2019).

Skills for Care (2018b). *The state of the adult social care sector and workforce in England*. Leeds: Skills for Care. Available at: www.skillsforcare.org.uk/NMDS-SC-intelligence/Workforce-intelligence/publications/The-state-of-the-adult-social-care-sector-and-workforce-in-England.aspx (accessed on 29 October 2018).

The Health Foundation (2018) 'One in four student nurses drop out of their degrees before graduation'. Press release. The Health Foundation website. Available at: www.health.org.uk/news-and-comment/news/one-in-four-student-nurses-drop-out-of-their-degrees-before-graduation (accessed on 5 March 2019).

The Health Foundation, The King's Fund, Nuffield Trust (2018). *The health care workforce in England: make or break?*. London: The King's Fund. Available at: www.kingsfund.org.uk/publications/health-care-workforce-england (accessed on 19 February 2019).

The Mental Health Taskforce (2016). *Five year forward view for mental health*. London: NHS England. Available at: www.england.nhs.uk/mental-health/taskforce/ (accessed on 6 November 2018).

UCAS (2018) *End of cycle report 2018*. Cheltenham: UCAS. Available at: www.ucas.com/data-and-analysis/undergraduate-statistics-and-reports/ucas-undergraduate-end-cycle-reports/2018-end-cycle-report (accessed on 5 March 2019).

UCAS (2017) *End of cycle report 2017*. Cheltenham: UCAS. Available at: www.ucas.com/data-and-analysis/ucas-undergraduate-releases/ucas-undergraduate-analysis-reports/2017-end-cycle-report (accessed on 5 March 2019).

While A, Blackman C (1998). 'Reflections on nursing as a career choice.' *Journal of Nursing Management*, vol 6, no 4, pp 231–7. Available at: www.ncbi.nlm.nih.gov/pubmed/9832728 (accessed on 5 November 2018).

World Health Organization (2016). *Global strategy on human resources for health: workforce 2030*. Geneva: World Health Organization. Available at: www.who.int/hrh/resources/globstrathrh-2030/en (accessed on 8 November 2018).

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.

Nuffield Trust

The Nuffield Trust is an independent health think tank. We aim to improve the quality of health care in the UK by providing evidence-based research and policy analysis and informing and generating debate.

The King's Fund

The King's Fund is an independent charity working to improve health and care in England. We help to shape policy and practice through research and analysis; develop individuals, teams and organisations; promote understanding of the health and social care system; and bring people together to learn, share knowledge and debate. Our vision is that the best possible health and care is available to all.