

Integrated Health and Social Care

Workforce Planning for Scotland: Illustrative Scenarios

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Modelling assumptions

1. The Scottish Government recognises that there are a number of published materials expressing varying views on the rates of growth in the Scottish economy, and particularly in the health and social care sector.
2. For the purposes of this initial and illustrative scenario development, the Scottish Government has used the growth assumptions outlined within the Scottish Government's Medium Term Health and Social Care Financial Framework (MTFF). The Framework projects that over the next five years, future demand is expected to rise **by 3.5% per annum for health and 4% for social care**, based on inflation, demographic pressures, non-demographic growth and the dampening of growth created by efficiency and reforms.
3. In reflecting the impact of the NHS pay deal and similar expected impact for social care (2.2%-2.4% per annum), Scottish Government have assumed a non-pay average annual growth of around:
 - **1.3% for health**
 - **1.7% for social care**
4. The scenarios in this Appendix have been constructed using the most up to date available data and assumed demand forecasts. As work continues with stakeholders to develop the approach to scenario planning, further refinements will take account of updates and revisions to these, as well as other available evidence where appropriate.
5. Using available information, the scenarios take into account information on the following areas:
 - Current vacancies;
 - Workforce age profiles and assumed retiral ages based on trend data;
 - Outflow (leavers) and inflow (joiner) trends;
 - Student numbers and assumed education course completion rates.
6. A series of case studies and scenarios are set out in this document, covering a range of NHS job/sub families and social care professional groups.
7. The Scottish Government will work closely in partnership with COSLA and other stakeholders to further develop the scenarios outlined in this document.
8. The Scottish Government will also support the development of scenario planning methodology at local and regional workforce planning levels. Doing this will encourage more robust scenario assumptions which accurately reflect specific local and regional workforce issues and drivers.

Social Care Scenarios

Care Homes for Adults Scenario

9. The vision articulated in the Health and Social Care Delivery Plan is for a health and social care system that supports people to remain safely within their own homes and communities. In addition, it aims to enable the safe transition from hospital to home or a homely environment if appropriate, preventing unnecessary re-admissions to hospital. Staff in care homes for adults play a key role in delivering this vision. The importance of care homes in the landscape of support provision was also highlighted recently by Scottish Care.¹
10. The number of both care homes and people in care homes in Scotland has decreased over the past decade (Table 1).² In parallel with this change, the total number of staff in care homes for adults fell by 2.8% between 2008 and 2017. This reflects the policy drivers referred to above: in particular for more people to be cared for at home.

Table 1: The care home sector, 2007 – 2017

Care Homes Sector Data	March 2007	March 2017
Number of adult care homes	1,451	1,142
Number of available registered care home places	42,653	40,926
Number of adults in care homes	37,702	35,989

11. As of December 2017 there were approximately 53,500 staff (headcount) in care homes for adults in Scotland with:
- Approximately 71% employed in the private sector, 17% in the voluntary sector and the remaining 12% in the public sector;

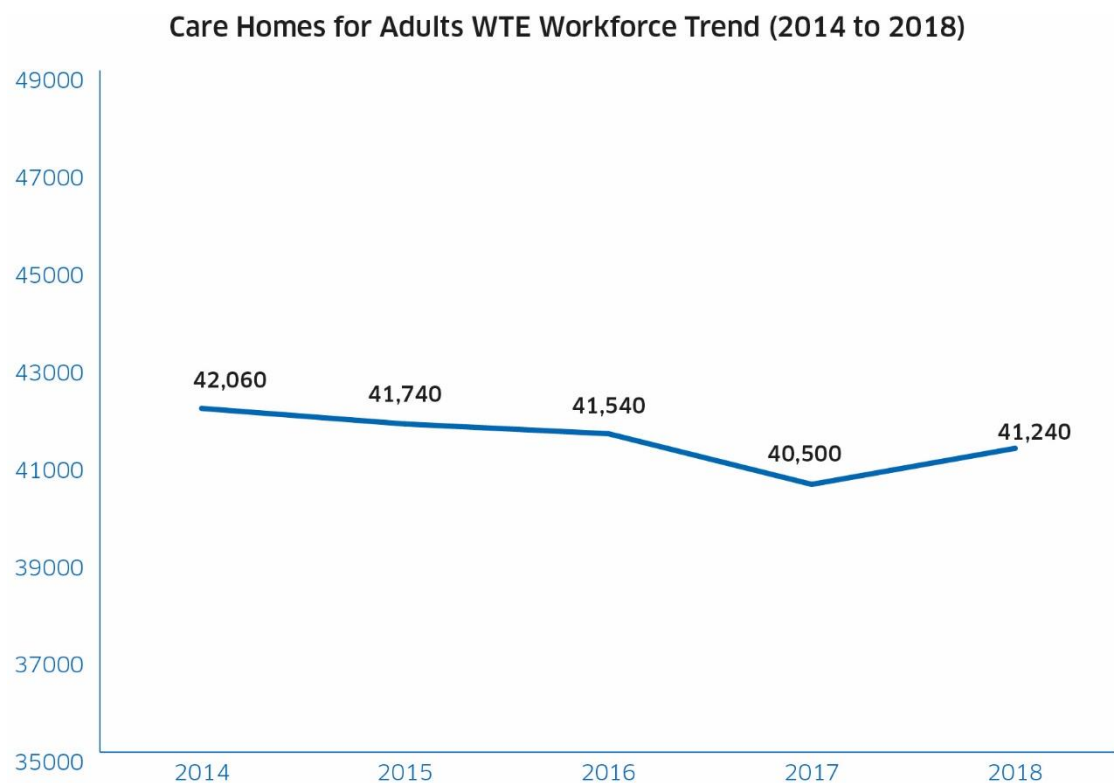
¹ [Care Homes: Then, Now and the Uncertain Future](#), Scottish Care, 2018.

² [Care Home Census for Adults in Scotland](#), ISD Scotland, 2018.

- Approximately 80 out of every 100 staff in the same post at end December 2018 as they were one year before that;
 - Registered services having a median staffing complement of 40 in the public sector, 50 in the private sector and 22 in the voluntary sector;
 - Staff having a median age of 45;
 - Approximately 86% of staff being female.
12. The role of residential care is evolving. In line with legislation and policy, people increasingly have a choice in how their care is provided. There is a greater focus on re-ablement and intermediate care, helping people to stay in their own homes for longer than previously. With this, there is increasing provision of end of life care and palliative care for those in care homes with higher levels of need.
13. Alongside demographic trends, these changes mean that workers in care homes increasingly support people with a range of complex needs. For example, the percentage of long stay residents living with dementia (either medically or non-medically diagnosed) in a care home for older people increased from 54% at March 2007 to 62% at March 2017. The implications of these changes for staff skills' needs have been referred to in the National Health and Social Care Integrated Workforce Plan.
14. There has been an overall reduction in the number of staff in the care homes for adults workforce during the last decade, Figure 1 shows a 2% fall in whole time equivalent (WTE) from 2014-2018 (WTE data for the workforce has been collected since 2014).³

³ [SSSC Report on 2018 Workforce Data - https://data.sssc.uk.com/images/WDR/WDR2018.pdf](https://data.sssc.uk.com/images/WDR/WDR2018.pdf)

Figure 1



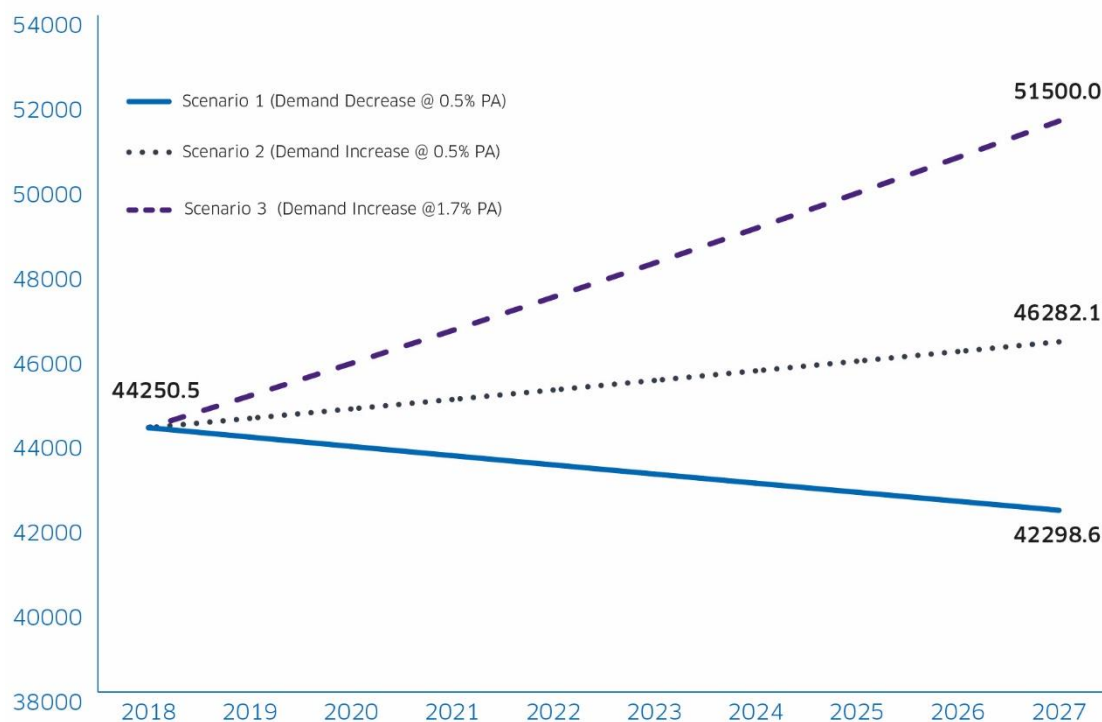
15. Data from the Scottish Social Services Council (SSSC) suggests that the current level of vacancies within Care Homes for Adults is circa 7.3%. For scenario modelling, the Scottish Government has estimated that the WTE establishment workforce for this group is 44,250.5 WTE.

16. Figure 2 uses the 2018 WTE establishment figure as a baseline and provides three scenarios illustrating changes in the number of workers in care homes for adults over the next decade:

- 0.5% decrease, in line with recent trends;
- 0.5% increase;
- 1.7% increase.

Figure 2

**Care Homes for Adults Projected WTE Workforce Demand Scenarios to 2027
(Using 2018 Baseline)**



17. While recent trends indicate some reduction in uptake and provision of places in care homes for adults, there is uncertainty about future demand, how this will impact on service provision, and how new models of care might affect workforce requirements.

18. Key issues for the care home workforce include the recruitment and retention of staff. The introduction of the Scottish Living Wage for those working in adult social care has had a positive impact on pay in the sector, though providers have reported some challenges in implementation.⁴ There is significant potential for impact from the UK's possible exit from the EU, with 5.9% of care home staff coming from non-UK EU countries.⁵ Recent vacancies data show that:⁶

- The rate of WTE vacancies in care homes for adults increased from 4.7% in 2016 to 5.6% in 2017;
- Approximately 50% of services reported problems filling vacancies in 2017, down from 52% in 2016.

⁴ [Implementing the Scottish Living Wage in adult social care: An evaluation of the experiences of social care partners and usefulness of Joint Guidance](#), I Cunningham et al, Coalition of Care and Support Providers Scotland, 2018.

⁵ [The contribution of Non-UK EU Workers in the Social Care Workforce in Scotland](#), an Ipsos Mori report for Scottish Government, June 2018.

⁶ [Staff vacancies in care services 2017](#), Care Inspectorate and Scottish Social Services Council, January 2019.

19. Compulsory registration with the SSSC is now in place for managers, supervisors, practitioners and support workers in care homes for adults. All of these staff are required to meet their qualification requirements within five years of registering. Training for social care workers is mostly obtained once in work, within a complex landscape of service provision. Work is in progress to help assess potential demand for training, using analysis of the SSSC register to understand patterns of workforce movement in and out of the sector, and reports on training activity. This will help identify whether additional awareness raising is required to ensure that employers and workers are aware of their responsibilities to meet registration requirements.
20. Key factors that impact on workforce demand and supply include the terms and conditions set by the many different employers across the sector (including how these have been impacted by payment of the Scottish Living Wage); resources available for service commissioning; reform of the National Care Home Contract, and choices made by individuals (including self-funders) in respect of their care.
21. **For planning purposes, Scottish Government consider that estimating a 0.5% annual increase in demand on average over the next ten years (as shown in Scenario 2) is most appropriate for planning future needs.** This scenario assumes that the recent downward trend would not continue, given demographic projections, and would require an increase of approximately 2,100 WTE by 2027.
22. Actual workforce demand will depend upon a wide range of factors, including the individual decisions and needs of those requiring care, the impact of service redesign and resource availability from private and public sectors. The ease with which workforce demand can be met will also depend on multiple factors such as changes in local labour markets and migration, the impact of potential UK exit from the EU and the individual decisions of the many different providers of care home services.
23. Part 2 of the Workforce Plan⁷ is already helping to address these issues by encouraging skills development, career progression and attracting more people to the sector and includes:
- A recruitment campaign currently under development for launch in early 2020 to promote adult social care as a career destination of choice;
 - A career pathways resource, launched in September 2019, which will highlight and provide examples of possible career routes, linking these to training and qualifications;
 - A report to be published by the SSSC in Spring 2020 identifying barriers and enablers for career pathways;
 - Development of a Framework for Practice in social care;
 - Developing employability routes to improve entry to the sector.

⁷ [The National Health and Social Care Workforce Plan: Part Two. , Scottish Government, 2017.](#)

Care at Home and Housing Support

24. Staff delivering care in people's homes and working in housing support,⁸ along with those working in care homes for adults discussed in the previous scenario, are critically important to achieving the vision set out in the Health and Social Care Delivery Plan. They play a key part in enabling more people to live independently in their homes and communities for longer.
25. In March 2017, approximately 60,000 people received home care (i.e. care at home) provided or purchased by Local Authorities in Scotland, with around 18,940 people receiving housing support.⁹ As of December 2017, there were approximately 2,067 active registered services providing care at home and/or housing support.^{10,11} These deliver services provided or purchased by Local Authorities and services purchased by self-funding individuals. At the end of 2017 these services employed approximately 71,350 workers (headcount), with:
- 46% employed in the voluntary sector, 26% in the independent sector and 27% in the public sector;
 - Approximately 77 out of every 100 staff were in the same post at the end of December 2017 as they were one year before that;
 - Registered services had a median staffing complement of 29 in the public sector, 27 in the private sector and 24 in the voluntary sector;
 - Staff had a median age of 46;
 - Approximately 81% of staff were female.
26. The workforce figures do not include personal assistants, for example, as employed by someone in receipt of a direct payment through Self Directed Support. Robust data on numbers of personal assistants are not currently available, though trends in direct payments suggest numbers may be increasing.¹²
27. While the hours of care provided by the care at home and housing support workforce have been increasing over recent years, there has been a fall in the number of people receiving care in their homes. The evidence suggests that care is being focused on those with highest levels of need,¹³ and that this focus is greater in relative terms than in the past. Linked to these changes is a need for workers delivering care in people's homes and providing housing support to have an increasing range of skills. An increased focus on "re-ablement" requires additional skills to support people to live safely and independently within their own homes. Legislation and policy changes mean that staff are required to work with supported people and their families and carers, to plan and deliver care around personal outcomes, requiring appropriate skills from staff.¹⁴ In addition,

⁸ Housing support includes support such as assistance to claim benefits and managing budgets.

⁹ [Social Care Services, Scotland, 2017, Scottish Government, 2017.](#)

¹⁰ Many services provide both care at home and housing support.

¹¹ [SSSC report on 2018 Workforce Data .https://data.sssc.uk.com/images/WDR/WDR2018.pdf](https://data.sssc.uk.com/images/WDR/WDR2018.pdf)

¹² [Social Care Services, Scotland, 2017. Scottish Government, 2017.](#)

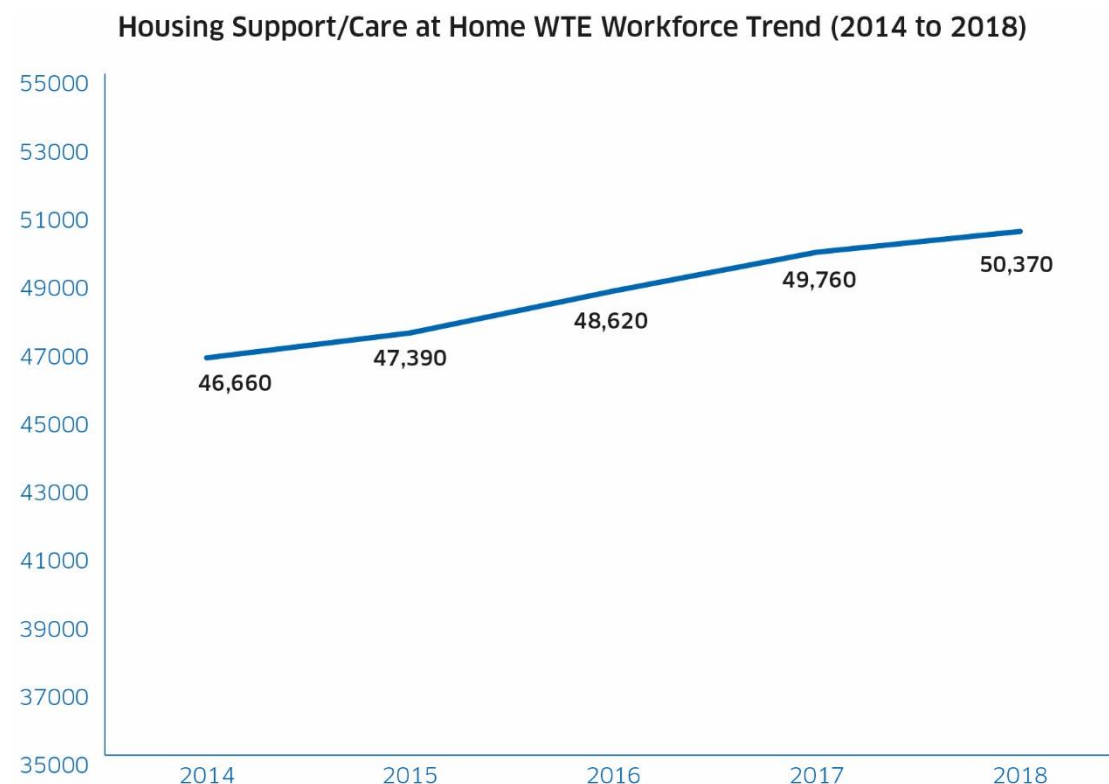
¹³ [Social Care Services, Scotland, 2017. Scottish Government, 2017.](#)

¹⁴ [Workforce Skills Report 2016-17. Scottish Social Services Council, 2017.](#)

there is a need for improved digital skills linked to developments in digital support for independent living.¹⁵

28. Between 2008 and 2018, the number of workers (headcount) in care at home and housing support services increased by approximately 11.7%.¹⁶ This reflects the policy drivers for more people to be cared for at home or in a homely setting for longer, and the increase in the number of hours of care delivered in people's homes highlighted above. Figure 3 uses the available WTE data,¹⁷ to show an increase of 8% in the WTE workforce between 2014 and 2018.¹⁸

Figure 3



29. Data from the SSSC suggests that the current level of vacancies within Housing Support/Care at Home is circa 7.4%. For scenario modelling Scottish Government have estimated that the WTE establishment workforce for this group is 54,097.4 WTE.

30. Figure 4 uses the 2018 WTE establishment figure as a baseline and illustrates how the number of workers in care at home and housing support services could change over the next decade using three demand assumptions:

¹⁵ [Scotland's Digital Health & Care Strategy. Scottish Government, 2018.](#)

¹⁶ [Scottish Social Service Sector: Report on 2017 Workforce Data. Scottish Social Services Council, 2018.](#)

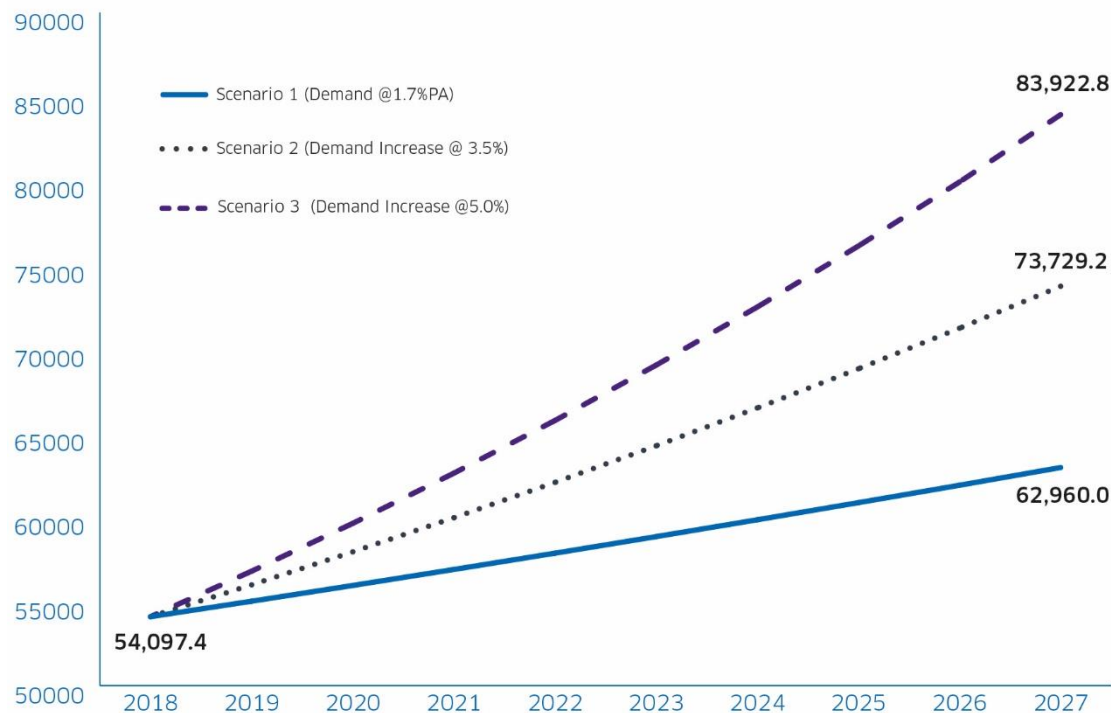
¹⁷ The SSSC publishes WTE in their workforce data report. See [Scottish Social Service Sector: Report on 2017 Workforce Data. Scottish Social Services Council, 2018.](#)

¹⁸ Data from the Scottish Social Services Council.

- 1.7% increase – in line with demand assumptions made in the MTFF with the impact of wage inflation removed;
- 2.5% increase – an intermediate demand assumption to reflect higher demand levels than suggested in the MTFF;
- 5% increase to reflect the recent historical workforce trend.

Figure 4

**Housing Support/Care at Home Projected WTE Workforce Demand Scenarios to 2027
(Using 2018 Baseline)**



31. **However, the Scottish Government considers an assumption of an increase in demand of 1.7% per annum (as shown in Scenario 1) to be most appropriate for planning the future workforce.** This scenario assumes that the recent trend of increase would not continue at a similar high level and projects an increase in WTE of just under 9,000 by 2027.

32. Key issues for this workforce are similar to those highlighted in the previous scenario, including recruitment and retention of staff. The recent upward trend in workforce WTE, if continued, is expected to increase the existing challenges relating to recruitment and retention. There is significant potential for additional impact from the potential UK exit from the EU, with 4.1% of care at home/housing support staff coming from non-UK EU countries.¹⁹ Recent vacancies data²⁰ highlights these challenges. They also show a higher overall vacancy rate compared to care homes for adults:

¹⁹ [The contribution of Non-UK EU Workers in the Social Care Workforce in Scotland](#), an Ipsos Mori report for Scottish Government, June 2018

²⁰ [Staff vacancies in care services 2017](#), Care Inspectorate and Scottish Social Services Council, January 2019.

- The rate of WTE vacancies in the care at home/housing support services workforce increased from 7.1% in 2016 to 7.4% in 2017;²¹
 - Approximately 57% of services reported problems filling vacancies in 2017, up from 55% in 2016.
33. In October 2017, registration with the SSSC commenced for support workers in care at home and housing support services. These workers must be registered by 2020 and must attain the qualification required for their role within five years of registration.
34. The factors impacting on workforce demand and supply in care at home and housing support services are similar to those highlighted in the previous scenario, including specific characteristics of the work such as; unsocial hours (linked to flexible services designed around individual needs), and reports by stakeholders of significant split-shift working, along with current approaches to procurement.²²
35. There is on-going work to address the challenges around recruitment and retention of care staff under Part 2 of the Workforce Plan. New work on employability routes aims to increase entry to the sector. The Scottish Government also provides significant support of around £900,000 per annum in grant funding towards the training of support workers in Care at Home and Housing Support services for small and medium sized organisations in the voluntary sector to help this workforce meet registration requirements.
36. Alongside this, a wider national programme of work to support local reform of adult social care is in development with stakeholders. Together with COSLA, the Scottish Government is working with people who use support organisations, Health and Social Care Partnerships, Local Authorities and the social services and wider professional sectors to develop the programme. The programme will focus on where and how national action can build on, and support, existing and planned work driven by local communities and Health and Social Care Partnerships.

Social Workers

37. The latest SSSC data shows that in 2018 there were approximately 10,650 registered social workers in Scotland. Over 8,400 headcount social work registrants were employed by local authorities. Not all of these were employed in roles as practising social workers (PSWs).
38. As social work qualifying programmes are generic in Scotland, demand and supply is examined overall rather than by specialism, with the focus on social workers employed in local authorities and largely delivering statutory services. Field work services in local authorities are, however, largely delivered by specialist teams, with most PSWs now in specialist adult, children and offenders'

²¹ These figures show the percentages of whole time equivalent vacancies according to the service types used by the SSSC, rather than those used by the Care Inspectorate – see tables in above report.

²² [2017 Benchmarking Report for Voluntary Sector HR Network and CCPS, Coalition of Care and Support Providers in Scotland, April 2018.](#)

teams with only a minor proportion in generic field work. This scenario is based on a more comprehensive analysis of social worker demand and supply published by the SSSC under Part 2 of the NWP.²³

39. Figure 5 shows the WTE trend of Local Authority PSWs employed in Scotland over the last decade.

Figure 5



40. Over a 10-year timeframe the number of WTE PSWs has increased by 7% overall, though there has only been slight variation in the last five years' figures. As with other professions and job families within the health and social care workforce, future demand for social workers will be driven and reflected by a number of factors including:

- **Population demography:** Analysis of the WTE PSWs in local authorities compared to the population of Scotland over the last 10 years shows there has been a slight increase, from 0.96 to 1.09 WTE per 1,000 population. With the population expected to show a modest increase over the next 10 years, there will be additional pressures on social worker capacity due to more people living longer with multiple conditions.
- **Government policy and legislation:** Policy and legislation have driven a long-term shift to more specialisation in social work post-qualifying, with a decline in

²³ [National Health and Social Care Workforce Plan - Part 2.](#)

WTE social workers in generic social work teams²⁴ by around 30% between 2013 and 2017, to form 4% of the total.

- **Distribution of work among staff:** Social work assistants (SWAs) and business support staff are employed to work alongside social workers in fieldwork teams. The number of WTE SWAs has remained roughly constant between 2008 and 2017, while WTE of business support staff in fieldwork services has declined overall by around 30%. While local arrangements may vary, at a national level, social workers therefore make up an increasing proportion of fieldwork staff, with anecdotal evidence suggesting an increase in their administrative work aligning with the reduction in business support staff.
- **Changes to models of working:** New working arrangements, linked to integration of health and social care, may increasingly influence future demand.
- **Demand for qualified social workers from organisations delivering non-statutory services:** Significant numbers of social workers are employed in non-statutory social services settings, such as the third sector, education, non-departmental public bodies (NDPBs) and government. However, there has been an 18% fall in number of registered social workers in these settings since 2016.
- **Retention and retirement rate:** Accurate data for turnover and retirement is difficult to obtain, though the stability index shows that 77% of PSWs were in the same post as the previous year. While increasing numbers of PSWs are approaching retirement age, there has been a similar increase in under-35 year olds within this workforce, suggesting potential for a temporary increase in demand linked to retirements.
- **Vacancy rates:** The vacancy rate for WTE PSWs was 5.7% in December 2017 and has varied between this level and 8.1% over the last five years. Vacancy rates may partially reflect unmet demand and reached a high of 13% in 2003.

41. The impact of these factors is complex to estimate, but suggest a modest increase in demand for PSWs over the medium term, driven largely by population demographics.

42. To provide a more informed view of these factors' effects, three scenarios are illustrated in Figure 6 which show potential future demand for PSWs within local authority fieldwork services.

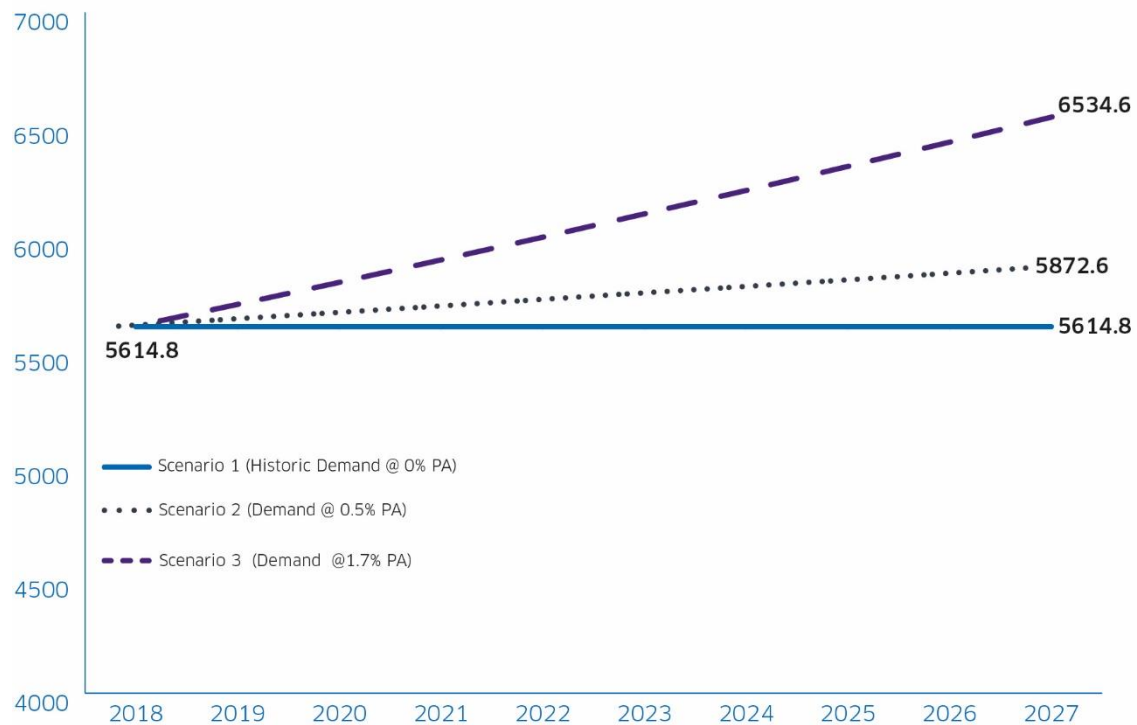
43. As noted, data from SSSC suggests that the current level of vacancies for PSWs is circa 5.7%. The scenarios reflect an estimated establishment figure of 5,614.0 WTE (an in post figure of 5,312 plus vacancies) and show the following assumptions:

- A 0% demand assumption using recent trends observed in the workforce (i.e. broadly static numbers across the last 5 years);
- The workforce impact of an increase of 0.5% in the level of demand;
- The workforce impact of an increase of 1.7% in the level of demand (using the 4% figure suggested in the MTFF with the impact of wage growth removed).

²⁴ Generic field work services include intake and out of hours teams, who potentially work across multiple areas.

Figure 6

**All Fieldwork Social Workers Projected WTE Workforce Demand Scenarios to 2027
(Using 2018 Baseline)**



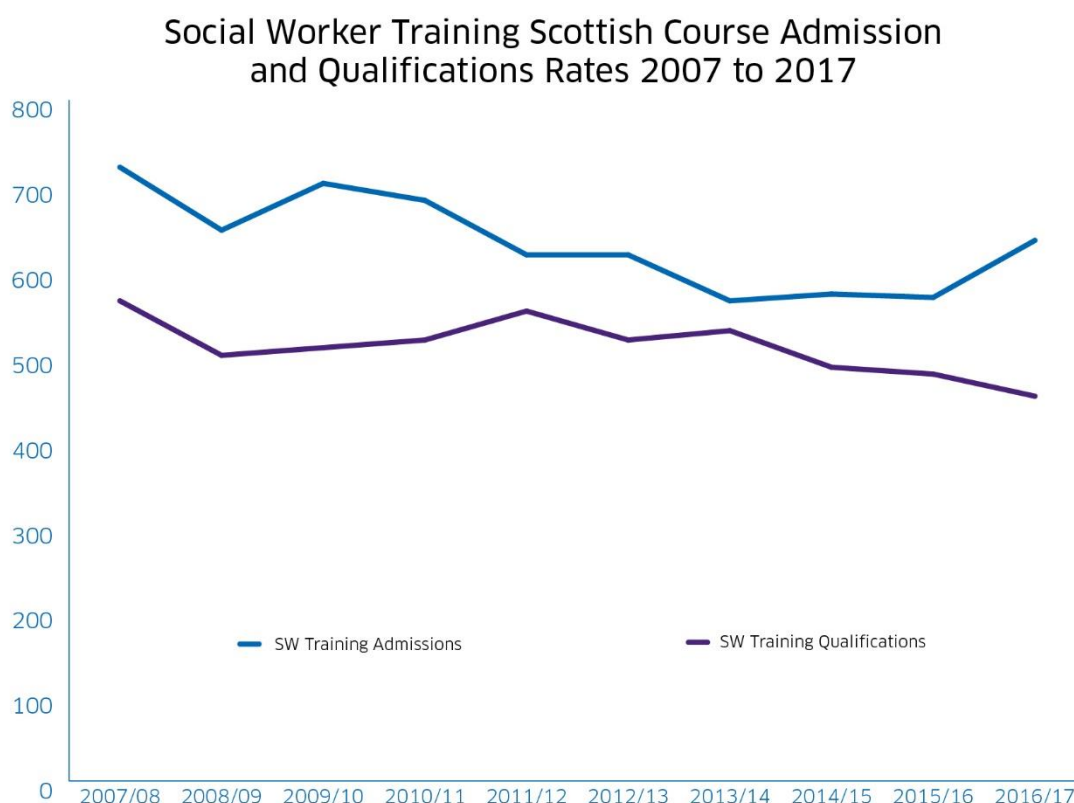
44. For planning purposes, Scottish Government have assumed a demand increase for the workforce of 0.5% per annum (as described in Scenario 2). This represents a change to recent trends, which have seen a static workforce. However given the drivers identified, we see this as a more realistic scenario. Using the estimated baseline establishment figure of 5,649 WTEs, Scenario 2 shows a potential additional workforce requirement of just under 260 WTE by 2027.

Supplying the future social work workforce

45. Numbers of social work students are not centrally controlled, but reflect decisions on intake by the universities providing qualifying programmes and demand from potential students.

46. Figure 7 shows the number of admissions to and qualifications from social work training courses in Scotland over the last decade.

Figure 7



47. The figures show that admissions to social work programmes fell between 2009/10 and 2015/16, with an upturn in 2016/17. The numbers successfully completing courses also fell over this period, following a similar but lagging pattern.

48. The decline has largely been in undergraduate admissions and qualifications with a drop from eleven to nine undergraduate programmes during this time. Two new post-graduate programmes have been recently introduced by universities, and discussions between the SSSC, universities and employers do not currently suggest a likely shortfall in social work supply in the medium term. However, it is important to continue to monitor both demand and supply given the recent decline in qualifications and potential increase in demand.

49. Following the recent review of social work education, a Social Work Education Partnership between employers and academic providers of qualifying programmes is being established with support from the Scottish Government and COSLA. Part of the remit of the Partnership will be to work with SSSC to monitor

supply and demand of qualified social workers and contribute to effective workforce planning for social workers at national level, including through a shared approach to student admissions.

Social Work - Mental Health Officers

50. The Mental Health (Care and Treatment) (Scotland) Act 2003 sets out the requirement on local authorities to appoint a 'sufficient' number of persons to carry out the Mental Health Officer (MHO) role. This includes involvement in Emergency Detention Certificates (EDCs), Compulsory Treatment Orders (CTOs) and Short-Term Detention Certificates (STDCs). MHOs also have a key role around welfare guardianship applications and can either work as part of a specialist mental health team or be integrated into a specialist team whose primary focus is not mental health (non-mental health team).

51. An MHO is someone who:

- Is a qualified social worker;
- Has successfully completed an approved MHO training course;
- Is employed by a Scottish Local Authority.

52. As at December 2018 there were 730 active MHO posts working (637.0 WTE).

53. Local authorities have reported their estimates of the gap between available staff time and the staff time they felt was needed (per week) to meet demand. Twenty two authorities reported a shortfall totalling approximately 1,965 hours a week on average across 2018.²⁵

54. Assuming an average full time working week of 36 hours, an additional 55 WTE MHOs would be required across Scotland to fully address this reported shortfall.

55. Increasing demand is having an impact on local authorities' ability to deliver services. For example:

- The number of welfare guardianship applications for adults with incapacity has continued to rise, with 3,094 applications across Scotland in 2017/18, a 5% increase on the previous year;
- The numbers of emergency detention certificates and short-term detention certificates increased respectively by 28% and 18% over the five years to 2017.²⁶

56. Figure 8 shows possible scenarios for the required MHO workforce until 2026, to show the potential impact of:

- 1.7% per annum increase in workforce activity demand on the requirement for MHOs (as per MTF with the effect of wage growth inflation removed);

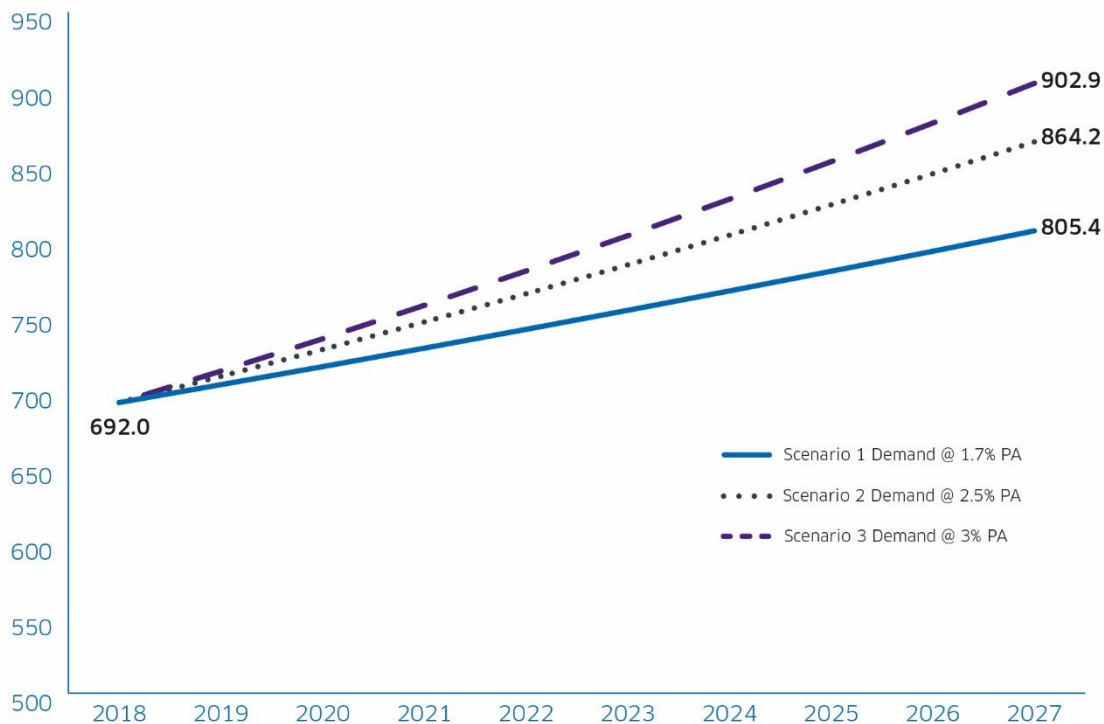
²⁵ [Mental Health Officers \(Scotland\) Report 2017, Scottish Social Services Council, August 2018.](#)

²⁶ [Adults with Incapacity Act statistical monitoring 2017-18, Mental Welfare Commission for Scotland, September 2018.](#)

- 2.5% per annum to reflect an increase workforce activity demand on the requirement for MHOs;
- 3.0% per annum increase, to reflect higher levels of additional workforce activity (e.g. increased requirements for guardianship applications and emergency detention certification).

Figure 8

**Social Work – Mental Health Officers Projected WTE Demand Scenarios to 2027
(Using 2018 Baseline)**



57. The scenario modelling suggests that the demand for MHOs across the ten year period from 2018 will increase steadily within the ranges above, to between 805 WTE and 902 WTE (i.e. an increase in MHO numbers required at the end of the ten year period of between 113 and 211 WTE).

58. **For this staff group, the Scottish Government considers that a workforce demand of 1.7% per annum (as shown in Scenario 1) is appropriate for estimating future workforce need.** This level of demand increase is in line with the MTF, and reflective of recent patterns of activity demand. Using the baseline staff in-post requirement of 692 WTE for 2017 (this reflects the SSSC 2018 staff in-post figure of 637.0 WTE, plus the estimated shortfall of 55 WTE), this would result in an increase in the number of MHOs required after ten years of 113 WTE.

59. To practise as an MHO, social workers must successfully complete one of the three approved Mental Health Officer Award (MHOA) programmes in Scotland. The size of student intake and frequency of training course can vary depending on identified need. As a result, newly approved MHOs join the workforce at various times of the year.

60. Table 2 shows the latest available data for MHO course admissions and associated completion rates over the four academic years to 2016/17:

Table 2

MHO Award Programme Admission to Completion Rate				
2013/14 to 2016/17				
	2013/14	2014/15	2015/16	2016/17
Admissions	58	56	69	67
Completions	46	50	62	60
Completion Rate %	79%	89%	90%	90%
Source: SSSC Mental Health Officer Report 2017				

61. Employers have a number of options to address the short term deficit, including:

- Enabling non practicing MHOs to join or re-join the MHO workforce;
- Increased hours/WTE from existing MHOs;
- Addressing variation in terms and conditions across employers.

62. Increasing admissions into the MHO award programme offers a further way to address the existing shortfall and projected demand increase over the next decade. The Scottish Government is currently developing an approach to support additional training opportunities that will help to address the long-standing shortfall of Mental Health Officers in Scotland.

63. Work is also in progress on proposals to reform adults with incapacity requirements, looking to improve practice and process, particularly around guardianship applications. Further modelling work will help determine how this impacts on MHO workloads, and therefore on projected demand for MHOs in the medium term.

64. Achieving an optimum balance for the future MHO workforce will involve a more sustained effort to refine and use the scenario illustrated.

Primary Care Scenarios

Allied Health Professions

65. Allied Health Professionals (AHPs) are the third largest clinical group in Scotland, with 11,604 WTE staff across 12 professions including physiotherapists, speech and language therapists and radiographers, and a further 436 WTE occupational therapists employed by local authorities. AHPs have a diverse range of specialist skills and can make a vital contribution as first point of contact practitioners to diagnostics, early rehabilitation and enablement.
66. Future demand for AHPs is rising and is likely to continue to rise, alongside the increase in demand for services associated with an ageing population and the continued development of multi-disciplinary teams in primary care. The numbers entering the AHP professions are not currently “controlled” by the Scottish Government and are largely determined by supply into the labour force through higher education.
67. Scottish Government recognise a need for better targeted and more predictive workforce planning given recruitment issues that persist for some AHP professions. These issues suggest a need for a more evidence-based approach to workforce and workload measurement. A national AHP Education and Workforce lead has been appointed to ensure progress across a range of work streams including:
- To explore an AHP workforce planning tool and workforce prediction tools for skill-mixed AHP services;
 - To continue the development of operational measures tools to capture current and future ways of working;
 - To progress definitions and skillsets to support future career pathways through the Transforming Roles Programme.

Primary Care Advanced Musculo-Skeletal (MSK) Practitioners

68. Neck and lower back pain is the second most prevalent condition on the Scottish Burden of Disease list, and is the largest non-fatal burden. When all MSK conditions are included, it becomes the most prevalent.
69. Early intervention and self-management can help prevent MSK conditions from becoming chronic. MSK health issues currently lead to recurring GP appointments (estimated to account for between 18% and 33% of a GP's workload), and individuals with chronic MSK conditions frequently require disability benefit support.

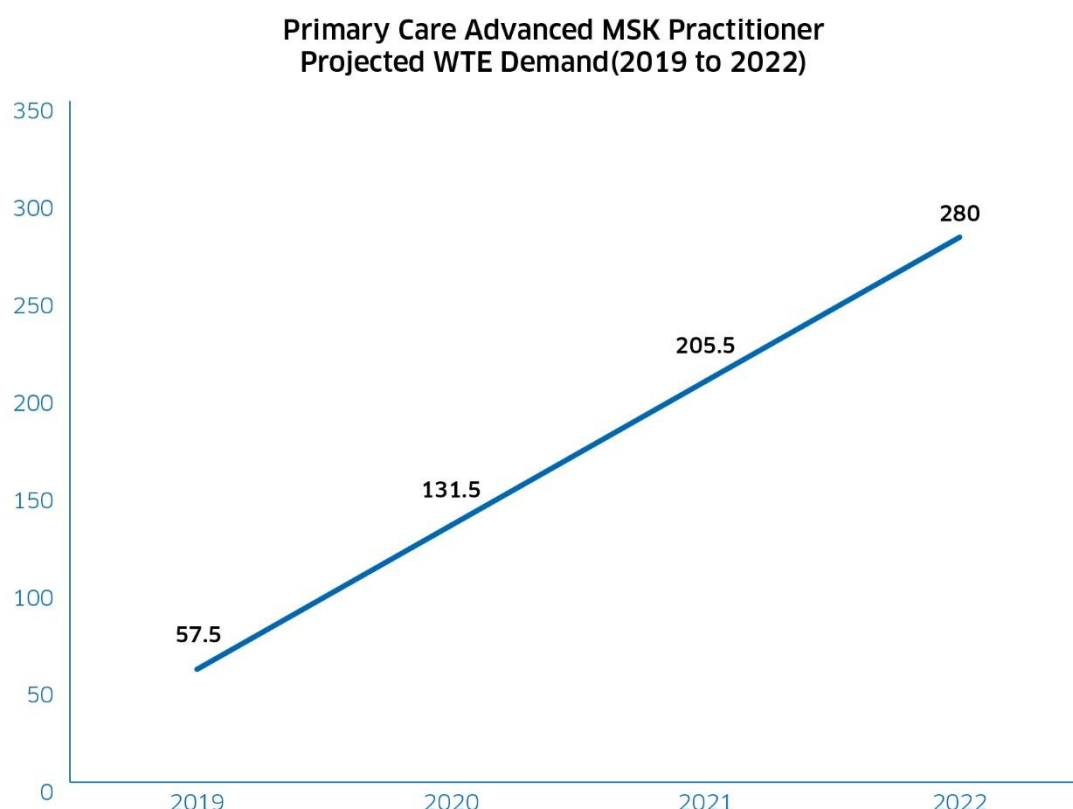
A recent test of change, locating Advanced MSK Practitioners as first points of contact in GP practices, has shown that after AHP MSK Advanced Practitioner intervention, 60-70% of people who presented were able to self-manage their condition, with only 2% requiring GP intervention, thus freeing up GPs to focus on patients with more complex needs. Only 1% of those people presenting have required onward referral to Orthopaedics. This is being reported positively as an overall 30% reduction in patients referred from primary care to Orthopaedic consultants. It also means that medicines are not the primary mode of treatment and the prescribing of medicines is significantly reduced.

70. As at September 2018 there are 57.5 WTE AHP Advanced MSK Practitioner posts operating throughout Scotland in Primary Care. These posts are all filled by Physiotherapists. Analysis of Primary Care Implementation Plans (PCIPs) recently submitted by Integration Joint Boards indicates that the benefits Advanced MSK Practitioners can bring – quicker treatment, supported self-management, less need for onward referral, less prescribing of medicine – are already being recognised.

71. Available evidence from PCIPs identifies a collective intention to increase this workforce to approximately 280 WTE. Given that 57.5 WTE staff are already in post this will require an additional 225 WTE Advanced MSK Practitioners to be recruited.

72. Figure 9 shows a projected trajectory of the identified workforce increase for Advanced MSK Practitioner roles across the period 2019 to 2022.

Figure 9



73. These new Advanced MSK Practitioner posts are anticipated to primarily attract physiotherapists from within existing MSK services. While the posts will undoubtedly enhance physiotherapists' careers and enable them to operate towards the top of their professional licence, the projected shift in numbers may cause pressures on existing physiotherapy and MSK services. To maintain existing physiotherapy capacity, it will therefore be critical to increase numbers of physiotherapists in training. This will "backfill" posts that have been exited by physiotherapists moving to Primary Care Advanced MSK Practitioner posts in a general practice setting.

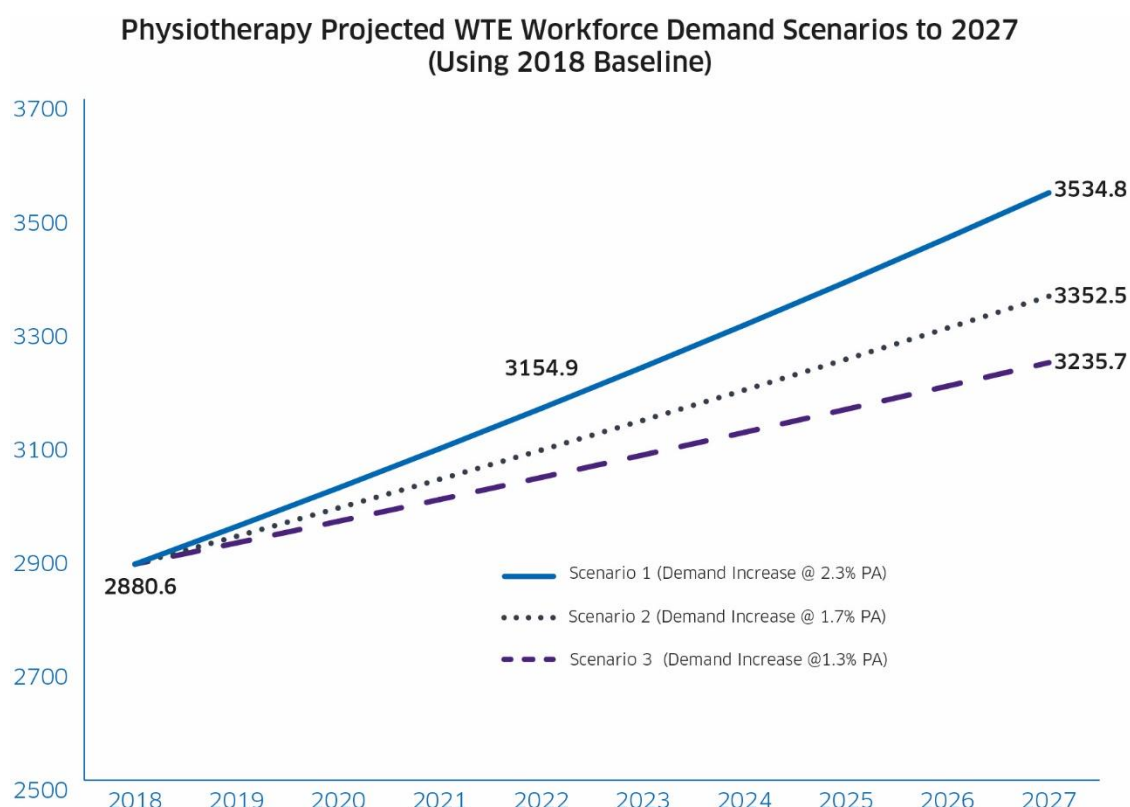
74. As at September 2018, there are 2,880.6 WTE physiotherapists working in NHSScotland. Based on the projected requirement set out in PCIPs for advanced MSK practitioners, Scottish Government estimate that an additional 2.3% physiotherapists per annum will need to be recruited into NHSScotland to meet this new demand.

75. In recruiting to these additional posts, employers will already be considering the ongoing attractiveness of physiotherapy as a career choice, with many qualified physiotherapists aspiring to Advanced Practice roles. There is also good evidence available on the demand for training: the number of applications for physiotherapy courses currently exceeds available places by a ratio of ten applicants to each available place. Further scenario planning helps to inform and expand this picture.

76. Figure 10 below shows three scenarios for the NHSScotland physiotherapy workforce, factoring in additional demand increases at:

- 2.3% - to reflect the anticipated requirement for additional Advanced Practice roles for physiotherapy associated with initiatives to reduce demand for GP appointments;
- 1.7% - to reflect a need for some additional growth in Primary Care Advanced MSK Practitioner roles in the short to medium term;
- 1.3% - to reflect baseline NHS staffing growth assumptions outlined in the MTFF (with wage inflation removed).

Figure 10



77. In relation to the Physiotherapy workforce scenario, an estimated increase of 2.3% per annum (as shown in Scenario 3) would be required to provide the 222.5 WTE additional advanced MSK practitioners indicated by PCIPs across the next 3 years. It cannot, however, be concluded that this level of demand will continue in the longer term (i.e. beyond 2022).

78. This scenario reflects plans across primary care to increase the use of Advanced MSK practitioners, because employing the workforce in this way could significantly reduce numbers of referrals from primary to secondary care. It is also potentially an important factor for waiting times. It states that we need to increase the number of physiotherapists in training, and that at the moment current applications exceed places by ten to one. There is therefore a clear appetite for people who want to carry out these roles.

79. In order to ensure supply meets anticipated demand, we therefore need to consider how to expand this workforce - either by increasing recruitment (for example via return to practice) or by increasing the number of training places.

80. The scenario which shows required growth in the workforce of 2.3% reflects the need for more MSK Physiotherapists to reduce demand for GP appointments – a central part of the approach to primary care reform and the Waiting Times Improvement Plan. However, while the 2.3% scenario is desirable, it is not achievable based on the current output from Scottish Higher Education Institutions (HEIs) alone.

81. The main barrier to expansion of this workforce is the availability of practice placements. Evidence from England and the Peer Assisted Learning (PAL) work undertaken in Scottish pilots demonstrates that both practice placement quality and capacity can be increased by utilising other practice placement supervision models.
82. Agreement has now been secured between Scottish Universities, AHP Directors Scotland Group, NES, The Chartered Society of Physiotherapists and Scottish Government to work collaboratively to accelerate support for practice educators' model change.
83. Scottish Universities and practice placement providers have agreed to support the use of all available placements, including those considered more difficult to access.
84. NHS Board AHP Directors have also agreed to support any additional students by reviewing the practice placement model or adding capacity where necessary.
85. The Scottish Government is developing a number of solutions to this, including:
- Establishing a 'one point of contact' co-ordinated process to support AHP who wish to return to practice;
 - Discussions with NES and the Scottish Funding Council to increase the number of available undergraduate places;
 - Developing Physiotherapy apprenticeships.
86. To meet immediate workforce demand, a 2 year MSc Physiotherapy programme is available, providing an accelerated route for post graduate students into the Physiotherapy workforce. Targeting resources, in the short term, towards funding student fees for Scottish domiciled students, where retention rates are historically around 95%, would ensure that resources are deployed to maximum effect.
87. It is estimated that supporting 79 Scottish domiciled Pre-reg masters students per annum across the next 3 years will provide sufficient supply into the workforce, to ensure the projected 222 replacement need will be met.

Pharmacists and Pharmacy Technicians

88. Pharmacists and pharmacy technicians are located throughout our hospitals, GP practices and communities, providing pharmaceutical care on behalf of NHSScotland.
89. As well as dispensing prescription items, NHS pharmaceutical care services delivered in our community pharmacies include minor ailment, public health, and acute and medicines care and review services. Pharmacists in the community provide direct person-centred care as an integral part of the wider primary care multidisciplinary team.
90. Hospital pharmacists and pharmacy technicians play an invaluable role in delivering clinical services, working closely with clinical teams and others to

ensure the appropriate medicines are prescribed and dispensed and that clinical outcomes are monitored to avoid harm and unwarranted variation. They work in collaboration at multiple points in the healthcare system including pre-admission, admission, prescribing, monitoring and discharge.

91. A three-tiered “pharmacotherapy” service is being implemented in a phased approach, with the aim of introducing a sustainable service that includes access to pharmacist and pharmacy technician support in every GP practice by 2021/22. Level one (core) is focused on acute, repeat and serial prescribing, medication management and prescribing efficiencies. Levels two (intermediate) and three (advanced) describe evolving clinical pharmacy practice and experience, including medication and polypharmacy reviews and pharmacist-led clinics to optimise the use of medicines in pain management and conditions such as heart disease. The implementation of the service will take into account the needs of individual practices and practice clusters by service planners at local level.
92. Between 2015-2018 £20.4m was invested through the Primary Care Fund to recruit pharmacists and pharmacy technicians to GP practices. To date, NHS Boards have appointed 201 WTE pharmacists and 47 WTE technicians through this investment.
93. NHS Boards have adopted a number of different delivery models for the pharmacotherapy service, including sessional input from hospital and community pharmacists, and split posts between practices, clusters and localities. This type of portfolio working is becoming more common and is vital to ensure that the growth of one sector is not putting unnecessary pressure on another.
94. Integration Authorities and NHS Boards have provided initial details of their estimated workforce requirements for pharmacists and pharmacy technicians for the period up to 2021/22 within their Primary Care Improvement Plans. These suggest a substantial addition to the pharmacotherapy workforce in the region of 260 pharmacists and 160 pharmacy technicians.
95. These requirements are in addition to the need to recruit pharmacists and pharmacy technicians to address attrition from the wider pharmacy workforce and to address additional service demand. Given concerns that the increased recruitment of pharmacists and technicians to the pharmacotherapy service could denude the hospital and community pharmacy sector of workforce, it is important that recruitment to the new pharmacotherapy service is delivered sustainably.
96. In view of these challenging factors, a multi-stakeholder Pharmacotherapy Implementation Group is providing the necessary governance, oversight and direction to Integration Authorities and NHS Boards to systematically address the recruitment of the additional pharmacists required to meet the needs of the pharmacotherapy service over the next three years. In doing so, the Group is cognisant of the demand to replace pharmacists leaving the Scottish workforce, and the additional service demand increase at 1.3% per annum in line with the recommendation made in the MTFF.

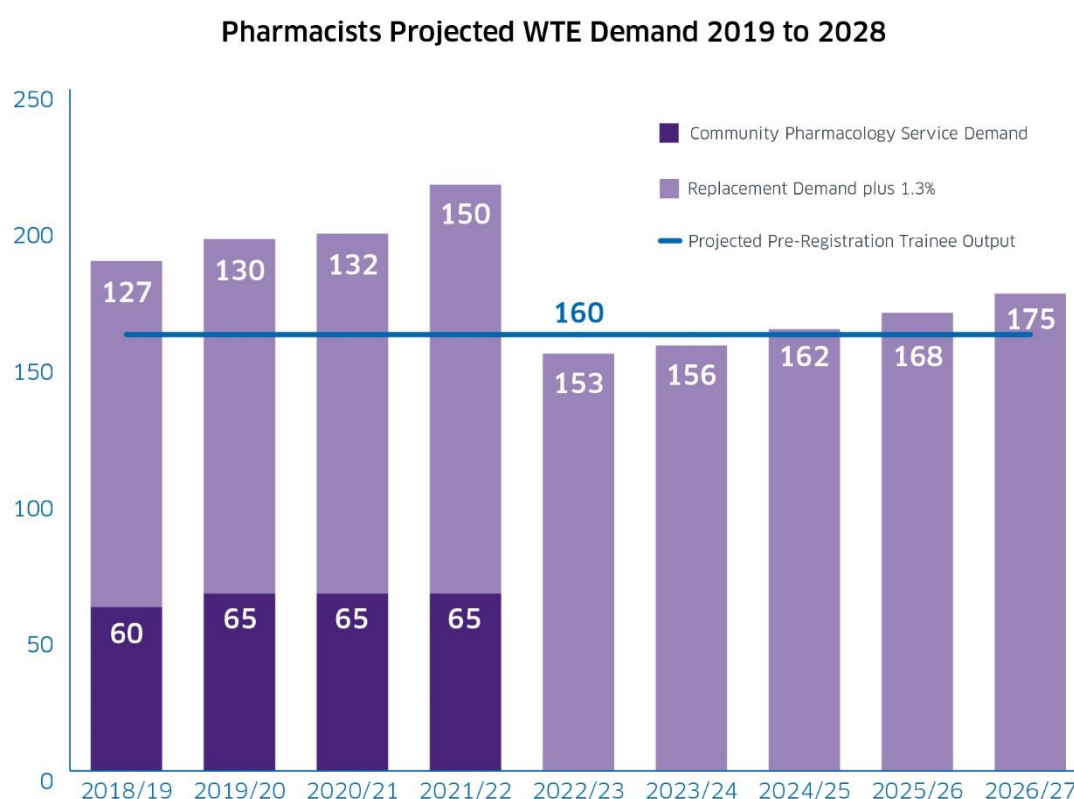
97. In addition, the intelligence from the Community Pharmacy Workforce Survey, now entering its second year, will be crucial in identifying the staff numbers and skills mix required to meet the challenges of delivering new models of primary care and the educational needs of the profession in this sector.

98. Early work is being done to assess and model the projected demand for pharmacists in Scotland across the next decade, as set out in Figure 11. This is predicated on a mix of demand associated with:

- Additional pharmacists to meet the needs of the pharmacotherapy service over the next three years;
- Demand to replace pharmacists leaving the Scottish workforce;
- Additional demand increase at 1.3% per annum in line with the recommendations made in the MTFF.

99. However, additional modelling is required to substantiate these figures and to fully gauge the effects of demand in light of further intelligence as it becomes available; the balance required across different sectors; the need to take into account cross-border flows, and a range of other factors.

Figure 11



100. As this modelling work continues, and with the guidance and support of the Pharmacotherapy Implementation Group, the priority in the period up to 2022 is to develop the pharmacy workforce in a measured way by ensuring the balance is maintained across the whole pharmacy workforce in hospital, community, and GP practice settings.

101. In 2018-2019 we increased the number of funded training places in the NES Pre-registration Pharmacist Scheme (PPRS) from 170 to 200 annually. Of these we expect, in line with previous annual NES exit surveys, that at least 80% of pre-registration trainees will remain in Scotland after qualification as a pharmacist.
102. In order to ensure the competencies required of pharmacists to meet future workforce demands, work has already commenced to introduce a five year integrated initial education programme for pharmacists in Scotland.
103. To assist with this, Scottish Government is already investing in and providing a greater mix of enhanced experiential learning in clinical practice for undergraduate pharmacy students, including in primary care and out-of-hours services, to help students gain valuable experience in these settings. This is a key addition in preparing students with the relevant skills and experience for the changing demands of the workforce, including collaborative practice. It is also an important first step in helping to build a career pathway for pharmacists.
104. In order to build and sustain a flexible pharmacy workforce and to support career advancement, NES pharmacy provide vocational training during the early, developing and advanced stages of a pharmacist's career pathway equipping them with the necessary skills and competencies. A similar learning pathway is being developed for pharmacy technicians.
105. A review of a Career Framework for pharmacy technicians across all sectors of practice in Scotland is also under way. Further development of the role technicians can play in all sectors will also have an impact on the demand for pharmacists. In particular, any potential increase in the number of pharmacy technicians will support the pharmacotherapy service, as technicians start to take on more task-based activities.

Dentists

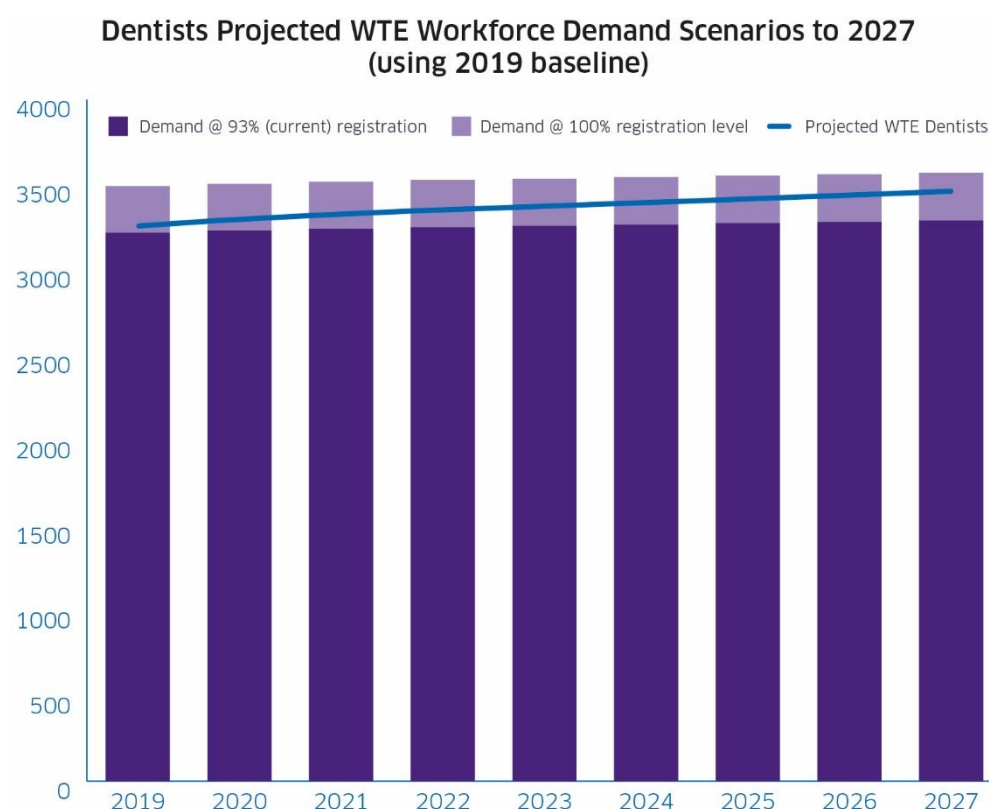
106. The delivery of primary care dental services is largely provided by General Dental Practitioners (GDPs), who are independent contractors.
107. Public Dental Service (PDS) providers complement mainstream independent General Dental Service (GDS) provision. They are employed by NHS Boards to provide for people with special care needs and those who cannot access care from GDPs.
108. The percentage of both children and adults registered with a GDS dentist has continued to increase during the past two years, with 93.8% of children and 92.2% of adults registered at the end of September 2017. However, there is still considerable variation in registration rates (as a percentage of the population) between NHS boards.
109. The number of registered patients in Scotland is higher than ever. As the population of Scotland is projected to increase, it is likely that the number of registrations will also increase.

110. Recommendations on dental student intakes are made annually by the Dental Student Intake Reference Group (DSIRG) to Scottish Ministers, based primarily on evidence contained within the NES Dental Workforce Report that is published biennially²⁷. The DSIRG reviews the latest workforce trend information and service demand available, along with dental workforce forecasting. This enables a consensus decision to be reached on the dental student intake.

111. Figure 12 below shows the potential scenarios associated with demand for dentists across the next decade. The scenario shows:

- The projected demand for whole time equivalent (WTE) dentists if registration rates remain at current levels of circa 93% (shown in blue);
- The projected demand for WTE dentists if registration rates increase to 100%;
- The projected number of WTE dentists in the workforce if existing levels of workforce supply are maintained.

Figure 12



112. During the ten year forecast period there are likely to be more GDS and PDS dentists than are necessary if patient registrations continue at current rates. In the event of 100% of the population wanting to be registered, there would be insufficient numbers of dentists. However, the DSIRG consider it unlikely that registration will increase to this level.

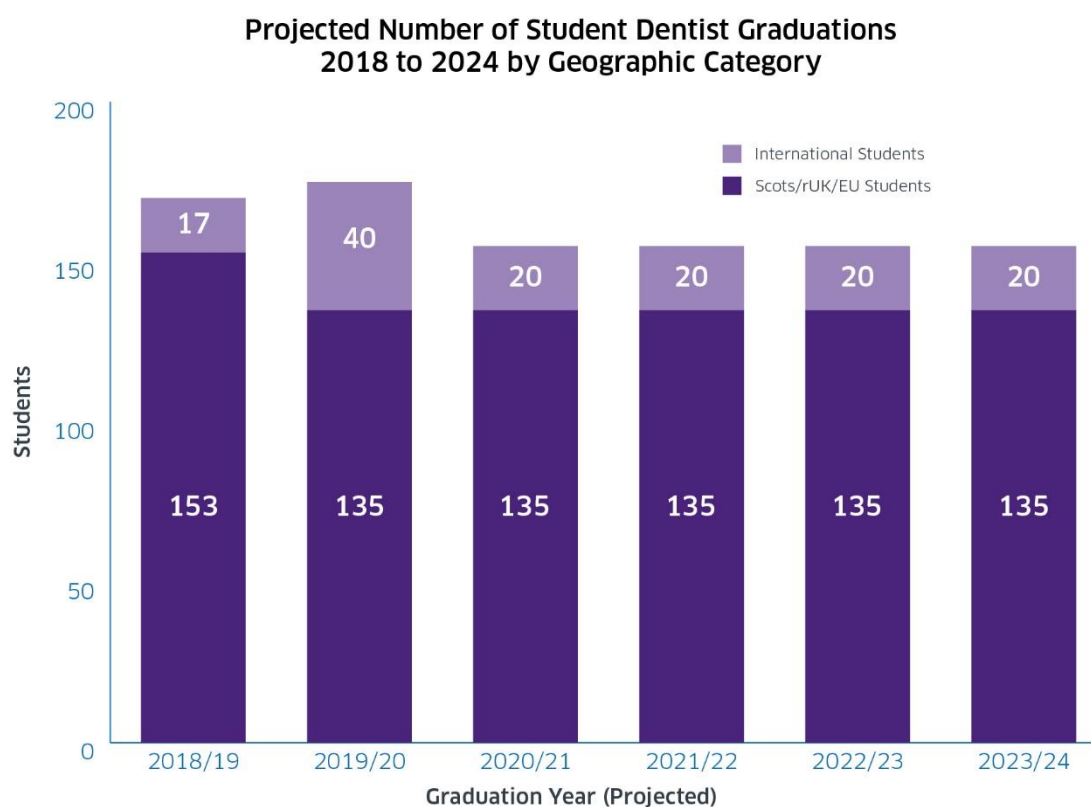
²⁷ [Dental Workforce Report 2018](#), NHS Education for Scotland, November 2018.

113. The retention rate of Dental Practitioners continues to remain high in Scotland and given that there is a potential oversupply of dentists to meet demand, consideration was given to reducing intake. However this has not been recommended this year due to two significant issues:

- The need to ensure a stable and balanced approach to intake numbers across Scotland's dental schools;
- The need to mitigate factors associated with the UK's potential EU exit which may affect the dental workforce in Scotland.

114. Assuming a 100% completion rate by students, in the minimum time to complete their training, the projected output from Scottish Dental Schools over the 6-year period from 2018/19 to 2023/24 will be as shown in Figure 13, below. (Note that this includes a proportion of international students, who are not expected to be retained within the Scottish dental workforce in the longer term).

Figure 13



115. The DSIRG examined the possible impact of potential EU exit and concluded that the impact on inflows and outflows of dentists trained in the EEA cannot be estimated with any certainty.

116. At this time it is not clear if the current cohort of dentists and students who are EEA nationals will:

- Stay in Scotland;
- Stay in Scotland for a shorter period than has been observed historically;

117. **Due to this, the dental student intake for 2018/19 has been maintained at 135, in line with intakes for the previous five years.** This figure will continue to be reviewed by the DSIRG in light of any additional evidence around registration levels and any identified impacts on the existing workforce associated with potential EU exit.

NHS Scenarios

Nursing and Midwifery

118. Nurses and midwives play a vital role in achieving the vision for health and social care, and maximising their role and contribution is the key aim of the *Transforming Roles*²⁸ programme of work. The way nurses and midwives work is constantly changing: this applies to the work they do, where they work, and the people they work with, particularly in taking on new or extended roles, or working as part of multidisciplinary teams. All of these factors have an impact on the numbers of nurses and midwives required in future.

119. NHS National Services Scotland, Information Services Division (ISD) already uses available data to model scenarios of required student supply, which are shared and discussed with stakeholders in the Nursing and Midwifery Student Intake Reference Group.

120. The modelling process for assessing demand for nurses and midwives in the future is informed by data including:

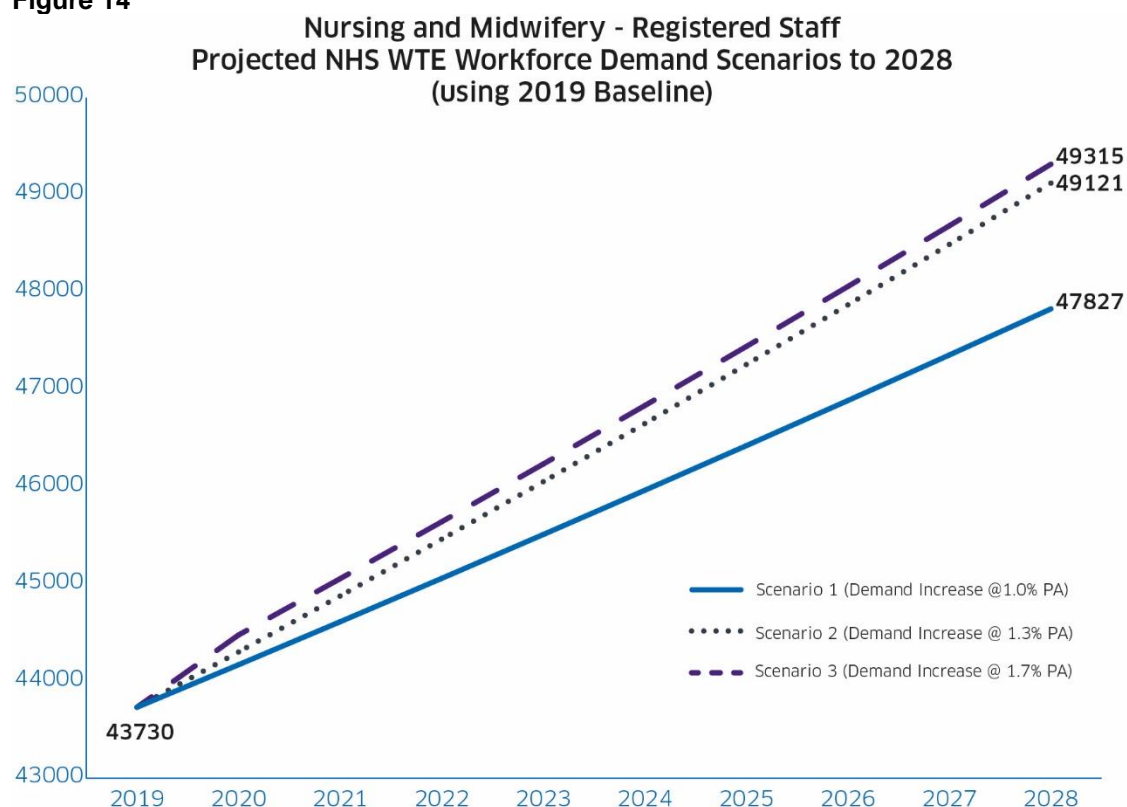
- Current registered Nursing and Midwifery workforce numbers;
- Age profile and age distribution;
- Leaver and joiner rates – current and historical;
- Any available non-NHS demand data from:
 - Social care;
 - Independent healthcare providers;
 - GPs and independent contractors.

121. Figure 14 models potential demand for the WTE demand for registered nurses and midwives to 2028 using the latest available baseline data, and then introduces:

- An additional 1.0% increase in clinical activity (to reflect the modelling assumptions which have been made as part of the Nursing and Midwifery Student Intake Reference Group work);
- An additional 1.3% increase in activity associated with the assumptions outlined within the MTFF (with the impact of wage inflation removed);
- An 1.7% increase to reflected a larger increase in activity than the assumptions within the MTFF

²⁸ [Transforming NMaHP roles](#), NHS Education for Scotland, 2019.

Figure 14

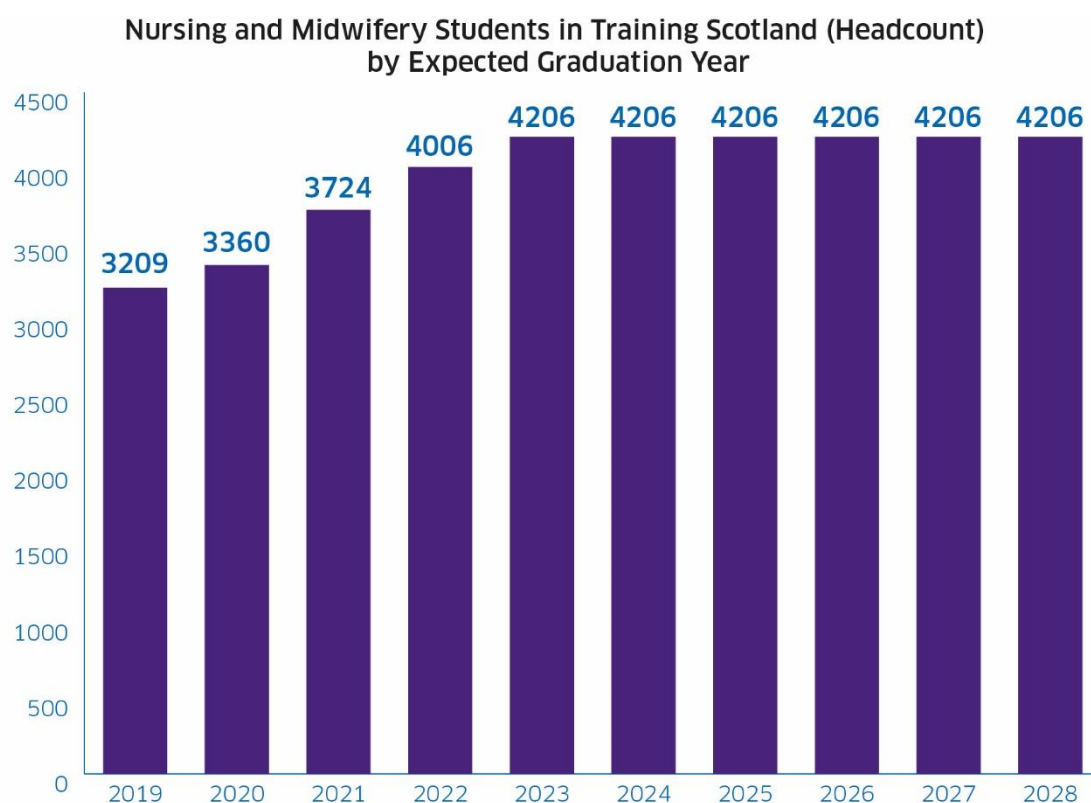


122. The Scottish Government is committed to creating 2,600 new nursing and midwifery training places by 2021. As shown in Figure 15, to meet this, the 2020 academic intake (expected to graduate from 2023) will see the eighth successive rise in intake numbers, with a further increase of 5% to 4,206 per year.

123. This increase is seen across all areas of nursing, but particularly in mental health, learning disability and midwifery to meet the increased demands for these specialities.

124. In Figure 15, for the purposes of illustration, the agreed 2020 intake figure of 4,206 students has been maintained across the rest of the scenario timeframe.

Figure 15



125. Figure 16 shows the estimated WTE outflow and inflow assumptions for the registered nursing and midwifery workforce across the next decade.

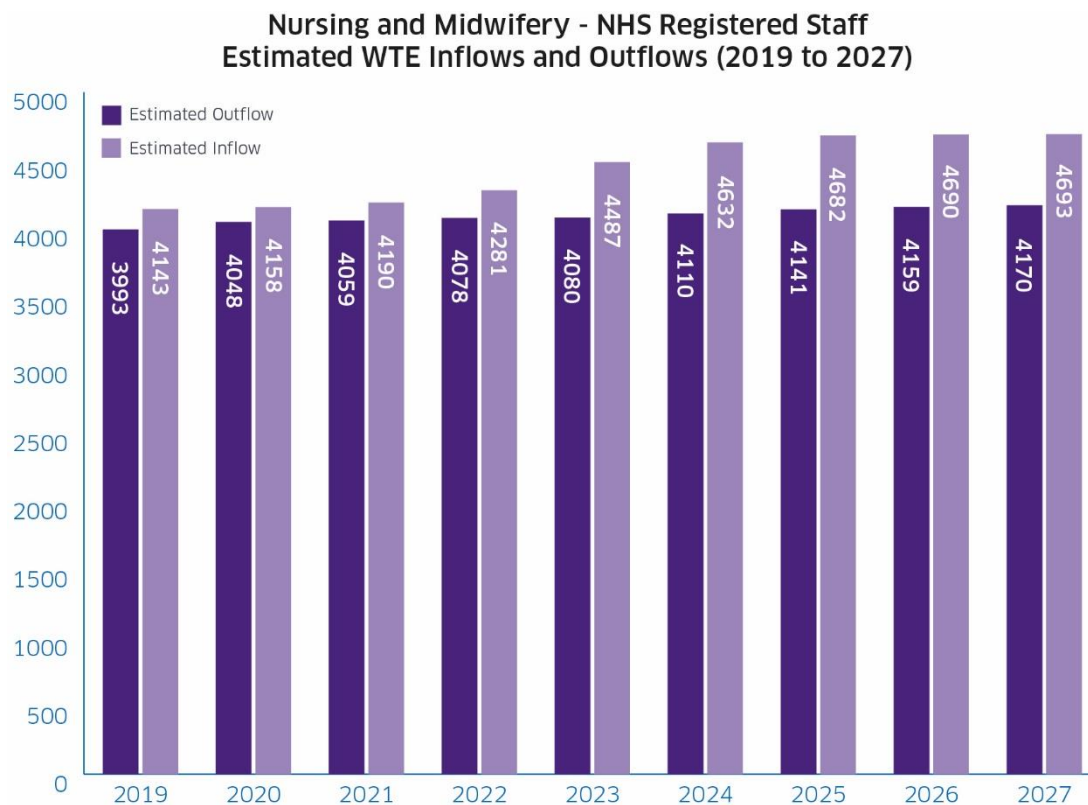
126. The figure for inflows uses historic trend data which shows:

- An average completion rate of 79% for nursing and midwifery student, (i.e. we anticipate that 79% of the 4,006 students who entered training in 2019 (3,165 WTE) will be available to enter the workforce in 2022;
- A further 5% of students who graduate choose not to immediately enter the clinical workforce;
- An average WTE participation rate of 0.9 WTE, to reflect less than full time working patterns across the nursing and midwifery workforce;
- An assumed figure of 2100 WTE (based on an average across the last 5 years), to reflect recruitment of registered nurses from outside Scotland and staff returning to practice in the workforce.

127. The figure for outflows uses projected leavers from the nursing and midwifery workforce using:

- Current age profiles and observed retiral trends;
- Patterns of nursing and midwifery staff leaving to obtain employment out with Scotland.

Figure 16



128. For each of the scenario years to 2027, Scottish Government anticipate a net inflow into the nursing and midwifery workforce.

The District Nursing Workforce

129. The district nursing service is an essential part of the health and social care system, and often makes the difference between people being able to stay at home rather than being admitted to hospital or a care home.

130. District nurses (DN) play a key role supporting independence, managing long term conditions, providing palliative and end of life care, preventing and treating acute illness, preventing inappropriate hospital admission, and supporting early discharge from hospital. District nurses work within and across the wider primary care and the integrated health and social care teams.

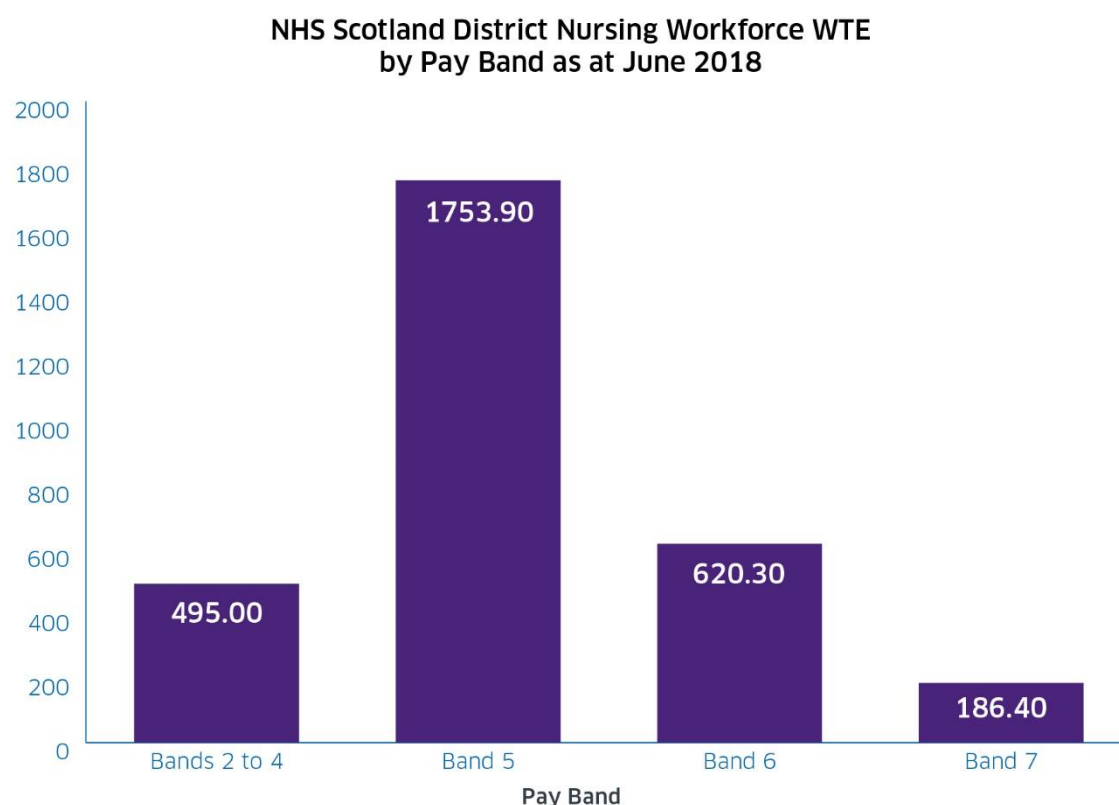
131. The National Health and Social Care Workforce Plan Part 3 set out recommendations for improving primary care workforce planning in Scotland.

132. Recognising the importance of the district nursing workforce in shifting the balance of care from hospitals to community settings and managing more care in the community, the Scottish Government gave a commitment to work alongside partners, including the Royal College of Nursing, to understand the requirements for sustaining and expanding the district nursing workforce.

133. A short life working group (SLWG) was set up which had representatives from a wide variety of stakeholder groups from across the Scottish Government, NHS Boards, Integration Joint Boards, professional bodies and staff side representation.
134. During summer 2018 a series of workshops were held along with smaller sub-group meetings to agree and analyse available workforce and activity data with a view to making recommendations on future requirements for the District Nursing Workforce. These recommendations were presented to the Cabinet Secretary for Health and Sport.
135. Members of the SLWG agreed that in order to align this work with agreed workforce planning approaches used across NHSScotland (as outlined within CEL (32) (2011) the [Six Steps Methodology to Integrated Workforce Planning](#)) would be used to inform the exercise.
136. The working group looked at a two-phased approach to the project:
- **Part 1** sustaining the current district nursing workforce;
 - **Part 2** predicting future district nursing workforce requirements and investment.
137. Following Audit Scotland recommendations on Workforce Planning in the NHS²⁹ the group agreed that its final recommendations would, as well as being based on an assessment of projected longer term population needs, be fully costed and include an assessment of the training pathways which will be required to ensure any suggested workforce increases can be delivered within an appropriate timeframe.
138. Initial workforce data from NHS Boards indicates that the district nursing workforce consists of 3,790 headcount staff inputting 3,055.5 WTE as shown in Figure 17 below.

²⁹ [NHS Workforce Planning](#), Audit Scotland, 2017.

Figure 17



139. ISD data indicates that a high proportion of the district nursing teams at Band 5 and 6 who joined the NHS pension scheme prior to 1995 qualify for special class status, meaning they can claim their pension from the age of 55 and that approximately one third of the district nursing workforce will have reached this age within the next three years. In addition, there has been a year on year increase in vacancies within the service.

140. Data analysis undertaken by the SLWG reviewed current and future demand for district nursing services and modelling suggests:

- A likely gap between the current demand for services and available workforce supply;
- That demographic change means the demand for DN services will increase significantly due to a growing older population and increasing complexity.

141. The SLWG concluded that there is a requirement to increase the funded WTE establishment within DN workforce to take account of the above factors

142. The SLWG recommended increase is 12% in the district nursing workforce across the next five years – or an increase of circa 375 WTE nurses within the district nursing services based on the current national skill mix.

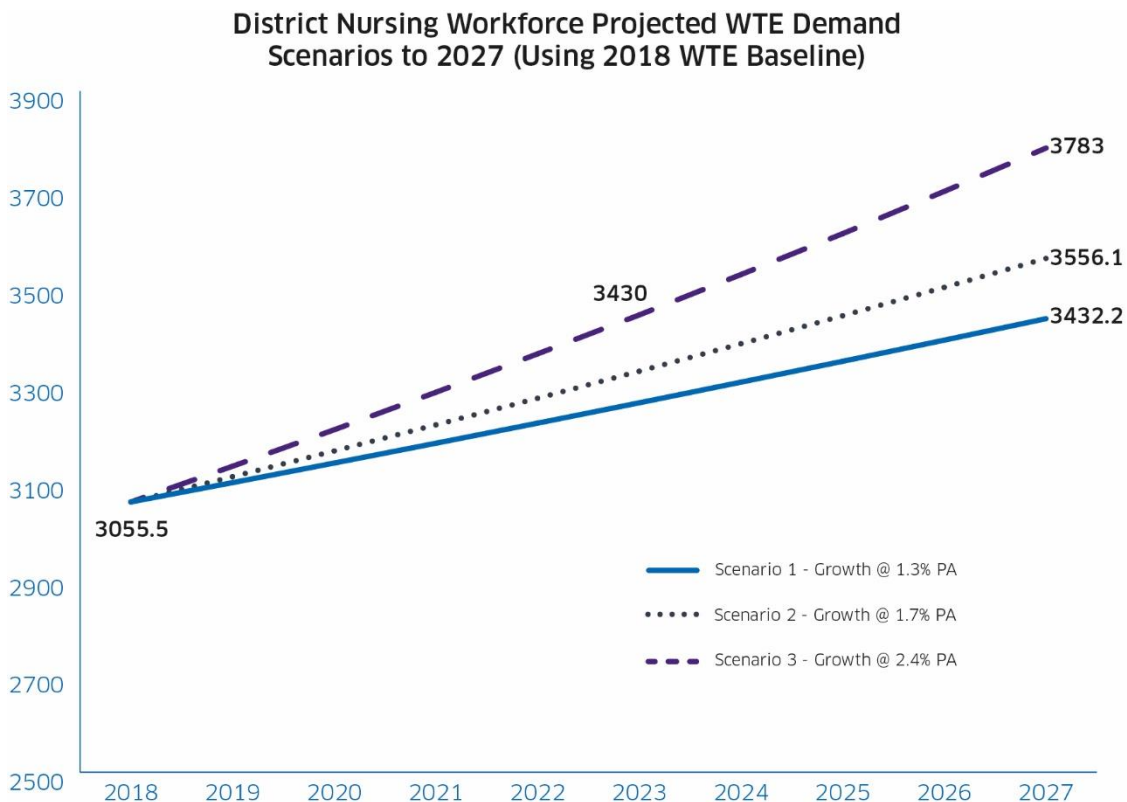
143. This increase consists of:

- A further 9% growth in the districting nursing services over the next five years due to projected demographic change and demand associated with increasing complexity and co-morbidity;
- A further increase of 3% to cover increasing demands associated with shifting the balance of care, the impact of the changes to the GP contract as set out in the memorandum of understanding and increasing pressures associated with care home sustainability;
- The workforce review identified that the district nursing service is already experiencing an increase in demand of around 3%.

144. Figure 18 shows three scenarios to model the potential workforce shift which may be experienced over the next 5 years:

- Scenario 1 shows workforce demand increase at 1.3% per annum in line with the recommendations contained in the Medium Term Health and Social Care Financial Framework, with the impact of wage cost inflation removed;
- Scenario 2 shows an intermediate workforce demand growth at 1.7% i.e. in excess of the MTFF figure;
- Scenario 3 shows demand at 2.4% per annum which will be required to meet the recommendations made by the SLWG to increase the district nursing workforce by 12% over five years.

Figure 18



145. The scenarios show that, across the next decade, the potential increase in the district nursing workforce ranges from 375 WTE, using a 1.3% per annum, to circa 730 WTE using the higher 2.4% per annum figure advocated by the SLWG.

146. There are implications for supply of this workforce and education requirements associated with sustaining and growing the district nursing workforce. However these issues must be considered in the context of the positive impact of an investment in district nurses in helping achieve our policy ambitions of
- Shifting the balance of care;
 - Supporting more care and treatment at home or in a community setting;
 - Reducing the demand on acute services;
 - Supporting primary care transformation;
 - Increasing early supported discharge from hospital;
 - Supporting care home sustainability.
147. At present, the training pool for district nurses is from the adult nursing supply and there are a number of demands for this workforce by other areas including acute services, elective centres, care homes and general practice. The Student Nurse Intake Group's recommendation was to increase adult nursing student numbers by 5% for the 2019 intake. This increase will enable supply until 2023.
148. Historically, only very experienced nurses were employed in the district nursing workforce. This trend needs to change if we are to ensure that supply continues to meet demand.
149. The SLWG has highlighted a need for a more proactive approach to training district nurses. The current district nursing education programme must meet NMC standards in order for district nurses to achieve the NMC specialist qualification which is recordable with the NMC. There are several HEIs across Scotland which provide this course. The current district nursing education programme is at postgraduate diploma or masters level. The duration of the training is 12 months full-time or two years part time. NHS Boards need to release staff and backfill staff to support students to undertake these courses. The Boards have reported challenges with this and the workforce review has identified a growing supply and demand gap at senior practitioner/district nurses caseload holder level within the service across Scotland.
150. The Scottish Government, within part 3 of the National Workforce Plan on Primary Care, made a commitment to invest £3.9 million for education and training of district nurses. This is in addition to the previous investments associated with the refocused district nurse role. The Scottish Government has worked with NES and NHS Boards to scope a more flexible approach to district nursing education, which at foundation level can be accessed by all community nurses including General Practice nurses, district nurses, care-home nurses and prison nurses. This will help increase the supply of nurses within the district nursing service at senior practitioner level.
151. In response to a request for a more flexible district nursing programme, a proposal for a new modular/work based programme for Band 5 community nurses, supported by the Scottish Executive Nurse Directors and the Council of Deans, was commissioned by NES. The new course will be more practice based and therefore reduce the need for backfill. This programme will be available from Jan 2020.

152. However, if NHS Boards/Health and Social Care Partnerships (HSCPs) are to bridge the growing demand capacity gap for qualified district nurses then there may be a need to be a significant increase in the number of diploma students in district nursing in the short to medium term.
153. These scenarios show that we are actively working to improve our understanding of the future nursing workforce. However it is important to set this in the context of existing Scottish Government commitments to increase that workforce, including:
- **Supporting the Health Visitor workforce** – the most recent official statistics published in March 2019 covering the period ending 31 December 2018, show that the commitment to an additional 500 health visitors (in post or in training) by the end of 2018 has been achieved;
 - **Developing Advanced Nurse Practitioner capacity** – the announcement, in February 2016, of £3m to train 500 Advanced Nurse Practitioners (ANPs) by 2021.

Care Home Nursing

154. As part of the National Care Home Contract (NCHC) reform, COSLA and Scottish Care established a workforce group to consider ways to address the workforce challenges facing care homes for older people. There are significant challenges in recruitment and retention, particularly with care home nurses. Care home nursing is exceptional and unique and can help support our vision of the role of the care home sector in supporting a greater number of people with complex needs to live well in a homely setting. There is widespread recognition that to do this, care home nursing needs to be valued and supported. Following a series of engagements with stakeholders, a number of priority areas were identified to enable progress in meeting these challenges. These priorities include work to:
- Understand disparities in terms and conditions for nurses working in care homes;
 - Define the role of nurses in care homes and develop a work stream within the transforming roles programme;
 - Progress the development of a capability tool for care homes to measure physical, psychological and social needs of residents which will help inform the future workforce/workload tool for care homes for adults under the Health and Care (Staffing) (Scotland) Act;
 - Consider options to increase student nursing placements within care homes;
 - Progress the test of concept in relation to care home access to the NHS nurse bank;
 - Promote the image of care homes as a good place to work – in particular for students and registered nurses;
 - Develop a skills and competency framework/passport for registered nurses and care support workers working in care homes to reduce the need to retrain staff who may move from one care home sector to another and to help support revalidation for nurses working in care homes.

155. Work will be taken forward as part of the Chief Nursing Officer's Transforming Nursing Roles Programme, which provides strategic oversight, direction and governance to the development and transformation of nursing roles to meet the current and future needs of Scotland's health and care system. The Programme aims to clarify nursing roles and contribution, reducing variation or duplication in roles and education, and ensuring fit for purpose, flexible, consistent education.
156. Nurses in the care home sector (and more widely in the third and independent sector) already experience particular staffing challenges. To support addressing these challenges, work is underway to introduce new roles in this sector, such as more Advanced Nurse Practitioners, and to provide more opportunities to develop the confidence of staff to work independently in community based sectors.

Planning the Medical Workforce

157. Historically, medical workforce planning has involved aggregating Board returns based on future projection of need against predictions of medical retirement, against expansion of the medical workforce in light of available resource, with only limited projection of anticipated changes in service demand of one to two years.
158. While numbers of medical consultants in NHSScotland have increased by 51.3% to record high levels, a key question remains about how vacancies can be addressed across a range of clinical specialities. Taking dermatology as an example, we know that there is work being taken forward on waiting times to identify the appropriate workforce and support challenges in recruitment and retention. This involves creating a stable and experienced clinical team of dermatologists, trainees, GPs with special interest, advanced medical practitioners and nursing staff. Through the Scottish Access Collaborative, dermatology is one of the specialties involved in a series of workshops working with clinical teams across Primary and Secondary care to agree where efforts should be focused to improve access for patients.
159. However a more objective, sustainable evidence base is required to ensure this work is targeted effectively. To date, scenario planning for future medical specialty workforce numbers and predictions has been based on generic assumptions, insufficiently sensitive to model future demand with confidence. The process has not fully considered policy drivers of demand and has lacked an explicit mechanism for increasing the medical establishment where appropriate.
160. With the development of the TURAS Data Intelligence platform, a series of scenarios have been developed using the following assumptions based on known trend data for the medical workforce, which suggests:
- An average retiral age of 61 for Medical Consultants;
 - An increase in workforce demand of between 1% and 4% per annum across the next ten years. This takes into consideration the predicted average demand increase of 1.3% across the NHSScotland workforce and any further specific information for individual specialties where available;

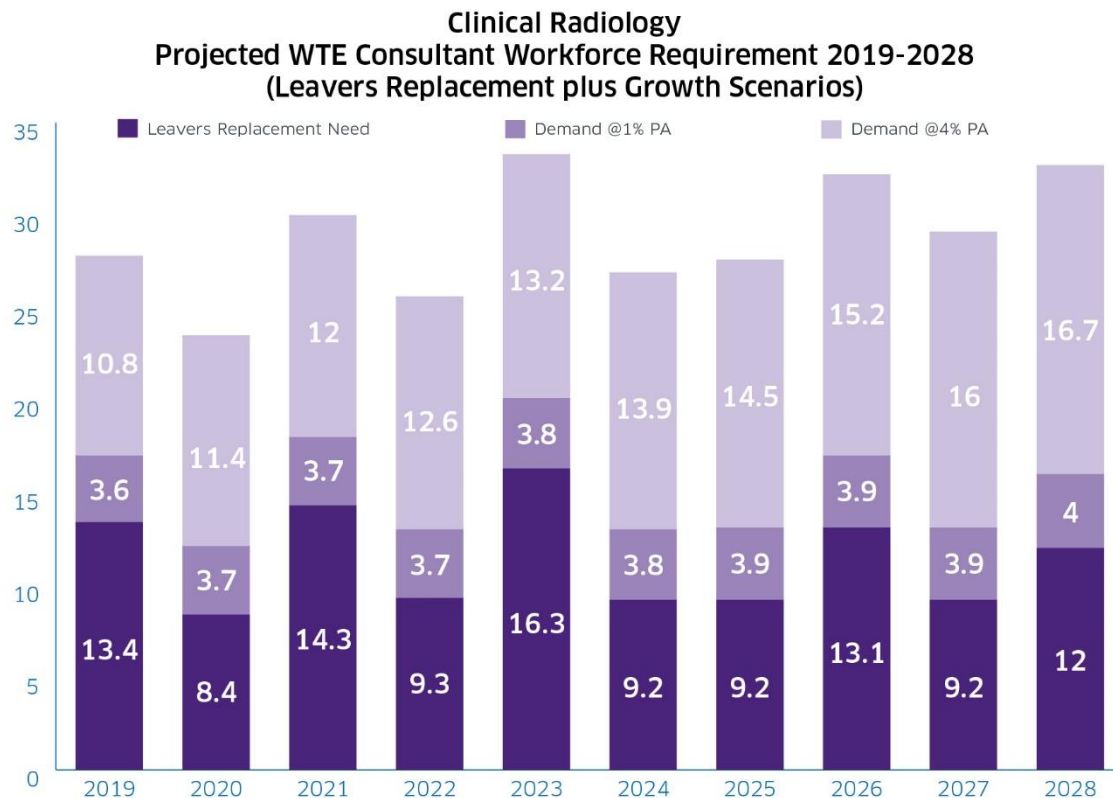
- A requirement to train 1.4 WTE replacement specialists for every 1.0 WTE predicted retiral, to reflect lower participation rate trends observed within the recently employed consultant workforce.
161. The scenario example presented here describes the potential demand for consultants working in the clinical radiology specialty area where a campaign to recruit radiologists during 2018 successfully filled approximately 20% of advertised posts.
162. The Scottish Government is aware that there are some limitations to recruiting internationally, particularly as areas of domestic shortage are also likely to be areas of international shortage. Nevertheless, learning from the radiology campaign has identified where the quality of marketing activity can be improved, including areas in which we can take a more intelligence led approach.
163. Immediate actions are under way to address NHS Scotland's resilience within a number of medical specialty areas which have been identified as being under pressure.
164. Based on an assessment of current consultant vacancies, cross-referenced against the data we have on other workforce drivers (e.g. increasing service demand, numbers of EU doctors living and working in Scotland) initial activity is being targeted to the following specialty areas:
- Anaesthetics;
 - General Surgery;
 - Paediatrics;
 - Psychiatry.
165. It should be noted that there is some cross-over between the priority specialties set out above and our workforce priorities for tackling waiting times, particularly in respect of general surgery and anaesthetists, which will provide the additional capacity necessary to support the development of our new Elective Centres.
166. Successfully filling posts will be affected by availability of suitably qualified staff. Scottish Government will target marketing activity in areas where we have intelligence about the supply of doctors. We will do this by working with stakeholders, including the Medical Royal Colleges, to devise marketing material and to work with their respective networks of contacts. Effective market research will be a core component of any commissioned marketing activity.
167. Where appropriate, and to further mitigate potential supply difficulties, the Scottish Government will commission specialist recruitment agencies to focus on a defined number of hard-to-fill posts.
168. In the medium term, the Scottish Government will undertake further activity across other specialty areas e.g.:

- Gastroenterology;
- Urology;
- Histopathology;
- Emergency Medicine.

Clinical Radiology

169. A number of factors combine to challenge existing planning for radiologists. These include the demand for imaging services, technological advances, the increasingly ageing population, and a UK-wide shortage of suitably qualified radiologists.
170. Using activity trend analysis to better inform national capacity planning will provide a realistic and more responsive workforce planning approach.
171. The Scottish Radiology Transformation Programme (SRTP) has implemented a workforce modelling tool, which allows assessment of activity and resulting capacity requirements of radiology posts. This has been linked to the supply-based TURAS Data Intelligence platform to agree common assumptions of future demand on radiology services and support accurate future estimates of training posts.
172. Looking first at the existing numbers of consultants, Figure 19 shows the number of consultant radiologists Scottish Government estimate will be required to replace retirees and leavers for each of the next ten years. Factoring in an increase of clinical demand of 1% per annum and 4% per annum from 2021 raises this requirement by the numbers identified. Given these assumptions, the total additional number of consultant radiologists we estimate will be required in 2021 is, at its lowest estimate, 14.3 to replace estimated leavers alone (assuming no increase in demand). This figure will be 18 if demand rises at 1% per annum, and 30 if demand rises at 4% per annum.

Figure 19



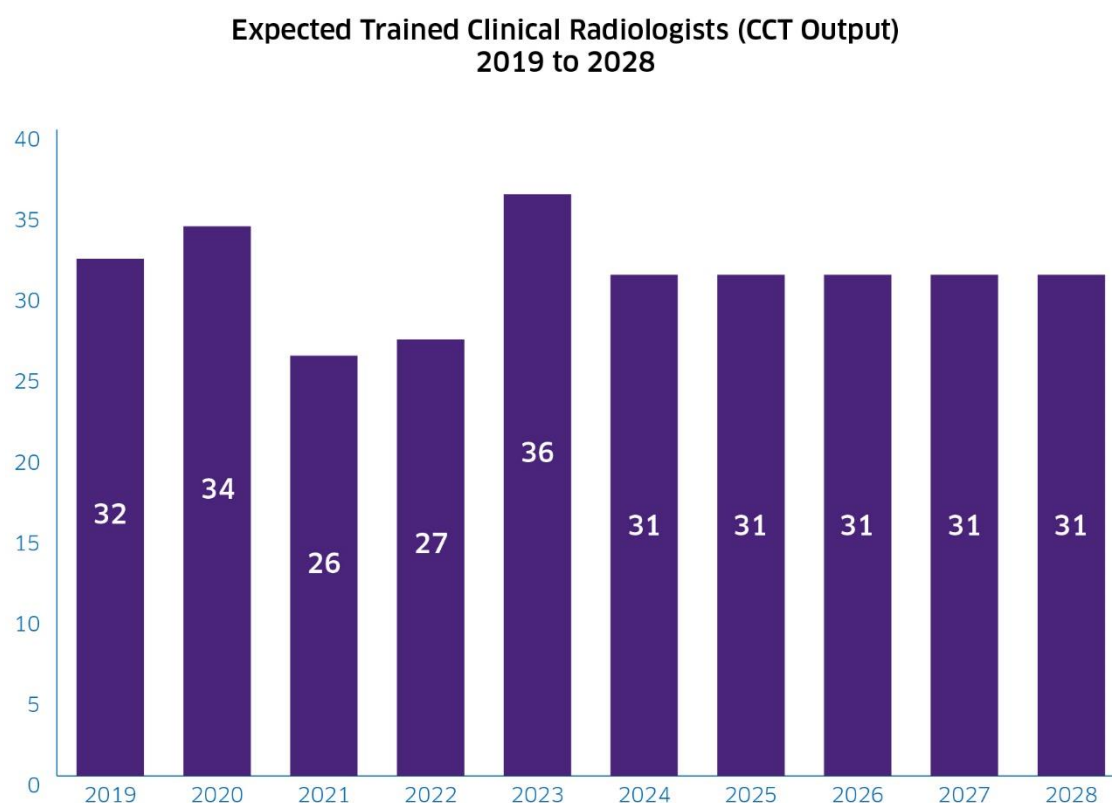
173. The Scottish Government has recognised the need for high growth in this specialty with commitment to annual growth in training places for additional radiologists since 2014. The total delivery of this commitment will see growth from 103 to 175 training places by 2021, to address future predicted demand.

174. Figure 20 shows numbers of radiologists expected to achieve their Certificate of Completion of Training (CCT).

- Between 2019 and 2022, we expect 119 radiologists to achieve CCT.
- Between 2023 and 2028 we expect a further 181 radiologists to achieve CCT.

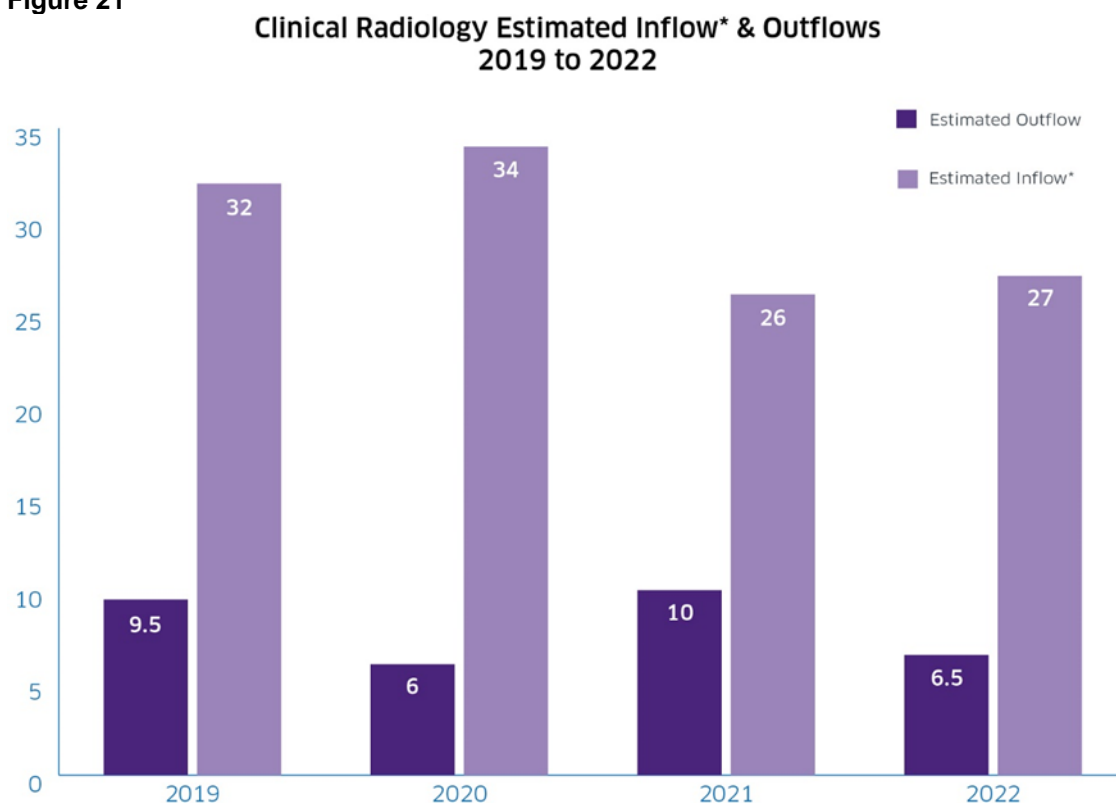
175. This will alleviate some of the capacity issues in the short term, and significantly increase capacity to accommodate predicted demand growth from 2024 onwards.

Figure 20



176. Over the next ten years, the Scottish Government has forecast and is building increased supply to meet replacement and up to 4% annual growth in the consultant workforce. Trend data suggests that 80% of those achieving their CCT are retained in the NHSScotland workforce. This scenario assumes net equality for CCT output, in that the 20% loss of trainees is offset by similar numbers of trainees returning to Scotland from other parts of the UK.

Figure 21



177. To address the current challenges, the “National Radiology Model” strategic document was developed in conjunction with stakeholders. It proposes a coordinated approach to radiology service provision across Scotland.

178. A range of approaches to maximise the current workforce are being tested and supported through the SRTP. These include:

- Service redesign to support Advanced Practice models (e.g. sonographers and reporting radiographers);
- Retaining existing radiologists in the workforce longer;
- Recruiting retired radiologists back into the workforce;
- Developing regional service delivery approaches and inter-board cooperation.

179. In summary, the extra training places will meet ongoing annual need from retiral and will provide sufficient CCT output to meet more than 4% annual increase in consultant numbers. With regard to ongoing issues in radiology:

- The current vacancy rate will be addressed partly by the annual training output exceeding demand by more than 4% growth annually, and more immediately in the short term by international recruitment through the new International Recruitment Unit;
- Addressing and quantifying workload demand through demand management, different ways of working, etc. This has been recognised and is being addressed through the NSS SRTP.

Reporting Radiography

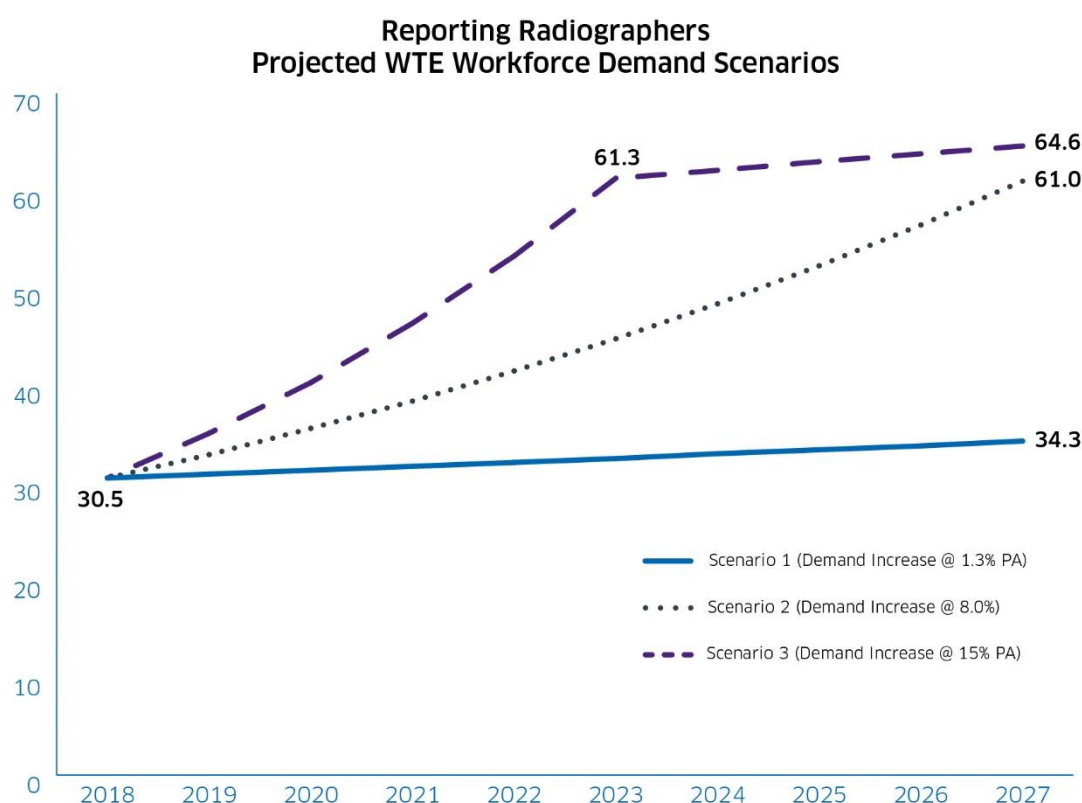
180. The role of the reporting radiographer has the potential to create capacity for the radiology service in NHSScotland. At present there are limited numbers of reporting radiographers, distributed inconsistently across Scotland.
181. Calculations based on 2016/17 data show that if existing reporting radiographers were released to complete 50% of their time reporting, they could complete around 175,000 extra reports a year (based on 20% of required plain film reports being carried out by radiographers).
182. The Scottish Government has allocated funding to a Reporting Radiographer pilot that maximises existing skills to maintain a service which, if successful, will deliver increased capacity consistently and safely within the context of the multi-disciplinary team.
183. The pilot aims to assess the potential for a National Radiographer Reporting Service by:
- Nationally coordinating radiographer “plain film” reporting capacity and activity testing the new IT connectivity;
 - Assessing the potential to utilise consultant radiographer skills across boundaries;
 - Assessing the potential to utilise a cross boundary consultant radiologist support model;
 - Establishing whether a radiographer plain film reporting service could better utilise the existing workforce.
184. The pilot will be used to measure whether, in reality, there are sufficient numbers of reporting radiographers to ensure adequate cover for the service. This will also allow us to quantify the workforce required to optimise this service and present an opportunity to manage this capacity differently.
185. As at 2018, statistics show that there are 30.5 WTE reporting radiographers employed by NHS Boards in Scotland. The majority of these staff are employed at Band 7, although a small number are paid at a higher Agenda for Change pay band (as consultant radiographers). Some radiographers have trained to report, though do not have substantive reporting roles within their boards that allow them to use those skills.
186. Estimates of the plain film activity which radiographers could complete are in the region of 20% - 40% of overall examinations. This is without any extension to current scopes of practice. Using this baseline, current trained staff could be reporting in the region of 20% of overall plain film images.
187. Assigning 40% of the plain film workload to radiographers would require an approximate increase of 100% in the numbers of reporting radiographers we currently have in Scotland.

188. The scenario below in Figure 22 shows the potential impact of WTE workforce demand increases across the period 2018 to 2027:

- 1.3% - reflects the 4% increase workforce costs assumptions within the medium term health and social care financial framework (MTFF) minus the impact wage growth inflation;
- 8% - workforce growth requirements to double the reporting radiographer workforce over a 10 year timescale;
- 15% - estimate of workforce growth requirements to double (to 60) the reporting radiographer workforce over an accelerated timeframe (i.e. by 2023) with workforce increase thereafter in line with the 1.3% demand increases noted in the MTFF.

189. The reporting radiography pilot commenced in March 2019. Following evaluation, a clearer assessment of the potential benefits of delivering this service will be made.

Figure 22



190. This pilot work does not explicitly seek to extend the reporting radiographer scope of practice beyond what is nationally agreed, but build on what is already happening within local boards. This will involve some standardisation of the scope of practice over the period of the pilot.

191. In accordance with the National Reporting Radiographer Framework, the reporting radiographer must maintain their professional knowledge and skills through continuous education, professional development and training.

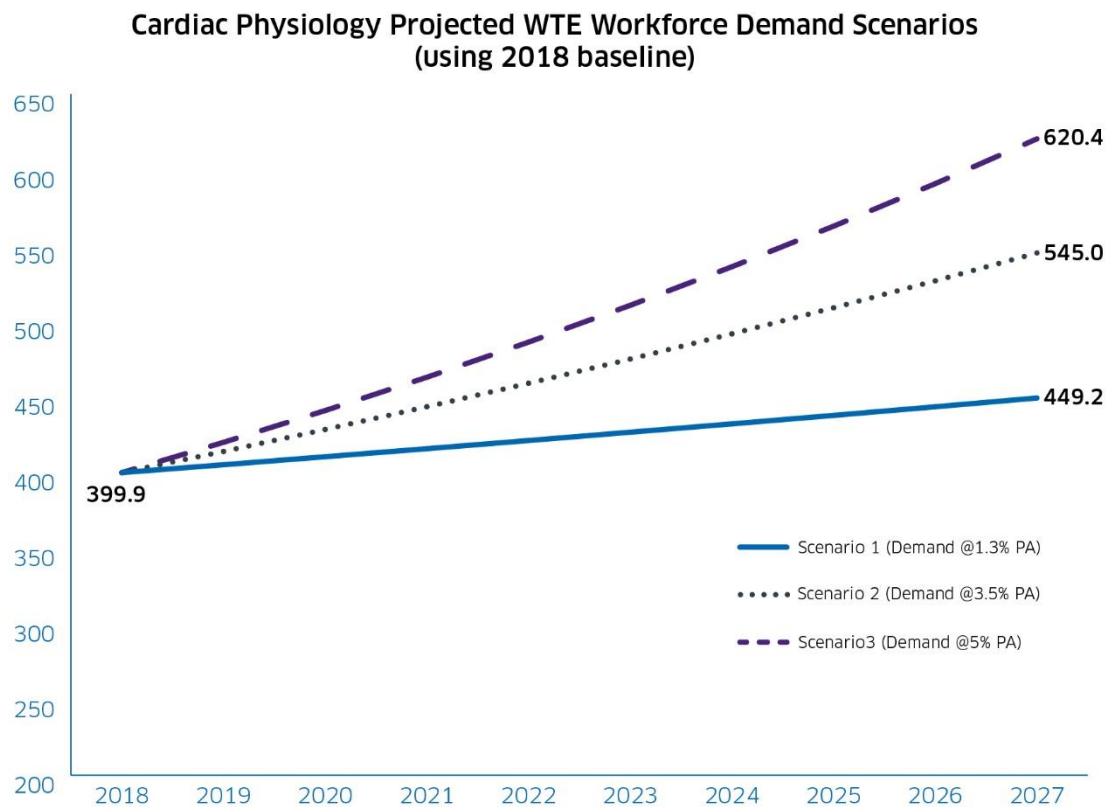
192. This must be validated within a formal appraisal and personal development plan structure, as per their job description. As the pilot will build on existing skills, these governance arrangements will already be in place for staff taking part and will remain the responsibility of the employing Board.
193. The pilot aims to add value by removing some of the barriers to utilisation of reporting radiographers' skills. This model will provide a platform to develop a service which co-ordinates radiographer reporting across Scotland, maximising their input to overall image reporting as part of a multi-disciplinary approach.
194. Utilising the skills of reporting radiographers in this way would support the radiologist workforce to more effectively deliver the wider radiology service.
195. While the workforce change estimates contained within the scenarios should be viewed as indicative illustrations until the results of the current pilot work are known, it is prudent to consider the potential delivery mechanisms which may be utilised to deliver an increase of this magnitude in Reporting Radiographer capacity for NHSScotland.
196. Reporting Radiographer training is delivered through a one year Post Graduate Certificate course (in Scotland this is administered by Robert Gordon University) supported by the completion of a workplace based "workbook".

Cardiac Physiologists

197. Cardiac physiologists are one of the professions within the generic Healthcare Science category of clinical physiologists. They carry out cardiac diagnostic tests, such as echocardiograms, pacemaker and other implantable device checks, blood pressure measurement, and tilt-table tests. They play a key role in physiological monitoring during catheterization laboratory procedures. In many hospitals, cardiac physiologists take on specialist roles normally carried out by medical staff such as running chest pain and arrhythmia clinics, and can be responsible for the long term monitoring of patients with congenital conditions, heart valve disease or replacement valves.
198. Cardiac physiologists can play a key part in reducing admissions to hospital for patients with heart related problems that, on average, cost £1,400 per episode. This can be achieved by direct access to testing for GPs and continuous remote monitoring of patients to pick up problems before they become critical.
199. In NHSScotland over the last five years, there has been a 46% increase in the demand for cardiac physiology services. As at 2018, the cardiac physiology workforce in NHSScotland consisted of 374.89 WTE staff covering Agenda for Change Bands 2-8b. 70% of boards in Scotland indicated they have at least one vacant post and the overall vacancy rate is estimated at 25 WTE. The establishment for cardiac physiology is therefore estimated to be 399.89 WTE.
200. The scenario below shows the potential impact of demand increases on the required WTE workforce across the period 2018 to 2027:

- 1.3% - reflects the 4% increase workforce costs assumptions within the MTFF (minus wage growth inflation);
- 3.5% - reflects an intermediate growth assumption where some demand increases can be mitigated by efficiencies secured through service redesign;
- 5% - upper estimate of workforce requirement based on higher levels of growth in demand.

Figure 23



201. The scenarios suggest that demand for additional cardiac physiologists could range between 49 and 200 WTE within 10 years.

202. Short term solutions (across the next 12 months) to mitigate existing vacancy issues and reduce patient waiting times may include activities aimed at:

- Demand management through redesign of pathways, standardised referral criteria and use of alternative assessment methods;
- Building consultant vetting into the clinical assessment, to ensure appropriate referrals;
- Facilitating international recruitment where there are appropriately qualified staff by building the case for cardiac physiology to be included on the “shortage occupation register”;
- Encouraging the retention of existing experienced staff members and returners to practice using incentives such as flexible working patterns, CPD and extended training roles;
- Limiting the use of locum/agency staff.

203. Medium term solutions (across the next three to five years) centre around increasing the workforce by promoting recruitment into Scientist Training Programmes and Practitioner BSc programmes. This would establish a qualified workforce with the skills to provide the service. This in-house training approach brings the added benefit of allowing trainees to contribute to service delivery during their training.
204. **For planning purposes, Scottish Government are assuming that a 1.3% increase in demand for additional cardiac physiologists is appropriate (as shown in Scenario 1) in the context of the short- and medium-term solutions outlined above. This indicates a workforce demand of 49 WTE within ten years.**
205. NES is currently assessing the workforce development needs for the wider Healthcare Science workforce in NHSScotland. This will project the future workforce requirements beyond the Cardiac Physiology profession for the wider Clinical Physiology workforce job family, including the Respiratory, Audiology and Neurophysiology workforces.

Clinical Psychology

206. In recent years NHS Scotland has seen a steadily increasing demand for access to Applied Psychologists and Psychological Therapies due to the growing evidence base for the effectiveness of psychological interventions in delivering positive health change for people with a wide range of clinical conditions.
207. The term 'Psychological Therapies' refers to a range of interventions based on psychological concepts and theory, which are designed to help people understand and make changes to their thinking, behaviour and relationships in order to relieve distress and improve functioning.
208. As at December 2018 Clinical psychologists are the largest staff group within this workforce with 783.0 WTE in post. A further 51.3 WTE posts were identified as being vacant indicating an establishment figure of 834.3 WTE.
209. Clinical Psychologists work across a number of different specialty work area and age groupings. The distinct age groups are:
- Child & Adolescent (0-18 years);
 - Adult (19-64 years);
 - Older Adult (65+ years).
210. Understanding how the workforce is distributed across the different age groups and the demand for particular services by each group is essential for workforce planning, particularly when considering projected changes to the demography of

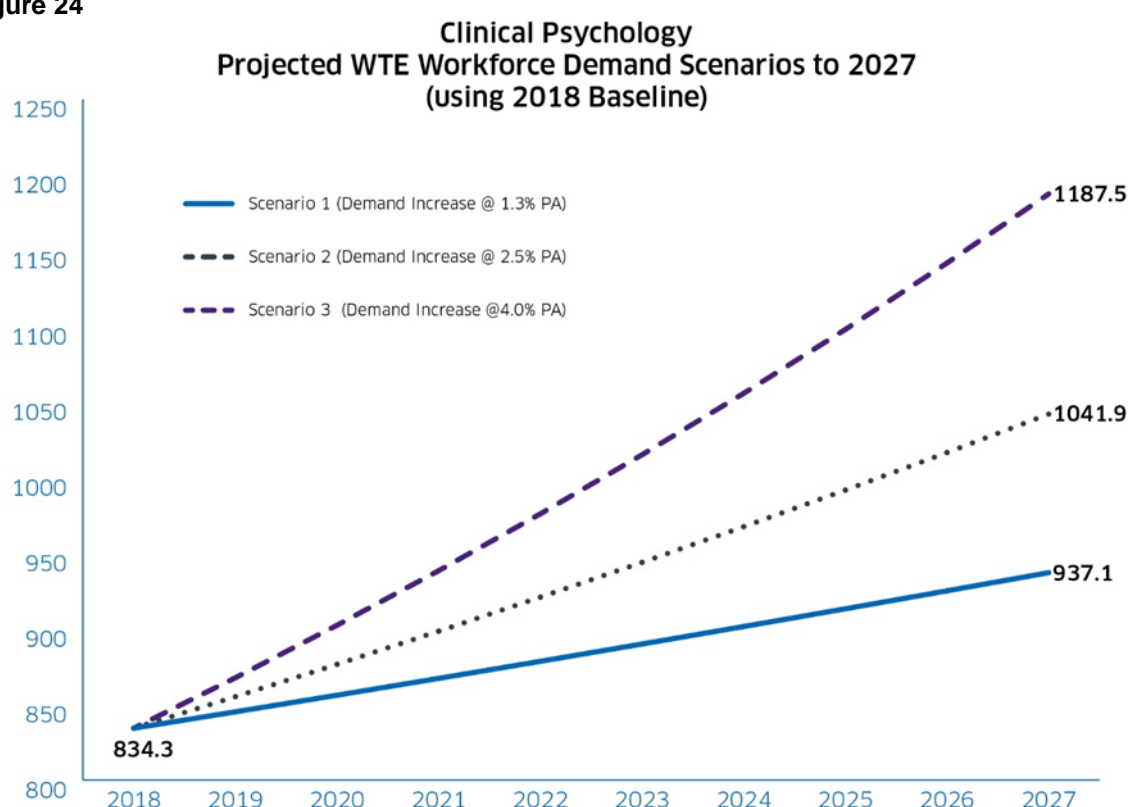
the population. Definitions of the specialty work areas are provided in the Psychology Services Workforce in Scotland Report.³⁰

211. While there has been some historical variation in the workforce, since 2013, there has been a consistent upward trend of approximately 4% per annum in the number of Clinical Psychologists across all specialty work areas.

212. The scenario below in Figure 24 shows the potential impact of WTE workforce demand increases across the period 2018 to 2027:

- 1.3%, - reflects the 3.5% increase workforce costs assumptions within the MTFF minus the impact wage growth inflation;
- 2.5% - reflects an intermediate assumption, where required workforce growth is below the recent observed workforce trends;
- 4% - to reflect a workforce increase in line with recent historical trends observed.

Figure 24



³⁰ <https://www.isdscotland.org/Health-Topics/Workforce/Publications/2019-03-05/2019-03-05-Psychology-Workforce-Report.pdf>.

213. The scenarios suggest that demand for additional clinical psychologists could range between 102 and 353 WTE within 10 years.
214. The Scottish Government is committed to ensuring there is good access to specialist mental health support when it is needed through the development of new multi-agency models to support mental health in primary care and the prioritisation of mental health pathways for people who need urgent care. Given this, **it is estimated a 2.5% annual increase in demand on average over the next ten years (as shown in Scenario 2) is most appropriate for planning future needs.**
215. Achieving this will require a combination of additional trainees, as well as the continuation of existing student numbers to meet the current requirements.
216. Clinical Psychologists are currently trained to apply psychology across all ages in mental and physical health and disability domains and are a flexible workforce for the NHS. During training, Psychologists are employed by NHS Boards and deliver services under supervision in six clinical placements over three years while enrolled on doctoral programmes at University.
217. Additionally, two one-year masters programmes were developed to enable a rapid supply of therapists for children's and adult services. Since 2017, Training numbers for this course have been increased (by 10) to make a total annual output of 30. Funding for this increase has already been made available until the 2019/20 intake year.
218. Increasing the intake numbers in this area is achievable as there is a strong demand for clinical training posts. For every place for clinical psychology training there are 17 applicants and each available masters place attracts 8 applicants.

Summary

219. The Scottish Government have provided an initial set of scenarios which, based on the latest available data, will allow us to calculate workforce need associated with assumed future replacement and demand growth. These scenarios are not exhaustive, and can be developed and improved over time by local and profession specific workforce planning groups. As these developments progress, the scenarios and their specific workforce assumptions will be adjusted to take account of:

- Reconfiguration of existing services and new service developments;
- Changes in our understanding of future profiles of demand;
- Data quality improvements including patterns of recruitment, retention and retirement;
- Improved understanding of local, national and international labour markets.