This is a National Statistics Publication

National Statistics status means that the official statistics meet the highest standards of trustworthiness, quality and public value. They are identified by the quality mark shown above.

They comply with the Code of Practice for statistics and are awarded National Statistics status following an assessment by the UK Statistics Authority’s regulatory arm. The Authority considers whether the statistics meet the highest standards of Code compliance, including the value they add to public decisions and debate.

Find out more about the Code of Practice at:

Find out more about National Statistics at:
Contents

Introduction ......................................................................................................................... 4
Main Points .......................................................................................................................... 7

1. Overall Staff in Post ...................................................................................................... 8
   1.1 Summary .................................................................................................................. 8
   1.2 Trend ...................................................................................................................... 9
   1.3 Net turnover ......................................................................................................... 10
   1.4 Sickness absence ................................................................................................. 13
   1.5 Staff groups ......................................................................................................... 15

2. Medical and Dental staff ............................................................................................ 17
   2.1 Summary ............................................................................................................. 17
   2.2 Staff in post ........................................................................................................ 18
   2.3 Net turnover ...................................................................................................... 18
   2.4 Consultants ....................................................................................................... 20
       2.4.1 Staff in post .................................................................................................. 21
       2.4.2 Consultant vacancies .................................................................................. 23
   2.5 Doctors and dentists in training ....................................................................... 27
   2.6 Expenditure on medical locums ....................................................................... 29

3. Nursing & Midwifery staff ......................................................................................... 31
   3.1 Summary ............................................................................................................. 31
   3.2 Staff in post ........................................................................................................ 32
   3.3 Net turnover ...................................................................................................... 34
   3.4 Nursing and midwifery vacancies .................................................................. 35
   3.5 Specialist Nursing ............................................................................................. 40
       3.5.1 Advanced Nurse Practitioners ................................................................. 40
       3.5.2 Health Visitors ......................................................................................... 40
       3.5.3 Clinical Nurse Specialist (CNS) ............................................................... 41
   3.6 Student Training ............................................................................................... 41
   3.7 Nursing and midwifery bank and agency staff ............................................ 42

4. Allied Health Professions ........................................................................................... 45
   4.1 Summary ............................................................................................................. 45
   4.2 Staff in post ........................................................................................................ 46
   4.3 Net turnover ...................................................................................................... 48
   4.4 AHP vacancies .................................................................................................. 49
   4.5 Paramedics ....................................................................................................... 53
5. In focus: Workforce characteristics ................................................................. 54
  5.1 The Age Distribution of the Workforce ...................................................... 54
  5.2 Contract type and gender ........................................................................ 59
  5.3 Sickness absence by Age ......................................................................... 62
Glossary ............................................................................................................ 65
List of Dashboards ............................................................................................ 68
List of Tables .................................................................................................... 68
Contact ............................................................................................................. 69
Further Information .......................................................................................... 69
Rate this publication ......................................................................................... 69
Appendices ....................................................................................................... 70
  Appendix 1 – Background information ......................................................... 70
  Appendix 2 – Publication Metadata ............................................................... 73
  Appendix 3 – Early access details ................................................................. 76
  Appendix 4 – ISD and Official Statistics ....................................................... 77
Introduction

The NHSScotland workforce has a significant role to play in the delivery of quality services that meet the needs of patients, their families and the general public in a modern health service. Throughout the year, the Information Services Division (ISD) within National Services Scotland publishes quarterly updates on an extensive set of indicators, including staff in post and vacancies which support NHS Boards and the Scottish Government with local, regional and national workforce planning.

The primary source of information on staff employed by NHSScotland is the Scottish Workforce Information Standard System (SWISS) which brings together HR and Payroll information. In addition to this, ISD collects a range of information directly from NHS Boards.

This annual report reflects on the latest statistics at 31 March 2019 for the overall NHSScotland workforce and proceeds to focus on key clinical staff including medical and dental consultants, doctors and dentists in training, qualified nurses and midwives and allied health professions (AHPs). Having discussed staff in post and vacancies across the aforementioned staff groups, the report concludes with a look at the underlying characteristics of the workforce including age, contract type and gender and sickness absence by age.

Please note, the data presented within the report, dashboards and tables incorporates all staff employed directly by NHS Boards and excludes those working as independent contractors, such as locums, general medical practitioners (GPs) and general dental practitioners (GDPs).

In conjunction with this report, comprehensive workforce data at 31 March 2019 is shared across the following outputs:

Dashboards

- Five dashboards (Overall, Medical and Dental, Nursing and Midwifery, AHPs and Other Staff Groups) presenting quarterly data over a 5-year trend for all staff in post.
- The output presents a breadth of data including age band, contract type and gender, Agenda for Change (AfC) band, grade and specialty where applicable: all of which are available as chart visuals or tables. Via the ISD Workforce website, users can explore the dashboards to quickly gauge shifts in trends and draw comparisons across NHS Boards and regions.
- The three associated dashboards also include vacancy numbers and rates for consultants, nursing and midwifery and AHPs.
Open data

- Aggregated vacancy data underlying the dashboards for 31 March 2019 is available as three CSV files to meet the 3* criteria for ‘open data’, meaning vacancy data is available in a structured, machine-readable, non-proprietary format to support individual analytical needs. Files are stored in the NHSScotland Open Data platform. Subsequent updates will be released quarterly for the latest census.

Data tables

- Supplementary long term trend data for staff in post and vacancies.
- Quarterly updates to a collection of other staff in post tables. See the list of tables for the full breadth of information.
- Biannual update on Number of NHS dentists split by age, gender and Scottish Index of Multiple Deprivation.
- Annual updates on:
  - Net turnover, joiners and leavers by job family.
  - Bank and agency usage for nursing and midwifery staff
  - Sickness absence rates.
  - Equality and diversity information including religion, ethnic group, sexual orientation, transgender status and disability status.
- Expenditure on medical locums, presented as experimental statistics for the 2nd consecutive year.
- Due to varying sources and frequency of bespoke data collections, not all published tables are updated at this time of year. Please see the timetable on the ISD Workforce website for further detail on quarterly releases.

As the shape of the workforce continues to evolve and the need for timely and detailed information increases, ISD is committed to improving national workforce information along with our key stakeholders in order to support local, regional and national workforce planning.

As of 1 December 2019 however, ownership and responsibility for collecting workforce data and producing national statistics will transfer from ISD to NHS Education for Scotland (NES), ahead of the creation of a new health body, Public Health Scotland (PHS). This publication is therefore the last annual report to be produced by ISD with one more quarterly release to follow.
National workforce statistics will continue to be released in accordance with the following timetable for the remainder of 2019:

<table>
<thead>
<tr>
<th>Census date</th>
<th>Publication date</th>
<th>Producer</th>
</tr>
</thead>
<tbody>
<tr>
<td>31-Mar-19</td>
<td>04-Jun-19</td>
<td>ISD</td>
</tr>
<tr>
<td>30-Jun-19</td>
<td>03-Sep-19</td>
<td>ISD</td>
</tr>
<tr>
<td>30-Sep-19</td>
<td>03-Dec-19</td>
<td>NES</td>
</tr>
</tbody>
</table>

The latest Scottish government policy on workforce planning and the importance of national statistics is referenced in Appendix 1.

As a recognised producer of Official Statistics in Scotland, ISD works to the Code of Practice for Official Statistics which is maintained by the UK Statistics Authority (UKSA). Our Official Statistics publications are regularly assessed by the UK Statistics Authority and are designated to have complied with the Code of Practice. UKSA assessment reports on ISD publications are available on their website. We pride ourselves in meeting our obligations under the code for objectivity, integrity and transparency. If you wish to discuss any of the content or proposed developments further, you are welcome to contact Stuart Kerr, Principal Information Analyst, on 0131 275 6363 or email stuartkerr2@nhs.net.
Main Points

At 31 March 2019:

- The 164,114 staff employed by NHSScotland represents an increase of 0.6% over the last year. The WTE, which adjusts for part time working, has risen by 0.7% to 140,881.2. While this signals a seventh consecutive year of annual growth for NHS Scotland, there is variation across the country with NHS Tayside, NHS Ayrshire & Arran and NHS Greater Glasgow & Clyde reporting a decrease in their workforce since 31 March 2018.

- Net turnover was 6.4% in 2018/19, a decrease from 6.6% in the previous year reflecting a reduction in the number of leavers. The total number of staff joining NHSScotland in the past year increased to 9,881.7 WTE, the highest observed in over ten years of available data.

- 7.8% (452.3 WTE) of medical and dental consultant posts were vacant. While the vacancy rate is slightly higher than the year previous (7.5%), the number of posts vacant for six months or more decreased slightly (245.0 WTE, down 8.9 WTE).

- 5.0% (3,143.7 WTE) of nursing and midwifery posts for qualified and support staff were vacant. This compares to 4.5% (2,814.3 WTE) for the previous year. Of these vacancies, 901.8 WTE were vacant for more than three months, a slight increase of 48.7 WTE on last year albeit this accounts for a lower proportion of total vacancies (28.7% down from 30.3%).

- NHSScotland spent £26.2 million on nursing and midwifery agency staff during the last financial year. This represents an increase of 10.9% in comparison to 2017/18. Total spend on bank staff increased by 6.5% to £161.9 million.

- The sickness absence rate for NHSScotland in 2018/19 was 5.39%, the same as the previous year. Set against a national standard of 4.0%, the sickness absence rate has fluctuated between a high of 5.55% in 2006/07 to a low of 4.63% in 2011/12 and therefore the standard has yet to be achieved at the national level. The rate for staff aged 55 and over was 7.3%.

- The median age of the national workforce has increased from 43 to 46 between 30 September 2008 and 31 March 2019. The proportion of staff aged 55 and over has increased from 14.6% to 22.2% over the same period.
1. Overall Staff in Post

This section provides a summary of all staff directly employed by NHSScotland as at 31 March 2019 and illustrates how the workforce has changed over time. Workforce statistics are routinely reported as headcount and whole time equivalent (WTE), which adjusts the headcount figure to take account of part time working. Please note that the majority of the figures quoted in this report will be WTE.

1.1 Summary

<table>
<thead>
<tr>
<th>Staff in post (WTE)</th>
<th>Largest staff group</th>
<th>Age profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>140,881.2</td>
<td>Nursing and midwifery 42.6% (60,070.5 WTE)</td>
<td>Median age: 46 yrs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender and Contract Type</th>
<th>Net turnover (2018/19)</th>
<th>Sickness absence rate (2018/19)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>Male</td>
<td>Joiners - 9,681.7</td>
</tr>
<tr>
<td>77.4%</td>
<td>22.6%</td>
<td>Leavers - 8,622.6</td>
</tr>
<tr>
<td>PT</td>
<td>WT</td>
<td>6.4%</td>
</tr>
<tr>
<td>WT</td>
<td></td>
<td>5.39%</td>
</tr>
</tbody>
</table>

Notes:
1. Figures are as at 31 March 2019 unless otherwise specified.

A breakdown of the workforce by staff group, age, contract type and gender for each NHS Board is available within the Overall dashboard on the ISD Workforce website. Further data, including sickness absence and turnover that is yet to be transformed into dashboards, is available via the Data Tables section of the website.
1.2 Trend

At 31 March 2019, NHSScotland reported a total headcount of 164,114, the highest reported to date, representing 0.6% increase in the last year. Adjusting for part time working, the WTE has risen by 0.7% to 140,881.2 WTE.

The longer term trend in overall staff numbers (WTE) within NHSScotland is illustrated in Figure 1 below. This shows that, after a reduction in WTE between 2009 and 2011, following the economic downturn, there has been steady growth since. The inset chart ranks the net percentage change in the workforce in each territorial Board for year ending 31 March 2019. The workforce in NHS Dumfries & Galloway experienced the largest percentage increase (5.0%) whereas the largest percentage decrease (1.9%) occurred in NHS Tayside.

Figure 1: NHSScotland Total Workforce Trend

There is some seasonal variation present in the quarterly census data with staff numbers tending to drop in June before returning to the longer term upward trend in September. There are various factors which have an effect on the workforce numbers at different times.
throughout the year such as the availability of newly qualified graduates and retirement of staff. Note that this seasonal variation described is particularly evident when viewing trends for the number of staff employed by the larger Health Boards where there are larger numbers of staff in training. This is explored further in subsequent sections.

Figure 2 shows the annual percentage change in WTE for each year in the same period. Although there have been seven consecutive years of growth, this was slower in each of the last four years with annual growth not exceeding 0.7% during this period.

**Figure 2: Trend in annual rate of change in the NHSScotland workforce**

![Trend in annual rate of change in the NHSScotland workforce](chart)

Notes:
1. Workforce data was published annually until September 2010 and then quarterly from March 2011 onwards.

Information on the overall number of staff in post over the last five years is available within the [Overall dashboard](#) on the ISD Workforce website. Additional information on long term trends (> 5 years) within each NHS Board is available within the [Overall trend](#) table in the [Data Tables](#) section of the website.

### 1.3 Net turnover

**Net turnover** is the rate at which employees leave the workforce and is calculated by dividing the net number of leavers over a financial year by the number of staff in post at the start of that year.
For NHSScotland turnover:

- Leavers are defined as staff employed within NHSScotland at the beginning of the financial year but no longer employed within NHSScotland at the end of the financial year. Note that those who have left and then re-joined NHSScotland within the year are **not** counted as leavers.

- Joiners are defined as staff that were not employed within NHSScotland at the beginning of the financial year but were employed within NHSScotland at the end of the financial year.

As illustrated in Figure 3, NHS Scotland turnover has been relatively stable in recent years with a slight decrease reported for 2018/19 in conjunction with a drop in leavers (8522.6 WTE, down 330.9). The 9,881.7 WTE joiners is the highest observed for the period of data available. The impact of where the joiner/leaver gap narrows on the annual rate of growth can be seen by referring back to **Figure 2**.

**Figure 3: NHSScotland Net Joiners, Leavers and Turnover Trend**

![Figure 3: NHSScotland Net Joiners, Leavers and Turnover Trend](image)

**Notes:**
1. Excludes HCHS medical and dental training grades. This is to avoid the distortion caused by the frequent rotation of staff in training placements.
2. NHSScotland joiners and leavers do not include staff changing roles or moving between NHS Boards.
Figure 4 shows the number of joiners, leavers and net turnover of staff by NHS Board during financial year 2018/19. Please note a subtle difference in calculation when comparing turnover for NHSScotland with turnover at Board level.

For Board level turnover:

- Leavers are defined as those employed within a Board at the start of the financial year but are either employed within another NHS Board or no longer employed within NHSScotland at the end of the financial year.

Consequently, with a higher proportion of leavers involved, turnover rates at Board level are consistently higher than the rate for NHSScotland. While a decrease in WTE was reported for three territorial Boards above only NHS Tayside reports the WTE of leavers exceeding joiners. This in part, highlights the cumulative effect of staff changing contracted hours.

Figure 4: Net Joiners, Leavers and Turnover, overall staff, by territorial Board, 2018/19

Notes:

1. Excludes HCHS medical and dental training grades. This is to avoid the distortion caused by the frequent rotation of staff in training placements.
2. Joiners and leavers do not include staff changing roles within an NHS Board.
3. Information for the Special Health Boards is available in the Turnover table.

Further information on net joiners, leavers and turnover for each NHS Board by staff group is available within the Turnover table in the Data Tables section of the ISD Workforce website. Further information on the turnover methodology is available in Appendix 1.
1.4 Sickness absence

Sickness absence can impact on service provision and lead to increased expenditure through the use of supplementary staff such as medical locum and agency nurses. To reduce the impact, the Scottish Government has set a national standard which requires NHS Boards to achieve a sickness absence rate of 4.0% or less.

The sickness absence rate for NHSScotland in 2018/19 was 5.39%, the same as the previous year. Figure 5 shows that the national rate has fluctuated between a high of 5.55% in 2006/07 to a low of 4.63% in 2011/12 and therefore the standard has yet to be achieved at the national level. The inset chart in Figure 5 displays the sickness absence rates at Board level for 2018/19 and shows that none of the territorial Boards achieved the standard in this financial year with the majority reporting sickness absence rates above 5.0%. In recognition of this, Scottish Government recently announced that NHSScotland should work towards reducing sickness absence by 0.5% per annum over 3 years, beginning on 1 April 2019 with the aim of achieving an overall NHSScotland average of less than 4.0%.

Figure 5: Trend of sickness absence rate for NHSScotland by financial year

Notes:
1. Sickness absence rate is hours lost divided by total contracted hours.
2. Sickness absence figures do not account for the change in Doctors in Training (DiT) employment model outlined in section 2.5. Therefore, sickness absence of DiT is aligned to Board of employment rather than Board of placement.

Information on sickness absence trends for each NHS Board is available within the Sickness absence table in the Data Tables section of the ISD Workforce website. Furthermore, analysis which takes a look at sickness absence by age is presented in Section 5.3.
1.5 Staff groups

Table 1 presents a summary of the change in national workforce by staff group and shows that growth in the overall workforce in the last five years is reflected across most staff groups including nursing and midwifery (3.3%), administration services (2.9%), medical (HCHS) (11.4%) and AHPs (6.2%). The greatest growth over the last year was observed in ‘other therapeutic services’ (5.3%), which includes professions such as pharmacy and psychology.

Table 1: NHSScotland Workforce Trend (WTE) by Staff Group

<table>
<thead>
<tr>
<th>Staff Group</th>
<th>Mar-14</th>
<th>Mar-18</th>
<th>Mar-19</th>
<th>% change Mar-18 to Mar-19</th>
<th>% change Mar-14 to Mar-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>All NHSScotland staff</td>
<td>135,625.7</td>
<td>139,918.4</td>
<td>140,881.2</td>
<td>0.7%</td>
<td>3.9%</td>
</tr>
<tr>
<td>Medical (HCHS)</td>
<td>11,489.4</td>
<td>12,517.1</td>
<td>12,793.5</td>
<td>2.2%</td>
<td>11.4%</td>
</tr>
<tr>
<td>Dental (HCHS)</td>
<td>691.1</td>
<td>590.6</td>
<td>589.5</td>
<td>-0.2%</td>
<td>-14.7%</td>
</tr>
<tr>
<td>Medical and dental</td>
<td>1,899.1</td>
<td>1,958.2</td>
<td>2,010.8</td>
<td>2.7%</td>
<td>5.9%</td>
</tr>
<tr>
<td>Nursing and midwifery</td>
<td>58,172.7</td>
<td>59,892.0</td>
<td>60,070.5</td>
<td>0.3%</td>
<td>3.3%</td>
</tr>
<tr>
<td>Allied health professions</td>
<td>11,194.0</td>
<td>11,653.1</td>
<td>11,891.2</td>
<td>2.0%</td>
<td>6.2%</td>
</tr>
<tr>
<td>Other therapeutic services</td>
<td>3,781.5</td>
<td>4,458.0</td>
<td>4,692.2</td>
<td>5.3%</td>
<td>24.1%</td>
</tr>
<tr>
<td>Personal and social care</td>
<td>909.3</td>
<td>1,231.9</td>
<td>1,237.7</td>
<td>0.5%</td>
<td>36.1%</td>
</tr>
<tr>
<td>Healthcare science</td>
<td>5,371.0</td>
<td>5,423.7</td>
<td>6,154.7</td>
<td>13.5%</td>
<td>14.6%</td>
</tr>
<tr>
<td>Ambulance services</td>
<td>2,388.9</td>
<td>2,586.7</td>
<td>2,568.2</td>
<td>-0.7%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Administrative services</td>
<td>24,750.9</td>
<td>25,258.1</td>
<td>25,475.5</td>
<td>0.9%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Support services</td>
<td>13,837.8</td>
<td>13,749.4</td>
<td>12,853.3</td>
<td>-6.5%</td>
<td>-7.1%</td>
</tr>
<tr>
<td>Unallocated / not known</td>
<td>1,139.9</td>
<td>599.6</td>
<td>544.1</td>
<td>-9.2%</td>
<td>-52.3%</td>
</tr>
</tbody>
</table>

Notes:
1. A list of the sub job families within each staff group can be found in the FAQ section of the ISD Workforce website.
2. HCHS - hospital, community, and public health services (excluding independent contractors)
3. Paramedics were reclassified from ambulance services staff to AHPs from 1 April 2013.
4. NHS Highland and Highland Council are currently developing an integrated model for health and social care. Staff involved in the delivery of core integrated services started to transfer from Highland Council to NHS Highland in June 2012. Staff that have transferred into NHS Highland but have not yet been assimilated to Agenda for Change bands are currently recorded as unallocated / not known.
5. From 30 December 2018, Sterile Services within Support Services job family is re-categorised to Sterile Services Life within Healthcare Sciences job family (749.7 WTE as at 31 March 2019).

In contrast to the overall growth in the last five years, there is a noticeable drop in Dental (HCHS) staff. While the total number of adults and children registered with a NHS dentist in
Scotland continues to increase, the decrease in workforce is aligned to a reducing reliance on the Public Dental Service (PDS), which offers a safety net to people unable to obtain care from ‘High Street’ dentists. Further information about the overall dental workforce, including those not directly employed by NHSScotland, can be found in the Dentists table on the ISD Workforce website. In addition, figures relating to dental registration and participation rates are published annually by ISD.

Figure 6 indicates the current shape of the NHSScotland workforce, in respect of how it is distributed across the major staff groups. The largest staff group is nursing and midwifery which represents 42.6% of all NHSScotland staff.

Figure 6: NHSScotland Workforce proportions (% of WTE), by staff group, as at 31 March 2019

Notes:
1. A list of the sub job families within each staff group can be found in the FAQ section of the ISD Workforce website.
2. HCHS - hospital, community, and public health services (excluding independent contractors)
3. From 30 December 2018, Sterile Services within Support Services job family is re-categorised to Sterile Services Life within Healthcare Sciences job family.
2. Medical and Dental staff

As shown in Figure 6, medical and dental (HCHS) staff (combined) accounted for 9.5% of the NHSScotland workforce as at 31 March 2019. This staff group includes all salaried doctors and dentists, including those in all stages of training but excludes GPs and GDPs.

2.1 Summary

<table>
<thead>
<tr>
<th>Staff in post (WTE)</th>
<th>Largest staff group</th>
<th>Age profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>13,383.0</td>
<td>Doctors in training</td>
<td>Median age:</td>
</tr>
<tr>
<td></td>
<td>42.9% (5,744.1 WTE)</td>
<td>39 yrs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>% Aged 55</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and Over:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11.2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender &amp; Contract Type</th>
<th>Net Turnover (2018/19)</th>
<th>Consultant vacancy rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>Male</td>
<td>Total vacancy rate</td>
</tr>
<tr>
<td>50.8%</td>
<td>49.2%</td>
<td>7.8%</td>
</tr>
<tr>
<td>PT</td>
<td>WT</td>
<td>Vacant &gt;= 6 months</td>
</tr>
<tr>
<td>Leavers: 681.5</td>
<td>Joiners: 1,014.0</td>
<td>4.2%</td>
</tr>
</tbody>
</table>

Notes:
1. Figures are as at 31 March 2019 unless otherwise specified.
2. The net turnover rate excludes HCHS medical and dental training grades. This is to avoid the distortion caused by the frequent rotation of staff in training placements.

A breakdown of the workforce by grade, age, contract type, gender and consultant vacancies for each NHS Board is available within the Medical & Dental dashboard on the ISD Workforce website. Further information about longer term trends (>5 years) and medical and dental support staff is available in the Medical Trend table in the Data Tables section of the website.
2.2 Staff in post

Table 2 presents a summary of recent changes to the WTE of the medical and dental workforce by level of qualification. Overall, the workforce has increased by 2.1% in the last year and by 9.9% over the last five years with the growth in WTE of consultants being the main contributor. This is explored further in Section 2.4.

Please note a change to the employment model for Doctors in Training (DiT), which is explained further in Section 2.5 and should be taken into account when reviewing trend information for DiT and other grades.

<table>
<thead>
<tr>
<th>Table 2: NHSScotland Medical and Dental Staff in Post (WTE)</th>
<th>Mar-14</th>
<th>Mar-18</th>
<th>Mar-19</th>
<th>% change Mar-18 to Mar-19</th>
<th>% change Mar-14 to Mar-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCHS medical and dental staff 1</td>
<td>12,180.6</td>
<td>13,107.7</td>
<td>13,383.0</td>
<td>2.1%</td>
<td>9.9%</td>
</tr>
<tr>
<td>Consultant</td>
<td>4,693.6</td>
<td>5,237.7</td>
<td>5,349.1</td>
<td>2.1%</td>
<td>14.0%</td>
</tr>
<tr>
<td>Director (Clinical, Medical &amp; Dental) 2</td>
<td>76.1</td>
<td>143.2</td>
<td>126.2</td>
<td>-11.9%</td>
<td>65.7%</td>
</tr>
<tr>
<td>Staff and associate specialist grades</td>
<td>1,316.3</td>
<td>1,202.0</td>
<td>1,205.7</td>
<td>0.3%</td>
<td>-8.4%</td>
</tr>
<tr>
<td>Doctors in training</td>
<td>5,670.8</td>
<td>5,760.1</td>
<td>5,744.1</td>
<td>-0.3%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Other grades 3</td>
<td>423.8</td>
<td>764.7</td>
<td>957.9</td>
<td>25.3%</td>
<td>126.0%</td>
</tr>
</tbody>
</table>

Notes:
1. Information on the grades included within each group can be found in the Variables guide which is available via the FAQ section of the ISD Workforce website.
2. The change in number of directors reported is due to recording issues. Specifically, NHS Lothian were under reporting in March 2014 and NHS Lanarkshire were over reporting in March 2018.
3. Prior to the new DiT employment model taking effect from 1 August 2018, staff recorded as Locum Appointment in Training (LAT) and Locum Appointment in Service (LAS) were excluded from national statistics. Following a quality assurance exercise, in conjunction with the new employment model, ISD and NHS Boards agreed to include these locum posts going forward. This change, in conjunction with the findings of the associated data quality exercise impacts trend data for the ‘Doctor in Training’ category (due to inclusion of staff on a LAT grade) and, the ‘Other grade’ category (due to inclusion of staff on a LAS grade). Please see notes 2 and 3 in Medical & Dental Dashboard for further information.

2.3 Net turnover

As illustrated in Figure 7 below, the net turnover rate for medical and dental staff in NHSScotland has been increasing in recent years due to a rise in the number of leavers, from a previously stable level. Please note that this analysis does not include doctors and dentists in training who are excluded due to the frequent rotation of staff in training placements.
Figure 7: Net Joiners, Leavers and Turnover Trend for Medical and Dental staff; NHSScotland $^{1,2,3}$

Notes:
1. Excludes HCHS medical and dental training grades. This is to avoid the distortion caused by the frequent rotation of staff in training placements.
2. NHSScotland joiners and leavers do not include staff changing roles or moving between NHS Boards.
3. Number of joiners in 2018/19 inflated by 140.0 WTE, due to inclusion of LAS and a quality assurance exercise in conjunction with aforementioned impact of DiT employment model.

Figure 8 shows the number of joiners, leavers and net turnover of staff by NHS Board during financial year 2018/19. As outlined in Section 1.3 earlier there is a subtle difference in the calculation used to calculate Board level turnover which leads to consistently higher turnover rates than for NHSScotland. Further information on the turnover methodology is available in Appendix 1.
**Figure 8: Net Joiners, Leavers and Turnover, Medical and Dental staff, by territorial Board, 2018/19** $^{1,2,3}$

<table>
<thead>
<tr>
<th>NHS Greater Glasgow &amp; Clyde</th>
<th>Joiners (WTE)</th>
<th>Leavers (WTE)</th>
<th>Net turnover (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>225.5</td>
<td>78.7</td>
<td>13.4</td>
</tr>
<tr>
<td>NHS Lothian</td>
<td>205.7</td>
<td>81.8</td>
<td>9.6</td>
</tr>
<tr>
<td>NHS Ayrshire &amp; Arran</td>
<td>104.4</td>
<td>38.7</td>
<td>6.6</td>
</tr>
<tr>
<td>NHS Tayside</td>
<td>96.5</td>
<td>57.2</td>
<td>8.9</td>
</tr>
<tr>
<td>NHS Grampian</td>
<td>87.7</td>
<td>81.8</td>
<td>11.0</td>
</tr>
<tr>
<td>NHS Lanarkshire</td>
<td>78.1</td>
<td>82.1</td>
<td>12.7</td>
</tr>
<tr>
<td>NHS Forth Valley</td>
<td>66.5</td>
<td>30.5</td>
<td>10.2</td>
</tr>
<tr>
<td>NHS Highland</td>
<td>56.5</td>
<td>31.6</td>
<td>8.1</td>
</tr>
<tr>
<td>NHS Fife</td>
<td>47.6</td>
<td>39.9</td>
<td>11.5</td>
</tr>
<tr>
<td>NHS Borders</td>
<td>32.8</td>
<td>15.2</td>
<td>10.2</td>
</tr>
<tr>
<td>NHS Dumfries &amp; Galloway</td>
<td>27.3</td>
<td>13.6</td>
<td>7.9</td>
</tr>
<tr>
<td>NHS Shetland</td>
<td>11.1</td>
<td>3.5</td>
<td>11.3</td>
</tr>
<tr>
<td>NHS Western Isles</td>
<td>6.0</td>
<td>1.8</td>
<td>6.3</td>
</tr>
<tr>
<td>NHS Orkney</td>
<td>2.5</td>
<td>1.5</td>
<td>5.6</td>
</tr>
</tbody>
</table>

Notes:
1. Excludes HCHS medical and dental training grades. This is to avoid the distortion caused by the frequent rotation of staff in training placements.
2. Joiners and leavers do not include staff changing roles within an NHS Board.
3. Information for the Special Health Boards is available in the Turnover table.

Information on net joiners, leavers and turnover for each NHS Board by staff group is available within the Turnover table in the Data Tables section of the ISD Workforce website.

### 2.4 Consultants

Consultants account for 40.0% of the medical and dental workforce, a proportion that has increased by 1.5% in the last five years. The consultant role is a senior, specialist position which involves leading a multidisciplinary team of doctors, nurses and other health professionals and taking ultimate responsibility for the safe and effective care of patients that are under their care.
2.4.1 Staff in post

Table 3 presents a summary of recent changes to the consultant WTE by broad specialty group and shows recent growth has occurred across most groups. Of the 655.5 WTE (14.0%) increase in the last five years, considerable growth is observed in medical specialties (237.2 WTE), paediatrics specialties (100.4 WTE), surgical specialties (96.0 WTE) and anaesthetics (90.8 WTE). In relation to the 111.4 WTE (2.1%) increase in the last year, the highest growth was observed in clinical laboratory specialties (24.8 WTE) and paediatrics specialties (24.6 WTE).

Table 3: NHSScotland Consultants1 in Post (WTE) by Specialty Groups2

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>All specialties</td>
<td>4,693.6</td>
<td>5,237.7</td>
<td>5,349.1</td>
<td>2.1%</td>
<td>14.0%</td>
</tr>
<tr>
<td>Emergency medicine</td>
<td>163.9</td>
<td>227.4</td>
<td>227.0</td>
<td>-0.2%</td>
<td>38.5%</td>
</tr>
<tr>
<td>Anaesthetics</td>
<td>679.4</td>
<td>756.8</td>
<td>770.2</td>
<td>1.8%</td>
<td>13.4%</td>
</tr>
<tr>
<td>Obstetrics and gynaecology</td>
<td>230.7</td>
<td>248.6</td>
<td>258.0</td>
<td>3.8%</td>
<td>11.8%</td>
</tr>
<tr>
<td>Clinical laboratory specialties</td>
<td>576.4</td>
<td>621.9</td>
<td>646.7</td>
<td>4.0%</td>
<td>12.2%</td>
</tr>
<tr>
<td>Medical specialties</td>
<td>1,051.6</td>
<td>1,293.4</td>
<td>1,288.8</td>
<td>-0.4%</td>
<td>22.6%</td>
</tr>
<tr>
<td>Psychiatric specialties</td>
<td>513.2</td>
<td>536.9</td>
<td>528.3</td>
<td>-1.6%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Surgical specialties</td>
<td>891.8</td>
<td>974.9</td>
<td>987.8</td>
<td>1.3%</td>
<td>10.8%</td>
</tr>
<tr>
<td>Paediatrics specialties</td>
<td>255.2</td>
<td>331.0</td>
<td>355.6</td>
<td>7.4%</td>
<td>39.3%</td>
</tr>
<tr>
<td>Other medical specialties3</td>
<td>234.8</td>
<td>156.1</td>
<td>194.3</td>
<td>24.4%</td>
<td>-17.3%</td>
</tr>
<tr>
<td>All dental specialties</td>
<td>96.7</td>
<td>90.5</td>
<td>92.4</td>
<td>2.1%</td>
<td>-4.4%</td>
</tr>
</tbody>
</table>

Notes:
1. Includes directors of public health.
2. A list of specialties within each specialty group can be found in the FAQ section of the ISD Workforce website.
3. Increase from March 2018 to March 2019 relates to data quality issues at NHS Lanarkshire following HR system migration to eESS, which has resulted in blank specialty records. This will be resolved in due course.

Figure 9 shows the trend in the number of consultants employed by NHSScotland since 2006 and indicates a reported high of 5374.8 WTE at 31 December 2018. Generally, there has been steady and continuous growth in the number of consultants employed, even through the economic downturn which led to a reduction in the number of overall staff as outlined in Figure 1 earlier. The inset chart displays the net percentage and WTE change in the consultant workforce by NHS Board in the year to 31 March 2019.
Figure 9: NHSScotland Medical and Dental Consultants Trend

Notes:
1. Includes Directors of Public Health.
2. Data capture and reporting of medical and dental staff by grade has improved over time. While this results in more robust information, caution should be taken when considering long term trends. Specifically, the number of consultants recorded increased noticeably in 2008 and 2014. This relates to migration of source data in 2008 and improved quality assurance following on from the introduction of a new HR system in 2014.
3. Workforce data was published annually until September 2010 and then quarterly from March 2011 onwards.
4. Information for the Special Health Boards is available in the medical and dental dashboard.

In previous years, ISD have reported a seasonal trend in the consultant numbers, specifically a notable decrease between the March and June censuses. A major factor in this seasonality is an increase in retirements in the months leading up to and around the end of a financial year and then a delay in the vacated posts being filled whilst Boards wait to recruit those obtaining their Certificate of Completion of Training (CCT) over the summer months. However, data for 2018 suggests a possible shift in trend as there is continuous
growth throughout the year. It remains to be seen if 2019 data returns to the previous seasonal trend.

Information on the trends (>5 years) within each NHS Board in respect of the number of consultants within each specialty is available within the Medical trend table in the Data Tables section of the ISD Workforce website.

### 2.4.2 Consultant vacancies

Table 4 shows the number of vacant consultant posts in both WTE and percentage terms (vacancy rate). At 31 March 2019 the WTE of vacant posts increased to 452.3 (7.8%), slightly higher than a year previous (7.5%). However, the number of long-term vacancies, posts that were vacant for 6 months or more, has decreased slightly (down 8.9 WTE).

#### Table 4: NHSScotland Consultant Vacancies (WTE)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total vacancies²</td>
<td>324.8</td>
<td>422.5</td>
<td>452.3</td>
<td>7.1%</td>
<td>39.3%</td>
</tr>
<tr>
<td>Vacant 6 months or more</td>
<td>79.2</td>
<td>253.9</td>
<td>245.0</td>
<td>-3.5%</td>
<td>209.3%</td>
</tr>
<tr>
<td>Total vacancy rate³</td>
<td>6.5%</td>
<td>7.5%</td>
<td>7.8%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
1. Includes directors of public health.
2. Vacancies are counted as posts that have been cleared for advert after being through the redeployment process (internal or external advert) and remain as a vacancy until an individual starts in the post. A post marked as a vacancy may still be occupied by the previous incumbent and so also included within the staff in post figure. Therefore, the denominator may include double counting.
3. The denominator used to calculate the vacancy rate is the sum of the total staff in post and total vacancies.

It should be noted that there is variation in the number of vacancies throughout the year. Figure 10 outlines the trend for the consultant vacancy rates recorded at each census since 30 September 2007, distinguishing between the proportion of posts that were vacant less than six months and those vacant six months or more. Following a relatively low rate of vacancies reported from 2008 to 2013, the overall vacancy rate has remained consistently above 6.0% since March 2014, peaking at 8.5% at 30 June 2017. However, the proportion of posts that were vacant for six months or more has increased since then and now accounts for over half of the total vacancies. Note that the consultant vacancy rates show a seasonal trend whereby the vacancy rate tends to peak in June which mirrors the staff in post trend as discussed Section 2.4.1.
Figure 10: Consultant Vacancy Rates by length of vacancy

Notes:
1. Workforce data was published annually until September 2010 and then quarterly from March 2011 onwards.

Figure 11 shows consultant vacancy rates at 31 March 2019 for all NHS Boards, indicating high rates were observed in the island boards, while NHS Lothian reported the lowest rate.
Figure 11: Consultant Vacancy Rates by NHS Board as at 31 March 2019

Notes:
1. Information for the special health boards is available in the Medical & Dental dashboard.

As displayed, the highest vacancy rates are generally in Boards with a more rural profile whereas Boards that incorporate (or are in close proximity to) medical and dental training schools generally have the lowest vacancy rates. This underlines the challenge of enticing a sufficient number of consultants to commit to rural areas, most of who will have undertaken their university education and professional training in Scotland’s major cities and settled accordingly.

In addition, NHS Lanarkshire and NHS Forth Valley, despite being located in the central belt, have a relatively high vacancy rate when compared to NHS Greater Glasgow & Clyde and NHS Lothian suggesting that they may also suffer from the attractions of living and working in Scotland’s two largest cities either side.

Figure 12a shows the spread of consultant vacancies across broad specialty groups, indicating that medical specialties were the highest contributor to vacancies in terms of volume (125.6 WTE) while psychiatric specialties are responsible for the highest rate (13.3%). Within these groupings, there are many individual specialties to explore in the Medical & Dental Dashboard. Figure 12b presents trend information on the six specialties that have the highest vacancy number.
Figure 12a: Specialties with the highest number of Consultant Vacancies as at 31 March 2019

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Vacancies</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical specialties</td>
<td>125.6 WTE</td>
<td>8.9%</td>
</tr>
<tr>
<td>Psychiatric specialties</td>
<td>80.8 WTE</td>
<td>13.3%</td>
</tr>
<tr>
<td>Clinical laboratory specialties</td>
<td>78.4 WTE</td>
<td>10.8%</td>
</tr>
<tr>
<td>Surgical specialties</td>
<td>66.7 WTE</td>
<td>6.3%</td>
</tr>
<tr>
<td>Anaesthetics</td>
<td>42.0 WTE</td>
<td>5.2%</td>
</tr>
<tr>
<td>Paediatrics specialties</td>
<td>21.0 WTE</td>
<td>5.6%</td>
</tr>
<tr>
<td>Emergency medicine</td>
<td>14.7 WTE</td>
<td>6.1%</td>
</tr>
<tr>
<td>Obstetrics and gynaecology</td>
<td>10.0 WTE</td>
<td>3.7%</td>
</tr>
<tr>
<td>Other medical specialties</td>
<td>9.6 WTE</td>
<td>4.7%</td>
</tr>
<tr>
<td>All dental specialties</td>
<td>3.6 WTE</td>
<td>3.6%</td>
</tr>
</tbody>
</table>

Figure 12b: Trend in Consultant Vacancy Rates as at 31 March 2019

[Graph showing trend in vacancy rates for various specialties]
The specialty of clinical radiology has the highest number of consultant vacancies in NHSScotland and has consistently reported a vacancy rate in excess of 10.0% since March 2016. While the overall vacancy rate remains high and indeed increased at 31 March 2019, the number of long term vacancies has reduced. Of the other specialties highlighted, the trend charts signal growing pressure on psychiatry, old age posts in particular proving difficult to fill with a rate of 22.2%.

Further information on vacancies covering the last five years can be found in the Medical and Dental dashboard on the ISD Workforce website. Additional trend information on consultant vacancies (>5 years) is available within the Medical trend table in the Data Tables section of the website.

2.5 Doctors and dentists in training

As well as being an important contributor to services, many doctors and dentists who train in Scotland also take up consultant posts in Scotland on completion of their training. It is vital therefore that there is an adequate supply of trainees to help meet the future Scottish workforce requirements.

In July 2018, the Scottish Government announced a change in the employment model for DiT. Under the new arrangements, trainees continue to occupy and move between training posts across all Boards as part of their training, but for administrative purposes, the 22 employers are now reduced to four lead Boards (NES, NHS Grampian, NHS Greater Glasgow & Clyde and NHS Lothian), with trainees benefitting from having one employer for the duration of a training programme.

The change in employment model came into force on 1 August 2018 and applies initially to all DiT, but will later include dentists in training as well. To ensure national data continues to reflect the hours that trainees are contracted to provide in each placement Board, data collection now utilises a new data source, Turas People, as well as existing data sources. Turas People is an IT system used to administer training by enabling employment and trainee information to be easily shared between lead employers, placement Boards and doctors in training.

From the census at 30 September 2018 onwards, these changes have had some impact on national recording of those in training. Firstly, the comparison of new and existing data sources identified opportunities to address inaccuracies in local recording that may have previously inflated national figures. Secondly a decision was made to begin to include staff recorded as ‘Locum Appointment in Training (LAT)’, who have been previously excluded. Although their net effect on national figures appears to be minimal, these two influences
should be taken into account when interpreting the recent trend. More detailed information on these the changes can be found on the Medical & Dental Section of the ISD website.

The recent national trend is illustrated in Figure 13 below. It highlights a reduction in staff between 2007 and 2010 before a significant increase in 2011. Since then, the number of trainees has fluctuated year on year, peaking in 2014.

**Figure 13: NHSScotland Doctors and Dentists in Training Trend**

![Graph showing trend in doctors and dentists in training](image)

Notes:
1. Doctors in training group includes the foundation house officer year 1, foundation house officer year 2 and doctor in training medical grades.
2. Workforce data was published annually until September 2010 and then quarterly from March 2011 onwards.
3. Following on from the change in DiT model, comparisons over time should be interpreted with caution. See Medical & Dental Section of the ISD website.

The addition of the latest figures for March 2019 into Figure 13 continues the seasonal trend previously observed, with the recorded number of trainees being highest in a particular year at the September census, following fresh intakes to training. This is followed by small reductions in the reported numbers at the December, March and June census. A major cause of this seasonality is the movement of newly qualified/fully certified staff moving into consultant posts which tends to be more staggered across the year.

Further information, including trainee figures at specialty level for each NHS Board of placement, is available within the Medical & Dental dashboard.
2.6 Expenditure on medical locums

For the 2nd consecutive year, ISD presents information on expenditure on agency locum doctors and dentists. Note that this covers only expenditure on locums hired through private agencies and not locums who are directly employed by NHS Boards. It also excludes locums employed by independently contracted GPs.

This new data is sourced from the NHSScotland financial systems and all the figures shown are verified by the relevant NHS Board’s Director of Finance. Given the developmental nature of the dataset, please note that the figures are presented as ‘experimental statistics’ and not as ‘national statistics’.

NHS Boards may use agency locums in certain circumstances including to:

• temporarily fill vacant posts
• cover sickness absence and maternity/paternity or annual leave
• provide additional temporary capacity e.g. to assist with waiting list initiatives.

Following years of growth, Figure 14 shows that national spend on agency locums has decreased for the 2nd consecutive year, reducing by 2.4% in the last year to £98.0 million.

**Figure 14: Total spend on medical agency staff and annual rate of change for NHSScotland**

![Graph showing spend on medical agency staff and annual rate of change](image)

Table 5 shows the expenditure by NHS Board over the last two financial years. The greatest reduction in spend is observed in NHS Lothian (down 28.4%) NHS Greater Glasgow & Clyde (down 20.6%). Meanwhile, both NHS Fife and NHS Highland report an increased annual spend of approximately £1.0m.
### Table 5: Total spend (£ million) on medical agency staff by Board

<table>
<thead>
<tr>
<th>NHS Board</th>
<th>2017/18</th>
<th>2018/19</th>
<th>% change 2017/18 to 2018/19</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHSScotland</td>
<td>100.4</td>
<td>98.0</td>
<td>-2.4%</td>
</tr>
<tr>
<td>NHS Ayrshire and Arran</td>
<td>8.6</td>
<td>7.5</td>
<td>-12.5%</td>
</tr>
<tr>
<td>NHS Borders</td>
<td>1.0</td>
<td>1.1</td>
<td>16.0%</td>
</tr>
<tr>
<td>NHS Dumfries and Galloway</td>
<td>10.5</td>
<td>9.9</td>
<td>-5.7%</td>
</tr>
<tr>
<td>NHS Fife</td>
<td>5.8</td>
<td>6.8</td>
<td>17.3%</td>
</tr>
<tr>
<td>NHS Forth Valley</td>
<td>4.2</td>
<td>3.7</td>
<td>-12.6%</td>
</tr>
<tr>
<td>NHS Grampian</td>
<td>15.6</td>
<td>16.3</td>
<td>4.4%</td>
</tr>
<tr>
<td>NHS Greater Glasgow And Clyde</td>
<td>17.2</td>
<td>13.7</td>
<td>-20.6%</td>
</tr>
<tr>
<td>NHS Highland</td>
<td>11.8</td>
<td>12.8</td>
<td>8.3%</td>
</tr>
<tr>
<td>NHS Lanarkshire</td>
<td>11.6</td>
<td>12.3</td>
<td>6.8%</td>
</tr>
<tr>
<td>NHS Lothian</td>
<td>5.2</td>
<td>3.7</td>
<td>-28.4%</td>
</tr>
<tr>
<td>NHS Orkney</td>
<td>1.2</td>
<td>1.4</td>
<td>23.0%</td>
</tr>
<tr>
<td>NHS Shetland</td>
<td>2.7</td>
<td>3.1</td>
<td>17.9%</td>
</tr>
<tr>
<td>NHS Tayside</td>
<td>3.2</td>
<td>3.1</td>
<td>-2.8%</td>
</tr>
<tr>
<td>NHS Western Isles</td>
<td>1.3</td>
<td>2.0</td>
<td>59.5%</td>
</tr>
</tbody>
</table>

Further information by NHS Board is available within the Medical agency table in the Data Tables section of the ISD Workforce website.
3. Nursing & Midwifery staff

As outlined in Figure 6 earlier, nursing and midwifery is by far the largest staff group within NHSScotland, accounting for 42.6% of the workforce directly employed. Encompassing a wide variety of roles, nurses and midwives are at the heart of the provision of safe and effective care to patients in both hospital and community settings.

3.1 Summary

Notes:
1. Figures are as at 31 March 2019 unless otherwise specified.

NHS Board information on nursing and midwifery staff in post by sub job family, Agenda for Change band, age, contract type, gender and vacancies is available within the Nursing and Midwifery dashboard on the ISD Workforce website. Further information about longer term trends (>5 years) is available in the Non-Medical Trend table in the Data Tables section of the website.
3.2 Staff in post

Table 6 presents a summary of recent changes to the WTE of nursing and midwifery staff. Over the last five years the nursing workforce has increased by 1,911.3 WTE (3.5%), a rate that is replicated for both qualified and support staff. In the last year, a 0.4% increase in qualified and 0.4% decrease in support staff accounts for an overall growth of 0.2% (130.3 WTE) in nursing staff.

The growth in the midwifery WTE has increased at a greater rate in the last year (1.9%) than the last five years (0.6%). While there is a 0.7% increase in qualified staff over the last year, the WTE has decreased by 0.8% (19.7 WTE) when comparing to March 2014.

Table 6: NHSScotland Nursing and Midwifery Staff in Post (WTE) \(^{1,2,3}\)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing and midwifery</td>
<td>58,172.7</td>
<td>59,892.0</td>
<td>60,070.5</td>
<td>0.3%</td>
<td>3.3%</td>
</tr>
<tr>
<td>Nursing(^3)</td>
<td>55,151.9</td>
<td>56,932.9</td>
<td>57,063.2</td>
<td>0.2%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Qualified(^1)</td>
<td>40,235.2</td>
<td>41,440.8</td>
<td>41,626.2</td>
<td>0.4%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Support(^2)</td>
<td>14,908.0</td>
<td>15,492.1</td>
<td>15,437.0</td>
<td>-0.4%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Midwifery</td>
<td>2,938.6</td>
<td>2,902.1</td>
<td>2,957.2</td>
<td>1.9%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Qualified(^1)</td>
<td>2,445.5</td>
<td>2,408.9</td>
<td>2,425.8</td>
<td>0.7%</td>
<td>-0.8%</td>
</tr>
<tr>
<td>Support(^2)</td>
<td>493.2</td>
<td>493.2</td>
<td>531.4</td>
<td>7.7%</td>
<td>7.7%</td>
</tr>
<tr>
<td>Not assimilated/not known</td>
<td>82.1</td>
<td>57.0</td>
<td>50.1</td>
<td>-12.1%</td>
<td>-39.0%</td>
</tr>
</tbody>
</table>

Notes:
1. Qualified relates to staff on Agenda for Change (AfC) bands 5 and above, including interns.
2. Support relates to staff on AfC bands 1 to 4.
3. Nursing total at March 2014 includes 8.8 WTE of not assimilated/not known banding.

**Figure 15** illustrates the trend in the number of nursing and midwifery staff employed by NHSScotland and shows that there was growth in this part of the workforce between 2007 and 2009 before a reduction between 2009 and 2012, which relates to the aforementioned economic downturn. Since then, the workforce has continued to increase, albeit at a lower annual rate of growth over the last 4 years varying between 0.2% and 0.7%. The inset chart displays the percentage and WTE change in the nursing and midwifery workforce by NHS Board for the latest year.
The seasonal trend identified earlier is also present in the nursing and midwifery figures with staff numbers tending to drop in June before rising again in September onwards. The reasons for this trend are similar to those outlined earlier for consultants – an increase in retirement rates amongst staff in the months leading up to and around the end of a financial year and a focus on a block recruitment of new graduates to fill vacant posts in September and October. Another factor can be the level of recruitment of seasonal workers to cater for the increased demand on services over the winter months.

Information on the trends (>5 years) within each NHS Board in respect of the number of nursing and midwifery staff within each nursing specialty is available in the Non-Medical Trend table in the Data Tables section of the website.
3.3 Net turnover

As demonstrated in Figure 16 below, the net turnover rate for nursing and midwifery staff has been increasing for several years due to the increasing number of leavers in each year. The rate has dropped slightly in the most recent figures, reflecting a decrease in the number of leavers (down 191.1 WTE) during 2018/19. Meanwhile, the number of joiners (4,611.5 WTE) is lower than the previous two years.

**Figure 16: Net Joiners, Leavers and Turnover Trend for Nursing and Midwifery staff; NHSScotland**

The graph in Figure 16 shows the number of joiners, leavers, and net turnover of staff by NHS Board during financial year 2018/19. As outlined in Section 1.3 earlier there is a subtle difference in the calculation used to calculate Board level turnover which leads to consistently higher turnover rates than for NHSScotland. Further information on the turnover methodology is available in Appendix 1.

Notes:
1. NHSScotland joiners and leavers do not include staff changing roles or moving between NHS Boards.
Figure 17: Net Joiners, Leavers and Turnover for Nursing and Midwifery staff by NHS Board, 2018/19

1. Joiners and leavers do not include staff changing roles within an NHS Board.

Information on net joiners, leavers and turnover for each NHS Board by staff group is available within the Turnover table in the Data Tables section of the ISD Workforce website. Further information on the turnover methodology is available in Appendix 1.

3.4 Nursing and midwifery vacancies

Table 7 shows the number of vacant nursing and midwifery posts in both WTE and percentage terms (vacancy rate). At 31 March 2019 the WTE of vacant posts increased to 3,143.7, a vacancy rate of 5.0%, compared with 4.5% recorded a year earlier. The number of longer term vacancies (> 3 months) is also increasing, up 48.7 WTE, however this now accounts for a lower proportion of total vacancies (28.7%) than last year. The five-year comparison highlights the growing challenges for nursing and midwifery recruitment across NHSScotland.
Table 7: NHSScotland Nursing and Midwifery Vacancies (WTE) $^{1,2}$

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total vacancies $^1$</td>
<td>1,637.5</td>
<td>2,814.3</td>
<td>3,143.7</td>
<td>11.7%</td>
<td>92.0%</td>
</tr>
<tr>
<td>Vacant three months or more</td>
<td>352.2</td>
<td>853.1</td>
<td>901.8</td>
<td>5.7%</td>
<td>156.0%</td>
</tr>
<tr>
<td>Total vacancy rate $^2$</td>
<td>2.7%</td>
<td>4.5%</td>
<td>5.0%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. Vacancies are counted as posts that have been cleared for advert after being through the redeployment process (internal or external advert) and remain as a vacancy until an individual starts in the post. A post marked as a vacancy may still be occupied by the previous incumbent and so also included within the staff in post figure. Therefore, the denominator may include double counting.
2. The denominator used to calculate the vacancy rate is the sum of the total staff in post and total vacancies.

It should be noted that there is variation in the number and rate of vacancies throughout the year. Figure 18 outlines the trend in vacancy rates for nursing and midwifery posts recorded at each census since 30 September 2007, distinguishing between the proportion of posts that were vacant for less than three months and vacant for three months or more. The low vacancy rates reported in 2010 and 2011 reflect a reduction in active recruitment coinciding with the economic downturn. Vacancy rates have steadily increased since then, peaking at 5.3% in June 2018.
Figure 18: Nursing and Midwifery Vacancy Rates

Notes:
1. Workforce data was published annually until September 2010 and then quarterly from March 2011 onwards.

The seasonality of vacancy rates will generally be driven by retirements, which tend to happen in the earlier part of the year and the introduction of newly qualified graduates who generally start in September or October once they have obtained their registration number. Figure 18 illustrates a recent shift in seasonal trend. Between 2013 and 2016 the vacancy rate tended to peak in September. However, 2017 and 2018 figures show a peak in June. This suggests a possible change in recruitment model across NHS Boards with regards timing.

Figure 19 shows the nursing and midwifery vacancy rates for all territorial boards as at 31 March 2019, indicating that the highest vacancy rates are predominately reported in the north of Scotland and rural areas.
Figure 19: Nursing and Midwifery Vacancy Rates as at 31 March 2019 by NHS Board 1

Notes:
1. Information for the Special Health Boards is available in the Nursing and Midwifery dashboard.

Figure 20a shows the top six categories (job families) that account for 89.6% of 3,143.7 WTE vacant posts at 31 March 2019. Figure 20b then shows trends for the vacancy rate for each of these categories. Vacancies in adult nursing contribute just over half of vacant WTE with mental health nursing, accounting for near 16.0% of vacant WTE. The district nursing category had the highest vacancy rate at just over 6.0%. In contrast the vacancy rate for posts in health visiting has started to reduce in conjunction with targeted investment in training and recruitment.
Figure 20a: Six Job Families with the Highest Number of Nursing and Midwifery Vacancies as at 31 March 2019 ¹²

Notes:
1. Excludes ‘Other’ category.
2. Adult includes General (Acute), Care of the Elderly and Other Maternity.

Figure 20b: Nursing and Midwifery Vacancy Rates as at 31 March 2019 ¹²

Notes:
1. Excludes ‘Other’ category.
2. Adult includes General (Acute), Care of the Elderly and Other Maternity.
As can be seen in Figure 20b above, the highest individual vacancy rate for nursing and midwifery is for district nursing staff. Meanwhile the health visitor rate has started to reduce in conjunction with targeted investment in training and recruitment.

Further detail on all areas of nursing and midwifery is available within the Nursing and Midwifery dashboard on the ISD Workforce website. Trend information (>5 years) on nursing and midwifery vacancies back to 2007 is available within the Non-medical trend table in the Data Tables section of the website.

3.5 Specialist Nursing

This section focuses on specialist and advanced nursing roles, some of which have been subject to recent Scottish Government commitments.

3.5.1 Advanced Nurse Practitioners

Following the Scottish Government commitment in 2016 to train 500 new ANPs by 2021, ISD have worked in collaboration with NHS Boards to develop national data to monitor the impact of this commitment on the number of ANPs directly employed by NHSScotland. ISD were first able to quantify the number of ANPs at 30 September 2017. Data is now quality assured and published annually.

The latest available figures, at 30 September 2018, show a 4.4% increase in the number of directly employed ANPs, rising from 642 to 670 in the last year. Adjusting for part time working, the WTE has increase by 5.9% from 577.1 to 611.4. Further information by NHS Board split by AfC band is available on the Data Tables section of the ISD website.

Please note, the figures do not include the number of ANPs working in primary care. Due to the nature of the role, it is likely that a number of newly trained ANPs will work in this area and this will be monitored by NES.

3.5.2 Health Visitors

In 2014 the Scottish Government made a commitment to increase the number of health visitor posts by 500 over the next four years. At the time of the Scottish Government announcement, there was an absence of robust figures on the number of qualified staff in post as it coincided with an ongoing data cleanse in respect of the recording of community nursing staff on workforce systems with Boards. As a consequence of this, ISD were asked to produce and publish estimates of the WTE of health visitors in post at 31 March 2014 – see ISD estimates.
At 31 March 2019 the headcount of qualified health visitors (AfC band 6 and above) was 1,865, 7.4% higher than a year previously. The WTE of these staff had also increased by 7.0% in this period to 1,623.8. Based on the aforementioned estimates, this represents an increase of between 509.1 and 575.9 WTE since 31 March 2014.

Trend information on health visiting staff including AfC band, age and contract type, is available via the Nursing and Midwifery dashboard. Following a recent announcement by the Scottish Terms and Conditions Committee, please be aware that qualified Health Visitors were re-graded from AfC Band 6 to 7.

3.5.3 Clinical Nurse Specialist (CNS)

CNS data is routinely published annually, reporting at 30 September census. Due to data quality concerns however, nine NHS Boards have indicated that their data at 30 September 2018 was not fit for release. As such, latest figures have been suppressed in the CNS trend table for the affected Boards.

A national review into the CNS role and definition is currently underway with a view to a new definition and guidance being in place by summer 2019. Once confirmed, ISD/NES will work with NHS Boards to cleanse their CNS data ahead of the 30 September 2019 census, scheduled for release 3 December 2019.

3.6 Student Training

Figure 21 shows student intakes for pre-registered nursing and midwifery from 2000/01 onwards. Following a notable drop between 2010/11 and 2012/13 when the number of intakes fell to as low as 2,713, student numbers are gradually increasing again. The 3,471 reported in 2017/18 is the highest observed since 2010/11 and representative of a need to develop newly qualified nurses and midwives that can help overcome the challenges of an ageing workforce and increasing vacancy rates. Detail on the Scottish Government’s investment to increase the number of student placements is available on the Scottish Government’s website.
Further information on student intakes, students in training (including post registration) and progression rates are produced by NES and published by ISD in December each year. Latest trend figures available via the Data Tables section of the ISD website.

### 3.7 Nursing and midwifery bank and agency staff

NHS Boards use supplementary staff such as bank (NHS employees who provide cover for planned and unplanned shortfalls in staffing) or agency (employed by private companies) nurses and midwives as and when required to:

- temporarily fill vacant posts
- cover sickness absence and maternity/paternity or annual leave
- provide additional temporary capacity

Figure 22 presents trend information on nursing and midwifery spend for the last 10 years, illustrating the rising use of supplementary staffing to meet demand. In 2018/19, NHSScotland expenditure on bank staff increased for the seventh consecutive year, rising by 6.5% to £161.9 million. Following a reduction in agency spend in 2017/18, there has been a return to the upward trend with NHSScotland spending £26.2 million in 2018/19, up 10.9%. The overall combined use of bank and agency staff equates to approximately 5,000 ‘average’ WTE.
Figure 22: Total spend on bank and agency nursing & midwifery staff and annual rate of change for NHSScotland

Figure 23 summarises the latest spend on bank and agency staff, including annual percentage change, split by NHS Board. The greatest percentage increase in bank expenditure was reported by NHS Tayside (32.0%). While spend on agency dropped by 25.4%, the overall increase in combined bank and agency hours (up 50 ‘average’ WTE) highlights the growing need in NHS Tayside to cover shortages with supplementary staffing.

Focusing on agency spend for 2018/19, NHS Ayrshire & Arran (51.7%) and NHS Greater Glasgow & Clyde (22.0%) report significant annual reductions. The greatest increase in the use of agency staff is observed in NHS Grampian, with a 78.3% increase equating to an additional £3.6m in comparison to 2017/18.
Figure 23: Total spend on bank and agency nursing & midwifery staff by Board; 2018/19

Notes:
1. NHS Orkney shows a blank percentage change for agency due to having no agency spend in 2017/18.

A further breakdown of information on bank and agency nursing and midwifery staff – including hours worked and average WTE – is available on the Bank & Agency tab within the Nursing and Midwifery dashboard on the ISD Workforce website.
4. Allied Health Professions

Allied Health Professions are a distinct group of health professionals who apply their expertise to prevent disease transmission, diagnose, treat and rehabilitate people of all ages and all specialties. Together with a range of technical and support staff they may deliver direct patient care, rehabilitation, treatment, diagnostics and health improvement interventions to restore and maintain optimal physical, sensory, psychological, cognitive and social functions of patients.

As shown in Figure 6 earlier, AHPs account for 8.4% of the workforce directly employed by NHS Scotland. This section provides more detail on this part of the workforce.

Note that from 1 April 2013 Paramedics are included in this staff group having been previously included in a staff group covering professions employed by the ambulance service. This has an impact on the trend information shown.

4.1 Summary

<table>
<thead>
<tr>
<th>Gender &amp; Contract Type</th>
<th>Staff in post (WTE)</th>
<th>Qualified</th>
<th>Age profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>80.5%</td>
<td>84.5%</td>
<td>Median age: 42 yrs</td>
</tr>
<tr>
<td>Male</td>
<td>19.5%</td>
<td>15.5%</td>
<td>% Aged 55 and Over: 15.4%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Net Turnover (2018/19)</th>
<th>Vacancy rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joiners - 1,080.6</td>
<td>Total vacancies rate: 4.7%</td>
</tr>
<tr>
<td>Leavers - 777.8</td>
<td>Vacant &gt;=3 months: 1.5%</td>
</tr>
</tbody>
</table>

Notes:
1. Figures are as at 31 March 2019 unless otherwise specified.

NHS Board information on AHP staff in post by profession, AfC band, age, contract type, gender and vacancies is available within the AHP dashboard on the ISD Workforce website. Further information about longer term trends (>5 years) is available in the Non-Medical Trend table in the Data Tables section of the website.
4.2 Staff in post

Table 8 presents a summary of recent changes to the WTE of AHPs. Overall, the workforce has increased by 2.0% in the last year and by 6.2% over the last five years. Of the 697.2 WTE increase in the last 5 years, considerable growth is observed in paramedics (183.7), physiotherapy (183.3) and diagnostic radiography (140.7 WTE). The same professions contributed most to the 238.1 WTE increase for the latest year.

Table 8: NHSScotland Allied Health Professions Staff in Post (WTE) ¹

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Allied health professions</td>
<td>11,194.0</td>
<td>11,653.1</td>
<td>11,891.2</td>
<td>2.0%</td>
<td>6.2%</td>
</tr>
<tr>
<td>Arts therapy (art/music/drama)</td>
<td>21.2</td>
<td>21.9</td>
<td>20.0</td>
<td>-8.8%</td>
<td>-5.5%</td>
</tr>
<tr>
<td>Dietetics</td>
<td>716.4</td>
<td>740.1</td>
<td>765.4</td>
<td>3.4%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Occupational therapy</td>
<td>2,192.2</td>
<td>2,253.4</td>
<td>2,269.2</td>
<td>0.7%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Orthoptics</td>
<td>96.6</td>
<td>99.7</td>
<td>104.3</td>
<td>4.6%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Orthotics</td>
<td>69.6</td>
<td>77.0</td>
<td>80.7</td>
<td>4.8%</td>
<td>15.9%</td>
</tr>
<tr>
<td>Paramedics</td>
<td>1,395.6</td>
<td>1,468.6</td>
<td>1,579.3</td>
<td>7.5%</td>
<td>13.2%</td>
</tr>
<tr>
<td>Physiotherapy</td>
<td>2,758.3</td>
<td>2,892.9</td>
<td>2,941.6</td>
<td>1.7%</td>
<td>6.6%</td>
</tr>
<tr>
<td>Podiatry</td>
<td>663.7</td>
<td>620.5</td>
<td>624.1</td>
<td>0.6%</td>
<td>-6.0%</td>
</tr>
<tr>
<td>Prosthetics</td>
<td>25.4</td>
<td>30.3</td>
<td>30.9</td>
<td>2.0%</td>
<td>21.6%</td>
</tr>
<tr>
<td>Radiography</td>
<td>2,175.7</td>
<td>2,285.5</td>
<td>2,333.8</td>
<td>2.1%</td>
<td>7.3%</td>
</tr>
<tr>
<td>Diagnostic</td>
<td>1,909.7</td>
<td>1,992.9</td>
<td>2,050.4</td>
<td>2.9%</td>
<td>7.4%</td>
</tr>
<tr>
<td>Therapeutic</td>
<td>266.0</td>
<td>292.6</td>
<td>283.4</td>
<td>-3.2%</td>
<td>6.6%</td>
</tr>
<tr>
<td>Speech and language therapy</td>
<td>955.6</td>
<td>984.4</td>
<td>962.9</td>
<td>-2.2%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Multi skilled¹</td>
<td>123.6</td>
<td>178.8</td>
<td>176.2</td>
<td>-1.4%</td>
<td>42.6%</td>
</tr>
</tbody>
</table>

Notes:
1. Multi skilled AHP staff work across more than one discipline and include support workers and AHP leads.

Figure 24 illustrates the growth in the number of AHP staff employed by NHSScotland since September 2007. The trend shows a reduction in the AHP workforce through 2010 and 2011 followed by consecutive years of steady growth. While this pattern is similar to that observed for the overall workforce, the annual rate of growth tends to be higher, ranging from 0.9% to 2.0% in the last four years. The inset chart displays the WTE and percentage change in AHP workforce for all territorial Boards and Scottish Ambulance Service (SAS).
shows that while the national workforce continues to grow, a number of Boards including NHS Borders and NHS Greater Glasgow & Clyde are reporting a reduction in WTE.

**Figure 24: NHSScotland Allied Health Professions Staff in Post Trend (WTE)**

The seasonal trend outlined in earlier sections is also present within the AHP workforce figures, albeit on a smaller scale than that seen in the other staff groups. While the figures do generally show the pattern of a drop in June before a rebound increase in September it is usually either a small decrease or a brief pause in the overall growth of the AHP workforce.
Information on the trends (>5 years) within each NHS Board in respect of the number of AHPs within each profession is available in the Non-Medical Trend table in the Data Tables section of the website.

4.3 Net turnover

As illustrated in Figure 25 the net turnover rate for AHPs has maintained a steady level in recent years, reflecting the relative stability in the number of leavers each year. The number of joiners (1080.6 WTE) in 2018/19 is the highest recorded for the period presented, up 153.0 WTE from the previous year and is partly driven by the Scottish Government commitment to train 1,000 new paramedics over five years.

Figure 25: NHSScotland net Joiners, Leavers and Turnover Trend for Allied Health Professions

Notes:
1. NHSScotland joiners and leavers do not include staff changing roles or moving between NHS Boards.
2. Paramedics were reclassified from ambulance services staff to AHPs from 1 April 2013. The 2013/14 joiners figure is not presented in the above chart due to the distortion caused by this reclassification.

Figure 26 shows the number of joiners, leavers and net turnover of staff by NHS Board during financial year 2018/19. As outlined in Section 1.3 earlier there is a subtle difference.
in the calculation used to calculate Board level turnover which leads to consistently higher turnover rates than for NHSScotland. Further information on the turnover methodology is available in Appendix 1.

**Figure 26: Net Joiners, Leavers and Turnover for Allied Health Professions by NHS Board, 2018/19**

<table>
<thead>
<tr>
<th>NHS Greater Glasgow &amp; Clyde</th>
<th>Joiners (WTE)</th>
<th>Leavers (WTE)</th>
<th>Net turnover (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHS Lothian</td>
<td>222.0</td>
<td>225.3</td>
<td>8.2</td>
</tr>
<tr>
<td>Scottish Ambulance Service</td>
<td>219.8</td>
<td>159.8</td>
<td>9.9</td>
</tr>
<tr>
<td>NHS Lanarkshire</td>
<td>199.5</td>
<td>84.7</td>
<td>5.8</td>
</tr>
<tr>
<td>NHS Tayside</td>
<td>108.5</td>
<td>77.9</td>
<td>8.3</td>
</tr>
<tr>
<td>NHS Grampian</td>
<td>87.2</td>
<td>80.5</td>
<td>10.0</td>
</tr>
<tr>
<td>NHS Ayrshire &amp; Arran</td>
<td>84.0</td>
<td>32.5</td>
<td>8.7</td>
</tr>
<tr>
<td>NHS Highland</td>
<td>82.4</td>
<td>56.8</td>
<td>4.7</td>
</tr>
<tr>
<td>NHS Forth Valley</td>
<td>67.1</td>
<td>43.6</td>
<td>10.0</td>
</tr>
<tr>
<td>NHS Fife</td>
<td>63.3</td>
<td>59.2</td>
<td>9.2</td>
</tr>
<tr>
<td>NHS Dumfries &amp; Galloway</td>
<td>57.0</td>
<td>26.8</td>
<td>10.2</td>
</tr>
<tr>
<td>NHS Borders</td>
<td>40.3</td>
<td>24.1</td>
<td>12.9</td>
</tr>
<tr>
<td>NHS Orkney</td>
<td>18.3</td>
<td>24.1</td>
<td>7.5</td>
</tr>
<tr>
<td>NHS Shetland</td>
<td>7.5</td>
<td>3.4</td>
<td>8.3</td>
</tr>
<tr>
<td>NHS Western Isles</td>
<td>7.3</td>
<td>5.3</td>
<td>8.9</td>
</tr>
</tbody>
</table>

Notes:
1. Joiners and leavers do not include staff changing roles within an NHS Board.

Information on net joiners, leavers and turnover for each NHS Board by staff group is available within the Turnover table in the Data Tables section of the ISD Workforce website.

### 4.4 AHP vacancies

Table 9 shows the number of vacant AHP posts in both WTE and percentage terms (vacancy rate). At 31 March 2019 the WTE of vacant posts increased to 584.5 (4.7%), slightly higher than a year previous (4.4%). The number of long-term vacancies (posts vacant for 3 months or more) has also increased by 29.3 WTE.
Table 9: NHSScotland Allied Health Professions Vacancies (WTE)\(^1,2\)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total vacancies(^1)</td>
<td>452.5</td>
<td>536.4</td>
<td>584.5</td>
<td>9.0%</td>
<td>29.2%</td>
</tr>
<tr>
<td>Vacant three months or more</td>
<td>117.2</td>
<td>157.7</td>
<td>187.0</td>
<td>18.6%</td>
<td>59.5%</td>
</tr>
<tr>
<td>Total vacancy rate(^2)</td>
<td>3.9%</td>
<td>4.4%</td>
<td>4.7%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. Vacancies are counted as posts that have been cleared for advert after being through the redeployment process (internal or external advert) and remain as a vacancy until an individual starts in the post. A post marked as a vacancy may still be occupied by the previous incumbent and so also included within the staff in post figure. Therefore, the denominator may include double counting.
2. The denominator used in the rate calculation is the sum of the total staff in post and total vacancies.

It should be noted that there is variation in the number and rate of vacancies throughout the year. Figure 27 outlines the trend in vacancy rates for AHP posts recorded at each census since 30 September 2007, distinguishing between the proportion of posts that were vacant for less than three months and vacant for three months or more. The lower rates in 2010 and 2011 coincide with the aforementioned economic downturn and reflect a reduction in active recruitment during this period.

Figure 27: Allied Health Professions Vacancy Rates\(^1,2,3\)

Notes:
1. Paramedics were reclassified from ambulance services to AHPs from 1 April 2013. AHP vacancy rates calculated for time points prior to June 2013 do not include paramedics.
2. Does not include proportion (%) of vacancies with unknown length of vacancy.
3. Workforce data was published annually until September 2010 and then quarterly from March 2011 onwards.
Following five years of relative stability since September 2012, a gradual but sustained increase in the AHP vacancy rate is apparent over recent census points. Accounting for this shift in trend, a seasonal pattern is generally evident with peak vacancy rates occurring in June which echoes the trend seen in other staff groups discussed previously. This is expected given that AHP posts generally require a degree level qualification and therefore recruitment will be focused around the academic year.

Figure 28 shows the AHP vacancy rates for all territorial Boards and SAS at 31 March 2019. As with the nursing and midwifery vacancies, vacancy levels tend to be higher in Boards covering the north of Scotland or some rural areas.

**Figure 28: Allied Health Professions Vacancy Rates as at 31 March 2019 by NHS Board;** ¹,²

Notes:
1. NHS Health Scotland and NHS Healthcare Improvement Scotland do not have any AHP staff within their workforce and are therefore not shown in the chart.
2. Information for the Special Health Boards is available in the AHP dashboard.

The spread of AHP vacancies across professions is covered in **Figure 29a** which shows the six professions with the highest number of vacancies, accounting for 93.4% of 584.5 WTE vacant posts at 31 March 2019. Recent trend information on vacancy rates for these professions is then shown in **Figure 29b**.
Figure 29a: Six Professions with the Highest Number of AHP Vacancies as at 31 March 2019

<table>
<thead>
<tr>
<th>Profession</th>
<th>Vacancies</th>
<th>Proportion of total vacancies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physiotherapy</td>
<td>223.1 WTE</td>
<td>38.2%</td>
</tr>
<tr>
<td>Occupational therapy</td>
<td>107.6 WTE</td>
<td>18.4%</td>
</tr>
<tr>
<td>Diagnostic radiography</td>
<td>94.4 WTE</td>
<td>16.2%</td>
</tr>
<tr>
<td>Speech and language therapy</td>
<td>48.3 WTE</td>
<td>8.3%</td>
</tr>
<tr>
<td>Dietetics</td>
<td>39.8 WTE</td>
<td>6.8%</td>
</tr>
<tr>
<td>Paramedics</td>
<td>32.2 WTE</td>
<td>5.5%</td>
</tr>
</tbody>
</table>

Figure 29b: Allied Health Professions Vacancy Rates as at 31 March 2019

Notes:
1. Does not include the proportion (%) of vacancies with unknown length of vacancy.
As shown above, physiotherapy has both the highest vacancy rate and number of vacancies. Following a sustained period of relative stability, a gradual increase in the physiotherapy vacancy rate was observed in recent census points, increasing to 7.0% at 31 March 2019. Given the volume of physiotherapy vacancies, this recent increase contributes to the gradual shift in trend discussed for all professions combined.

Information on the number of vacant AHP posts in each NHS Board, by all professions and Agenda for Change band group, is available within the AHP dashboard on the ISD Workforce website. Information on the trends (>5 years) with respect to AHP vacancies is available within the Non-medical trend table in the Data Tables section of the website.

4.5 Paramedics

As touched upon earlier, the Scottish Government made a commitment to train 1,000 new paramedics over five years. The latest available figures at 31 March 2019, show a 7.4% annual increase in the number of paramedics employed by SAS, rising from 1,509 to 1,620 in the last year. Adjusting for part time working, the WTE has increased by 7.5% from 1,468.6 to 1,579.3. Since the commitment was announced in July 2016, the WTE has increased by 174.1, representing 12.4% growth.
5. In focus: Workforce characteristics

It is widely reported that NHSScotland faces a number of challenges. From recruitment and retention difficulties to an ageing population, there are a variety of factors that require consideration when projecting future workforce supply and demand in order to continue delivering safe, sustainable and high quality services.

The purpose of this in-focus section is to use national data to examine in more detail particular characteristics or factors that are impacting on workforce supply. More specifically we explore:

- The age distribution of the workforce and how it has changed over time
- The level of part time working and how this is influenced by gender
- Sickness absence levels by age

5.1 The Age Distribution of the Workforce

The age profile of a workforce is an important consideration when workforce planning. Like the general population, the workforce employed by NHSScotland is ageing. An older workforce will usually include staff with long lengths of service who have developed advanced skills and expertise as well as experience over time. However, older staff may also make less of a contribution as they approach retirement. For example, they may choose to reduce the hours they work or they may experience more unplanned absence (see Section 5.3). It is also important, of course, to anticipate when staff will choose to retire and the numbers involved, so their replacement can be planned. Increasingly there will be a requirement to try and retain staff longer before they retire, as the population continues to age.

Equally, it is important for younger staff to join and develop within the workforce. These individuals will often bring new skills and a modern perspective having received education and training based on the latest best practice and technology. It also important that they have the opportunity to work alongside more experienced staff to ensure the latter’s knowledge and expertise is transferred and retained. Younger people may also choose to make less of a contribution at certain times in their life – for example, when they choose to have children or when they have carer responsibilities.

With this in mind, examining the age distribution of a workforce may provide an indication of whether there is the optimum ‘balance’ across the ages. Furthermore, changes to this distribution over time may reflect desired or planned improvements to the workforce that have occurred such as increased training of new younger staff or efforts to retain older more experienced staff. Equally, changes to the age distribution may reflect undesired or
unplanned changes. For example, an increasingly older age distribution may be a consequence of a lack of longer-term planning previously with the consequence that future levels of recruitment and retention required a significant step increase to counterbalance a large portion of the workforce reaching retirement or reducing their contribution at the same time.

Figure 30 compares the age distribution of the workforce directly employed by NHSScotland at 31 March 2019 with that at 30 September 2008. In this time period the median age of the national workforce increased by 3 years to 46. The proportion and number of older staff aged 55 and over have increased significantly. Those aged 55+ now account for 22.2% of the workforce compared to 14.6% in 2008. Their WTE has also increased from 19,382.0 to 31,259.6 – an additional 11,877.6 WTE. Meanwhile, the proportion of staff under the age of 40 has decreased from 38.3% at 30 September 2008 to 36.7% at 31 March 2019.

**Figure 30: Age Profile of NHSScotland Workforce (WTE)**

![Age Profile of NHSScotland Workforce (WTE)](image)

Notes:
1. Workforce data was published annually until September 2010 and then quarterly from March 2011 onwards therefore a direct 11-year comparison is not possible.

**Figure 31** shows the trends that shaped the workforce during this period using selected age groups. This clearly shows a significant drop in the ‘Under 40’ age group between September 2009 and mid 2012 before steady growth back up to previous levels. The most striking aspect, however, is the crossover in the trends for the ‘40 to 49’ and ‘50 to 59’ age groups. Since March 2014, there has been a 14.0% (5,623.3 WTE) decrease in the number of people in the ‘40-49’ age group. This is partly driven by the drop in the number ‘Under 40’ a few years earlier, with less staff available to ‘age’ into the higher age group.
Despite the number of staff in the ‘50-59’ age group increasing (5.7%, 2,307.2 WTE, over the last five years), the rate of growth has slowed since there are fewer people in the ‘40-49’ age group to replace the people leaving the ‘50 – 59’ age group or moving to the ‘60+’ group. In contrast, the latter has increased by 43.1% (5,115.5 WTE) over the last ten years, although it is still a comparatively small proportion (8.4%) of the overall workforce.

Figure 31: Trend of NHSScotland workforce by age group (WTE) 

As demonstrated in Figure 3, while the number of staff joining and leaving NHSScotland has remained relatively stable over the last five years, the gap between the two is gradually narrowing, impacting on the rate of growth. To further examine the effect of the age distribution in conjunction with recruitment and retention, the following analysis considers number of staff joining and leaving NHSScotland during each financial year by age group. Drawing a comparison with 2014/15 data when turnover was more settled following the economic downturn, Figure 32 highlights that the vast majority of joiners are aged under 40 and that there has been little change in the number of ‘over 50s’ joining each year. Most noticeably, the number of joiners in the ‘40-49’ age group was 1,646.7 WTE in 2018/19 compared with 1,802.5 WTE in 2014/15.
Figure 32: Number of staff joining NHSScotland workforce by age group (WTE)  

![Graph showing number of staff joining NHSScotland workforce by age group (WTE).]

Notes:
1. Excludes HCHS medical and dental training grades. This is to avoid the distortion caused by the frequent rotation of staff in training placements.
2. NHSScotland joiners and leavers do not include staff changing roles or moving between NHS Boards.
3. Number of joiners in 2018/19 inflated by 140 WTE, due to inclusion of LAS and quality assurance exercise in conjunction with aforementioned impact of DiT employment model.

When considering trend information on leavers, it is important to consider the staff in post and net turnover rate to determine whether the number of leavers is proportional to any changes in the number of staff. Note that in the following table and chart, the ‘50-59’ age group has been split to gauge the impact of the ageing workforce in relation to potential retirements.

Figure 33 shows that there were 2,980.4 WTE leavers in the ‘Under 40’ age group in 2018/19 compared with 2,608.5 WTE in 2014/15. However, the net turnover rate in Table 10 has remained relatively stable over these years suggesting that the increase in the number of leavers is due to the growth in staff aged under 40 as opposed to a notable shift in younger staff looking to leave NHSScotland. A similar trend is shown for the leavers in the ‘40-49’ age group.

The most striking aspect of Figure 33 is the increase in the number of leavers in the ‘55-59’ age group from 1,681.0 WTE leavers in 2018/19 compared with 1,389.3 WTE leavers in 2014/15. Whilst the number of staff in post in this age group has increased over the last five years, the increase in net turnover rate (from 8.2% to 8.9% in Table 10) emphasises that there are proportionally a greater number of staff in this age group leaving NHSScotland and potentially retiring early.
Meanwhile, Table 10 shows that the proportion of staff aged ‘60+’ leaving has gradually decreased since 2014/15 to 15.4%. This is in part influenced by the aforementioned increase in number of leavers aged ‘55-59’, suggesting that the range of ages at which staff opt to retire is widening and more staff are being retained over the age of 60.

**Figure 33: Number of staff leaving NHSScotland workforce by age group (WTE)**

![Diagram showing number of staff leaving NHSScotland workforce by age group from 2011/12 to 2018/19.](image)

**Notes:**
1. Excludes HCHS medical and dental training grades. This is to avoid the distortion caused by the frequent rotation of staff in training placements.
2. NHSScotland joiners and leavers do not include staff changing roles or moving between NHS Boards.
3. Number of joiners in 2018/19 inflated by 140 WTE, due to inclusion of LAS and quality assurance exercise in conjunction with aforementioned impact of DiT employment model.

**Table 10: NHSScotland workforce net turnover rate by age group**

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<tr>
<th></th>
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<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>6.1%</td>
<td>5.6%</td>
<td>5.7%</td>
<td>6.1%</td>
<td>6.4%</td>
<td>6.3%</td>
<td>6.6%</td>
<td>6.4%</td>
</tr>
<tr>
<td>Under 40</td>
<td>6.2%</td>
<td>5.9%</td>
<td>6.0%</td>
<td>6.3%</td>
<td>6.7%</td>
<td>6.6%</td>
<td>6.7%</td>
<td>6.6%</td>
</tr>
<tr>
<td>40 to 49</td>
<td>2.8%</td>
<td>2.6%</td>
<td>2.7%</td>
<td>3.0%</td>
<td>3.1%</td>
<td>3.2%</td>
<td>3.3%</td>
<td>3.4%</td>
</tr>
<tr>
<td>50 to 54</td>
<td>3.7%</td>
<td>3.5%</td>
<td>3.6%</td>
<td>3.7%</td>
<td>4.2%</td>
<td>4.3%</td>
<td>4.3%</td>
<td>4.2%</td>
</tr>
<tr>
<td>55 to 59</td>
<td>8.3%</td>
<td>7.8%</td>
<td>7.8%</td>
<td>8.2%</td>
<td>8.8%</td>
<td>8.7%</td>
<td>9.4%</td>
<td>8.9%</td>
</tr>
<tr>
<td>60+</td>
<td>27.0%</td>
<td>22.9%</td>
<td>20.7%</td>
<td>21.4%</td>
<td>20.9%</td>
<td>18.8%</td>
<td>18.8%</td>
<td>15.4%</td>
</tr>
</tbody>
</table>

**Notes:**
1. Excludes HCHS medical and dental training grades. This is to avoid the distortion caused by the frequent rotation of staff in training placements.
2. NHSScotland joiners and leavers do not include staff changing roles or moving between NHS Boards.
3. Number of joiners in 2018/19 inflated by 140 WTE, due to inclusion of LAS and quality assurance exercise in conjunction with aforementioned impact of DiT employment model.
To help ensure future provision of a sustainable workforce, ongoing monitoring of net turnover rates and leavers can help inform key workforce planning decisions. In the above analysis, we use quality assured data to show an increase in the number of staff leaving NHSScotland at an earlier age. Going forward, such analysis may benefit from a greater granularity of local and national data. Specifically, collecting robust information on the reasons employees leave may help to develop measures and policy to retain staff.

5.2 Contract type and gender

The contract type and gender profile across NHSScotland are also key considerations for effective workforce planning. Figure 34 shows that, based on the proportion of overall WTE figures for NHSScotland, there has been little change in the gender split across the workforce with 77.4% female staff at 31 March 2019 compared with 76.6% at 30 September 2008. Over this time period, there was 16.6% (6,786.6 WTE) increase in the number of staff that are working part time, particularly with female staff who are more likely to choose this way of working.

Figure 34: Contract Type and Gender Profile trend (WTE) for NHS Scotland

Notes:
1. Workforce data was published annually until September 2010 and then quarterly from March 2011 onwards.

Affordability, caring responsibilities, or just the desire to work flexibly can all be factors in whether an individual chooses to work part time. The ability to work (or train) flexibly can
help to attract or retain staff that might otherwise be dissuaded from pursuing a career in the NHS. However, accommodating flexible working patterns can present challenges to those planning the workforce, with a greater number of suitably trained individuals required to ensure there are appropriate and safe staffing levels.

Examining the level of part-time working in more detail, Figure 35 suggests a shift in working patterns over the last ten years with an increase in the proportion of people working ‘0.6 - <0.8’ and ‘0.8 - <1.0’ weekly contracted WTE. Simultaneously, there has been a decrease in the proportion of people working less than 0.6 contracted WTE and exactly 1.0 contracted WTE.

**Figure 35: Percentage of NHSScotland workforce by total weekly contracted whole time equivalent**¹²

![Percentage of NHSScotland workforce by total weekly contracted whole time equivalent](image)

Notes:
1. Workforce data was published annually until September 2010 and then quarterly from March 2011 onwards.
2. A small number of staff with a total weekly contracted WTE greater than 1.0 (for example, when someone holds multiple posts) have been excluded from this chart.

This change in work pattern behaviour is likely to be a consequence of multiple factors touched upon above as staff strive for a work/lifestyle balance often aligned to family commitments. However, further analysis in **Figure 36** shows that there has been an increase in the proportion of staff choosing to work less than 1.0 contracted WTE (‘part time’) across all age groups, highlighting that the impact of an aging workforce is not solely responsible for the shift in work pattern shown in **Figure 36**.
Figure 36: Percentage of NHSScotland workforce in each age group by contract type

Notes:
1. Workforce data was published annually until September 2010 and then quarterly from March 2011 onwards.

Table 11 presents the changes in weekly contracted WTE over the last ten years by gender. The number of females working 0.6 hours and above has increased, with the greatest growth (28.0%) in the ‘0.8 - <0.1’ category. This category accounts for 19.7% of the female workforce, up from 15.9% as at 30 September 2009. In contrast, the proportion of females with a WTE less than 0.6 has decreased from 18.9% to 14.7%, suggesting such work patterns are becoming less popular.

Although the proportion of male employees who work part time is still low, the number of male part timers has increased by 12.9%. The majority of the staff, have a WTE greater than 0.6 with many being greater than 0.8.

Table 11: Total weekly contracted whole time equivalent of the NHSScotland workforce by Gender

<table>
<thead>
<tr>
<th>Contracted weekly WTE</th>
<th>Female</th>
<th>% change Sep-09 to Mar-19</th>
<th>Male</th>
<th>% change Sep-09 to Mar-19</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sep-09</td>
<td>Mar-19</td>
<td>Sep-09</td>
<td>Mar-19</td>
</tr>
<tr>
<td>&lt;0.4</td>
<td>5,662</td>
<td>4,095</td>
<td>1,185</td>
<td>907</td>
</tr>
<tr>
<td>0.4 - &lt;0.6</td>
<td>18,047</td>
<td>14,897</td>
<td>1,278</td>
<td>1,404</td>
</tr>
<tr>
<td>0.6 - &lt;0.8</td>
<td>16,500</td>
<td>19,795</td>
<td>945</td>
<td>1,143</td>
</tr>
<tr>
<td>0.8 - &lt;1.0</td>
<td>19,918</td>
<td>25,489</td>
<td>1,499</td>
<td>2,087</td>
</tr>
<tr>
<td>1.0</td>
<td>65,138</td>
<td>65,319</td>
<td>28,683</td>
<td>28,180</td>
</tr>
</tbody>
</table>

Notes:
1. Workforce data was published annually until September 2010 and then quarterly from March 2011 onwards.
2. A small number of staff with a total weekly contracted WTE greater than 1.0 (for example, when someone holds multiple posts) have been excluded from this chart.

At 31 March 2019, just over two thirds of the NHSScotland workforce (93,331.0 WTE) are working whole time. However, Figure 37 illustrates there is a notable variation across territorial Boards; in particular, the proportion of staff working whole time ranges from 72.0% (24,479.0 WTE) in NHS Greater Glasgow & Clyde to 47.3% (1,261.0 WTE) in NHS Borders. Furthermore, it would appear that Boards with more of a rural profile have a higher proportion of staff working part time.

Figure 37: Breakdown of the overall workforce by Contract Type and Gender for each NHS Board as at 31 March 2019

Further information on contract type and gender by NHS Board and staff group is available on the dashboards on the ISD website.

5.3 Sickness absence by Age

As discussed in Section 5.1, the age profile of the workforce is a major consideration in workforce planning. One aspect of this is the influence of age on the health of an employee and, in turn, the amount of sick leave taken. The following analysis explores the relationship between age and sickness absence levels within the workforce directly employed by NHSScotland, with a view to considering the potential impact of an ageing workforce and a desire to reduce levels of sickness absence. (Scottish Government recently announced
that NHSScotland should work towards reducing sickness absence by 0.5% per annum over 3 years, beginning on 1 April 2019 with the aim of achieving an overall NHSScotland average of less than 4.0%.)

Following on from Section 1.4 that reports a national sickness absence rate of 5.39% for 2018/19, Figure 38 presents individual sickness absence rates for each five-year age band. The rates shown reflect that employees are no different from the general population in being more susceptible to ill health as they grow older. For instance, the sickness absence rate for 60-64 year olds is more than double the rate for those aged 25-29. Note also that the age bands relating to those in their 20s are the only groups with a sickness absence rate that is less than the current national target of 4.0%.

**Figure 38: Sickness absence by age**

![Sickness absence by age](image)

Notes

1. As SWISS is a live system age has been calculated by using date of birth and the end date of the financial year e.g. 2018/19 – 31/03/2019 was used.

Nursing and midwifery, the largest staff group across NHSScotland, is a profession that is exposed to a number of pressures, evident in the ongoing high vacancy numbers and increase in supplementary staffing expenditure (which will sometimes relate to backfilling sickness absence) reported earlier. In addition to these challenges, the workforce is ageing with a median age of 46 and 19.7% aged over 55. With this in mind, **Figure 39** shows absence rates for this staff group by age band, distinguishing between qualified and support staff (AfC bands 1-4).
Figure 39: Nursing & Midwifery sickness absence rate for support and qualified bands

Notes
1. As SWISS is a live system age has been calculated by using date of birth and the end date of the financial year e.g. 2018/19 – 31/03/2019 was used.

The rates shown for qualified staff are not too dissimilar to those for all staff in Figure 38. However, rates for support staff are much higher with even the 25-29 age group exceeding 7.0% and rates for the over 60s groups exceeding 10.0%.

Focusing on qualified staff which accounts for 73.3% of the nursing and midwifery workforce, the sickness absence rate for under 30s combined is within the national standard of 4.0%. With the exception of the 40-44 age band, there is then an upward shift in distribution, with the difference in absence rate increasing as you move through the older age bands. This generally reflects the pattern observed for the overall workforce.

The skills, knowledge and experience of our older workforce is greatly valued, providing safe and effective patient care while supporting the development of younger less experienced staff across NHSScotland. Robust planning for certain professions may involve calculating ‘time out’, this can cover a range of categories including annual leave, study leave, protected development time and sick leave. The above analysis highlights the importance of taking the age profile of a particular team or department into account to ensure sustainable service delivery.
Glossary

**Agenda for Change (AfC):** The national pay system for NHS workforce.

**Advanced Nurse Practitioner (ANP):** An experienced and highly educated Registered Nurse who manages the complete clinical care for their patient, not solely any specific condition. Advanced practice is a level of practice, rather than a type or speciality of practice.

ANPs are educated at Masters Level in advanced practice and are assessed as competent in this level of practice. As a clinical leader they have the freedom and authority to act and accept the responsibility and accountability for those actions. This level of practice is characterised by high level autonomous decision making, including assessment, diagnosis, treatment including prescribing, of patients with complex multi-dimensional problems. Decisions are made using high level expert, knowledge and skills. This includes the authority to refer, admit and discharge within appropriate clinical areas.

Working as part of the multidisciplinary team ANPs can work in or across all clinical settings, dependant on their area of expertise.

**Allied health professions (AHPs):** The Allied health professions are a distinct group of healthcare professionals who apply their expertise to diagnose, treat and rehabilitate people of all ages and all specialties. AHPs are distinct from medicine, pharmacy and nursing and include professions such as physiotherapy, dietetics, speech and language therapy, occupational therapy, podiatry.

**Assimilation:** Term, in a workforce context, of the process to bring all NHSScotland staff to the new harmonised Agenda for Change NHS pay system.

**Census date:** Dates at which data are collected at specified points of the year for workforce monitoring purposes. Workforce census dates are based on financial year quarters: Q1 – 30th June, Q2 – 30th September, Q3 – 31st December & Q4 – 31st March.

**Clinical fellowships:** Specialty training posts which allow the post holder to spend 25% of their time on academic training as well as 75% in clinical training, and prepare for an application for a training fellowship for a higher degree.

**Clinical Nurse Specialist (CNS):** A registered nursing professional who has acquired additional knowledge, skills and experience, together with a professionally and/or academically accredited post-registration qualification (if available) in a clinical specialty. They practice at an advanced level and may have sole responsibility for care episode or defined client/group. Due to the multidisciplinary nature of some nursing roles a nurse may
work in more than one specialty, however only one specialist area is recorded for each nurse.

**Electronic employee support system (e:ESS):** The e:ESS project aims to introduce a single national HR system for all Boards in NHSScotland. The system will hold and manage employment information for all staff employed by NHSScotland’s 14 territorial and eight special health Boards, and will create a common national repository of workforce information.

**Establishment:** Term used in calculating NHSScotland vacancy information to describe total filled and vacant posts by discipline and specialty type e.g. paediatric nurse. Establishment is calculated by adding the number of staff in post to the number of vacant posts.

**General dental service (GDS):** NHS general dental services are provided by general dental practitioners, under a national contract between themselves and the NHS Boards. General dental practitioners are independent contractors (‘High Street dentists’). They are free to choose whether to join a NHS Board's dental list and whether to provide NHS dental treatment to each individual patient.

**Headcount:** The actual number of individuals working within NHSScotland. The Scotland figure eliminates any double counting that may exist as a result of an employee holding more than one post.

**Locum Appointment in Service (LAS):** A locum (temporary) post for which the post-holder (doctor) provides only service. LAS posts do not provide training that is recognised by a deanery or Royal College as counting as towards the Certificate of Completion of Training.

**Locum Appointment in Training (LAT):** A locum (temporary) post for which the post-holder (doctor) is assigned both a clinical supervisor and an educational supervisor. LAT posts are approved training posts recognised by a deanery or Royal College which can contribute towards the Certificate of Completion of Training.

**Net turnover:** The rate at which employees leave the workforce and is calculated by dividing the number of leavers over the year by the staff in post at the start of the period. The number of leavers is derived by comparing staff employed by NHSScotland at two census points.

**Public Dental Service (PDS):** Introduced in January 2014 and brings together the previously separate salaried and community dentists. Salaried dentists are directly employed by NHS boards and provided an alternative service to independent dentists where this is considered the best solution to meet local needs. People can also register with
salaried dentists. Historically, the Community Dental Service (CDS) provided a 'safety net' dental service for people who were unable to obtain care from independent dentists (through the General Dental Service (GDS)), such as patients with special care needs or patients living in areas where there were few NHS dentists providing GDS.

Scottish Workforce Information Standard System (SWISS): The main source of NHSScotland workforce statistics. (See Appendix A1 for further information).

Sickness absence rate: Calculated as hours lost divided by total contracted hours.

Vacancies: Posts that have been cleared for advert after being through the redeployment process (internal or external advert) and remain as a vacancy until an individual starts in the post.

Whole time equivalent (WTE): The WTE adjusts headcount figures to take account of part-time working. For example, NHS Agenda for Change staff work 37.5 whole-time hours per week so a staff member working part-time at 30 hours per week would be calculated as 0.8 WTE. WTE is sometimes referred to as full time equivalent (FTE).

A full Workforce information glossary of terms document is available in the FAQ section of the ISD Workforce website.
## List of Dashboards

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**Further Information**

Further Information can be found on the [ISD website](#).

For more information on workforce statistics see the [Workforce section of our website](#).

**Rate this publication**

Please [provide feedback](#) on this publication to help us improve our services.
Appendices

Appendix 1 – Background information

Scottish Government policy

In June 2013, the Scottish Government launched the 2020 Workforce Vision "Everyone Matters" to ensure that everyone who works for NHSScotland is: treated fairly; empowered to influence the way they work; supported to work to the best of their ability; supported to keep their skills and knowledge up to date.

The 2020 Workforce Vision Implementation Framework and Plan 2014-15 sets out the key ambitions, as well as the main challenges, facing the future provision of healthcare services in Scotland. The programme also sets out a framework of what the workforce needs to look like in order to deliver against those ambitions and achieve the 2020 Vision for Healthcare in Scotland.

In June 2017 the Scottish Government published Part 1 of the National Health and Social Care Workforce Plan. The plan outlines measures that are designed to strengthen and harmonise NHSScotland workforce planning practice nationally, regionally and locally to ensure that NHSScotland has the workforce it will need to address future demand for safe, high quality services. These measures include the establishment of a National Workforce Planning Group and increases in the number of training places for medicine, nursing and midwifery.

Part 2 of the Plan was published in December 2017 and outlined a framework for improving workforce planning in social care. Part 3 was then published in April 2018 to cover the primary care setting. Together these will enable different health and social care systems to move together towards publication of a second full Health and Social Care Workforce Plan later in 2018 and beyond.

Data Source

The main source of workforce statistics is the Scottish Workforce Information Standard System (SWISS). SWISS brings together HR and Payroll information into one system. Following the change to the DiT employment model a new source of data, Turas People, has been utilised to identify DiT board of placement. Turas People is an IT system used to administer training by enabling employment and trainee information to be easily shared between lead employers, placement Boards and doctors in training.

A new national HR system, electronic Employee Support System (e:ESS), is currently being rolled out across all Boards. While Boards migrate to the new system, any data captured in e:ESS continues to be fed into SWISS.
Data is shown in AfC job families. A list of the sub job families within each staff group can be found in the FAQ section of the ISD Workforce website.

Further information on current data sources and collections can be found on the ISD Workforce Statistics Frequently Asked Questions page.

**Net Turnover**

The methodology for turnover was revised in 2016 and historical figures were refreshed accordingly. Specifically:

- Leavers are defined as employees who were in post as at 31 March year n and not in post at 31 March year n+1.
- Joiners are defined as employees who are in post as at 31 March year n+1 and were not in post at 31 March year n.
- Turnover is calculated as the number of leavers divided by staff in post as at 31 March year n.

Net turnover is the rate at which employees leave the workforce and is calculated by dividing the number of net leavers over the year by the staff in post at the start of the period. The term 'net' is employed as the methodology does not account for staff who leave and join (or vice-versa) within the two census points.

**Vacancies**

Vacancies are counted as posts that have been cleared for advert after being through the redeployment process (internal or external advert) and remain as a vacancy until an individual starts in the post.

The number of vacancies is a measure of how many posts are being recruited to. Figures may reflect a variety of circumstances within a Board such as a gap in staffing or growth of services in which new staff are being recruited to.

However, note that a post marked as a vacancy may still be occupied by the previous incumbent and so also included within the staff in post figure. In contrast, some NHS Boards may not recruit where the post is currently being covered by a locum. NHS Boards are currently working with ISD to improve the consistency and accuracy of vacancy recording.

**Data quality**

Workforce information is sourced from each Board’s HR and payroll systems. These are dynamic, operational systems in which the data can change over time due to their live status, and potential additional updates made by individual Boards.

It is recognised that the published information does not always reflect the data used at local and regional level when planning and presenting the workforce. Accuracy of coding is
crucial to the quality and credibility of the data, and ISD seeks to minimise such data inaccuracies. However, responsibility for data accuracy lies with the Boards providing the data.

The ISD workforce team work with Boards throughout the year in an attempt to improve data quality. Published information may change over time to reflect these improvements.

e:ESS is being introduced across NHSScotland in phases, with each Board at a different stage in the process. A number of Boards have migrated their data to e:ESS, and this affects data on location of service delivery, medical grade and medical specialty. Changes have been seen in these as Boards review their data as part of the migration process.

A review of community nursing staff data, including district nurses and health visitors, was undertaken in 2014/15 to ensure the availability of more accurate and consistent data reporting for these staff groups. The main section of the review is now complete and workforce information for these staff groups is now available in a separate table. Please see the relevant nursing and midwifery tables for further information.

ANP data presented for two census points, Mar 16 and Sep 17, were source via verified aggregate returns and SWISS respectively. The absence of NHS Lothian data for Mar 16 is explained as follows:

In March 2016 NHS Lothian carried out a scoping exercise throughout all services to establish the number of Advanced Nurse Practitioners who were in post at that time.

This data was subsequently reviewed in September 2017 where data quality issues were identified covering a number of factors; that some names given were individuals who were still in training or had not completed their training, and that some of the names given were not in Advanced Nurse Practitioner roles. There is now a robust process in place to reduce any error in reporting and to ensure that all future data collected is accurate.

As such, Lothian has taken the decision to publish September 2017 data only, and would like all subsequent ANP data to be measured against this number.

Health and social care integration

NHS Highland and Highland Council are currently developing an integrated model for health and social care. Staff involved in the delivery of core integrated services started to transfer from Highland Council to NHS Highland in June 2012. Staff that have already transferred into NHS Highland but have not yet been assimilated to AfC are currently recorded as unallocated / not known. Figures are noted on table 1 above.

A proportion of NHS Highland’s health visitors are employed by Highland council and not by the Board and are therefore not included in the ISD health visitor figures for the Board and, by extension, for NHSScotland.
### Appendix 2 – Publication Metadata

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<td><strong>Description</strong></td>
<td>Quarterly update of NHSScotland staff in headcount and whole time equivalent.</td>
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<td><strong>Theme</strong></td>
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<td><strong>Topic</strong></td>
<td>Workforce Staff in Post and Vacancies Information.</td>
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| **Continuity of data**     | Non medical and dental staff data has a break in 2006 due to the introduction of Agenda for Change (AfC).  
<p>|                            | Medical and dental staff data are continuous from 1990.                                                                                   |
| <strong>Revisions statement</strong>    | High level summary historical trend information was revised in light of the introduction of AfC. This provided the user with comparable trends. It is, however, worth noting that pre-AfC historical trends remain available. |
| <strong>Revisions relevant to this publication</strong> | None                                                                                                                                         |
| <strong>Concepts and definitions</strong> | Each Excel workbook contains detailed definitions pertinent to the particular staff group of interest.                                    |
| <strong>Relevance and key uses of the statistics</strong> | Information published is used to support local, regional and national workforce planning.                                                 |
| <strong>Accuracy</strong>               | Workforce staff in post information is captured through the <a href="https://www.isdscotland.org/our-work/organisational-information">Scottish</a> |</p>
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| **Workforce Information Standard System (SWISS)** - Workforce Information Repository. Further information on this system, data capture and accuracy can be found within the ISD Workforce Web pages.  
Vacancy information is signed off by the relevant Director (e.g. Medical Director, Nurse Director etc.). |

### Completeness
Staff in post information on all NHSScotland employees is primarily captured within SWISS. However, it is acknowledged that certain fields within the system are better captured than others. ISD continues to work with the SWISS project team and each individual Board to improve data quality.  
All NHS Boards in Scotland return vacancy information.

### Comparability
Workforce data are comparable and regularly used in both UK and international comparison reports (e.g. EUROSTAT).

### Accessibility
It is the policy of ISD Scotland to make its web sites and products accessible according to published guidelines.

### Coherence and clarity
All Workforce tables are accessible via the ISD website. Workforce statistics are presented within Excel spreadsheets of staff groupings, where appropriate. Staff groups are split by band, age, gender and contract type. This should minimise the number of spreadsheets a user has to go through to find data, as well as ensure that they are selecting the correct data. Geographical hierarchies are also presented using drop down menus. Spreadsheet formats have been altered for increased clarity by introducing drop-down menus.

### Value type and unit of measurement
Headcount and WTE = number, rate, percentage.

### Disclosure
The ISD protocol on Statistical Disclosure Protocol is followed.

### Official Statistics designation
National Statistics.

### UK Statistics Authority Assessment

### Last published
6 June 2018

### Next published
Last ISD publication, responsibility moving to NES.

### Date of first publication
Paper publications since 1970s, web publications since 1996.
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Appendix 3 – Early access details

Pre-Release Access

Under terms of the "Pre-Release Access to Official Statistics (Scotland) Order 2008", HPS is obliged to publish information on those receiving Pre-Release Access ("Pre-Release Access" refers to statistics in their final form prior to publication). The standard maximum Pre-Release Access is five working days. Shown below are details of those receiving standard Pre-Release Access.

Standard Pre-Release Access:
Scottish Government Health Department
NHS Board Chief Executives
NHS Board Communication leads
Appendix 4 – ISD and Official Statistics

About ISD
Scotland has some of the best health service data in the world combining high quality, consistency, national coverage and the ability to link data to allow patient based analysis and follow up.

Information Services Division (ISD) is a business operating unit of NHS National Services Scotland and has been in existence for over 40 years. We are an essential support service to NHSScotland and the Scottish Government and others, responsive to the needs of NHSScotland as the delivery of health and social care evolves.

**Purpose:** To deliver effective national and specialist intelligence services to improve the health and wellbeing of people in Scotland.

**Mission:** Better Information, Better Decisions, Better Health

**Vision:** To be a valued partner in improving health and wellbeing in Scotland by providing a world class intelligence service.

Official Statistics
Information Services Division (ISD) is the principal and authoritative source of statistics on health and care services in Scotland. ISD is designated by legislation as a producer of ‘Official Statistics’. Our official statistics publications are produced to a high professional standard and comply with the Code of Practice for Official Statistics. The Code of Practice is produced and monitored by the UK Statistics Authority which is independent of Government. Under the Code of Practice, the format, content and timing of statistics publications are the responsibility of professional staff working within ISD.

ISD’s statistical publications are currently classified as one of the following:

- **National Statistics** (i.e. assessed by the UK Statistics Authority as complying with the Code of Practice)
- **National Statistics** (i.e. legacy, still to be assessed by the UK Statistics Authority)
- **Official Statistics** (i.e. still to be assessed by the UK Statistics Authority)
- **other** (not Official Statistics)

Further information on ISD’s statistics, including compliance with the Code of Practice for Official Statistics, and on the UK Statistics Authority, is available on the ISD website.