General Practice Workforce, England

Data Quality Statement

Last updated 27 February 2020

Information and technology
for better health and care

Contents

Introduction

General Practice Workforce statistics in England are compiled from data supplied by GP practices. Every quarter, we collect individual-level information on all staff (GPs, Nurses, Direct Patient Care and Admin/Non-Clinical staff) employed at the practice at the end of March, June, September and December.

We collect information about job role, contracted hours, gender and age, but no information relating to earnings or expenses.

We work closely with GP practices to improve the quality, completeness and coverage of the data submitted, but responsibility for data accuracy lies with the providing organisations.

We have been collecting this record-level data from GP practices since September 2015 and have made a range of improvements to our processing and estimations methodologies since the collection began. Changes have included introducing a new data source for GP Registrars, and new methodologies for estimating historical figures for GP locums and for incomplete or missing data submissions.

As a result of these changes, to avoid confusion and to ensure that out-of-date figures are not used, we recalculated historical figures back to September 2015 using these new methodologies. This means that all the figures released in the General Practice Workforce 30 September 2019 publication supersede the earlier releases which have therefore been archived, although they are still available using the link at the bottom of the series page (https://digital.nhs.uk/data-and-information/publications/statistical/general-and-personal-medical-services/archive). In this release we have now added the regional breakdowns for new estimated GP locum FTE (full-time equivalent) figures for September 2015 to December 2016.

Prior to September 2015, data about staff working in GP practices was taken from the National Health Authority Information System (NHAIS). As a result of the change in data source, figures in this publication are not comparable with those published for September 2014 and earlier. Therefore, we advise that users do not make comparisons between the current time series and the figures from prior to September 2015.

This data quality statement relates to the entire current GP Workforce publication series. Any data quality issues specific to a particular release are detailed in that publication.

The full list of GP Workforce publications in this series can be accessed via the following link, where there is also a link to the publication archive:

https://digital.nhs.uk/data-and-information/publications/statistical/general-and-personal-medical-services

Data Sources

We use two main data sources for this report:

- National Workforce Reporting System (NWRS)
  This is an online system in which GP practices record and update staff details. You can find more information about the NWRS, including guidance documentation, on the information page https://digital.nhs.uk/data-and-information/areas-of-interest/workforce/national-workforce-reporting-system-nwrs-workforce-census-module
  Practices are asked to ensure that the information about their staff is up-to-date at the end of each quarter and NWRS automatically extracts the information without requiring practices to confirm the submissions which reduces the burden on practice staff.
  The NWRS has inbuilt validations to reduce data input errors, such as limiting the job roles to those permitted within the National Workforce Data set (NWD), and ensuring only numbers are entered for numeric fields.

- We collect information on GP registrars on placement in General Practice from Health Education England's (HEE) Trainee Information System (TIS). We have been using TIS data for GP registrar details since June 2018 and have found it to be more timely and reliable than our previous sources of GP Registrar data which included the NWRS, the Electronic Staff Record (ESR) and other collection tools.
  Using this new data source meant that headcount and full-time equivalent (FTE) counts for GP registrars were not comparable with figures published for previous quarters. To address this issue, we calculated an estimated difference in GP registrar counts for June 2018 which used the previous and new data sources and used this figure to revise all GP registrar figures for the earlier reporting periods back to September 2015. Although this allows indicative comparisons to be made across time periods, we nonetheless recommend that a degree of some caution be used when considering GP registrar figures prior to June 2018.

We extract data every quarter, at the end of March, June, September and December.

In addition to the NWRS and TIS data, every quarter we collect information on GP Practices such as contract type and dispensing status from Capita, and we use registered patient counts extracted from the GP Payments system (Open Exeter).

Where practices submitted partial or no data for some or all staff groups, estimates are included. More detailed information on the percentage of practices with fully or partially estimated records in each staff group can be found in Annex A in the Excel data files and in Table 1 in the Report section of the publication webpage.

Accuracy

All GP practices are contractually required to provide data on their workforce. However, a small number of GP practices do not do so or submit incomplete data. In addition, some records for some practices fail data validation and are excluded:

- We remove records where no information is given about the job role or staff group if this cannot be derived from the job role.

- Some otherwise good quality records are missing contracted or working hours, and in these cases, we estimate that staff member's hours based upon the national average hours for that job role.

Estimates

There are some practices where all the provided data for a staff group is of poor quality and has to be removed. We calculate estimates for headcount and full-time equivalence for those practices which did not provide valid and/or complete data for one or more staff groups; this could be due to poor data quality or no submitted data.

To produce estimates for incomplete or missing data, we use the valid data submitted by the other practices during the reporting quarter, along with information about their registered patient population. Our estimation methodology takes the practice patient populations into account to address potential issues that could arise if the practices providing no data or poor-quality data were not of a typical or average size. We know the registered patient counts for 98-99% of practices and use the national average registered patient count for practices where this information is not available.

We produce our estimates as follows:

i. For every job role, we calculate a national ratio of FTE per registered patient. This uses the total FTE and registered patient count for all the practices that supplied valid data.

ii. We calculate FTE estimates at CCG level by taking the national job role ratio calculated in step (i) and multiplying it by the total registered patient count for all practices that did not supply valid data for the staff group affected.

iii. We use the same principles to calculate headcount estimates.

iv. We aggregate the estimates from CCG level to provide higher level figures at national and sub-national levels.

We produce estimates independently for each of the four staff groups (GPs, Nurses, Direct Patient Care staff, Admin/Non-clinical). This means that if a practice submits no data, or invalid data for a single staff group, their submission for the other three staff groups will still be treated as valid.

We collect our workforce data quarterly but are aware that seasonal variation can affect General Practice workforce figures. However, as our estimation process calculates ratios using valid data collected during the same quarter, any seasonal variation should be mitigated.

We do not produce estimates for GP Registrars as the timely and complete TIS data means this is not required.

Note that we do not produce wholly estimated records at a practice level. At GP practice level, we only estimate missing working hours where the staff member's record is otherwise valid and complete.

We do not allocate estimated records any age, gender or country of qualification information; for these data items, any estimated records are reported against 'Unknown'.

Locums

We report information about GP locums as infrequent locums and long-term locums.

We define long-term locums as GP locums who work regularly at a practice to cover long periods of time, such as maternity leave and long-term sickness.

We define infrequent locums as GP locums who not regularly work at a practice, may cover very few sessions and are typically employed on an ad-hoc basis. As a result, the amount and detail of data that practices hold on infrequent locums is limited and we collect only the

total number of hours that locum worked at the practice during the reporting period which we use to calculate an average weekly full-time equivalence. These infrequent locums may not be working at the affected practice at the exact extraction date, but their inclusion improves the quality of the data collected for the period by providing valuable information about GP locum usage and demand.

We have been collecting information on infrequent locums since September 2017 and have been working closely with GP practices to improve the data quality since that point.

We have been collecting information on long-term locums since the launch of the data collection. In the spring of 2017, we revised our guidance documentation to clarify the data needed which resulted in a notable increase in counts of these GP locums between December 2016 and March 2017 which suggested that these figures had been under-reported in the earlier collections. Following a consultation with stakeholders, in November 2019 we calculated estimates for FTE GP locums for September 2015, March 2016, September 2016 and December 2016 and revised the overall FTE GP time series. To do this, we calculated an estimated change in FTE long-term locum GP locum counts between March 2016 and March 2017 and used this figure to produce an uplift that we applied to the reporting periods before the improved guidance was released. We produced these GP locum estimates for CCGs using patient to locum FTE ratios. These estimates were incorporated into the national time series in the General Practice Workforce 30 September 2019 publication and into the regional breakdowns in the current publication.

As with other estimates, we did not allocate these new records any gender, age or other characteristic when producing these historical FTE GP locum estimates.

It is also important to note that it was not possible to produce estimates for GP locums by headcount as the working hours and patterns are so unpredictable.

Details of this locum estimation methodology can be found in the publication released November 2019.

Full-time equivalent (FTE) and Headcount Figures

Many primary care staff work in more than one practice, CCG or region. When we refer to “headcount”, we mean the number of distinct individuals working at a practice, CCG or other area/regional level. Headcount figures tend to be higher than FTE figures because we may count the same person several times depending on where they work or because the working hours of part-time staff members are added together when reporting full-time equivalent figures.

We calculate headcount separately for every reporting level, for example, GP practice, CCG and region and higher-level headcount figures cannot necessarily be calculated by simply adding up the GP practice counts. This is because if the quality of the data is good, we can identify the same person in different organisations so at the higher reporting levels, we count them only once. However, if a record is missing the identifiable information then we may be unable to correctly determine where else that person has been working.

For example, a staff member works full-time across two Practices within the same region, spending one day (20% of their time or 0.2 FTE) at Practice A and four days (80% of their time or 0.8 FTE) at Practice B. Because the data quality is good, we can identify that it’s the same person in both practices even though they hold two distinct roles or contracts as illustrated in Table 1.

Table 1: Headcount methodology – same region

	Headcount	FTE	Role / Contract Count
National	1	1	2
Regional	1	1	2
Practice A	1	0.2	1
Practice B	1	0.8	1

Source: NHS Digital

If, however, the two practices were in different regions, with good data quality, we can still identify that it's the same individual with two roles. In this case, they would be included in headcount figures for both GP practices and for both regions, but only once at a national level as shown in Table 2.

Table 2: Headcount methodology – different regions

	Headcount	FTE	Role / Contract Count
National	1	1	2
Regional 1	1	0.2	1
Practice A	1	0.2	1
Regional 2	1	0.8	1
Practice B	1	0.8	1

Source: NHS Digital

The first two examples apply to a member of staff working in the same type of job role for different practices. However, an individual could also work in different job roles and in these cases, we count them once in each staff group as well as the overall totals. For example, a GP works three days as a Partner in Practice A and two days as a salaried GP in Practice B. At a national level, this GP shows in headcount figures for both Partner and Salaried GP, but only once in the total GP headcount as shown in Table 3.

Table 3: Headcount methodology – different job roles

	All GPs FTE	All GPs Headcount	GP Partners FTE	GP Partners Headcount	Salaried GPs FTE	Salaried GPs Headcount
National	**1**	**1**	**0.6**	**1**	**0.4**	**1**
Practice A	0.6	1	0.6	1	0	0
Practice B	0.4	1	0	0	0.4	1

Source: NHS Digital

Note: FTE is based on the proportion of time staff work in a role, with 1.0 FTE equalling 37.5 hours per week.

Contract/role count is the total count of specific posts held/worked in a given organisation and some GPs or other staff members may have multiple roles either within or across organisations.

Comparability and Coherence

Because seasonal variation can affect workforce counts, we strongly recommend that any historical comparisons be made only for the same point across years (such as September to September) rather than between quarters.

As we have noted, changes in our estimation and GP locum methodologies mean that we revised the entire time series for our publication of September 2019's data which was released 28 November 2019 and to avoid confusion, we have archived old publications whose numbers have been superseded.

Unless it is explicitly stated, notably by a vertical line in the tables, all published data is comparable with the same point in earlier years back to September 2015. There are two breaks in the headcount time series, for locum GPs that affect the figures for locums, All GPs and All Fully Qualified GPs.

Unknown Data

GP Practices may not have submitted information about age, gender and country of qualification for all members of their staff. In these cases, headcount and FTE data are reported as 'Unknown' for these categories and therefore, this data is not comparable over time.

GP Joiners and Leavers

We have improved our methodology for producing figures on Joiners and Leavers and we revised all figures for **Joiners and Leavers to the Qualified Permanent GP Workforce (excludes Registrars & Locums)** in the Supplementary Information Tables in the September 2019 publication.

Details of the methodology are in the data quality statement that accompanies that publication.

We define joiners as GPs whose identifying information (GMC registration number; National insurance number; forename, surname and date of birth; or first initial, surname and date of birth) was present in the data set at the end of the relevant time period but was not there at the beginning. Similarly, we identify leavers as GPs whose identifying information was present in the data set at the start of the specified time period but was not there at the end.

Estimated records are not included in the current methodology and therefore there is a risk that current joiner and leaver counts are under or overestimated.

Absences

The NWRS is used to collect information on staff absences and the types of absence recorded include long-term sickness and parental leave. We publish these figures biannually and they can be found in the Supplementary Information Tables in the September 2019 publication. This information is currently provided by only around 20% of practices and we do not estimate for those who have not provided any data. Due to the low completion rate we advise you to use great caution when considering these figures.

Work is ongoing to identify ways to improve the completeness and quality of this data.

Vacancies

The NWRS is also used to collection information on vacancies, to capture the job roles that are unfilled for which practices are recruiting. We publish these figures biannually and they can be found in the Supplementary Information Tables in the September 2019 publication. This information is currently provided by less than 20% of practices and we do not estimate for the missing data. Due to this low completion rate we recommend that you use great caution when considering these figures.

Work is ongoing to identify ways to improve the completeness and quality of this data.

Relevance

The relevance of NHS workforce data is maintained by reference to working groups who oversee both data and reporting standards. Major changes to either are subject to approval by the Data Coordination Board (DCB) which replaced the Standardisation Committee for Care Information (SCCI) from 1 April 2017.

Significant changes to workforce publications (e.g. frequency or methodology) are subject to consultation, in line with the Code of Practice for Statistics.

Timeliness and Punctuality

We publish figures as quickly as possible after extraction, generally in the second month after the close of the reporting quarter as shown. Scheduled publications are announced on our website at https://digital.nhs.uk/services/organisation-data-service/data-downloads/production-schedule.

Table 4: Future publication timetable for each quarterly data extraction

Data Extraction	30 September	31 December	31 March	30 June
Final data published in:	November	February	May	August

Source: NHS Digital

All data areas are published and available in this publication. Excel spreadsheets, CSV files, GP Workforce interactive report and all data items collected are available via digital.nhs.uk/.

Accessibility

We release figures in Excel spreadsheets, CSV files and in an interactive Power BI visualisation. Tables include footnotes as necessary.

Performance cost and respondent burden

GP practices maintain their organisation’s data on an ongoing basis. We extract the data quarterly without needing practices to actively submit figures.

The data collection has been reviewed by NHS Digital's Burden Advice and Assessment Service (BAAS) process which is part of the assurance process that all organisations asking to collect health or adult social care data must complete.

All collections must be approved by the Data Coordination Board (DCB) which is responsible for all governance arrangements for information standards, data collections and data extractions.

Confidentiality, Transparency and Security

We apply NHS Digital's data security and confidentiality policies when we produce our publications. Where necessary, we apply statistical disclosure control to maintain confidentiality.

Table Conventions

FTE figures are rounded to the nearest whole number.

Totals may not add to the sum of their components as a result of rounding.

We use the following symbols in tables:

..	not applicable
-	zero
.	zero
0	greater than zero but less than 0.5
ND	No data
|	A time-series break, i.e. figures either side of the break are not comparable

Any additional notes affecting individual tables are given as footnotes to the table.

Glossary and Definitions

Full-time equivalent (FTE) is a standardised measure of the workload of an employed person. An FTE of 1.0 means that the hours a person works is equivalent to a full-time worker; an FTE of 0.5 signals that the worker is half-time.

Using FTE enables us to convert part-time and extra working hours into an equivalent number of full-time staff. We calculate FTE by dividing the total number of hours worked by staff in a specific staff group by 37.5.

General Practice is an organisation which offers Primary Care medical services by a qualified General Practitioner who can prescribe medicine and where patients can be registered and held on a list.

Generally, the term describes what is traditionally thought of as a high street family doctor's surgery and for the purposes of this publication the term General Practice does not include Prisons, Army Bases, Educational Establishments, Specialist Care Centres including Drug Rehabilitation Centres and Walk-In Centres, although the increasing trend for Walk-In Centres to develop as Equal Access Treatment Centres that register patients now makes it harder to distinguish them from true general practices. It also does not include other alternative settings outside of traditional general practice such as urgent treatment centres and minor injury units, although we produced some initial experimental statistics in the General Practitioner Workforce in Alternative Settings series.

Single-Handed Practice is a practice which has only one working (Partner/Provider or Salaried) GP, although a GP registrar or GP retainer also may work in the practice.

NHS England and NHS Improvement formed in April 2019 and is the combined organisation of NHS England (preferred name for NHS Commissioning Board) and NHS Improvement which is responsible for overseeing secondary care and independent organisations that provide NHS-funded care.

NHS England Regions (Local Office) – Localised regions within NHS England. The role of area teams is to commission high quality primary care services, support and develop CCGs and assess and assure performance. They manage and cultivate local partnerships and stakeholder relationships, including representation on health and wellbeing boards.

Clinical Commissioning Group (CCG) - These were established as statutory organisations from April 2013. They are clinically led statutory NHS bodies responsible for the planning and commissioning of health care services for their local area.

Primary Care Network (PCN) – They are groups of practices working together and with other local health and care providers (e.g. hospitals, mental health or community trusts, community pharmacies and charities) within what are considered natural local communities, to provide coordinated care through integrated teams.

General Medical Services (GMS) is the contract under which most GPs are employed. It is a national agreement between the provider and NHS England and NHS Improvement which sets out the financial arrangements, the services to be provided and support arrangements.

Personal Medical Services (PMS) contracts were first introduced in 1998. They allow the provider to negotiate a local agreement for the services they will provide and payments they will receive, considering specific local healthcare needs.

Alternative Provider Medical Services (APMS) contracts can be sought by the private, voluntary and public sectors. These contracts offer greater flexibility in the nature of service provision which is decided in agreement between the provider and the commissioner.

Vacancy is where the practice has a substantive post which is currently not filled.

Absence is a period when a member of staff was not available for normal duties. Absence information includes study periods.

Users and Uses

This publication is of interest to a wide range of organisations and stakeholders to make local and national comparisons.

This data is vital in addressing the current workforce pressures in primary care and securing a well-trained workforce for the future. wMDS publications are used to form an accurate picture of the current workforce to provide a clear understanding of current skills and capacity in primary care.

NHS Digital invites comments and feedback on the methodology applied.

Feedback is welcomed via email at PrimaryCareWorkforce@nhs.net.

Further Information

Further information is available at the following links:

1. Primary Care

https://digital.nhs.uk/data-and-information/areas-of-interest/primary-care

2. GP Earnings and Expenses Estimates

https://digital.nhs.uk/data-and-information/publications/statistical/gp-earnings-and-expenses-estimates

3. Healthcare Workforce

https://digital.nhs.uk/data-and-information/publications/statistical/healthcare-workforce-statistics

Other UK publications

Scotland: http://www.isdscotland.org/Health-Topics/General-Practice/GPs-and-Other-Practice-Workforce/

Wales: http://www.statswales.wales.gov.uk

Northern Ireland: http://www.hscboard.hscni.net/our-work/integrated-care/gps/gps-current-facts-and-figures/

Information and technology
for better health and care

www.digital.nhs.uk

0300 303 5678

enquiries@nhsdigital.nhs.uk

@nhsdigital

This publication may be requested in large print or other formats.

Published by NHS Digital, part of the Government Statistical Service