General Practice Workforce, England

Data Quality Statement

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**Introduction**

General Practice Workforce statistics in England are compiled from data supplied by GP practices. Individual level information on all staff (GPs, Nurses, Direct Patient Care and Admin/Non-Clinical staff) employed at the practice is collected as at March, June, September and December. This information includes data items such as job role, contracted hours, gender and age. No information on earnings is available.

NHS Digital liaises with GP practices and their agents to encourage complete data submission, to minimise inaccuracies and to improve the quality of the practice return but responsibility for data accuracy lies with the providing organisations. Methods are continually being reviewed and revised to improve data quality. Where changes impact on figures already published this is assessed, but unless it is significant at a national level, figures are not changed.

This document relates only to the quality of the data in this publication. Historical data quality details can be found in the accompanying ‘Data Quality Statement (Historic)’ document available on the series homepage below.

The full list of GP Workforce publications in this series can be accessed via the following link: https://digital.nhs.uk/data-and-information/publications/statistical/general-and-personal-medical-services

**Revisions and Issues**

Following a consultation in 2018, several revisions to our data processing and methodology were implemented for the publication of December 2018 data. Revised figures from September 2015 to September 2018 were published in two instalments on 21 February and 25 April 2019. Please refer to the December 2018 publication for more details on these changes, and the revised tables.

**Please note:** The figures produced under the new methodology are not comparable with any figures published prior to 21 February 2019.

Also following recent investigations, revisions have been made in this publication to the Full-Time Equivalent (FTE) GP locum figures back to September 2015, and to both Headcount and FTE figures for GP Joiners and Leavers.

**Please note:** The GP locums, and joiners and leavers figures, produced following these changes are not comparable with any figures published prior to 28 November 2019.

The following is a summary of both sets of changes that have been made, for the 21 February 2019 publication and the current 28 November 2019 one. For more details, refer to the relevant sections of this document:

- **Changes to the estimation methodology** (implemented for December 2018 data)
  More records are retained for practices where one or more records have data quality issues such as missing hours or job role.
  For details, please see the Estimates section.
• **GP registrars**  (implemented for December 2018 data)
  A change in the data source from June 2018 improved data quality and completeness. The change in the data source for GP registrars enabled us to produce more timely and accurate information which has removed the need to release provisional and then final figures. Comparison work using new and original June 2018 data enabled estimated differences to be calculated and applied to all figures prior to June 2018. For further information on the new data source and adjustments, please see refer to the GP Registrars sections within **Accuracy** and **Comparability and Coherence**.

• **GP locums**  (implemented for December 2018 data, and then September 2019 data)
  The two previous breaks in the GP locum time series after December 2016 and September 2017 have both now been removed, for full-time equivalence (FTE) only. They have not been removed for headcount as the methodology only allowed us to explore capacity (represented in the FTE) which could not be used to make credible assumptions about headcount. The first break was in place where GP locum figures showed a notable increase from December 2016 to March 2017. This was mostly attributed to the provision of improved guidance on completing GP locum data between the two collections. There was a further change between September 2017 and December 2017 following the introduction of a new “infrequent locum” job category within the data set, after a new module was added to the collection tool. This was initially also shown as a break in the time series. Following a thorough investigation it was identified that the first break could be removed after FTE estimates were applied to the GP locum figures for September 2015 to December 2016, and the second break in the FTE time series could also be removed as the “infrequent locums” change had only a minimal impact on the counts of FTE reported. The Full-Time Equivalent (FTE) GP locum and All GPs time series are now comparable from September 2015 to current. For more information, refer to the **Locums** section.

• **Joiners and Leavers**  (implemented for September 2019 data)
  We have recently begun a major new project to review the methodology for identifying leavers and joiners with a view to providing clearer definitions and more accurate figures. As a result of initial work in this area an updated methodology has been formulated and applied to GP Joiners and Leavers, and revised figures for them can be found within the Supplementary Information Tables in the current publication. Further work will continue in this area. For more information, refer to the **Joiners and Leavers** section.

Following stakeholder feedback and in light of changes to the way in which users engage with data and information, we will undertake a review of the publication content and outputs with a view to streamlining its content and standardising the release. As a result of this activity, it is likely that in addition to open data, we will encourage greater use of interactive resources to enable our users to interrogate the data according to their particular needs.
Job Roles

After consultation with users we also revised the GP job role groupings and improved the naming conventions. These changed to

- All GPs
- All Fully Qualified GPs (excludes Registrars)
- All Regular GPs (excludes Locums)
- All Qualified Permanent GPs (excludes Registrars & Locums)

(Previous categories were Practitioners (excluding Locums), Practitioners (excluding Registrars & Locums), and Practitioners (excluding Registrars, Retainers & Locums). Staff group and job role category breakdowns are all still provided.)

Following feedback, the District Nurse job role has been removed from the National Workforce Reporting System (NWRS) and any staff categorised as District Nurses have been re-categorised as Practice Nurses.

Six new Direct Patient Care job roles were available for use in the NWRS in June 2019 and have been incorporated into the publication.

Primary Care Network (PCN) Clinical Director job roles were available for use in the NWRS in September 2019 and have been reported in the Supplementary Information Tables of this publication.

Further new roles will be available in due course and we are considering how best to categorise the new publication job roles and whether a wider review of job categories is needed.

Definitions for all job roles available in the NWRS can be found in the user guidance document here: https://digital.nhs.uk/binaries/content/assets/website-assets/data-and-information/areas-of-interest/workforce/nwrs-data-entry-module-user-guidance-v1.0.docx

Some records, which could not initially be identified as having a specific job role in September 2015 and March 2016 were subsequently remapped to valid National Workforce Data set (NWD) job roles and republished in February 2019.

For details of any other historical revisions, please read the ‘Data Quality Statement (Historic)’ referenced in the Introduction.
Source

Data are extracted from the National Workforce Reporting System (NWRS). Where possible, the data provider uses existing data from their previous submission, making changes to individual records as appropriate, thereby minimising the burden on practices. Up to December 2018, some non-registrar workforce data were also provided through tools maintained by three Health Education England (HEE) Regions. All practice data held on the HEE tools was migrated to the NWRS by January 2019, and as at March 2019 data are collected from the NWRS only.

The three Health Education England (HEE) Regions maintaining their own tools up to January 2019 were Yorkshire & the Humber (YDF23); Kent, Surrey and Sussex (YDF29) and North East (YDF30). Up to and including June 2018, data was also provided via a HEE North West (YDF31) tool.

The exception to the above is GP registrar data. From September 2015 to March 2018 this was extracted from a combination of the above tools and the Electronic Staff Record system (ESR). From June 2018 this data comes only from the HEE Trainee Information System (TIS) and is extracted where the record indicates that the trainee is currently on an active placement in General Practice.

Where practices submitted partial or no data for some or all staff groups, estimates are included. 6,838 (99.6%) of 6,867 total practices supplied some valid workforce data in September 2019. 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.

Source Priority

Previously, following discussions with the HEE regions, where data for the same practice was received through both the NWRS and the HEE regional tools, the HEE region data was taken as final rather than the NWRS data. The only exception to this was when the HEE data for the practice contained zero GPs, in which case the NWRS data was taken as final for that practice. In each case, practice data from the non-final source was discarded from the dataset.

Up to March 2018, where a record existed for a trainee in the NWRS or HEE tools and ESR, the NWRS or HEE record was taken as final. The ESR data was only included for individuals who did not already have a record in the NWRS or HEE tools.

From June 2018, registrar data is extracted from the HEE TIS system and these records are taken as final. NWRS, HEE tool and ESR data are no longer used to identify registrars.
**Accuracy**

**Methodology**

Practices are asked to maintain up-to-date workforce data on the NWRS collection tool for each collection date, at which point data is extracted automatically by the NWRS without requiring practices to confirm their submissions. Data are also automatically taken from HEE’s TIS system at each collection date.

The NWRS has inbuilt validations, 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, with set ranges, to reduce data input errors.

**Mandatory Fields**

Records are removed from the data set for the following scenarios:

- **Job Role** is not populated,
- **Staff Group** is not populated and cannot be uniquely identified from the **Job Role**.

**Estimations**

In the February 2019 publication the original estimations methodology was superseded by a new improved methodology and previously published figures dating back to September 2015 were revised under this new methodology. Details of the old methodology can be found in the Historic Data Quality Statement and the new methodology is outlined in the following paragraphs.

Records are removed where they contain no job role, or no staff group (where the staff group cannot be derived from the job role). However, we no longer remove all other records from the same staff group at the practice, which was the process under the previous methodology before it was replaced in February 2019, regardless of the quality of these other records.

For records where no working or contracted hours were provided, but which are otherwise of good quality, we retain the record provided and assign them an estimated full-time equivalent (FTE) by applying the national average FTE for the job role. Under the previous methodology these records had been removed, along with all other records from the same staff group at the practice regardless of quality.

Following these removals and estimations, there are some practices where all the data provided for a given staff group is of poor quality and therefore removed. For these practices, and those who provided no data at all, headcount and FTE figures are estimated for each job role, based upon national average ratios. These estimates are calculated at a CCG level by applying calculated ratios to the patient count of the practices within that CCG not supplying valid data for the relevant staff group. There are no wholly estimated records at a practice level, only those records referred to above with missing hours which have their valid data retained and their FTE estimated.

Estimates are not produced for vacancies, absences, joiners/leavers, age, gender or country of qualification. Estimated data is included within the ‘Unknown’ figures for these data items where appropriate.

Further details on the estimation methodology can be found in the subsequent Estimates section, and further information on the impact of this change can be found in the accompanying Methodological Change Notice.
GP Registrars

From the June 2018 collection onwards, the source for GP registrars (foundation and specialty registrar trainees on placements in General Practice) changed. The new data source is the HEE Trainee Information System (TIS). Prior to this, the sources for the GP registrar data were:

- Extracts from the NWRS and four HEE Regions which provided separate returns
- An extract of medical trainees delivering primary care services who were paid through ESR. The ESR data was used due to notable concerns about the completeness of registrar data from the other sources. Estimates were made for all practices submitting no valid GP data.

Investigative work established that TIS is ESR’s data source for registrars, and that ESR’s recording of trainees is reliant on Lead Employer Trusts, whose usage of ESR varies by region. TIS is the overall HEE trainee management system and encompasses all current trainees so registrar estimates are no longer required.

Registrars’ contracts are for 40 hours. To ensure consistency, the TIS FTEs have been converted to the standard wMDS measure of 1.0 FTE = 37.5 hours in the published data meaning that each full-time registrar provides an FTE of 1.06.

TIS and ESR records are not automatically recorded against a practice, and have been categorised as follows for the regional breakdowns:

- If a valid Practice Code is present, this is used to determine the trainee’s practice, CCG, STP, NHS England Region (Local Office) and HEE Region.
- Where a valid Practice Code is not present, the trainee’s location is categorised as Unknown.

Due to the change in the data source, any headcount and FTE figures for GPs that include registrars were not automatically comparable with those published for previous quarters. To address this issue, we have used the calculation of June 2018 data using both the previous and new sources for GP registrars to produce an estimated difference between the methodologies and used this to revise all pre-June 2018 figures.

For more information on comparability, see the GP Registrars section below.
Estimates

Where Estimates are used
Estimates are made for both headcount and FTE for those practices which did not provide valid data for one of the four staff groups; this could be due to poor data quality or no submitted data.

Method
Estimates are calculated using the valid returns from the same quarterly collection.
Registered patient population data is known for the majority (98-99%) of practices. The national average registered patient count for these practices is used for the remaining practices whose patient population is not known.

Data is collected for the each of the staff groups:
- GP
- Nurses
- Direct Patient Care
- Admin/Non-Clinical

Each of these staff groups consists of the number of job role sub-categories, for example the GP staff consists of ‘Senior Partner’, ‘Partner Provider’, ‘Salaried by Practice’ etc.

Prior to June 2018 ‘GP Registrars’ were estimated for along with the other job roles. For data collections from June 2018 onwards estimates are not produced for GP registrars as the timelier and more complete TIS data is now used.

Estimates are produced as follows:

i. Firstly, a ratio of FTE per registered patient for each job role is calculated using the total FTE and registered patient count for those practices that supplied valid data. These ratios are calculated at a national level.

ii. Estimated FTE figures are then calculated for each CCG. To do this, the job role ratio calculated in step (i) is then multiplied by the total registered patient count for the practices in each CCG not supplying valid data for that staff group affected.

iii. The same process is used to calculate headcount estimates.

iv. Each of the various regional hierarchy locations are assigned using the CCG code.

This process is performed independently for each of the four staff groups, i.e. a practice submitting invalid or no data only for Nurses will still be counted as having produced valid data for the other three staff groups.

The estimation methodology takes practice population into account, addressing the potential issue that could arise if the practices providing no data or poor-quality data were not of a representative size.

This collection is quarterly but seasonality factors affecting General Practice workforce figures are not yet fully understood. However, as the estimation process generates ratios using the specific quarterly collection being estimated for, any seasonality is addressed within the methodology.
Comparability and Coherence

Non-comparable figures are separated by a vertical line break in the publication tables. Unless there is either a line break in the published time series or it is explicitly stated, published data will be comparable. Two breaks remain in the time series due to changes in the locum data which affect the headcount figures only for locums, All GPs and All Fully Qualified GPs.

Due to seasonal variation, it is advisable to make historical comparisons only for the same point across years (such as September to September) rather than between quarters.

Due to the change in the estimation methodology, the figures produced in this publication are not comparable with any figures published prior to 21 February 2019. Revised historical figures to complete the time series back to September 2015 to December 2018 were released on 25 April 2019 as part of the December 2018 publication. Following the changes in this current publication to the GP locums Full-Time Equivalent (FTE) time series, revised national figures have been released as part of this publication. The revised regional figures will be produced in due course, where applicable, and for this publication will be displayed as of Unknown region in the accompanying Power BI dashboard. The updated time series figures in this publication are therefore not comparable to any earlier figures published prior to 28 November 2019.

For details of historical comparability please consult the ‘Data Quality Statement (Historic)’ document referenced in the Introduction.

Unknown Data

Data is not available for all individuals by age, gender, or country of qualification. In these instances, headcount and FTE data are presented as ‘Unknown’ for these categories; therefore, this data is not comparable over time.

Locums

Infrequent locums

Feedback expressing concern about the completeness of GP locum reporting, and discussions with practices confirmed that not all instances of GP locums working in practices during the reporting period were recorded at each extraction date. To improve the completeness and data quality of locum data, a category of Infrequent Locum was added to the workforce Minimum Data set (wMDS) for the September 2017 collection.

Infrequent locums are defined as GP locums who do not regularly work at a practice, may cover very few sessions and are typically employed on an ad hoc basis. The amount and detail of the data held by practices on infrequent locums is limited and the data collected for each infrequent locum reflects this, consisting solely of the total number of hours the infrequent locum worked at the practice during the reporting period, from which a weekly average FTE is calculated. 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 their usage.
Following improvements to the data quality for December 2017, the infrequent locum information is included in the publication tables within the ‘GP Locums’ job category. These figures should be treated with some caution, as completion of infrequent locum data is believed to be lower than that for long-term locum data, according to a survey of GP practices undertaken January and February 2019. Survey responses were received from over 10% of all practices, from all regions, and included both those who did and did not use locums. A recent review of the GP locum data has concluded that the new reporting of infrequent locums in December 2017 had a very small impact on the locum full-time equivalent (FTE) figures and does not affect comparability with the previous reporting periods. The break in the locum FTE time series between December 2017 and March 2018 has therefore been removed, the break in the headcount time series remains. More information can be found in the All locums section below.

Further information on the impact of this change can be found in the Methodological Change Notice that accompanies the December 2018 publication.

All locums

December 2016 to March 2017 time series break

There was a strong belief amongst some users of our statistics that the scale of locum usage prior to March 2017 was under-represented in the figures. This view was partly supported by a notable increase in the counts of locums between December 2016 and March 2017 after improved guidance relating to the recording of GP locums was provided to GP practices. The subsequently higher GP locum numbers reported in March 2017 were not considered to be comparable to previous figures in the time series due to the likelihood that the additional guidance led to both the inclusion of additional individuals and more accurate reporting of GP locum staff.

Initial exploratory work was undertaken based on responses to a survey of GP practices early in 2019 which asked about their locum usage and how they reported locum data in September 2015 and also at the time of the survey. Information about this investigative work can be found in the Data Quality Statement accompanying the May 2019 publication of March 2019 data. However, a reliable model for calculating more complete locum data could not be devised using findings from the survey.

We have now completed a more comprehensive investigation into the GP locum data and identified a methodology to estimate for missing records and produce more accurate locum figures for the reporting periods September 2015 to December 2016. This has enabled this break in the GP locums FTE time series to be removed.
Data from March 2017 onwards is considered more reliable than that from earlier periods, as it followed the release after December 2016 of the improved guidance which emphasised the importance of recording locum data accurately and clarified how to do so. This data can then be compared with earlier reporting periods to measure changes over time, although seasonal fluctuations mean that we advise that General Practice workforce data should only be compared year-on-year.

The new methodology therefore calculates the estimated change in locum counts between March 2016 and March 2017 that we believe results from these data quality improvements. The methodology uses this estimated change to formulate an uplift which can be applied to the locum data counts in the three other reporting periods that pre-date release of the improved guidance (September 2015, March 2016 and September 2016).

When calculating the estimated change in locum full-time equivalent (FTE) between March 2016 and March 2017, this methodology takes account of the various factors contributing to the changing figures and explains why the March 2016 and March 2017 figures are not identical post-estimation:

1. The existing underlying trend of increases in the actual usage of GP locums accounts for some of the March 2016 to March 2017 change and was therefore excluded from the estimation.

2. The proportion of the March 2017 GP locum FTE identified as being due to the one-off corrective re-coding of some staff following the issuing of the new guidance was also excluded from the model. This is the re-coding of locums who were already included in the data for earlier reporting periods but incorrectly coded to another GP job role prior to the March 2017 collection. Comparing the movement between non-locum and locum job roles across the reporting periods allowed us to identify the scale of probable re-coding for March 2017, but did not enable us to identify the specific records that had been subjected to the original miscoding. As it was not possible to make specific corrections to existing job roles in the historical data between September 2015 and December 2016 to address this, the re-coded locum FTE data was excluded from the estimation process to prevent double-counting. These re-coding changes are distinct from the usual movement of some non-locum GPs making a change to working only as locum GPs.

More detail on the calculation of (1) and (2) can be found below.

After accounting for these other factors, the remaining March 2016 to March 2017 locum FTE difference was calculated as the change attributable to guidance-driven data quality improvements, and applied as an estimated increase to the originally recorded March 2016 locum FTE count. This proportional uplift was then applied as a percentage change to the original September 2015, September 2016 and December 2016 locum FTE figures. Following the application of the estimated uplifts the FTE figures from before and after the release of the improved guidance are now comparable, and the break in the time series has been removed.

The break remains for the locum headcount time series as the methodology used accounts for the level of work undertaken which is represented by FTE; we are unable to make assumptions about headcount from this.

Regarding (1), the calculation of the existing underlying trend:

- From the existing time series some quarterly, biannual and annual changes and trends could be calculated and used to help calculate the March 2016 to March 2017 trend.
• Where data was comparable within the time series, there was a broad increase in locum FTE between September 2015 and March 2018. Information on quarterly changes was limited as the first three collections were biannual. However, the available data for these biannual changes showed increases in locum usage although the size of these increases decreased over time.

• For March 2016 to March 2017, existing comparable data provided the biannual change for March 2016 to September 2016. However, the biannual September 2016 to March 2017 change was masked by the break in the time series and required calculation and estimation.

• The data set available for each collection period can be used to identify the specific joining and leaving dates of many of the current and previous workforce, along with updated assignment information which can include retrospective job role corrections. Some of these updates to individuals’ records will have been entered in the collection tool for earlier reporting periods and therefore constitute information not captured in the original collection for that period; this was particularly the case for many of the corrections and changes made for the March 2017 collection after the new guidance was provided. An investigation into the data for the period around the break in the time series, identified the proportionate difference between the FTE total for the new locums who joined between March 2016 and September 2016, and the total for those who joined between September 2016 and March 2017. This difference was then applied to the known biannual change for March 2016 to September 2016 to calculate the estimated biannual change for September 2016 to March 2017.

• These two biannual changes were combined to result in an annual March 2016 to March 2017 expected trend change of 14.1%. The calculated biannual change was within the expected range based on preceding and following biannual changes, and the resulting annual change also is broadly in line with the annual changes that could be calculated either side of the break point, assuming a steady decrease in the annual rates of change between both points.

(2) The share of the newly identified March 2017 locums that would need to be discounted as re-coded existing GPs, was calculated following an investigation into the movement of GPs across the affected reporting periods. Using identifiable information including General Medical Council (GMC) Registration numbers and National Insurance Numbers, the movement of GPs between December 2016 to March 2017 and also the preceding and following reporting periods was reviewed. For these time periods, the same patterns of movement were found. There was a large amount of stable locums, some individuals working as both non-locum and locum GPs or varying their balance of this over time, some individuals acting as locums in one collection period and not the next, and some new locums each time who fully transferred either from being only non-locum GPs or were totally new joiners to the GP workforce.

There were, however, three ways in which the December 2016 to March 2017 changes did not align with those of the other time periods.

• Two of these differences were expected, based on the intended outcomes of sharing the improved guidance and are accounted for in the estimated FTE increases applied to the four earliest collections as part of the methodology. These were the higher than normal number of: not previously recorded GPs who were newly recorded in a locum assignment, and existing non-locum GPs who were newly recorded in a locum assignment as an addition to their existing non-locum assignment.
The third difference was the unexpected increase in previously non-locum GPs who were removed from their non-locum assignment and moved to being GP locums only. Some individuals do change from non-locums to locums only as part of the natural changes within the workforce, and part of the December 2016 to March 2017 change has been attributed to this, based on the average change of this type noticed in preceding and following time periods. However, part of the difference was attributed to the effects of GP practices adhering to the improved guidance, and therefore re-coding staff to locum roles where they had previously been recorded in the data collection against another GP job role. As the approximate share of records mis-coded in the earlier time periods could be affected, but the individual records themselves could not be to be retrospectively re-coded in the historical data, to estimate for them as well would risk double-counting them against both locum roles and the non-locum GPs role they were previously recorded against. The new locum FTE not accounted for by the expected job role changing was attributed to the re-coding and was calculated as 212 FTE, this was excluded from the March 2017 baseline for the revision of the earlier locum figures.

The pre-break estimated uplift was calculated by excluding the FTE attributed to re-coding from March 2017, and then using the calculated March 2016 to March 2017 trend to calculate what the expected March 2016 locum FTE would be if the data quality issues had not been present. The difference between the originally collected March 2016 locum FTE and the newly estimated March 2016 locum FTE was calculated as a percentage of the original March 2016 locum FTE. This percentage increase was then applied to the original figures for September 2015, September 2016 and December 2016 to calculate new estimates for the locum FTEs for these recording periods.

The data is now considered to be comparable across the guidance change and the break in the FTE time series only removed.

September 2017 to December 2017 time series break

There was also a second break in the GP locum time series after September 2017, due to the introduction of the infrequent locum category into the data set for December 2017.

The introduction of the new module seemed to have led partly to a reclassification of existing long-term locums as infrequent locums, which changed the data at a more granular level and contributed to the large change in overall GP locum headcount, but which did not have a notable impact on the FTE figure primarily due to the new infrequent locums having, on average very low full-time equivalence.

The overall patterns of GP movement in and out of job roles between September 2017 and December 2017 and the preceding and following reporting periods was reviewed; with more specific tracking also carried out where possible using identifiable information which included GMC Registration numbers. Evaluating these changes, it was identified that the patterns of movement remained broadly stable during the introduction of the infrequent locums, when compared with the previous and following reporting periods. This included for those GPs remaining only as locum or non-locum GPs, and those previously recorded as non-locum GPs who were then recorded as locum GPs only or both non-locum and locum GPs.

The only discrepancy was that the figure for newly recorded locums in December 2017 was slightly higher than in the surrounding quarters. However, whilst around 30 FTE of this higher figure was accounted for by infrequent locums, it did also affect long-term locums and may therefore indicate an actual increase in overall locum usage in December.
It was concluded that corrections were not needed to the FTE figures either prior to or following the introduction of the infrequent locums into the data set, and the break in the GP locum FTE time series between September and December 2017 could be removed.

**Removal of breaks and revision of the GP locum time series**

The two breaks in the locum GP time series from December 2016 to March 2017 and from September 2017 to December 2017, have been removed in this publication for the full-time equivalent (FTE) only. They remain in the headcount time series due to the difficulty in extrapolating headcount changes from changes in FTE.

Therefore, the FTE GP locum and All GPs time series are now comparable from September 2015 to current.

The locum estimates calculated for the September 2015 to December 2016 reporting periods are for FTE only. These FTE estimates have been provided at the national level within this publication and will also be provided at sub-national levels in future publications; consistent with the overall publication estimations we will not estimate gender, age, or any other characteristic.

This publication includes the latest September data so is an ideal time to release a revised series back to September 2015.

**GP Registrars**

As a result of the change to the data source for GP registrars (foundation and specialty registrar trainees on placements in General Practice) in June 2018, headcount and FTE figures including registrars from June 2018 onwards would not have been directly comparable with those published for previous quarters.

To address this issue, we have used the calculation of June 2018 data using both the previous and new sources for GP registrars to produce an estimated difference between the methodologies to apply to all pre-June 2018 figures. This should enable indicative comparisons to be made between the published figures using both old and new data sources, but we would nonetheless encourage some caution to be used when comparing these figures.

More detail on these calculations can be found in the Data Quality Statement accompanying the December 2018 publication.

At the lowest job role level, the new estimated records have been assigned to the job roles that most closely bring the final data in line with the numbers and ratios calculated under the new methodology.

Further information on the impact of this change can be found in the Methodological Change Notice that accompanies the December 2018 publication.


GP Joiners and Leavers

A review of Joiners and Leavers figures has resulted in an improved methodology which has been applied to the figures for Joiners and Leavers to the Qualified Permanent GP Workforce (excludes Registrars & Locums). The revised figures can be found in the Supplementary Information Tables in this publication.

The methodology identifies those joining or leaving the national “Qualified Permanent GPs (excludes Registrars & Locums)” group. It does not capture those converting from GP registrars to Qualified Permanent GPs, or the members of the Qualified Permanent GP workforce changing roles from or to GP locums. It also does not distinguish those remaining in the exact same role from those moving between Qualified Permanent GP roles, both within the same practice or between practices. Further work will explore the impact of these different types of movement within the GP Workforce.

Figures calculated using the new methodology are based on non-estimated Qualified Permanent GPs (excludes Registrars & Locums) with either a completed GMC registration number, National Insurance Number, or both Name and Date of Birth details. Therefore, the Joiner and Leaving figures are based on between 97.4% and 99.2% of all non-estimated Qualified Permanent GPs (excludes Registrars & Locums) in each reporting period, as applicable.

Joiners are identified as GPs whose identifying information was present in the sample data set at the end but not at the beginning of the specified time period.

Leavers are identified as GP whose identifying information was present in the sample data set at the beginning but not at the end of the specified time period.

The identification has been done by identifying where records could and could not be matched between the beginning and end of each time period of interest.

The matching has been done on either:

- An exact match on GMC registration number
- An exact match on National Insurance Number.
- An exact match on Forename and Surname and Date of Birth.
- An exact match on first Initial and Surname and Date of Birth.

Previously published figures are not comparable to the revised figures, as they were based on

- matching individuals only on General Medical Council (GMC) Registration number where it was provided, and
- only for the cohort of GP Practices that were valid and open at both the beginning and end of the specified time period and supplied GMC Numbers for 100% of their relevant GP staff.

This resulted in between 14% and 29% of practices’ data not being used for the relevant reporting periods.
Relevance

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.

Methods

Headcount Methodology

Many staff members work in multiple practices/regions. Headcount is the number of distinct individuals working at a given regional level. Headcount is therefore calculated independently for every level which is reported, and higher-level headcount figures cannot simply be calculated by aggregating lower-level figures.

Table 2 shows an example of how the headcount methodology counts an individual who works across two Practices, 0.2 of their time at Practice A and 0.8 of their time at Practice B, in the same region:

Table 2: Example 1 of headcount methodology involving a part-time staff member

<table>
<thead>
<tr>
<th>Headcount</th>
<th>FTE</th>
<th>Role / Contract Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Regional</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Practice A</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>Practice B</td>
<td>1</td>
<td>0.8</td>
</tr>
</tbody>
</table>

Source: NHS Digital

Table 3 illustrates the headcounts if the Practices were in different regions:

Table 3: Example 2 of headcount methodology involving a part-time staff member

<table>
<thead>
<tr>
<th>Headcount</th>
<th>FTE</th>
<th>Role / Contract Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Regional</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>Practice A</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>Regional</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Practice B</td>
<td>1</td>
<td>0.8</td>
</tr>
</tbody>
</table>

Source: NHS Digital
An individual working in two different job roles will be counted once in the staff group total but would appear in headcount figures for each of the job role totals, as shown in table 4:

Table 4: Example of headcount methodology involving a GP working two job roles

<table>
<thead>
<tr>
<th></th>
<th>All GPs FTE</th>
<th>All GPs Headcount</th>
<th>GP Partners FTE</th>
<th>GP Partners Headcount</th>
<th>Salaried GPs FTE</th>
<th>Salaried GPs Headcount</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>1</td>
<td>1</td>
<td>0.6</td>
<td>1</td>
<td>0.4</td>
<td>1</td>
</tr>
<tr>
<td>Practice A</td>
<td>0.6</td>
<td>1</td>
<td>0.6</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Practice B</td>
<td>0.4</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0.4</td>
<td>1</td>
</tr>
</tbody>
</table>

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.

Timeliness and Punctuality

Final data will be published the second month after each extraction has taken place.

Table 5: Future publication timetable for each quarterly data extraction

<table>
<thead>
<tr>
<th>Data Extraction</th>
<th>30 September</th>
<th>31 December</th>
<th>31 March</th>
<th>30 June</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final data published in:</td>
<td>November</td>
<td>February</td>
<td>May</td>
<td>August</td>
</tr>
</tbody>
</table>

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 and data.gov.uk.

Accessibility

Further detailed analyses of the data may be available on request, subject to resource limits and compliance with disclosure control requirements.

Performance cost and respondent burden

This collection has been through NHS Digital's Burden Advice and Assessment Service (BAAS) process. The burden assessment process forms part of the assurance processes that all organisations asking to collect health or adult social care data must complete. This includes acceptance by SCCI. The assessment methodology includes panels, discussions, surveys and visits. This collection has been approved by SCCI which has now been replaced by DCB.
Confidentiality, Transparency and Security

The standard NHS Digital data security and confidentiality policies have been applied in the production of these statistics.

Table Conventions

FTE figures appear rounded to the nearest whole number.
Totals may not add to the sum of their components as a result of rounding.
The following general notes apply to all tables; additional notes affecting individual tables are given as footnotes to the table.

The following symbols have been used 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 not comparable

Definitions

This section states the definitions used within these publications. The following general notes apply to all tables. Additional notes affecting individual tables are given as footnotes to the tables concerned.

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. This measure allows for the work of part-time staff to be converted into an equivalent number of full-time staff. It is calculated 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. 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, for which new experimental statistics have been published 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. hospital, mental health or community trusts, community pharmacy) 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) 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) allow contracts to be bid for by the private, voluntary and public sectors. They 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**

3. **Healthcare Workforce**

**Other UK publications**


Wales: [http://www.statswales.wales.gov.uk](http://www.statswales.wales.gov.uk)
