Workforce Official Statistics reporting: Location of Service Delivery and Country of Qualification review

The Data Group, July 2021

As part of the data warehouse project we are reviewing the data published to ensure it meets the standard required for Official Statistics. This means guaranteeing data meets the three pillars of the [Code of Practice for Statistics](https://code.statisticsauthority.gov.uk/the-code/): Trustworthiness, Quality and Value.

This paper considers two data items the NES Data Group currently report as part of the Workforce Official Statistics: Location of Service Delivery and Country of Qualification. In order to establish whether these data items meet the standard required we will:

1. undertake a preliminary investigation into data completeness and accuracy;
2. ask data providers to provide input on data quality; and
3. ask data users to provide input on data use.

Using this evidence and Code of Practice we will decide whether this information can continue to be part of the Workforce Official Statistics. All stakeholders will be informed of the outcome.

**Preliminary Investigation**

**Location of Service Delivery**

Location of Service Delivery (LoSD) is defined as “Location of treatment (e.g. Home/Hospital etc)” (SWISS User Manual). It is entered in the HR interface and fed to SWISS (called “Service Delivery Location”) where the Data Group extract it for all staff as part of the monthly staff in post process.

After extracting the staff in post data from SWISS, the Service Delivery Location is grouped up as shown in the table below to allocate a LoSD. These data are then reported in the Workforce Official Statistics Non-Medical Trend table, and are broken down by census date, NHS Board, Agenda for Change Band, and Sub Job Family for Nursing and Midwifery staff (see the [Non-Medical Trend released in June 2021](https://turasdata.nes.nhs.scot/media/y5qgewgk/non-medical_trend_m2021.xlsx)). LoSD data are not available in the Nursing and Midwifery PowerBI report.

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| --- | --- |
| SWISS: Service Delivery Location | Reported: Location of Service Delivery |
| Community combination | Community |
| Community premise | Community |
| Patient home | Community |
| Community | Community |
| Hospital/Community comb | Combined Hospital / Community |
| Hospital | Hospital |
| Prison | Prison |
| Not applicable | Other/Not applicable |
| Missing | Other/Not applicable |

Recent analysis (31 March 2021 data) shows that only 4% of staff in the Nursing and Midwifery Job Family in SWISS had a missing Service Delivery Location. However, in a quality assurance exercise by ISD in 2017, 13 of the 18 respondents rated LoSD as amber (minor data quality issues) and three respondents rated it as red (significant data quality issues).

LoSD are also collected for nursing and midwifery vacant posts which are provided quarterly by NHS Boards. Currently, these vacancy data are aggregated (to all LoSD) within the PowerBI Nursing and Midwifery report and provided by LoSD in the Non-Medical trend table. Whilst we are looking to review the source of these data, we are not currently proposing any changes to the vacancy return.

**Country of Qualification**

Country of Qualification (CoQ) is defined as “The country where the individual completed undergraduate training in the appropriate specialty/discipline” (SWISS User Manual). It is entered in the HR interface and fed to SWISS (called “Country Obtained”) where the Data Group extract it for medical staff as part of the monthly staff in post process.

After extracting staff in post data from SWISS, part of the processing matches Country Obtained to a reference file which allocates a CoQ grouping that is used for reporting. The CoQ groupings reported are Scotland, Other UK / UK unspecified, Other EEA Countries, Rest of world, and Unspecified. These data are then reported in the Workforce Official Statistics Medical Trend table, and are broken down by census date, NHS Board, and Grade (see the [Medical Trend released in June 2021](https://turasdata.nes.nhs.scot/media/ui0fugx3/medical_trend_m2021.xlsx)). CoQ data are not available in the Medical and Dental PowerBI report.

Recent analysis (31 March 2021 data) shows that there were 365 different values of Country Obtained data in SWISS. Data entered includes different spelling of the same country, lists cities and regions, and was only 41% complete. Although a large proportion of the people missing Country Obtained data were doctors in training, there were staff on other grades with missing data (e.g. 15% of Consultants). After matching to the reference file, CoQ was allocated where possible, but 45% of staff were assigned the “Unspecified” grouping.

In a quality assurance exercise by ISD in 2017, seven of the 18 respondents rated CoQ as amber (minor data quality issues) and five respondents rated it as red (significant data quality issues).

**Summary of Feedback and proposed plan**

We circulated an [email](https://scottish.sharepoint.com/%3Au%3A/s/NESDigital2/EYOVShngsBtFtfx0bMofZP8BWmseXdBYyRVaChLjy7vhrw?e=UPfyBx) to all data providers and users asking for feedback on data quality concerns and the value added by reporting Location of Service Delivery and Country of Qualification. A note was also added to Turas Data Intelligence.

We had 18 replies: 14 people at NHS Boards (mostly data providers and data users), two at the Scottish Government\* (both data users), one person at the Royal College of Nursing (data user), and one person working in research (data user). All feedback were in response to the email; we had no feedback via the website.

\* One respondent replied on behalf of a team within the Scottish Government, and this is taken into consideration on the below.

**Location of Service Delivery**

Out of the respondents who provided feedback on data quality, six commented that the LoSD data quality was either uncertain or poor for the following reasons:

1. it is not a mandatory field for completion when setting up new posts;
2. quality assurance isn’t regularly undertaken as it is not deemed a high priority data field;
3. the definition doesn’t accurately match the values; and / or
4. Values are selected based on educated judgement of whoever is completing it.

The remaining three respondents suggested that the quality of this information is high and was well populated for their Boards.

When asking about the usefulness of these data: five respondents find access to these data useful, two respondents have used this information to answer FOIs, and ten respondents have minimum use for these data as they are currently recorded.

Respondents who have minimum use for these data are based at NHS Boards and do not regularly use these data for reporting or analysis because there are better data sources for answering questions around staff working in specific locations. The methodology for doing this varied by Board. A follow up question to some data providers identified that whilst most would use their location data (Division, Department etc) to identify staff working in the community, some would use the occupation data to identify this.

Respondents who find access to the LoSD data useful are mostly out with the NHS and therefore do not have access to any other location data, and rely on LoSD to determine this.

**Plan**

In its current state, LoSD has reduced value to the end user because of the quality of data; however, reporting grouped location data would be of use if it can be robust. This is something that has also been recognised in other projects such as the National Treatment Centre project.

In order to understand and assess the requirements for reporting location groups we propose running a workshop which would enable us to:

* Understand the reasons behind the discrepancies in the current LoSD definition and groupings.
* Agree a process and methodology of reviewing of the definition and types of location groups required. For example, it may be an option for an algorithm to be implemented nationally which uses location and/ or occupation data to assign a location group.
* Agree the plan for implementation.

Whilst this assessment is undertaken, we will continue to publish LoSD with a note identifying that it is under review.

**Country of Qualification**

Responses from data providers highlighted that there are two places which CoQ can be sourced: (i) the professional body section in eESS and (ii) the GMC interface. The first is currently used to report the data. It is available for all staff but is free text and of poor completeness and quality. The second source is only available for doctors who can be matched with the GMC register, but these data are robust where a match can be found. However, currently there is no information governance agreement to process these data.

There were a few responses who said that they used these data to check registration. In these instances, respondents are using the CoQ data linked to the GMC interface and not the field in the professional body section.

Three respondents mentioned that these data had been used on occasion to respond to FOIs over the last few years. Otherwise, most respondents do not use COQ in the professional body section for reporting or analysis because there is no business need. It is for this reason that most data providers do not quality assure this field.

One respondent suggested it would be useful to continue to provide these data for reference, and another suggested it would be useful to have this information for other staff groups. Otherwise, users noted they already have access to these data via the [GMC register](https://data.gmc-uk.org/gmcdata/home/#/reports/The Register/Stats/report) and the NMC for medical and nursing staff respectively.

**Plan**

Continue to publish Country of Qualification as it is sourced in the forthcoming publication (30 June data released 7 September) and announce that the information will not be released after that date.

We will continue to monitor information requests which could be answered using these data. If there is sufficient desire, then, once information governance has been agreed, we will publish CoQ using the field from the GMC interface.