

2021

FAMILY PRACTITIONER SERVICES GENERAL MEDICAL STATISTICS NORTHERN IRELAND – ADMINISTRATIVE DATA QUALITY ASSESSMENT REPORT

This initial report highlights and seeks users views on the key outcomes of an in depth data quality assessment of administrative systems from which BSO/FPS Official Statistics (OS) are sourced and produced. Assessment outcomes are detailed in terms of key strengths and weaknesses, and potential sources of error and bias relating to these statistical series.



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Dear User of Family Practitioner Services Statistics in Northern Ireland,

Your views are being sought on our quality assessment report of administrative sources from which General Medical statistics in Northern Ireland are produced. Our assessment of administrative sources is based on quality standards published by the UK Statistics Authority. The statistical producer team are continuing to ask for your views on our assessment, in terms of process, outcomes and presentation. The official statistics publications to which this assessment report relates are detailed below, with links to the BSO website.

[General Medical Services Statistics \(hscni.net\)](http://hscni.net) Please forward your views on our assessment to:

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Background

This assessment report highlights and continues to seek user's views on the key outcomes of our data quality assessment of administrative systems from which HSCNI Business Services Organisation/Family Practitioner Services Official Statistics (OS) are sourced and produced. Assessment outcomes are detailed in terms of key strengths and weaknesses, and potential sources of error and bias.

[UK Statistics Authority \(UKSA\): Assessment of Administrative Sources](#)

This assessment was carried out, and details our findings, to help users of our statistics better understand the range of administrative sources and processes from which our statistics are sourced and produced. As our statistics are classified as Official Statistics, the assessment was carried out in line with the 'UKSA Regulatory Standard for the Quality Assurance of Administrative Data', as published on 29th January 2015 (see below).

To quote directly from the standard, *"The Authority produced this Standard in response to concerns about the quality of administrative data that emerged during its assessments of statistics on police recorded crime. The Standard recognises the increasing role that administrative data are playing in the production of official statistics and clarifies the Authority's expectations for what producers of official statistics should do to assure themselves of the quality of these data."*

Quality Assurance of administrative data

As explained within the UKSA standard, *"Quality assurance of administrative data is more than simply checking that the figures add up. It is an ongoing, iterative process to assess the data's fitness to serve their purpose. It covers the entire statistical production process and involves monitoring data quality over time and reporting on variations in that quality. Post collection quality assurance methods, such as data validation, are an important part of the quality assurance process, but can be of limited value if the underlying data are of poor quality. The Authority encourages the application of critical judgment of the underlying data from administrative systems before the data are extracted for supply into the statistical production process. As with survey data, producers need to: investigate the administrative data to identify errors, uncertainty and potential bias in the data; make efforts to understand why these errors occur and to manage or, if possible, eliminate them; and communicate to users how these could affect the statistics and their use."*

Business Services Organisation (BSO) - Family Practitioner Services (FPS)

FPS sits within BSO's Operations Directorate and provides a range of essential business services to Health and Social Care (HSC) organisations, primary care contractors & patients and plays a critical role in the payment of over £800m annually to health professionals in the dental, pharmacy, GP and ophthalmic sectors. It is responsible for making payments to practitioners from the Pharmaceutical, Dental, Ophthalmic and General Practitioner professions in Northern Ireland who are under contract with the HSCB.

FPS maintains the central register of patients registered with General Medical practices in Northern Ireland, which includes issuing medical cards and processing changes such as name, address and doctor. FPS calculates payments made to General Medical and Dental Practitioners, Chemists and Community Optometrists throughout Northern Ireland, provides professional advice, support and information to customers and members of the public and maintains the pharmaceutical, dental and the Northern Ireland Primary Medical Performers lists. FPS also provides the call and recall services for breast, cervical and bowel cancer screening in Northern Ireland.

The FPS Information Unit is made up of statisticians seconded from the [Northern Ireland Statistics and Research Agency \(NISRA\)](#). The in-house statistical team are responsible for producing quarterly and annual Official Statistics for Family Practitioner Services, in accordance with the [Code of Practice for Statistics](#).

FPS Administrative Systems and Assessment

Almost all of the statistics detailed within the FPS quarterly and annual OS reporting are derived from in-house BSO administrative systems. These systems and the business areas to which they relate are detailed below in summary:

- Medical Registration – National Health Application Infrastructure System (NHAIS)
- Pharmacy – Family Practitioner Services Pharmacy Payment System
- Dental – Family Practitioner Services Dental Payment System
- Ophthalmic – Family Practitioner Services Ophthalmic Payment System
- General Medical Services – Family Practitioner Services GMS Payment System

The assessment of in-house BSO administrative systems was carried out using the Quality Assurance Toolkit as detailed within the UKSA standard. The matrix approach to assessment advised by the UKSA has two components; namely, separate assessments of public interest in our statistics (low, medium, high) and data quality concern about our statistics (low, medium, high). The outcome of our assessment then determines the types and level of assurance and documentation required to keep our users informed about the quality assurance arrangements in place for the administrative systems from which our statistics are sourced.

As explained within the standard (page 4), “The need for investigation and documentation increases at each level of assurance ‘Basic’ (A1) to ‘Enhanced’ (A2) to ‘Comprehensive’ (A3).” There is also a ‘No assurance’ A0 level to indicate that, “Operational context and administrative data collection by supplier not investigated, managed or documented”. Assessment at this level means that statistics are not being produced in accordance with the Code of Practice for Statistics.

The outcomes of our completed assessments for our statistical series sourced from in-house BSO administrative systems are detailed in the sections that follow. Following assessments of each statistical series using the QA Toolkit, the level of assurance required for these series was assessed either as 'Basic' (A1) or 'Enhanced' (A2).

From the UKSA standard, summaries of each of the three possible assessment levels are detailed below:

A1: Basic assurance Statistical producer has reviewed and published a summary of the administrative data QA arrangements

A2: Enhanced assurance Statistical producer has evaluated the administrative data QA arrangements and published a fuller description of the assurance

A3: Comprehensive assurance Statistical producer has investigated the administrative data QA arrangements, identified the results of independent audit, and published detailed documentation about the assurance and audit

These three levels of assurance are applied across a range of four areas relating to administrative data provided for producing BSO official statistics as outlined below:

- Operational context & administrative data collection
- Communication with data supply partners
- QA principles, standards and checks applied by data suppliers
- Producer's QA investigations & documentation

Within each of the sections that follow, presented in summary form is our assessed level of assurance for each of our statistical series, and the information available as supporting evidence in respect of the four areas above.

Review and Updates

As part of our ongoing commitment to maintain user and public confidence in our statistics, the administrative systems from which we source our data will be reviewed annually, or as required in line with planned changes to administrative systems. Reviews will be through formal consultation with data providers regarding changes/amendments to administrative systems which might then impact on our assessment of data quality concerns and changing public interest in our statistics. Should a revised assessment result in an increased or a decreased level of assurance, we will then update our assessment report for relevant statistical series. Users will be notified of revisions/updates to this report at the earliest opportunity, probably at the same time as publication of the next release of our quarterly or year-end statistical report.

General Medical Statistics

General Medical Statistics present information on patients registered with a GP in Northern Ireland, General Practitioners (GPs), GP Practices, BSO Payments processed on behalf of HSBC towards cost of GP Services, and, GB Comparison data.

National Health Application and Infrastructure Services (NHAIS)

The NHAIS system, which resides with the FPS (Family Practitioners Service) unit, manages GP registrations and payments, GP patient lists and their demographics including a record level list of all persons on the GP registered Patients index (whether living, dead or gone away). It also holds information on a patient's entitlement to primary care in Northern Ireland.

The Registration Team within FPS is responsible for:

- the registration and transfer of patients onto and between GP Practices within Northern Ireland and the rest of the UK,
- the transfer of medical records between GP Practices within Northern Ireland and the rest of UK, and
- the archiving of Medical Records of patients no longer registered with a GP Practice in Northern Ireland.

Statisticians in the FPS Information Unit use NHAIS data as the source for published statistical outputs on patients registered with a GP in Northern Ireland by age, gender and geographical location.

Common Practitioner Model (CPM)

The CPM, which resides with the Information Technology Services (ITS) team, manages GP contract information to include GP demographics, the GP Practice to which they are assigned, their status at the practice, contact details etc. The CPM also holds information on GP Practices including name, address, unique identifier, contact details etc.

The Professional Support Team within FPS are the administrators of the CPM and members of the team are authorised to make changes to front end of CPM (e.g. adding, amending and removing contracts). Back end changes are made by ITS.

The CPM is the data source for General Practitioner (GP) headcounts by Age, Gender and Geographical Location, and, by combining with the NISRA Central Postcode Directory, counts of GP Practices by Geographical Location. NHAIS and CPM data is combined to produce statistical outputs on Number of GP's and GP Practices per 100,000 Registered Population; proximity of patients to a GP Practice and to inform statistics on BSO Payments towards GP services.

Quality Assessment

Table 1 below details the outcome of our assessment of General Medical Statistics using the matrix assessment toolkit as explained in the previous section (pages 5 and 6), in terms of data quality

concern and public interest. Medical Registration and GP Workforce Statistics were typically assessed as Low for data quality concern and Medium for public interest, indicating that a low level of assurance is appropriate, which is A1 on our matrix classification. Despite this classification, we have provided a higher level of assurance than would be required – more in line with A2 level.

Table 1: Assessment of Medical Registration Statistics

Statistical Theme	Admin Source	Data Quality Concern	Public Interest	Matrix Classification
General Practitioners (GPs) Headcount by Age, Gender and Geography	CPM, CPD	Low	Medium	A1
GPs (Headcount) per 100,000 registered population by Geography	NHAIS, CPM, CPD	Low	Medium	A1
GP Patient Registrations by Age, Gender, Geography and GP Practice	NHAIS, CPM, CPD	Low	Low	A1
GP Practices and average list size by Geography	NHAIS, CPM, CPD	Low	Medium	A1
GP Practices per 100,000 registered population by Geography	NHAIS, CPM CPD	Low	Medium	A1
Population weighted distance to nearest GP Practice	NHAIS, CPM, CPD	Low	Medium	A1
BSO Payments processed on behalf of HSCB towards cost of GP Services	FPPSPR	Low	Low	A1
GB Comparisons	NHAIS, CPM, GB data	Low	Medium	A1

Operational Context and Administrative Data Collection

NHAIS

In Northern Ireland residents can register with a GP for the provision of general medical services and advice, depending on their settlement status. For example, those born in Northern Ireland provided with a medical card at birth are normally entitled to register with a GP and move between GPs in Northern Ireland without any restrictions.

Persons coming to Northern Ireland to live are required to meet the ‘Ordinarily Resident Test’ in Northern Ireland, i.e. you must be lawfully residing in Northern Ireland and have an identifiable and settled purpose here. To satisfy this test you must have indefinite leave to remain in the United Kingdom (UK), and provide proof of your settled purpose e.g. to work, and confirmation of your Northern Ireland address. An eligible visitor is a visitor to Northern Ireland who is lawfully present in Northern Ireland and satisfies a relevant exemption from charges such as students, workers and asylum seekers in accordance with the Health and Personal Social Services Provision of Health Services to Persons Not Ordinarily Resident Regulations (Northern Ireland) 2015 (http://www.hscbusiness.hscni.net/pdf/2015_PNOR_regs.pdf).

A patient’s digital identity takes the form of a Health and Care Number (HCN) linked to the individual patient’s demographic details. This service provides a unique identifier that allows the various elements of information used in the delivery of clinical and social care services to be matched to the correct individual patient, enabling the sharing of records and demographic data across many critical clinical Source Systems.

NHAIS is the system used to register the entitled patients/clients to state funded health and care services in Northern Ireland, the management of GP lists and to calculate the Global Sum payments¹ each quarter. It captures details of the relationship between patients, GPs and their practices. Registrations are collected from GP systems through dedicated links and/or by contacting BSO

¹ The Global Sum Payment is the payment to GP practices for services provided to their registered patients.

directly. The Registration team within FPS is responsible for maintaining GP Registered Patients Index. NHAIS also contains data on previously registered patients however this is incomplete due to historical data migration issues.

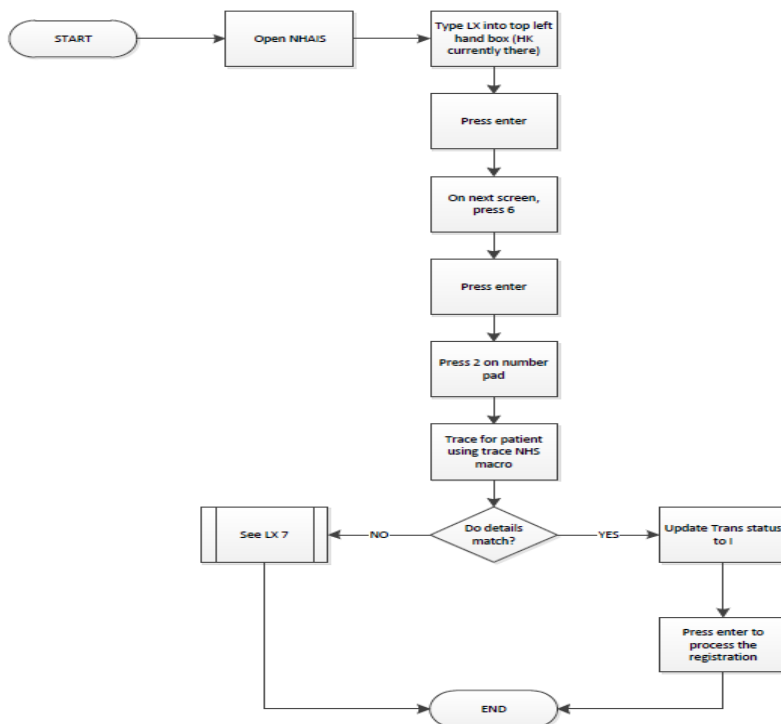
A significant number of bodies such as NISRA, Office for National Statistics (ONS), The Electoral Office and the General Register Office (GRO) rely on data from NHAIS to perform their functions and inform their decision making; extracts of the NHAIS index are used to provide these bodies with the data they need. The main source of data is from GP systems via GP Links. This is a two way flow of information via an Electronic Data Interchange between the BSO and the GP Practice with the ability to add, delete and amend patient records at either side subject to validation. GP Links has sufficient functionality to ensure that both the GP Practice and NHAIS systems are kept in line with one another.

The Health and Social Care Board (HSCB) also operates two way information flow with BSO by way of emails, spreadsheets and databases to inform medical registration data. The General Register Office (GRO) provides death data to BSO; notification of these deaths may already have occurred from other sources but the GRO data is the official source. The Health and Care team operate a two way flow of patient information with the BSO including registration status. NHS Scotland and England also operate a two way flow of information with the BSO in relation to patients who have moved between jurisdictions.

The Registration team within FPS is responsible for maintaining the GP Registered Patients Index. To ensure all registration data is updated and recorded accurately, the BSO have detailed process maps and accompanying Standard Operating Procedures (SOP's) outlining the steps for completing medical registrations, adjustments, deductions etc. These process maps and SOP's have been made available to Statisticians with the example of the BSO Internal Transfers process map provided below.

LX 6 – Internal Transfers

March 21, 2019



At the end of any given month there are between 2,000 and 3,000 registrations that are outstanding (have been entered on to the system but have not been completed). Of these approximately 80% are from either GB or non-UK countries. This lag is normally as a result of additional documentation that is required to complete the registration and a number of these may be deemed not entitled. Less quantifiable is the number of registered patients who no longer reside in Northern Ireland but have left without notifying their GP or BSO.

There are differences between the figures for GP Registered Patients and residential population. At 30th June 2020, the number of individuals on the index of registered patients was 5.7% higher than the June 2020 Northern Ireland mid-year population estimate.

This discrepancy can arise from a number of factors including, but not limited to, the aforementioned time lags in removing patients from GP lists following death or emigration, Cross Border Workers registered with a Northern Ireland GP, registered patients not completing the 2011 Census.

CPM

The Common Practitioner Model (CPM) is a user interface to facilitate BSO users to add, edit and view details of GP Practices, employees and their contracts. Prior to the CPM, each discipline used to have separate databases (Denlist, PMPL, Medlist) but it was agreed that these should be brought together to make the best use of resources.

The General Practitioner (GP) data held on CPM is the “Primary Medical Performers List” and registration to the Primary Medical Performers List allows GPs to practice in Northern Ireland. CPM

Primary Medical Performers List data is collected primarily for employment purposes. A contractor must be on the Primary Medical Performers List to allow a GP Practice to employ them. If GPs are employed by one or more GP practices, they must also be correctly registered on the CPM at each surgery to facilitate superannuation and seniority payments.

Information such as General Medical Council (GMC) number, name, date of birth, sex, etc. are collected, along with the GP Practice to which they are contracted, their status at the practice etc. Once a GP's data is entered onto CPM as a locum, they can be linked to a GP practice and have a cipher allocated to them at that practice. The CPM also holds information on GP Practices including name, address, unique identifier, contact details etc.

The Professional Support team within FPS are the administrators of the CPM and members of the team are authorised to make changes to front end of the CPM. Back end changes are made by ITS.

If a GP is being employed at a GP Surgery the Practice Manager will provide BSO with the start date and status of the GP; i.e. General Practitioner or Salaried GP. This is also the case when a GP is retiring/resigning or changing status within the practice. While BSO gather application data for the Primary Medical Performers list it is HSCB who sign off on it and authorise the Professional Support Team to input the data to the CPM.

BSO have service delivery targets – key performance indicators (KPIs) which are used to monitor CPM. The KPIs measure the number of days taken to register a GP onto CPM as a locum and issue a cipher at a GP Practice when requested.

To ensure all data is updated and recorded accurately, the BSO Professional Support Team have detailed Standard Operating Procedures (SOP's) and checklists. These have been made available to

Statisticians with the example of the 'Change of Status on Medical List' checklist provided below.

<u>Change of Status on Medical List</u>	
THIS PROCESS IS FOR SALARIED GPs CHANGING TO GP PARTNER (SAME SURGERY)	
GP Name	
CIPHER	
SURGERY ADDRESS	
NOTIFICATION RECEIVED (ON DATE) FROM GP PRACTICE RE NEW PARTNER COMMENCING ON (DATE REQUIRED)	
RETRIEVE BUFF FOLDER FROM CABINETS (E/N/S/W)	
SEARCH GP ON CPM	
OPEN SALARIED GP CONTRACT	
EDIT CONTRACT DETAILS TYPE	
CHANGE TYPE TO GENERAL PRACTITIONER	
QUESTION WILL POP UP ADVISING THAT NEW CONTRACT WILL BE SET UP WITH SAME CIPHER (ANSWER YES)	
ENTER CONTRACT END DATE OF SALARIED GP	
UPDATE CONTRACT	
NEW CONTRACT WILL AUTOMATICALLY BE SET UP	
CHECK EMPLOYEE DETAILS TO ENSURE SALARIED GP CONTRACT ENDED GP CONTRACT COMMENCED NEXT DAY	
UPDATE STATUS OF GP ON PML DATABASE TO PRINCIPAL AND CHANGE START DATE	
ADVISE Aidan.mcquigan@hscni.net ; daniel.bartsch@hscni.net ; gpcertificates@hscni.net BY EMAIL OF CHANGE OF STATUS	
ACTIONED:	DATE: _____
CHECKED:	DATE: _____

Communications with Data Supply Partners

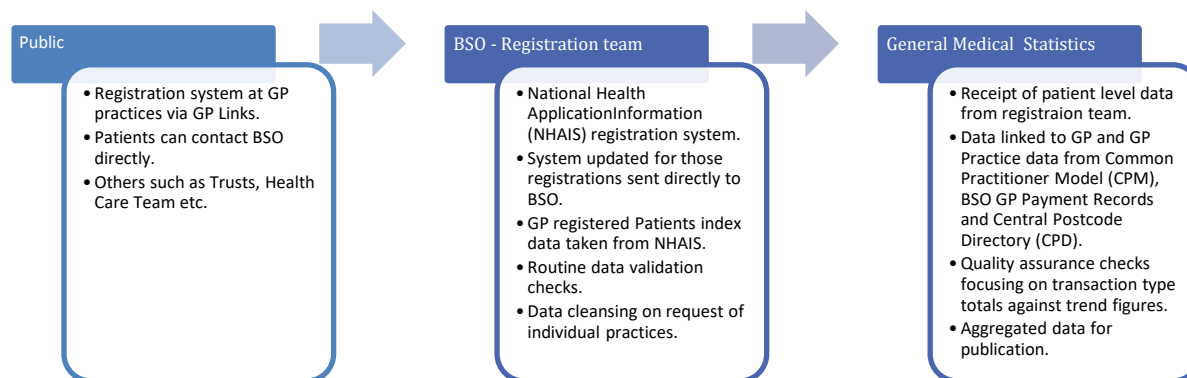
NHAIS

NISRA Statisticians within BSO can access GP Registration information directly via tables held in Microsoft SQL Server Management Studio which sits on a secure network server within BSO. This data is only accessible following a written request to IT within BSO and is only completed following managerial approval. These SQL tables are created by IT staff within BSO in conjunction with other BSO business areas and tested prior to being used. IT staff have also set up an automated process so that certain SQL tables are updated nightly.

Statisticians within FPS Information Unit are located in close proximity to the BSO FPS Registration team and relevant IT staff which helps facilitate frequent informal and formal contact to discuss/review statistical methodology and requirements (advice on variable list and functionality for future NHAIS replacement, for example) as well as data quality issues. Tailored guidance has been circulated and formal presentations given to ensure that data providers are aware of their responsibilities under the Code of Practice for Statistics and particularly with regard to pre-release practices.

Communication between the BSO FPS Registration and GP Practices is regular. Detailed guidance on the registration process is provided to GP Practices with volumes and processing times monitored to ensure processes are uniform and efficient.

Flow:



CPM

For the Medical list applications the Data suppliers are the GP Practices. These applications are then emailed to ProfessionalSupportTeam@hscni.net. Before entering the application details onto CPM, Professional Support staff are required to check that the GP is already registered on the Primary Medical Performers List.

A Standard Operating Procedures document has been developed for use by BSO staff to support governance procedures around issuing a GP cipher number. It provides instructions on the following:

1. Accessing and Searching
2. Recording a new GP Practice surgery employee on CPM
3. Adding an employee contract to facilitate the issue of a GP cipher number
4. Editing employee details
5. Taking a GP off list
6. Reinstating a GP

Stakeholders are advised via email when a new contractor is added or removed from CPM.

Statisticians within FPS Information Unit are also represented on the FPPS Service Review Group. If any changes are required to CPM, this group will agree, monitor and resolve problems with it as and when they arise. If at any point the HSCB changed their process regarding how GPs are added to the Medical List, BSO would have to fall into line and change theirs which would possibly mean changes to CPM. These changes would go through this FPPS Service Review Group and prioritise system developments in conjunction with business need.

Quality Assurance Principles, Standards and Checks by Data Supplier

NHAIS

There are numerous checks carried out on Patient Registration data to minimize the risk to data quality both at source e.g. GP Practice and upon receipt of data in the BSO. Types of checks include checking for duplication against pre-existing registration details on internal and external systems, checking that all required fields are complete and checking supporting documentation such as proof

of address where appropriate. Issues that arise are duplicate registrations, poor data entry, incorrect demographic details e.g. postcode etc. Quality indicators include no duplication of patients, 100% check of all new patient registrations at BSO side, and, validation of registration work by management.

Further to checks carried out at time of transaction as detailed above, data are cleaned at the end of each quarter by the BSO using, for example, the following checks:

- checking countries of origin/destination are complete and the correct codes have been assigned,
- ensuring dates are in the correct format,
- ensuring that information has been collected for all records, and
- checking that reasons for movements are standardized across the records.

When NHAIS was first implemented in NI in 2004-2006, BSO Established a Data Quality Team to help tackle GP list inflation. Using NHAIS information, Dental information and the Electoral Roll, GP Practices were visited to establish if registered patients were accessing NHS treatment. Outcomes included patient detail changes such as address updates, patients being classified as 'whereabouts unknown/left NI' and subsequent removal, and, BSO writing directly to the patient with removal being a potential outcome. Unfortunately, no documentation exists quantifying the number of records that were cleaned/removed as a result of this exercise. Currently the BSO do not currently have a data quality team. A project is underway to replace the NHAIS system and as part of this project FPS Statisticians and FPS Registration team have sought assurances that a data cleanse exercise will take place after migration of data to the new system to ensure data held and future data input is in a consistent format.

The BSO Registrations team along with external consultants carried out a Kaizen (lean) Project in 2018 with focus on improving the processing of patient registrations. Actions that followed included data collection guidance booklets and posters being issued to GP Practices, ongoing training provided to GP Practice Managers, and, actively monitoring registration processing times through Key Performance Indicators.

A Counter Fraud Unit within BSO look into fraudulent registrations and claims, and the Access to Health Team in BSO carries out further post registration eligibility checks.

Statisticians within FPS provide high level aggregated data to feed into Key Performance Indicators (KPIs) to direct attention to areas of the Registration process that require attention/intervention. This includes information on volumes and processing times of both complete and incomplete registrations (available at Practice Level and by registration type).

CPM

Before entering application details onto CPM, the Professional Support Team in BSO are provided with signed and dated authorisation from HSCB. If this is not provided the application is referred back to the HSCB. Professional Support staff carry out additional checks on each application form during the data collection process.

In order to minimise risk when Professional Support Team register a GP/GP practice or edit changes on CPM, validation checks are carried out by another member of the team for accuracy.

If data issues are encountered during routine business e.g. address or other GP Practice info not matching during processing of claims, this will be flagged to the Professional Support team who may refer back to HSCB.

CPM Users, including NISRA statisticians, also raise any data quality issues encountered and feed back to the Professional Support Team.

In addition, internal audit and external auditors carry out checks on the data within CPM.

Producers Quality Assurance Investigations and Documentation

NHAIS

As the main source of GP Patient Registration data is independent contractors, statistical producers' ability to influence the data collection quality assurance is more limited than would be the case if we were dealing with other public bodies. Influence involves providing advice on data quality issues uncovered and proposing solutions. The HSC R1 form used to capture GP Patient Registrations at contractor side was designed with the aid of statisticians to ensure that all relevant data was captured in a consistent format to serve both primary and secondary purposes.

The main validation checks on GP Patient Registration Data within the BSO are carried out by the Registrations team prior to import of data into SQL tables used by statistical producers. On a quarterly basis when data is imported into tables held in Microsoft SQL Server Management Studio from NHAIS code is run to produce outputs. This code includes checks to ensure that data is robust such as comparing counts of Registrations, Deductions, Amendments etc with trend figures for consistency as well as quantifying data gaps e.g. country of origin for non-UK registrations. While there is no set measure of tolerance in terms of quarterly/annual differences, records of back series comparisons help the statistical producer to judge if particular data is out of kilter with historical trend. If significant anomalies in the data are found, this is first fed back to the IT Team responsible for producing the SQL Tables to ensure that all data has been captured correctly.

Issues identified with individual records are fed back initially to the BSO Registrations team for investigation and if necessary to the data supplier. Examples include:

Missing country of origin data is quantified and fed back to FPS Registration team to trigger manual searches against registration forms to populate the missing data.

Issues arising from GRO Death data not matching NHAIS data are fed back to the BSO Registrations team who will investigate and if required communicate back to the data supplier.

Overall counts of Registered Patients are checked against Global Sum payment calculation lists to ensure that all patients are allocated to the correct practice and that relevant practices are included. Practice data comes from the Common Practitioner Model (CPM) which serves many purposes and

for administrative or clinical reasons a practice may appear still functional on CPM e.g. to allow for outstanding payments or test results to be returned. Checking against Global Sum data ensures that only active practice data is included in published statistics for a given point in time.

Statisticians also carry out hierarchical matching of NHAIS addresses against the Land and Property Services Pointer Address List to create a Master Address File that includes a Unique Property Reference Number (UPRN) for each address recorded. However, the majority of data cleansing happens outside the NHAIS system.

FPS Statisticians have created detailed SOPs for the above processes and checks.

CPM

As the administrators of CPM are the Professional Support Team and the data suppliers are the HSCB, statistical producers' ability to influence the data collection quality assurance is more limited. Influence involves providing advice on data quality issues uncovered and proposing solutions.

On a quarterly basis data held on CPM is harvested to produce official statistical tables. As part of this process checks are carried out to ensure that data is robust e.g. comparing counts of GP Practices with the General Medical Payment Team's outputs.

Comparison checks are also carried out against historical trend data for consistency, including by geographies, age, gender etc. While there is no set measure of tolerance in terms of quarterly/annual differences, records of back series comparisons help the statistical producer to judge if particular data is out of kilter with historical trend.

If significant anomalies in the data are found, the first step is to review SQL code used to extract data. If no error is identified at producer level, issue is then fed back to the Professional Support Team and/or the General Medical Payment Team to ensure that all data has been captured correctly. The producer will also seek an explanation for any the change in trend and document accordingly.

Strengths

NHAIS

- The GP Registered Patients Index is a comprehensive source of information that can be used to present demographic characteristics of patients at Geographical Level.
- The data are used to inform payments to contractors and hence are subject to extensive scrutiny and periodic audit.
- Data are collected by the same team in a consistent format using the HSC R1 form (http://www.hscbusiness.hscni.net/pdf/HSC_R1%20Version%20202018_31082018.pdf) which contains detailed completion guidance along with relevant links and contacts. GP

Practices are also provided with additional guidance and training to aid standard completion of the form.

- Unit record data are available, allowing patient level matching and a greater depth of analysis to be undertaken.
- The process for collection, quality assurance and storage of GP Registered Patient data has been recently audited and audit recommendations are being actioned.

Common Practitioner Model (CPM)

- A General Practitioner can be traced using any data on CPM such as Name, GMC Number, Practice Address.
- The required data is not onerous to input.

Weaknesses

NHAIS

- Not all outflows are measured fully by the GP Registered Patients Index as they require the patient to notify the GP or BSO.
- It is assumed that there is a lag between the date of arrival in Northern Ireland and appearing on the GP Registered Patients Index. Similarly, it is assumed that there is a lag between leaving Northern Ireland and deregistration.
- Free text input of data in the existing system can lead to some error and inconsistencies but this will only have minimal impact on the overall statistics.
- The GP Registered Patients Index is subject to list discrepancy of approximately +5%. However this is only a weakness if using to inform Northern Ireland Population counts but remains an accurate count of number of live GP Registrations.

Common Practitioner Model (CPM)

- General Practitioners are required to keep BSO and HSCB up to date if their details change. They are required to complete paperwork and give notice if they move surgeries, or if their practice changes address.