

Family Practitioner Services

# Background Quality Report

General Ophthalmic Statistics



December 2021

**Published by**

BSO Family Practitioner Services Information Unit,  
2 Franklin St, Belfast BT2 8DQ

**Responsible Statistician**

Jennifer McCrea  
[Jennifer.McCrea@hscni.net](mailto:Jennifer.McCrea@hscni.net)

©2018, 2020, 2021 Crown Copyright. This publication may be reproduced free of charge in any format or medium. Any material used must be acknowledged, and the title of the publication specified.

*This publication was first issued in December 2021*

**Open Government Licence**

All content is available under the Open Government Licence v3.0, except where otherwise stated.

# Contents

<b>Preface .....</b>	<b>4</b>
<b>Introduction.....</b>	<b>5</b>
Context.....	5
Purpose of this document.....	6
<b>Assessment of statistics against quality dimensions and principles .....</b>	<b>7</b>
Relevance .....	7
Accuracy and Reliability .....	9
Timeliness and punctuality .....	10
Accessibility and clarity.....	11
Coherence and comparability .....	11
Trade-offs between output quality components.....	13
Assessment of user needs and perceptions.....	14
Performance, cost and respondent burden .....	15
Confidentiality, transparency and security .....	15
<b>Responsible Statisticians .....</b>	<b>16</b>

## Preface

This document constitutes a quality report for annual and quarterly statistics issued by Family Practitioner Services (FPS) covering General Ophthalmic Services.

Prior to 2020, the annual ophthalmic statistics were issued in the FPS Compendium Report, which covered all aspects of family practitioner activity in Northern Ireland i.e. dental, ophthalmic, pharmacy and general medical. They are now issued on an individual basis in line with user needs and to improve their timeliness and punctuality.

There were no material changes which affected the underlying quality assessment of ophthalmic statistics as it moved from the Compendium Report to a standalone publication. All references to the Ophthalmic publication should be read to cover also the ophthalmic statistics within the Compendium Report.

## Introduction

This document constitutes a data quality report for the Family Practitioner Services (FPS) General Ophthalmic Statistics and in-year quarterly updates.

This report is derived from administrative data from a range of sources. These are:-

- Ophthalmic Payment System
- Ophthalmic Masterfile
- The National Health Application and Infrastructure System (NHAIS).

Information has been extracted from the live payment system following the close of the financial payment year (or relevant in-year quarters – ending March 31<sup>st</sup>, June 30<sup>th</sup>, September 30<sup>th</sup> and December 31<sup>st</sup>).

The statistics have then been compiled and quality assured by independent statisticians, on secondment to BSO's FPS Information and Registration Unit, from the Northern Ireland Statistics and Research Agency (NISRA) in accordance with the [Code of Practice for Statistics](#).

## Context

The General Ophthalmic Services Statistics publication provides a statistical overview of general ophthalmic activity in Northern Ireland. It is based on payment claims submitted by primary care ophthalmic practitioners to Family Practitioner Services (FPS) as well as summary information about the practitioners themselves. This data does not cover secondary or private ophthalmic services. In addition, some demographic breakdowns are provided in relation to health service sight tests, vouchers, repairs and replacements and additional ophthalmic services, including the Northern Ireland Primary Care Optometry Enhanced Services and the Northern Ireland Primary Eyecare Assessment and Referral Service (NIPEARS).

The Family Practitioner Services division within BSO provides a range of services to General Medical, Dental, Ophthalmic and Pharmaceutical practitioners across Northern Ireland.

The administrative information which is produced as a by-product of these activities provides information on FPS payments as well as on service provision and the relative health of the population at NI and sub-regional level. It complements official statistics relating to other aspects of the NI health care system, namely secondary, community and social released by the Department of Health.

## **Purpose of this document**

This document aims to provide users with an evidence based assessment of the quality of data held within the FPS General Ophthalmic Services Statistics by reporting against nine quality dimensions and principles appropriate to this output.

In doing so, this meets our obligation to comply with the UK Statistics Authority (UKSA) [Code of Practice for Statistics](#), particularly the pillar of Quality, principle Q3 Assured Quality which states:

*Producers of statistics and data should explain clearly how they assure themselves that statistics and data are accurate, reliable, coherent and timely.*

It is a live document and will evolve and include additional material as further intelligence is gathered against each of the 9 ESS dimensions.

The 'Quality Assessment of Administrative Data' (QAAD) for General Ophthalmic Services has been completed and provides further valuable information [here](#).

# Assessment of statistics against quality dimensions and principles

## Relevance

*This dimension covers the degree to which the product meets user need in both coverage and content.*

The FPS Information and Registration Unit launched an online survey using Citizen Space on 21<sup>st</sup> February 2018. The survey invited users/potential users of summary statistics related to Primary Care Services to provide feedback to help shape our statistical publications. The survey closed on the March 13<sup>th</sup> 2018 and received 86 responses. A follow up online survey was launched on 12<sup>th</sup> March 2019, closing on 1<sup>st</sup> April 2019; 20 responses were received.

The findings of the user engagement surveys have been published [here](#) and highlighted that the formal and regular publication of these statistics would help address an important information gap. The survey also informed the types of analysis users wished to have access to, and in what format. This informed the development of the Compendium report and the subsequent individual reports.

Statisticians in the Information Unit are regularly in contact with key users of the statistics. Initially the readership surveys were used to provide an overall assessment of whether user needs were being met. However the current approach employed is to undertake focused consultations with key users on a rolling basis. This approach helps to gain greater insight into how the statistics are used and to identify additional specific requirements. In addition, any ad hoc requests for information are recorded centrally in a database and these records are used to provide intelligence from a wider set of users in relation to changing requirements. User Engagement Action Plans, incorporating summaries of identified user requirements, together with their current status and timescales for addressing these needs are provided [here](#). These will be updated regularly as new user needs are identified or addressed as part of our ongoing programme of engagement.

To ensure that understanding of user needs is as up-to-date as possible, the FPS Information and Registration Unit launched an online user survey in December 2021, closing in January 2022. Again the results of this will be analysed, with the findings published. Where appropriate and practical, the identified needs of users will be acted upon.

BSO had historically released a statistical compendium, which ceased following the 2007/08 publication. The revival of this output had been identified by internal customers as a high priority in order that there would be a definitive source of quality assured figures related to FPS activity. A new statistical compendium was launched in 2017/18 and released again the following year. Following a user consultation, the compendium was split into separate FPS service areas in 2018/19, including General Dental Services (GDS). This has allowed more detailed statistics to be produced better targeted at the main users of these figures (note that a short summary Key Facts compendium has also been developed to meet the needs of users with a cross cutting interest in primary care statistics).

In order to cater for different levels of user need, the main body of the Ophthalmic annual report is intended to be a high level summary of activity, supplemented by charts and commentary, with the detailed statistical tables which underpin the report included in its annexes. More detailed breakdowns can be provided on request.

BSO was specified in legislation as a Producer of Official Statistics in the Official Statistics Order (Northern Ireland) 2012. The information held by the Family Practitioners Service is of interest both to the Government and wider public as it relates to the provision of primary care in Northern Ireland.

The ophthalmic statistics are derived from the ophthalmic payment system. It includes all health service sight tests, vouchers dispensed and replacement or repairs carried out in primary care in Northern Ireland that are submitted to the BSO for payment.

The information does not include any ophthalmic activity in secondary care settings or any treatments carried out privately by health service opticians. The ophthalmic payment data can be used as an indication of the eye health of Northern Ireland. It also helps inform the



official NI Mid-Year Population Estimates by showing that a person has been active within the health service in a specified time period.

This report contains information on primary care opticians in Northern Ireland at a national and local level. This publication includes facts and figures on the number of people who had a health service sight test, voucher dispensed and number of repairs and replacements along with the number of opticians.

## Accuracy and Reliability

*This dimension covers the statistics proximity between an estimate and the unknown true value.*

All information is based on the data supplied by the opticians at the time of the claim and only claims which are paid by BSO after validation are included.

## Reliability/known data quality issues

At present the ophthalmic payment system does not capture the Health and Care Number (HCN) of patients. In order to produce statistics by patient's gender/home address, a matching exercise was developed by Information Unit a number of years ago using the patient's forename, surname and date of birth to the index of registered patients (NHAIS) to obtain the HCN and patient demographics. The matching rates are shown in the table below.

### Matching rate for patient HCNs on the Ophthalmic Payment System, 2013/14 – 2020/21

Financial Year	All Records	% Matched
2013/14	684,173	82.2%
2014/15	693,960	87.6%
2015/16	708,563	91.1%
2016/17	723,714	95.3%
2017/18	707,201	98.4%
2018/19	707,906	99.4%

2019/20	703,892	99.2%
2020/21	480,221	99.1%

Given the reduced matching rates in earlier years, it was decided that data could only be reliably produced for 2017/18 onwards. This should not be an issue in future years.

For the exemption reason tables, occasionally the exemption reason is not recorded in the payment system. To reduce the number of unknowns in cases where the person was aged under 16 or 60 or over, they were moved into either the Child or Over 60 category. Those aged between 16 and 18 who had an unknown exemption were moved into the Student category. In 2017/18, 117 records were moved to one of those categories compared to only 3 records in 2020/21.

All data is based on payment date. However practitioners have up to 6 months to submit sight claims, and up to 3 months to submit voucher and repair/replacement claims for payments. Therefore data may not always reflect when the activity was carried out.

## Timeliness and punctuality

*Timeliness refers to the time gap between publication and the reference period.*

*Punctuality refers to the gap between planned and actual publication dates.*

The first iteration of the compendium was released in October 2018 and covered data for financial year 2017/18. Future compendiums and annual ophthalmic publications have been released in June of each year when the data for the entire year are complete – representing a 3 month lag between publication and the end of the activity period to which the data relate.

The quarterly updates of key report tables, which is not supported by commentary, is now published within 6 weeks of the quarter end payment. For this reason, the quarterly updates will have a provisional status but will be finalised at year end.

All publications have been punctual, being released on the planned publication date.

## Accessibility and clarity

*Accessibility is the ease with which users are able to access the data, also reflecting the format in which the data are available and the availability of supporting information. Clarity refers to the quality and sufficiency of the metadata, illustrations and accompanying advice.*

Both the compendium and individual annual ophthalmic reports are published in PDF format on the BSO website along with accompanying tables presented in Excel. In the 2020/21 ophthalmic report, open data csv files on activity by financial year, local council area, local government district, age group and gender were added. The main report contains a mixture of summary tables, charts, infographics and commentary intended to appeal to a wide user base. The Excel/CSV tables will allow users to perform secondary analysis on the actual data and contains a separate tab with metadata.

The accompanying tables are now presented in an accessible format. Assistive technology can be used with the supporting tables, which enables users with disabilities to have full access to the data. Work is currently underway to make the annual PDF report accessible.

An interactive map have also been developed using R Studio detailing distance to nearest ophthalmic practice at super output area. Further breakdowns of the data are available on request and contact details for this have been provided in the main report.

More detailed user notes are provided in the Publication notes in the annual report and on a separate tab in the Excel/CSV tables which accompany the main report. All of this is then supplemented by the information contained in this Background Quality Report and the Quality of Administrative Data ([QAAD](#)) assessment for Ophthalmic Statistics.

## Coherence and comparability

*Coherence is the degree to which data which have been derived from different sources or methods but refer to the same topic or similar. Comparability is the degree to which data can be compared over time and domain.*

## ***Coherence***

We are not aware of other sources of NI data relating to FPS Ophthalmic activity/payments covered neither by this report nor in respect of the primary care workforce. This, however, will be kept under review and the section will be expanded in the event that alternative data sources are identified.

## ***Comparability***

### ***Comparisons with England***

NHS Digital produces ophthalmic statistics on [activity](#). They did provide workforce statistics up until [2019](#).

Information on counts of ophthalmic activity – sight tests, vouchers and repairs – is available for England and is comparable to Northern Ireland data. It should be noted that on 23<sup>rd</sup> August 2018, the 2017/18 General Ophthalmic Services' activity statistics for England were amended due to data quality issues that meant the figures published originally were misleading. All data that refers to geographical breakdowns or eligibility criteria have been removed due to problems with the accuracy of the data.

In England opticians are either classified as Optometrists or OMPs.

### ***Comparisons with Wales***

Welsh Government ophthalmic statistics on activity and workforce are available [here](#). Ophthalmic data for Wales is paid and produced in the same way as the English data and therefore has all the same issues as above.

### ***Comparisons with Scotland***

Public Health Scotland (PSD) provides information on activity and workforce, which is available [here](#).

Information on counts of ophthalmic activity – sight tests, vouchers and repairs – is available for Scotland. However it should also be noted that, unlike Northern Ireland, everyone in Scotland is entitled to a free sight test every 2 years and those in certain

groups (Children <16 years, Patients >60 years, Patients with Diabetes, Patients with Glaucoma and Patients >40 years, closely related to someone with Glaucoma) are eligible for an annual test. Therefore there will be much higher sight tests in Scotland than Northern Ireland.

Information on the comparability of workforce figures is currently unavailable. This will be investigated further and included in future updates if available.

## **Trade-offs between output quality components**

*This dimension describes the extent to which different aspects of quality are balanced against each other.*

The main trade-off in the report is the balance between timeliness and data quality. The data are derived from a live payment system which is constantly being updated so a decision needs to be made as to when to extract the frozen data files on which to produce the official statistics. The longer this is left the more accurate will be the final data (as it provides more time for post-hoc payment and other adjustments) but as a consequence will be less timely.

In respect of the annual report, the data will be extracted to a frozen file around 4 weeks after the year end. This should then allow for production of the finalised statistics report within three months of the year-end to which they relate. The frozen file will only then be revisited should any significant data quality issues come to light (resulting in the need for the statistical publications to be revised).

The quarterly tabular updates are produced to a quicker timeline, aiming to release the statistics within two months of the quarter end payment. Currently the timeframe is about 5-6 weeks from when the quarter end payment takes place. These will hence have a provisional status to allow more time for not only adjustments to the most recent month but also any subsequent adjustments that may be required later in the year. The in-year quarterly data will be finalised following the production of the annual report.

The need for the provisional status attached to the quarterly updates will continue to be monitored based on the magnitude of the resultant year end revisions.

## **Assessment of user needs and perceptions**

*This dimension covers the processes for finding out about users and uses and their views on the statistical products.*

The Business Services Organisation's Information and Registration Unit conducted an online survey in February and March 2018, inviting users/potential users of summary statistics related to Primary Care Services to provide feedback. A follow up survey was conducted in March and April 2019.

The results of the surveys were used to inform the content of this publication including the type of data presented, style of presentation and statistical breakdowns. The reports summarising the results of this user engagement are published [here](#).

Statisticians in the Information Unit are regularly in contact with key users of the statistics. Initially the readership surveys were used to provide an overall assessment of whether user needs were being met. However the current approach employed is to undertake focused consultations with key users on a rolling basis. This approach helps to gain greater insight into how the statistics are used and to identify additional specific requirements. In addition, any ad hoc requests for information are recorded centrally in a database and these records are used to provide intelligence from a wider set of users in relation to changing requirements. User Engagement Action Plans, incorporating summaries of identified user requirements, together with their current status and timescales for addressing these needs are provided [here](#). These will be updated regularly as new user needs are identified or addressed as part of our ongoing programme of engagement.

To ensure that understanding of user needs is as up-to-date as possible, the FPS Information and Registration launched an online user survey in December 2021, closing in January 2022. Again the results of this will be analysed, with the findings published. Where appropriate and practical, the identified needs of users will be acted upon.

## Performance, cost and respondent burden

*This dimension describes the effectiveness, efficiency and economy of the statistical output.*

There is no respondent burden, since all of the data are extracted from existing BSO information and payments systems held on the HSCNI network. Additional sources such as the Central Postcode Directory and NISRA population data are available from organisational websites without the need for any intermediate intervention.

Over time, the production of the report tables will be further automated with data extracted directly to the Excel templates with minimal need for manual intervention.

Using the Information Unit's time recording system, the total cost in staff time of producing a quarterly report is estimated at £1,000, while the total cost in staff time of producing the annual report and associated outputs is estimated at £9,500.

## Confidentiality, transparency and security

*The procedures and policy used to ensure sound confidentiality, security and transparent practices.*

Data used to produce this report has been processed on PCs/laptops/servers connected to HSCNI network and are protected as per the [HSC ICT Security Policy](#).

Suppression has been applied where the number of cases in a cell containing personal information could identify individuals. This is described in table footnotes where applicable. Where necessary, additional values will be hidden to avoid disclosure of suppressed counts.

Within the Information Unit, access to data is only provided to those staff involved in the production of the reports.

## Responsible Statisticians

All queries relating to individual publications should be addressed to the statistician responsible for overseeing their preparation. The responsible statistician for FPS ophthalmic statistics is:

**Dental and Ophthalmic**

Jennifer McCrea

[Jennifer.McCrea@hscni.net](mailto:Jennifer.McCrea@hscni.net)