



Background Quality Report:

Northern Ireland Prescription Cost Analysis



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Version History

| Version | Date Issued | Summary of Changes |
|---------|-------------|--------------------|
| 1.0 | Apr 2019 | Initial Version |

Introduction

This document constitutes a data quality report for the Northern Ireland Prescription Cost Analysis.

This report is derived from administrative data from the Family Practitioner Services Payment Systems for Pharmaceutical Services and has been compiled and quality assured by FPS Systems Analysts and Statisticians.

<http://www.hscbusiness.hscni.net/services/1806.htm>

Context

The Northern Ireland Prescription Cost Analysis is a summary of prescribing information for prescriptions issued in Primary Care in Northern Ireland in a calendar year.

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

Purpose of this document

This document aims to provide users with an evidence based assessment of the quality of data held within the Northern Ireland Prescription Cost Analysis by reporting against the nine European Statistical System (ESS) quality dimensions¹ 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 Statistics², 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.

¹ The original quality dimensions are: relevance, accuracy and reliability, timeliness and punctuality, accessibility and clarity, and coherence and comparability; these are set out in Eurostat Statistical Law. However more recent quality guidance from Eurostat includes some additional quality principles on: output quality trade-offs, user needs and perceptions, performance cost and respondent burden, and confidentiality, transparency and security.

² UKSA Code of Practice for Statistics: <http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html>

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.

This is the Prescription Cost Analysis, published annually, which summarises all prescription items dispensed in Northern Ireland for the previous calendar year at drug level. This publication is considered to be of particular interest to commissioners and policy makers to monitor levels of medicine use and cost. However, data and findings are likely also to be of interest to a much broader base of users.

Accuracy and reliability

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

Accuracy

Pharmaceutical Payment Information

All information is based on data collected during the pharmaceutical payment process where prescriptions have been submitted to BSO for reimbursement. Prescriptions are scanned and subject to a rigorous automatic and manual validation process to ensure accurate payments are made. If BSO identifies any errors made by the dispensing body in claiming for the pharmaceutical products and services, then these will be corrected in the next available payment month.

The figures used are collected as an essential part of the process of reimbursing dispensers (mainly pharmacists and dispensing doctors) for medicines supplied. All prescriptions which are dispensed in Northern Ireland need to be submitted to Family Practitioner Services within the HSC Business Services Organisation if the dispenser is to be reimbursed and so coverage should be complete. BSO Family Practitioner Services quality assures the data they provide, however due to the complex and manual processes involved there may be random inaccuracies in capturing prescription information which are then reflected in the data.

Reliability/known data quality issues

Pharmaceutical Payment Information

As there is a manual data entry element to this system then inevitably some small errors may occur in the data. BSO takes measures to minimise these errors.

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 Prescription Cost Analysis is published annually. The publication date is determined by the availability of the data from Family Practitioner Services allowing adequate time for the compilation of the report. In future releases the date of release will be scheduled for March and the date of release will be announced in advance.

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.

Accessibility

The report is presented in Excel.

The Excel tables will allow users to perform secondary analysis on the data and each set contains a separate tab with metadata.

Further breakdowns of the data are available on request and contact details for this have been provided in the main report.

Over time it is intended to produce the tables in CSV and other open data formats and to explore alternative formats for the main report itself.

Clarity

User notes provided as a separate tab in the Excel table.

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.

Comparability and Coherence

The PCA data records all prescriptions dispensed in Northern Ireland. These prescriptions will have been mostly written by general practitioners however the data includes information from other prescribers, including dentists and hospices. As such, it differs from the GP Prescribing Open Data where prescriptions written by other prescribers who are not GPs are not included.

There is a chance that users can misinterpret PCA data as relating to numbers of patients but care should be taken as PCA data relates to prescription items dispensed not individuals. One individual may have a prescription item, for the same medicine, dispensed a number of times over a year.

UK comparisons

Separate collections of PCA data are undertaken by Northern Ireland, Scotland and Wales and England. There are a number of important differences between the countries in the way that data measures are collected and classified, and because of differences between countries in the organisation of health and social services. For these reasons, any comparisons made between PCA data produced by different regions should be treated with caution.

Comparisons over time

Previous publications can be found at:

<http://www.hscbusiness.hscni.net/services/1806.htm>

Data from 2000 is available.

Changes to the figures over time need to be interpreted in the context of changes in available medicines and their cost, and changes in HSC practice. For example, a reduction in items dispensed for a particular medicine may be due to the introduction of alternative medicines, or a change in prescribing behaviour, especially in the length of treatment each item is intended to cover. All medicines are shown by their latest BNF classification.

Changes to clinical classifications

PCA uses the therapeutic classifications defined in the British National Formulary (BNF) using the classification system prior to BNF edition 70. Further information about these classifications, and changes to them, can be found at:

<http://www.bnf.org/bnf/index.htm> and <http://www.nhsbsa.nhs.uk/PrescriptionServices.aspx>

The latest pseudo BNF can be found at:

https://www.nhsbsa.nhs.uk/sites/default/files/2017-04/BNF_Classification_Booklet-2017_0.pdf

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. Sufficient time is allowed from the data being made available to allow for the information to be produced and quality assured.

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 (BSO's) Information Unit conducted an online survey inviting users/potential users of summary statistics related to Primary Care Services to provide feedback.

This exercise has been repeated again in 2019.

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

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.

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.

An estimate of the report cost will be included here once the report has been completed using the Unit time recording system. There will be initial development costs and then ongoing update and enhancement costs.

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](#).

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Responsible Producers

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