NHS
Business Services Authority

Statistics at NHSBSA
Public Consultation
Prescription Cost Analysis - England

Contents

Section 1: General Information

Consultation details

Issued: 21st December 2020

Respond by: 15th February 2021

Enquiries to: nhsbsa.statistics@nhs.net

Summary of consultation questions

A summary of the consultation questions can be found in appendix 1 of this document.

Territorial extent

This consultation related to statistics for England

How to respond

We encourage you to submit your responses by completing the online form available on the NHS BSA website.

You can take part in one of our Official Statistics user engagement events, the next of these is planned 1st of February 2021. Details of this can be found here.

You can also:

Email your responses to the consultation questions to the NHSBSA statistics mailbox (nhsbsa.statistics@nhs.net)

We are currently home working due to the COVID-19 pandemic so are unable to accept mail responses to the consultation questions.

When responding please state whether you are responding as an individual or representing the views of an organisation. Your response will be most useful if it is framed in direct response to the questions posed but further comments and evidence are also welcome.

Accessibility

We are committed to securing a breadth of interaction across the full spectrum of our customer/user base. We want to make this consultation as accessible as possible. If you require this document in an alternative format please contact us.

Confidentiality and data protection

All responses collected will be treated confidentially and data will be stored in line with the General Data Protection Regulation. Personal details of respondents will not be associated with any published results of the survey or shared with anyone outside of NHS BSA.

After the Consultation

We will publish a summary of the comments within one month after the consultation closes.

Section 2: Overview

The Prescription Cost Analysis (PCA) publication shows the total cost for drugs, dressings and appliances, and number of prescription items, for prescriptions that have been dispensed in the community in England.

This publication can have a wide range of uses including informing government policy, allowing public scrutiny of national prescribing habits, and use by industry to monitor uptake of proprietary presentations.

In 2020 the PCA England Statistics publication was migrated from NHS Digital to NHS BSA following a public consultation. The results of this consultation can be viewed on NHS Digital's website.

The NHSBSA Prescription Cost Analysis (PCA) - England Official Statistic release was assessed from April 2020 to October 2020 by the Office for Statistics Regulation (OSR) to determine if it fully complied with the Code of Practice for Statistics and met the highest standards of trustworthiness, quality, and public value.

OSR identified six requirements for us to address to make sure the high standards associated with National Statistics designation are met. An action plan has been created that outlines how the NHSBSA Official Statistics team proposes to achieve the requirements set out in the OSR assessment by February 2021. This will allow OSR to recommend to the UK Statistics Authority (UKSA) that National Statistics status for these statistics is confirmed.

Following the successful migration, the NHS BSA are now proposing a number of changes and improvements to the PCA England publication which could be implemented in the 2021 release. Through this consultation, NHS BSA is seeking responses on the proposed changes which are set out in Section 5 of this document.

The NHS BSA are also aware that they do not have full sight of the use of the PCA England statistical release and may not be aware of all the users of this publication. This consultation also welcomes evidence on the users and uses of the PCA England release.

Section 3: Background

1. The PCA England Publication

The Prescription Cost Analysis (PCA) publication shows the total cost for drugs, dressings and appliances, and number of prescription items, for prescriptions that have been dispensed in the community in England. These statistics are designed to be able to be used to give the total number of items and spend for any individual presentation, or at any other level of the British National Formulary (BNF) hierarchy, for example, antibacterial drugs or antidepressant drugs. They can also be used to give the proportion of prescription items and spend that are prescribed and dispensed generically.

This publication can have a wide range of uses including informing government policy, allowing public scrutiny of national prescribing habits, and use by industry to monitor uptake of proprietary presentations.

2. Processing of Prescription Data

A prescription goes through a number of stages before the data extracted from it ends up in our administrative data warehouse and subsequently in this publication.
The prescription starts its journey when being issued by a GP, nurse or other authorised prescriber within a care setting. A prescription can be issued in paper form or as an electronic prescription via the Electronic Prescription Service (EPS). At the time of publishing, EPS prescription items now account for over 75% of all prescription items.

This prescription is then taken, or in the case of EPS sent, to a dispensing contractor to be dispensed. A contractor submits their prescriptions at the end of every month for reimbursement to the NHS Business Services Authority (NHSBSA), for EPS a contractor submits their electronic messages to the NHS Spine maintained by NHS Digital, and from there it is sent to the NHSBSA for processing.

Once received by the NHSBSA paper prescriptions are scanned and transformed into digital images, which are then passed through Intelligent Character Recognition (ICR) to extract data from the paper form. Most paper forms go through ICR without any manual intervention. However, there are cases when operator intervention is required in order to accurately capture the relevant information from the prescription form. This manual intervention can be required for a multitude of reasons, such as if a form is handwritten or information is obscured by a pharmacy stamp.

All prescription data, paper and electronic, is processed via the Capacity Improvement Program (CIP) database. This is the main transactional database for all prescription data that is used for the reimbursement of dispensing contractors. Data is then passed to payment systems to calculate the final payments that are to be made to dispensing contractors. Prescription data is also extracted from CIP and loaded into the NHSBSA Information Services Data Warehouse. During this extract, transform and load (ETL) process business logic is performed on the raw transactional data to transform it into

easier to use information for NHSBSA information systems. The data held in the NHSBSA Information Services Data Warehouse then has further business logic applied to it, explained in the methodology below, to form the tables that are used in these statistics.

3. Previous Consultation

In 2019 NHS Digital held a public consultation on a series of proposed changes to the Prescribing and Medicines statistical outputs. The changes included the migration of a number of statistical releases, including the PCA England Statistics, from NHS Digital to NHS BSA. The results of the consultation showed PCA England Statistics to be one of the most popular publications and identified that it supports a range of uses. Respondents to the consultation were supportive of the move of this publication to the NHS BSA for 2020.

Since then, NHS Digital and NHS BSA worked together to ensure the initial migration went smoothly and PCA England 2019 was published by the NHS BSA in April 2020.

Now that the initial migration process has taken place NHS BSA are seeking users views on a series of proposed changes to be implemented in the 2021 PCA England release. This includes some of the additional changes that users suggested during the 2019 consultation as well as improvements to methodology.

Section 4: Current methodology of the PCA England publication.

Current Methodology

Generic (unbranded) prescribing is encouraged and many drugs are now prescribed generically even when they are not available in generic form. Within PCA data prescriptions for drugs are classified in four ways:

Preparation class 1 – Drugs prescribed and available generically.

Preparation class 2 – Drugs prescribed generically but only available as a proprietary product.

Preparation class 3 – Drugs prescribed and dispensed by proprietary brand name.

Preparation class 4 – Dressings, appliances and medical devices.

In 2019, 84% of all prescription items dispensed in England in 2019 were prescribed generically. However, some presentations can be prescribed generically where an actual generic does not exist, these presentations are given a preparation class of 2, which describes them as a drug able to be prescribed generically but only available as a proprietary presentation. In order to represent these preparation class 2 presentations more in real world terms the NHSBSA have applied an apportionment methodology to the data to share items prescribed in this manner across their proprietary equivalents. This methodology is used as the NHSBSA is unable to determine the presentation that has actually been dispensed by the dispensing contractor and therefore cannot be certain what proprietary drug has been issued in these instances.

A generic preparation class 2 presentation with only one proprietary preparation class 3 equivalent will have all generic items and costs assigned to the proprietary presentation, even if there has been no prescribing for the proprietary presentation.

Where a preparation class 2 presentation has multiple preparation class 3 equivalents an apportionment of the generic items and costs has occurred across all of the proprietary drugs that have also had prescribing occur. This apportionment is based on the proportion of prescribing that each proprietary presentation is responsible for. Due to this apportionment a presentation may be reported as having a fraction of items dispensed where this has not occurred, for example, 10.5 or 16,567.7.

For preparation class 1 presentations the NHSBSA is also unable to determine the supplier of the actual generic product that was dispensed. Sometimes a presentation is prescribed as an actual generic presentation rather than its virtual equivalent, with a supplier listed. Where this has occurred, we have aggregated all data under the virtual preparation class 1 record.

Presentations can change preparation class throughout the year e.g. if a presentation is no longer on patent and generic versions are able to be produced the drug would change from class 2 to class 1. New drugs are expensive to develop; therefore, when a new medicine comes to market they are initially available as proprietary products only, exclusively from the pharmaceutical company that developed them with a higher price for a number of years. This is known as being ‘in patent’.

To avoid disaggregation of data these statistics use the latest preparation class of each presentation available within the dataset i.e. from December or the latest month the presentation was a valid prescribable product. NHSBSA Information services releases an administrative data feed of monthly Prescription Cost Analysis data. The monthly Prescription Cost Analysis data files available on the NHSBSA website use the preparation class of the drug as it was at the end of the month the data relates to.

Examples of methodology in practice

Following are some generalised examples of the apportionment methodology:

A generic preparation is prescribed which is a class 2 presentation, and where there is only one proprietary equivalent

Generic drug A is a preparation class 2 presentation with only one preparation class 3 equivalent, proprietary drug A. 80% of prescription items have been prescribed generically, with the remaining 20% prescribed as the proprietary presentation, we have then apportioned all items and costs for the generic presentation to the proprietary presentation in these statistics.

Table 1a: Raw data before apportionment applied – one to one mapping

Presentation	Preparation Class	Items	NIC (£)
Generic drug A (e.g. Paracetamol 500mg tablets)	02	80,000	120,000.00
Proprietary drug A (e.g. Panadol Advance 500mg tablets)	03	20,000	30,000.00

Table 1b: Data after apportionment applied, as displayed in these statistics – one to one mapping

Presentation	Preparation Class	Items	Items (of which class 2)	NIC (£)	NIC (£) (of which class 2)
Proprietary drug A (e.g. Panadol Advance 500mg tablets)	03	100,000	80,000	150,000.00	120,000.00

Generic preparation class 2 presentation with multiple proprietary equivalents

Generic drug B is a preparation class 2 presentation with three preparation class 3 equivalents, proprietary drugs B1, B2 and B3. 50% of prescription items have been prescribed generically with the remaining 50% prescribed between the proprietary presentations. We have then apportioned the generic items between these proprietary presentations based upon the percentage share they have of the remaining prescribed items.

Table 2a: Raw data before apportionment applied – one to many mapping

Presentation	Preparation Class	Items	NIC (£)
Generic drug B	02	500,000	1,000,000.00
Proprietary drug B1	03	250,000	500,000.00
Proprietary drug B2	03	150,000	300,000.00
Proprietary drug B3	03	100,000	200,000.00

Table 2b: Data after apportionment applied, as displayed in these statistics – one to many mapping

Presentation	Preparation Class	Items	Items (of which class 2)	NIC (£)	NIC (£) (of which class 2)
Proprietary drug B1	03	500,000	250,000	1,000,000.00	500,000.00
Proprietary drug B2	03	300,000	150,000	600,000.00	300,000.00
Proprietary drug B3	03	200,000	100,000	400,000.00	200,000.00

Current Geographical breakdown(s)

The release shows the total cost for drugs, dressings and appliances, and number of prescription items, for any individual presentation, or at any other level of the British National Formulary (BNF) hierarchy at a national level for England only.

Current drugs, dressings and appliance classification

These statistics use the therapeutic classifications defined in the British National Formulary (BNF) using the classification system prior to edition 70 for drugs. NHS Prescription Services have created pseudo BNF chapters for items not included in BNF chapters 1 to 15. Most of these items are dressings and appliances, which have been classified into six pseudo BNF chapters (18 to 23).

These statistics use the preparation class of a drug or appliance as it was in the latest month that is in the data. For example, if a drug changed from class 2 to class 1 during the year, all data would be displayed against the class 1 record.

Current time periods

These statistics are published by calendar year.

Section 5: How PCA England will change

New methodology

The NHSBSA proposes to change the methodology that is used to distribute generic prescription items with a preparation class of 2 amongst its proprietary equivalents. Instead of apportioning these items, further data already captured as part of normal prescription processing would be used to identify the correct proprietary product that data should be displayed against. It should be noted that this methodology is still an approximation of the actual medicinal product that has been dispensed, but we believe this change will be a more accurate reflection of real world conditions and will also align PCA with reimbursement policy set out by the Department of Health and Social Care (DHSC).

We have consulted the Methodology Advisory Service (MAS) at the Office for National Statistics (ONS), one of the UKs leading providers of methodological advice, about these proposed changes. MAS have commented that the changes are “deemed to be a sensible improvement on the existing approach”.

Generic preparation class 2 presentation with single proprietary (class 3) equivalent (one to one mapping)

As with the current methodology, all items and costs prescribed generically will be reported against the proprietary presentation. See table 1a and 1b for an example of this.

Generic preparation class 2 presentation with multiple proprietary (class 3) equivalents (one to many mapping)

For these presentations we will use the reimbursement price as held within our systems for that month to match to the cost that we have reimbursed the dispensing contractor. Where a unique relationship can be determined all items and costs will be attributed to the matched proprietary presentation.

For example, Generic drug B has a preparation class of 2 with three equivalent proprietary presentations:

Table 3a: Example of reimbursement prices, unique relationship

Presentation	Preparation Class	Reimbursement Price (p)
Generic drug B	02	586
Proprietary drug B1	03	586
Proprietary drug B2	03	657
Proprietary drug B3	03	845

Only 1 Proprietary presentation has a reimbursement price that matches what we have reimbursed the dispensing contractor, therefore all items and costs that were reimbursed at that price will be displayed against the record for Proprietary drug B1.

If a unique relationship cannot be established, that is if a generic presentation has more than one proprietary equivalent with the same reimbursement price for that month, then further information is used to try and determine which proprietary product was dispensed. It is possible to use the endorsement field sent within the electronic message for EPS prescriptions to try and determine which of the proprietary presentations was dispensed.

For example, Generic drug C has a preparation class of 2 with three equivalent proprietary presentations, two of which have the same reimbursement price:

Table 3b: Example of reimbursement prices, non-unique relationship

Presentation	Preparation Class	Reimbursement Price (p)
Generic drug C	02	255
Proprietary drug C1	03	255
Proprietary drug C2	03	255
Proprietary drug C3	03	305

Here we are unable to establish a unique relationship and so look at the endorsement field in the EPS message for the item. Here the dispensing contractor has endorsed that they have dispensed Proprietary drug C2, therefore all items and costs will be displayed against the record for Proprietary drug C2.

In cases where it is not possible to establish a unique relationship using the above method, or for paper prescriptions, we will report data against the record for the generic preparation class 2 record, as we are unable to reliably determine the actual presentation that has been dispensed.

The proposed change in methodology would mean a change to the way that data is displayed within Prescription Cost Analysis statistics, moving from data as displayed in table 2b to the below:

Table 3c: Data after new methodology applied

Presentation	Preparation Class	Items	NIC (£)
Generic drug B	02	100,000	200,000.00
Proprietary drug B1	03	650,000	1,300,000.00
Proprietary drug B2	03	150,000	300,000.00
Proprietary drug B3	03	100,000	200,000.00

New geographical breakdowns

The NHSBSA also proposes to expand the geographical breakdowns that are provided as part of the PCA publication. Currently PCA data is only released at a national level for England. We believe there would be added value by including

additional geographical breakdowns in the statistical release; these include breakdowns by administrative boundaries and health geographies.

The level of the geographical breakdowns will be determined by a disclosure control assessment.

New drugs, dressings and appliance classification

These statistics will continue to use the therapeutic classifications defined in the British National Formulary (BNF) using the classification system prior to edition 70 for drugs alongside the pseudo BNF chapters for items not included in BNF chapters 1 to 15 created by NHS Prescription Services.

NHSBSA would like to understand if releasing these statistics with additional drug and appliance classifications included, such as SNOMED and ATC codes, would be useful to our users.

NHSBSA propose to change how the preparation class of a drug or appliance is displayed in PCA data. Instead of assigning all data to the latest preparation class that a drug or appliance has, NHSBSA propose to show changes in preparation class throughout the year. This could result in multiple rows per drug or appliance.

New time periods

NHSBSA would like to understand the usefulness of publishing PCA statistics for financial years alongside calendar years. This would result in the date of publication for the statistics moving to later in the year.

Section 6: Secondary care prescribing data

NHSBSA currently hosts and publishes Secondary Care Medicines Data (SCMD) on behalf NHS England and Improvement (NHSE&I). This contains processed pharmacy stock control data in Dictionary of Medicines and Devices (dm+d) standardised format from all NHS Acute, Teaching, Specialist, Mental Health and Community Trusts in England. NHSBSA is currently working to add the indicative cost of the medicines issued to this release.

For more information on SCMD visit our Open Data Portal. Work is underway to add in a cost figure to this monthly dataset soon.

To avoid duplication and confusion amongst users of potentially different costs associated with different data sources the NHS Digital experimental Official Statistic release on Prescribing Costs in Hospitals and the Community release will transition to the NHS BSA in 2021.

NHSBSA would like to understand the usefulness of including Secondary Care Medicines Data in future annual PCA releases. This will help NHSBSA determine if multiple publications are required for these statistics.

Section 7: Contact us

Feedback is important to us; we welcome any questions and comments relating to this document.

Please quote ‘Public Consultation Prescription Cost Analysis – England’ in the subject title of any correspondence.

You can contact us by:

Email: nhsbsa.statistics@nhs.net

Telephone: 0191 203 5050

Appendix 1: Summary of the consultation questions

- Do you support these proposed methodological changes to eh PCA National Statistic publication?
- On a scale of 1 to 7, 7 being extremely useful and 1 being not at all useful, how useful do you think these methodological changes to PCA data will be to you?
- On a scale of 1 to 7, 7 being extremely positive and 1 being extremely negative, what impact do you think these changes will have on you use of PCA data?
- On a scale of 1 to 7, 7 being extremely useful and 1 being not at all useful, how useful do you think expanded geographical breakdowns, such as by administrative boundaries or health geographies, would be to you?
- On a scale of 1 to 7, 7 being extremely positive and 1 being extremely negative, what impact do you think expanded geographical breakdowns will have on your use of PCA data?
- Which geographical breakdowns would you be interested I seeing included in the PCA data?
- On a scale of 1 to 7, 7 being extremely useful and 1 being not at all useful, how useful do you think additional drug classifications, such as SNOMED CT or ATC codes, would be to you?
- On a scale of 1 to 7, 7 being extremely positive and 1 being extremely negative, what impact do you think additional drug classifications would have on your use of PCA data?
- Which additional drug classifications would you be interested in seeing included in future PCA releases?
- On a scale of 1 to 7, 7 being extremely useful and 1 being not at all useful, how useful do you think displaying changes in preparation class throughout the year, would be to you?
- On a scale of 1 to 7, 7 being extremely positive and 1 being extremely negative, what impact do you think displaying changes in preparation class throughout the year would have on your use of PCA data?
- On a scale of 1 to 7, 7 being extremely useful and 1 being not at all useful, how useful would including financial year in PCA data be to you?

- On a scale of 1 to 7, 7 being extremely positive and 1 being extremely negative, what impact would the inclusion of financial year have on your use of PCA data?
- Is there any other information or analyses that aren't currently in the PCA data that you would like to be included?
- Are there any other ways that you think the PCA publication could be improved?

END.