

# Statistics at NHSBSA Prescribing for Diabetes – England

Background information and methodology

November 2020

# Document release note

Document name: Prescribing for Diabetes – Background Information and Methodology

Statistic publ	ication.	 scribing fo	or Diabetes	forn	nation and ir gy methodol		
Revision details revision number	Revision date	vision Pag scription r			Previous page number	Action taken	Addenda / new page

## Document details name Version number Description

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## About this document

This document is intended to provide detailed information about prescription data, including the processes carried out to transform a prescription issued by a prescriber and submitted for reimbursement by dispensing contractor, into these statistics. This document also provides information on the methodologies used in these statistics and used in an operational context to ensure the accuracy and trustworthiness of these data.

This document will be updated as the statistical methodologies and underlying business processes change over time; it will remain relevant to the most up to date releases of the series.

## About these statistics

The Prescribing for Diabetes annual publication show the volumes of prescription items and unique patients for a subset of drugs that have been classified as being used primarily for the treatment of diabetes. These drugs are described by the British National Formulary (BNF) sections:

BNF section 6.1.1 – Insulin

BNF section 6.1.2 – Antidiabetic drugs

BNF section 6.1.4 – Treatment of hypoglycaemia

BNF section 6.1.6 – Diabetic diagnostic and monitoring agents

These sections are held in the same structure of the BNF prior to the release of version 70.

These statistics also include breakdowns of prescribing by age band, sex, and the Index of Multiple Deprivation (IMD).

This publication can have a wide range of uses including informing government, or local NHS policy, and allowing public scrutiny of national and regional prescribing habits.

# 1. Background information

## The prescription journey

A prescription goes through several 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 it is issued by a GP, nurse or other authorised prescriber. The prescription can be issued in paper form or as an electronic prescription using the Electronic Prescription Service (EPS). At the time of publishing, EPS prescription items account for approximately 89% of all prescription items1. This prescription is then taken, or in the case of EPS sent, to a dispensing contractor to be dispensed. The contractor submits their prescriptions at the end of the month to the NHS Business Services Authority (NHSBSA) to calculate how much money they should be reimbursed for the dispensed prescriptions. EPS prescriptions are transmitted as electronic messages using the NHS Spine maintained by NHS Digital, and from there are 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 where a prescription form is reviewed by a human operator to accurately capture the relevant information from the prescription form. This manual intervention can be required for many reasons, such as if a form is handwritten or information is obscured by a pharmacy stamp.

All data from both paper and electronic prescriptions, is processed by the NHSBSA's Capacity Improvement Program (CIP) database. This is the main transactional database that is used for calculating the reimbursement of dispensing contractors. Data is then passed to the Dedicated Payment of Contractors (DPC) database to calculate the final payments that are to be made to dispensing contractors.

Prescription data is extracted from CIP and loaded into the NHSBSA Data & Insight Data Warehouse from where it can be analysed and processed into management information, administrative data feeds, and be used to produce Official Statistics.

## Personal Demographic Service data

The Personal Demographic Service (PDS) is a part of NHS Digital that holds information that allows healthcare professionals to identify patients and match them to their health records. This includes information such as NHS number, date of birth, gender, registered address and registered GP practice.

Each month when data is loaded into the NHSBSA Data & Insight Data Warehouse, NHS numbers that have been captured are sent to PDS to verify them. That list includes all NHS numbers that were scanned in that month and previously verified NHS numbers that have a birthday in that month. Details held by PDS are returned to the NHSBSA, including updates to previously verified NHS numbers.

<sup>&</sup>lt;sup>EPS</sup> utilisation figures are published within the EPS Dashboard available on the NH<del>S BSA website.</del> August 2020 utilisation figure, published in October 2020, is 88.68% for England.

As this process takes time, new and updated verified data from PDS is loaded in to the NHSBSA Data & Insight Data Warehouse the month after the NHS numbers were first scanned. For example, a new NHS number received in January and subsequently verified would be classed as 'not verified' in January and 'verified' in February. In February the additional information about that patient such as gender and age would become available.

# 2. Methodology

## Data included

The data used in this publication includes prescriptions presented for payment to the NHSBSA in the month the prescription was presented for payment. This excludes items that have been disallowed, not dispensed or items returned-back to the dispenser before payment can be made. Items that were prescribed but not presented for dispensing, private prescriptions or not submitted to NHS Prescription Services by the dispenser are not included. This data includes all prescriptions dispensed in the community including those prescribed from hospitals but does not include items dispensed in hospitals or in prisons.

Throughout the publication, the term patient is used to refer to an individual with a distinct

#### NHS

number as this only includes those who have received a clinical interaction with dispensing within the financial year – there will be more people with diabetes who do not receive any medications and manage their diabetes through diet and exercise alone. Those people are not included in the reported figures of patients.

As this data looks at all community dispensing, the figures may differ slightly from previous versions. Users should always use the figures in the latest publication to ensure they are the post units date figures available.

In order to report a patient's age consistently across a financial year these statistics classify a patient based on their age at the 30th September of the given financial year. This uses information from PDS for verified NHS numbers only. Information relating to NHS numbers that have not been verified by PDS are displayed in these statistics under the 'Unknown' age band.

There are some inconsistencies within the PDS data that is held within the NHSBSA Data & Insight Data Warehouse. These occur when a patient has had their information updated and can hold more than one date of birth. In these instances, multiple counting can occur for patients, although this is estimated to only affect a very small number of patients. We are investigating methodologies to reduce the impact of these inconsistencies.

## Patient gender/sex

The NHSBSA does not capture information relating to a patient's sex or gender from a prescription during processing activities. Gender is instead obtained from the PDS. Therefore, gender information is only available for patients that we have been able obtain a matched NHS number for. It should be noted that this definition does not conform to the latest national standards for data reporting. Therefore, we use the terms gender and the classifications of male and female as stored in our historic data.

In these statistics this gender information has been more accurately referred to as patient sex in the statistical summaries and statistical summary tables.

A patient is classified in one of four ways for gender by PDS:

0 – Unknown

- 1 Male
- 2 Female

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9 – Indeterminate (unable to be classified as either male or female)

The NHSBSA also codifies gender for patients where we have been unable to match their NHS number to PDS as 'Unknown'.

In these statistics patients that hold a gender of 0 – unknown and 9 – indeterminate have been grouped together into a single category.

A patient's gender may change over time due to several reasons. Therefore, in these statistics it is possible for a patient to be recorded against multiple genders.

## Patient deprivation

The English Indices of Deprivation 20192 have been used in these statistics as a measure of the level of deprivation of the areas in which prescriptions have been issued. The headline Index of Multiple Deprivation (IMD) is included as a measure of deprivation. IMD data has been joined to the National Statistics Postcode lookup (NSPL) UK May 2020 release using lower super output area (LSOA) 2011. This combined dataset has then been joined to prescription data using the postcode of the prescribing organisation that issued the item. The LSOAs are analysed in groups, or 'deciles' each representing 10% of the areas from the deprivation scores, from the least to the most deprived. The measure of deprivation reported in these statistics is the IMD decile of the area in which the prescribing organisation is located.

Where a practice or other prescribing organisation has closed, the latest postcode held on record for that organisation has been used to assign an IMD decile.

Where a prescribing organisation's postcode has not been able to be matched to NSPL or the prescriber has not been identified, the records are reported as 'unknown' IMD decile.

## Costs per patient

Where costs have been calculated per patient, this has been by taking the Net Ingredient Cost (NIC) associated with identified patients and dividing them by the number of identified patients. This excludes costs that are not linked to an identified patient to prevent overestimation of this metric. Using all costs by identified patients would result in an increase of between 0.4% and 3.9% per CCG, though this is typically around 1.1%.

The Net Ingredient Cost is the basic cost of a drug used in primary care and does not include any other costs such as dispensing costs, fees or prescription charge income so will not represent the total price paid by the NHS. The NIC is used in reporting as it standardises costs for prescribing nationally allowing comparisons to be made.

Previous publications have used patient counts based on the Quality and Outcomes

Framework (QOF). Participation in QOF is voluntary, though participation rates are very high at 96.2% of General Practices in England in 2019/20. The QOF only include patients age 17 or over but do include patients who are not actively receiving treatment for their conditions. Using the QOF register resulted in an average cost of drugs per patient for 2018/19 ranged between £208.07 and £587.12; using the number of patients receiving medicines resulted in costs between £255.82 and £457.25. As the new measure uses the number of people who actually received medications we believe this is a more accurate reflection of costs per patient

<sup>2</sup> 

https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019

as it includes all ages and only looks at the costs for those with clinical input, excluding patients who are able to manage their diabetes effectively through diet and exercise alone.

## Changes to BNF classifications

These statistics use the BNF therapeutic classifications defined in the British National Formulary (BNF) using the classification system prior to BNF edition 70. Each January the NHSBSA updates the classification of drugs within the BNF hierarchy which may involve some drugs changing classification between years of Prescribing for Diabetes data. The NHSBSA publishes the latest BNF information each year via its information systems. This is currently done via the Information Services Portal (ISP).

## Patient counts

The patient counts shown in these statistics should only be analysed at the level at which they are presented. Adding together any patient counts is likely to result in an overestimate of the number of patients. A person will be included, or counted, in each category or time period in which they received relevant prescriptions. For example, if a patient received a prescription item of insulin in 2018/19, and another in 2019/20 then adding together those totals would count that patient twice. For the same reason, data on patient counts for different BNF sections should not be added together.

## Geographies included in this publication

The patient deprivation measures given in these statistics are based upon the LSOA of the postcode of the prescribing organisation as matched to the August 2020 NSPL file. However, higher geographies included in the statistical summary tables of this publication, such as CCG and NHS England Region use NHSBSA administrative records, not geographical boundaries and more closely reflect the operational organisation of practices than other geographical data sources. Due to the way data is processed, the cost per patient will be affected by patients who move CCG within the financial year. This is believed to affect around 2% of patients in 2019/20.

## Index of deprivation

IMD deciles are calculated by ranking the LSOAs from most deprived to least deprived and dividing them into 10 equal groups. These range from the most deprived 10% (decile 1) of small areas nationally to the least deprived 10% (decile 10) of small areas nationally.

Rates per IMD decile are calculated by using the mid-year population estimates for England to count the estimated number of people in an IMD decile. The number of patients per decile is then divided by this population figure to give a comparable rate across deciles no matter how big or small they are. This allows us to compare the number of people receiving diabetes medications by deprivation.

# 3. Strengths and Limitations

## Strengths

The main strength of these statistics is the completeness of the dataset and accuracy of information captured during processing activities carried out by the NHSBSA. This dataset covers all prescribing that has been dispensed in the community in England, with consistency in the way data has been captured applied across the whole dataset. All data has come from the same administrative source. This administrative data is required to be as accurate as possible as it is used pay dispensing contractors for services provided to NHS patients.

Prescribing for diabetes is the latest publication to include patient level information following the release of the Medicines Used for Mental Health by the NHSBSA. This is the first time that patient information has been released as part of these statistics, giving greater insight into how diabetes is treated in England.

#### Limitations

These statistics exclude prescriptions that were issued but were not presented for dispensing and prescriptions that were not submitted to the NHSBSA for processing and reimbursement. Prescriptions issued and dispensed in prisons, hospitals and private prescriptions are also not included as only a limited amount of this data is held by the NHSBSA. Some treatment for diabetes may be given in hospitals either as the reason for admission or whilst in for another condition, and so the data presented does not cover the entirety of treatment for diabetes.

The NHSBSA does not capture the clinical indication of the prescription. Whilst the primary therapeutic indication of the included medications is for diabetes, they can be used for other conditions as well. For example, antidiabetic drug metformin is used to treat infertility caused by polycystic ovarian syndrome (PCOS). We cannot determine the reason the prescription was issued and so examples such as this will be included in the data. Furthermore, while those with type 1 diabetes are typically prescribed insulin this can also be prescribed to those with type 2 diabetes. Therefore, we are unable to distinguish between patients with type 1 or type 2 diabetes and drug types should not be used as a proxy for diabetes type.

Patients may move categories across or within financial years – for example, moving between different CCGs. Because of this, patient counts should not be aggregated to any other level than that which they are presented to prevent double counting.

## 4. Revisions

Any revisions that we make to these statistics will be made in line with our <u>Revisions and</u> <u>Corrections Policy</u>. Any significant errors that are identified within these statistics after their publication that would result in the contradiction of conclusions previously drawn from the data will be; displayed prominently on our website and any other platforms that we use to host these statistics; corrected as soon as possible; and communicated clearly to users and stakeholders.

## 5. Quality of the statistics

We aim to provide users of this publication with an evidence-based assessment of its quality and of the quality of the data from which it is produced. We do so to demonstrate our

commitment to comply with the UK Statistics Authority's Code of Practice for Statistics, particularly the pillar of Quality, and its principles that:

Q1 Suitable data sources – Statistics should be based on the most appropriate data to meet intended uses. The impact of any data limitations for use should be assessed, minimised and explained

Q2 Sound methods – Producers of statistics and data should use the best available methods and recognised standards and be open about their decisions.

Q3 Assured quality – Producers of statistics and data should explain clearly how they assure themselves that statistics and data are accurate, reliable coherent and timely.

Details of how we define statistical quality can be found in our Statement on Statistical

#### Quality:

Guidelines for Official and National Statistics. This is an assessment of the quality of these statistics against the European standard for quality reporting and its dimensions specific to statistical outputs, particularly:

Relevance Accuracy and reliability Timeliness and punctuality Accessibility Coherence and comparability

These principles guide us and are complimented by the UK Statistics Authority's Regulatory Standard for the quality assurance of administrative data.

#### Relevance

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

The Prescribing for Diabetes publication released annually, summarises the number of items prescribed for drugs and appliances related to diabetes. The statistics also give patient breakdowns including by 5-year age band, gender, and IMD decile. These statistics cover from financial year 2015/16 onwards, allowing the analysis of long-term trends in prescribing. We believe that they can used to inform policy decisions at a national and local level, by the public to scrutinise prescribing habits, and by academia and applied health researchers for matters relating to public health. The NHSBSA also routinely receives Freedom of Information requests and parliamentary questions about this subject matter.

We will be gathering feedback from users of these statistics on an on-going basis to help shape them and ensure that they remain relevant and of use.

#### Accuracy and reliability

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

#### Accuracy

These statistics are derived from data collected during processing activities carried out by the NHSBSA to reimburse dispensing contractors for providing services to NHS patients.

Prescriptions are scanned and subject to rigorous automatic and manual validation processes to ensure accurate payments are made to dispensing contractors. Where electronic prescriptions are used the scope for manual intervention and input into data is reduced.

The figures used are collected as an essential part of the process of reimbursing dispensing contractors (mainly pharmacists and dispensing doctors) for medicines supplied. All prescriptions which are dispensed in England need to be submitted to NHS Prescription Services within the NHSBSA if the dispenser is to be reimbursed, and so coverage should be complete. NHS Prescriptions Services internally quality assures the data that is captured from prescriptions to a 99.60% level via a statistically valid random sample of 50,000 items that

reprocessed on a monthly basis. The latest reported Prescription Processing Information <u>Accuracy</u> from NHS Prescriptions services, which covers the 12 month period August 2019 to July 2020 is 99.81%. Due to the manual processes involved in the processing of prescriptions there may be inaccuracies in capturing prescription information which are then reflected in the data.

#### Reliability

As there is a manual data entry element to this system then inevitably some small errors may occur in the data. The NHSBSA and NHS Prescription Services take measures to minimise these errors. This includes the presence of a permanent dedicated accuracy team within NHS Prescription services which provides feedback to operators around any errors identified to help prevent regular occurrence.

## 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 Prescribing for Diabetes publication is published annually. The publication date has historically been in November to coincide with World Diabetes Day on the 14th November. Data is usually available around six weeks after the end of the month that the data relates to, and so there is scope for this publication to be moved to earlier in the calendar if there is a user need identified. The date of release for the annual publication will be announced in advance in line with our statistical release calendar.

## 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

This publication is presented in an HTML file, with supporting documentation released in PDF format. HTML documents are assessed for accessibility using Wave, Axe and Lighthouse to ensure these meet accessibility requirements. It is planned that documents currently produced as PDFs will in future be published as HTML to further enhance accessibility.

Summary data and additional analysis is presented in tables in Excel. We're also working with our Digital team to release this in a non-property format such as OpenDocument Spreadsheet (ODS) in the future.

We plan to make the R code used to produce this publication publicly available in the <u>NHSBSA</u> <u>GitLab</u> repository.

#### Clarity

A glossary of terms is included in this document.

#### 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 Prescribing for Diabetes publication is the only statistics available on the prescribing of diabetes related drugs and appliances that have been prescribed for dispensing in the community in England. Comparable publications are not available for devolved nations, but other publications are available in the <u>resources</u> section of this document. The statistics contained in this release are all derived from the same data source, the NHSBSA Data Warehouse, with a consistent methodology used in the processing of data prior to it being made available in the warehouse.

The data used in these statistics is not comparable to other publications released by the NHSBSA such as Prescription Cost Analysis (PCA). The Prescribing for Diabetes publication, along with other prescribing focused statistics by the NHSBSA such as Medicines Used in Mental Health, are based around a "prescribing view" of the data. This is where we use the drug or device that was prescribed to a patient, rather than the drug that was reimbursed to the dispenser to classify a prescription item. PCA uses a dispensing view where the inverse is true.

Prescription cost analysis also is based upon prescription items that were dispensed in England but may have been prescribed elsewhere in the UK. The Prescribing for Diabetes publication is based upon items that have been prescribed in England only, that may have been dispensed in England, Scotland Wales, the Isle of Man or the Channel Islands. PCA is also released based upon calendar years rather than financial years.

#### Comparisons over time

In order to allow for comparisons to be made over time these statistics cover the whole period for which patient level data is available, from financial year 2015/16 onwards. Prior publications included previous time periods which were before data was available at individual patient levels. For consistency within this publication, this version only contains data from April 2015 onwards, though historic publications are available from NHS Digital.

Changes to the figures over time should be interpreted in the wider context of the prescribing system as a whole, including in the availability of medicines, release of new medicines, their costs and changing prescribing guidelines. All medicines are shown by their latest BNF classification, as described in section 2 – methodology.

#### 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 this publication is the balance between timeliness and data quality. Enough 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

Alongside the release of these statistics the NHSBSA will also be releasing a continuous feedback survey, allowing users to quickly tell us their thoughts on the content and utility of these statistics. This survey is available online at the following address: <a href="https://wh1.snapsurveys.com/s.asp?k=160317152537">https://wh1.snapsurveys.com/s.asp?k=160317152537</a>. This feedback, along with feedback gathered from other routes such as direct contact, will be used to shape the content and style of future Prescribing for Diabetes publications and other statistical products from the NHSBSA. This publication also has a detailed user engagement plan specific to Prescribing for Diabetes.

Performance, cost and respondent burden

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

There is no respondent burden for Prescribing for Diabetes data, as all data are extracted from existing NHSBSA information and transactional systems.

This initial release has been developed with a reproducible analytical pipeline (RAP) in mind and RAP principles applied where possible. This development has been done in R and the code used will be made publicly available at the NHSBSA GitLab in due course. Further development is planned to the RAP used for this publication to further automate as many tasks as possible.

## Confidentiality, transparency and security

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

Trustworthy statistics and the data behind them are an important part of well informed decision making, and are vital to support improvement across the wider health and social care system. It is accepted, however, that where statistics provide information on small numbers of individuals, the NHS Business Services Authority have a duty, under data protection law, to avoid directly or indirectly revealing any personal details. In addition, NHSBSA staff members are required to adhere to relevant NHS data confidentiality guidelines.

The NHSBSA has robust confidentiality and security policies that were adhered to during the production of these statistics. More information on these policies and how we follow them can be found in our Confidentiality and Access Statement.

A risk assessment around potential disclosure of personal identifiable information through these statistics was carried out during their production. In line with the NHSBSA's Statistical Disclosure Control Policy, patient counts less than five, or item and cost information where a patient count of less than five can be inferred, has been redacted with "\*".

## Quality assurance of administrative data

In addition to the assessment we have followed the Quality Assurance of Administrative Data (QAAD) toolkit, as described by the Office for Statistics Regulation (OSR). Using the toolkit we established the level of assurance we are seeking (or "benchmark") for each source. The assurance levels are set as basic, enhanced, or comprehensive depending on the risk of quality concerns for that source, based on various factors.

We have made a judgement about the suitability of the administrative data for use in

#### producing

this publication, this is designed to be pragmatic and proportionate, and so in the light of an evaluation of the likelihood of quality issues that may arise in the data that may affect the quality of the statistics, and of the nature of the public interest served by the statistics. This QAAD assessment for prescription data can be found on the NHSBSA website.

## 6. Related statistics, comparability and useful resources

The NHSBSA releases the Official Statistics publication on Prescribing for Diabetes in England.

## NHS Digital national diabetes audit

<u>The national diabetes audit</u> is a collection of reports and quarterly publications relating to diabetes, including the diabetes prevention programme and care processes and treatment targets.

#### Office for National Statistics (ONS) diabetes statistics

The ONS has published several Freedom of Information requests relating to diabetes.

#### Code of Practice for Statistics

These statistics have been produced in compliance of the <u>Code of Practice for Statistics</u>. You can find more on the code of practice and its pillars, principles and practices from the <u>UK</u> Statistics Authority website.

#### NHSBSA Open Data Portal

The <u>NHSBSA Open Data Portal</u> is the platform where we host many of our open data products, this is still in BETA and continuing to be developed. <u>English Prescribing Data</u> is also available on the NHSBSA website.

# 7. Glossary of terms used in these statistics

## Age

A patient's age, and therefore 5-year age band, has been calculated at 30 September for the given financial year. This age has been calculated using the patient date of birth shared with the NHSBSA from PDS.

## British National Formulary (BNF)

MUMH data uses the therapeutic classifications defined in the British National Formulary (BNF) using the classification system prior to edition 70. NHS Prescription Services have created pseudo BNF chapters for items not included in BNF chapters 1 to 15. The majority of such items are dressings and appliances, which have been classified into six pseudo BNF chapters (18 to 23).

Information on why a drug is prescribed is not available in this dataset. Since drugs can be prescribed to treat more than one condition, it may not be possible to separate the different conditions for which a drug may have been prescribed.

The BNF has multiple levels, in descending order from largest grouping to smallest; chapter, section, paragraph, sub-paragraph, chemical substance, product, presentation. Presentations in chapters 20-23 do not have an assigned BNF paragraph, sub-paragraph, chemical substance or product.

#### **BNF** Paragraph

All drugs are recorded by the British National Formulary (BNF), or the NHSBSA for appliances. These are ordered into chapters, sections, paragraphs (and sub paragraphs) then chemical substances. For this publication, data has been drawn at paragraph level using the chapter 'endocrine system', section 'drugs used in diabetes', and the four chapters 'insulin', 'antidiabetic drugs', 'treatment of hypoglycaemia' and 'diabetic diagnostic and monitoring agents'.

## Clinical Commissioning Group (CCG)

Clinical Commissioning Groups (CCG) commission most of the hospital and community NHS services in the local areas for which they are responsible. CCGs are assured by NHS England which retains responsibility for commissioning primary care services such as GP and dental services as well as some specialist hospital services.

#### Cost

The amount that would be paid using the basic price of the prescribed drug or appliance and the quantity prescribed, sometimes called 'Net Ingredient Cost' (NIC). The basic price is given either in the Drug Tariff or is determined from prices published by manufacturers, wholesalers or suppliers. The basic price is set out in Parts VIII and IX of the Drug Tariff. For any drugs or appliances not in Part VIII, the price is usually taken from the manufacturer, wholesaler, supplier of the product or the price endorsed by the dispenser.

#### Diabetes

Diabetes is a lifelong condition that causes a person's blood sugar level to become too high. There are 2 main types of diabetes, type 1 diabetes where the body's immune system attacks and destroys the cells that produce insulin, and type 2 diabetes where the body does not produce enough insulin, or the body's cells do not react to insulin.

## Dispensed in the community

When a prescription item is dispensed in the community this means that it has been dispensed by a community pharmacy or other dispensing contractor. This does not include medicines dispensed within hospitals and prisons.

### Dispensing contractor / dispenser

A dispensing contractor or dispenser can be a community pharmacy or appliance contractor (a dispenser that specialises in dispensing dressing, appliances and medical devices). Prescriptions can also be dispensed by the dispensary of a dispensing practice or personally administered at a practice. Dispensing practices usually exist in more rural areas where the need for a dispenser is deemed necessary, but it is not deemed financially viable to establish a community pharmacy.

#### Gender / sex

Information relating to a patient's gender is not captured by the NHSBSA. This is instead derived by PDS data that is shared with the NHSBSA for NHS numbers that have been matched. This term is not consistent with national data standards. For more information on this please see section 2 – methodology.

#### Identified patients

An identified patient is where an NHS number captured by the NHSBSA during prescription processing activities has been successfully matched to an NHS number held by the Personal Demographic Service (PDS), and PDS data, such as date of birth and gender, returned to the NHSBSA.

#### Index of Multiple Deprivation (IMD) decile

The IMD decile of the patient, based on the location of their practice, where '1' is the 10% of areas with the highest deprivation score in the Index of Multiple Deprivation (IMD) from the English Indices of Deprivation 2019, and '10' is the 10% of areas with the lowest IMD deprivation score. Unknown values are where the items are attributed to an unidentified practice within a Primary Care Organisation (PCO), or where we have been unable to match the practice postcode to a postcode in the National Statistics Postcode Lookup (NSPL).

#### Items

The term Items refers to the number of times a product appears on a prescription form. Prescription forms include both paper prescriptions and electronic messages.

#### Prescription form

A prescription form has two incarnations, a paper form, and an electronic prescription available via EPS. A paper prescription can hold up to a maximum of ten items. A single electronic prescription can hold a maximum of four items.

#### Presentation

A presentation is the name given to the specific type, strength, and pharmaceutical formulation of a drug; or, the specific type of an appliance. For example, Paracetamol 500mg tablets.

## Feedback

Feedback is important to us.

We welcome all comments about this document and its contents. Please quote 'Prescribing for Diabetes – Background and Methodology Note' in the subject title of any correspondence. A continuous feedback survey is available on the Prescribing for Diabetes web page that can be completed by users.

## Contact us

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