



**Family Practitioner Services** 

## **General Pharmaceutical Services**

Annual Statistics 2022/23





#### **Purpose**

The data contained in this publication are presented on a financial year basis for the year ending 31st March 2023. They present a view of community prescription dispensing in Northern Ireland and are primarily based on prescription forms submitted by primary pharmaceutical contractors to Family Practitioner Services, BSO for payment. They do not cover secondary and private pharmaceutical provision.

Information is provided on dispensing contractors as well as volumes and costs of items dispensed by various patient demographics and therapeutic groups. Comparator information on dispensing contractors and dispensed items from across the UK is also presented. Data detailed in this publication are also available in spreadsheet format (Microsoft Excel) to aid secondary analysis on the General Pharmaceutical Services and Prescribing Statistics website.

#### Published by

BSO Family Practitioner Services Information Unit,

2 Franklin St, Belfast BT2 8DQ

Responsible Statistician Bethany McDowell

We want your feedback We welcome any feedback on any aspect of these statistics, which can be provided by email to: Info.BSO@hscni.net

Additional information about these statistics is located at the back of this publication.



#### **Open Government Licence**

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

#### This is a National Statistics Publication

©2023 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. Page 5 pill illustration © Stockunlimited.

### **Contents**

Key Facts	5
Introduction	6
1. Overview	8
1.1 Dispensing by contractor type	8
1.2 Total dispensing	8
1.3 Most dispensed medications	g
1.4 Total ingredient cost	g
1.5 Total ingredient costs by medication	10
Part 1: Community Pharmacy in Northern Ireland	
2. Pharmacy Statistics	13
2.1 Number of Pharmacies	13
2.2 Pharmacies per 100,000 population	14
2.3 Distance to Nearest Pharmacy	16
3. Pharmacy Dispensing Volumes	19
3.1 Total Dispensing	19
3.2 Dispensing by pharmacy	20
4. Pharmacy Dispensing Costs	23
4.1 Total ingredient cost	
4.2 Ingredient cost per pharmacy	24
Part 2: Dispensing in Northern Ireland	
5. Dispensing Analysis	27
5.1 Background information	27
5.2 Dispensing by age and gender	27
5.3 Relative Cost Index	28
5.4 Dispensing by BNF Chapter	29
5.5 Dispensing by Age Group and BNF chapter	31
5.6 Dispensing by Deprivation	32
5.7 UK comparisons	34
6. Detailed analysis	35
6.1 Background Information	
6.2 Anti-depressants	35
6.3 Diabetes medication and products	38
6.4 Opioid Apalgosics	40

### FPS General Pharmaceutical Services Annual Report 2022/23

Additional Notes	43
Technical Notes	45
Publication Information	47

### **Key Facts**



- There were 44.6 million items dispensed
   This is the highest figure on record and was an increase of 3.3% on 2021/22.
- The total ingredient cost was £486.9 million
   This was an increase of 6.7% on the previous year and is the highest cost on record.
- Anti-depressants were dispensed to 25% of the female population

For males the equivalent proportion was 15%.



- Northern Ireland had 525 community pharmacies
   This is the lowest figure recorded since the beginning of this series.
- There were 27.4 pharmacies per 100,000 people
   Fermanagh & Omagh had the highest per capita
   concentration of pharmacies (38.8 per 100,000 people).

Lisburn & Castlereagh had the lowest concentration with 18.0 pharmacies per 100,000 people.

### Introduction

This publication provides a statistical overview of pharmaceutical activity in Northern Ireland between April 2022 and March 2023. It is based on payment claims (prescription forms) submitted by community pharmacists, dispensing doctors and appliance suppliers to Family Practitioner Services (FPS). The information does not include prescribing in a secondary care (e.g. hospital) or private setting.

#### This is a National Statistics Publication

It has been produced by independent statisticians within the FPS Information Unit. They are on secondment from the Northern Ireland Statistics and Research Agency (NISRA).



The UK Statistics Authority designated these statistics as National Statistics on 11<sup>th</sup> May 2022. National Statistics are official statistics which meet the highest standards of trustworthiness, quality and public value.

All official statistics should comply with all aspects of the <u>Code of Practice for Statistics</u>. They are awarded National Statistics status following an <u>assessment</u> by the Authority's regulatory arm.

The Authority considers whether the statistics meet the highest standards of Code compliance, including the value they add to public decisions and debate.

These statistics were considered as part of a wider assessment of the BSO Family Practitioner Services statistics. Since the assessment by the UK Statistics Authority, we have continued to comply with the Code of Practice for Statistics. Find out more about National and Official Statistics <a href="here.">here.</a>

### **User Engagement**

Statisticians in the Information Unit are regularly in contact with key users of the statistics. While previously readership surveys were used to provide an overall assessment of

whether user needs were being met, the current approach employed is to supplement these surveys with 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. On 28th March 2023 a pilot User Engagement showcase event was held to advise users of the current capabilities and future developments of the statistics and obtain feedback from users. An outline of future developments as a result of user engagement is provided in the General Pharmaceutical Services Statistics User Engagement Action Plan.

### 1. Overview

This section provides statistics on dispensing activity across all contractors in Northern Ireland in 2022/23.

### 1.1 Dispensing by contractor type

There were 535 contractors dispensing prescription items in Northern Ireland on 31st March 2023. This was a decrease of one contractor compared with the previous year. Whilst a series low, contractor numbers have remained relatively stable in recent years, only decreasing by 2.0% since 2014/15 when there were 546 active contractors.

Table 1.1: Total Number of Contractors by Type, 2022/23

Contractor Type	Number of contractors	%
Community Pharmacy	525	98.1
Appliance contractors	2	0.4
Dispensing doctors	8	1.5
Overall Total	535	100

### 1.2 Total dispensing

There were 44.6 million items dispensed in the community in Northern Ireland in 2022/23 across all contractors. This was an increase of 3.3% on the previous year and is the highest level of dispensing recorded. This equated to BSO processing 2.1 million prescription forms per month, on average, throughout the year, up 4.0% on 2021/22.

Dispensing activity in Northern Ireland continues to be dominated by community pharmacies, who accounted for 99.3% of all items dispensed.

Table 1.2: Millions of items dispensed by contractor type, 2022/23

Contractor Type	No of items	%
Community Pharmacy	44.3	99.3
Appliance contractors	0.2	0.5
Dispensing doctors	0.1	0.2
Overall Total	44.6	100.0

### 1.3 Most dispensed medications

The ten most commonly dispensed medications accounted for over one quarter (25.2%) of total drug dispensing and 23.4% of all dispensing in Northern Ireland in 2022/23. The most commonly dispensed medication was Atorvastatin, which is typically used to treat high blood cholesterol, with almost 1.6 million items dispensed.

The ten most commonly dispensed medications and some of their typical uses are listed below. All medications are listed under their generic non-branded name and the figures incorporate all strengths available on prescription.

Table 1.3: Ten most commonly dispensed medications in Northern Ireland, 2022/23

Medication	Items Dispensed	Typical use
Atorvastatin	1,591,561	Treatment of high blood cholesterol
Omeprazole	1,461,404	Treatment of excess stomach acid
Co-codamol	1,252,606	Pain relief
Levothyroxine	1,102,386	Treatment for thyroid hormone deficiency
Sertraline	942,816	Treatment for depression and anxiety
Salbutamol	860,832	Treatment for respiratory conditions
Bisoprolol	851,142	Treatment for hypertension
Lansoprazole	808,715	Treatment of excess stomach acid
Aspirin	778,919	Pain relief / heart attack prevention
Amlodipine	775,120	Treatment for hypertension / angina

#### 1.4 Total ingredient cost

The total ingredient cost<sup>1</sup> for prescription items dispensed in Northern Ireland in 2022/23 was £486.9 million. This was an increase of 6.7% on the previous year, which was approximately double the increase in the number of items dispensed (3.3%).

Ingredient costs for prescription items are quite sensitive to market conditions and hence can vary, impacting the total cost. An example is Co-codamol, a pain relief medication which was the third most commonly dispensed medication in 2022/23. Although the

<sup>&</sup>lt;sup>1</sup> Ingredient cost is based on the gross cost of items before discounts. It will not necessarily reflect the actual amount paid by FPS. It also excludes payments made to community pharmacists for providing dispensing services.

number of Co-codamol items rose slightly between 2021/22 and 2022/23 (from 1,249,817 to 1,252,606), the total ingredient cost over this period decreased from £4.9 million to £3.7 million. As shown below, dispensing from community pharmacies accounted for 96.6% of the total ingredient cost for 2022/23.

Table 1.4: Ingredient cost by contractor type, 2022/23

Contractor Type	Ingredient cost (£ millions)	%
Community Pharmacy	470.2	96.6
Appliance contractors	16.0	3.3
Dispensing doctors	0.6	0.1
Overall Total	486.9	100.0

### 1.5 Total ingredient costs by medication

The ten medications with the highest total ingredient costs represented almost 15% of the total ingredient cost for 2022/23. Apixaban, a medication used for the treatment and prevention of blood clots, had the highest total ingredient cost at £20.6 million. Table 1.5 lists the ten medications with the highest total ingredient costs in 2022/23 and their typical uses. All medications are listed under their generic non-branded name and the figures incorporate all strengths available on prescription.

Table 1.5: Ten medications with highest total ingredient costs in Northern Ireland, 2022/23

Medication	Ingredient Cost (£ millions)	Typical use
Apixaban	20.6	Treatment and prevention of blood clots
Melatonin	7.1	Treatment for insomnia
Sacubitril + Valsartan	6.6	Treatment for heart failure
Budesonide + Formoterol	6.3	Treatment for asthma
Omeprazole	5.8	Treatment for excess stomach acid
Dapagliflozin	5.7	Treatment for type 2 diabetes mellitus
Empagliflozin	5.3	Treatment for type 2 diabetes mellitus
Fluticasone + Salmeterol	4.8	Treatment for asthma
Lamotrigine	4.6	Treatment for epilepsy
Buprenorphine	4.6	Pain relief

There is minimal crossover between the ten most dispensed medications (see table 1.3) and the ten with the highest ingredient costs. Following the significant reduction in the cost of Co-codamol in the 2022/23 financial year, Omeprazole is the only medication to appear on both lists in 2022/23. This highlights the relatively low ingredient costs of many commonly dispensed medications.

### Part One

## **Community Pharmacy in Northern Ireland 2022/23**

### 2. Pharmacy Statistics

This section contains basic statistics on community pharmacies including the number, size and distribution of pharmacies throughout Northern Ireland<sup>2</sup>.

#### 2.1 Number of Pharmacies

There were 525 community pharmacies in Northern Ireland on 31<sup>st</sup> March 2023. This was a reduction of one pharmacy compared with 2021/22. This is the lowest number of pharmacies here in the last ten years, a period in which numbers were relatively stable until around 2018/19 when numbers began reducing from the 532 open in that year.

This does not mean that there has been a consistent pattern of declining numbers. There remains considerable variation across the region due to local variations in terms of openings and closures.

At Local Government District (LGD) level, pharmacy numbers have increased slightly or remained static in six of Northern Ireland's 11 districts over the last 10 years. The greatest percentage increase has been in Derry City and Strabane where there are now 44 pharmacies, an increase of 2.3% (or one pharmacy) since 2012/13.

The greatest percentage drop in pharmacy numbers has been in Lisburn & Castlereagh, which had 27 pharmacies at the end of 2022/23. This was a reduction of 6.9% (or two pharmacies) on its total in 2012/13.

A full breakdown of changes in pharmacy numbers across all LGDs over the past decade can be seen in Table 2.1 on the following page.

-

<sup>&</sup>lt;sup>2</sup> All geographic breakdowns in this chapter are based on pharmacy location.

Table 2.1: Change in pharmacy numbers at LGD level between 2012/13 and 2022/23

Local Government District	2012/13	2022/23	% Change
Antrim & Newtownabbey	33	33	0.0
Ards & North Down	40	39	-2.5
Armagh City, Banbridge & Craigavon	48	48	0.0
Belfast	132	127	-3.8
Causeway Coast & Glens	41	40	-2.4
Derry City & Strabane	43	44	2.3
Fermanagh & Omagh	45	46	2.2
Lisburn & Castlereagh	29	27	-6.9
Mid & East Antrim	31	31	0.0
Mid Ulster	39	38	-2.6
Newry, Mourne & Down	52	52	0.0
Northern Ireland	533	525	-1.5

### 2.2 Pharmacies per 100,000 population

The number of pharmacies per 100,000 people in Northern Ireland was 27.4 in 2022/23, which was a reduction of 0.7% on the previous year.

This continues the slow decline in the ratio of pharmacies to population over more than a decade. In 2012/13 there were 29.2 pharmacies per 100,000 population. This trend has been caused by population growth combined with a reduction in pharmacy numbers.

There is considerable variation in the figures for individual LGDs across Northern Ireland, which can be seen in Table 2.2 on the following page.

In 2022/23, Fermanagh & Omagh had the most pharmacies per 100,000 people. Its figure, 38.8 pharmacies, was more than twice that of Lisburn & Castlereagh, which had the lowest ratio of pharmacies to population (18.0).

Table 2.2: Pharmacies per 100,000 population for Northern Ireland LGDs, 2022/23

Local Government District	Pharmacies per 100,000 population <sup>3</sup>
Fermanagh & Omagh	38.8
Belfast	36.8
Derry City & Strabane	29.1
Newry, Mourne & Down	28.1
Causeway Coast & Glens	27.5
Mid Ulster	25.0
Ards & North Down	23.9
Antrim & Newtownabbey	22.8
Mid & East Antrim	22.1
Armagh City, Banbridge & Craigavon	21.6
Lisburn & Castlereagh	18.0
Northern Ireland	27.4

At a UK level, Northern Ireland continues to have the most pharmacies per 100,000 population. The latest available statistics, which relate to 2021/22, show that the UK average was 20.9 pharmacies per 100,000 people. Northern Ireland's figure was 27.6, which was over 30% higher than the UK average.

Table 2.3: Pharmacies per 100,000 population across the United Kingdom, 2021/22

Region	Pharmacies per 100,000 population
Northern Ireland	27.6
England	20.4
Scotland	22.9
Wales	22.9
United Kingdom	20.9

The higher figure for Northern Ireland may be linked to the low number of dispensing GP practices here. These practices can dispense prescriptions directly to patients who meet

<sup>3</sup> The LGD and Northern Ireland figures have been calculated using a 2018-based population projection for 2022 due to the unavailability of 2022 mid-year estimates at the time of production.

certain criteria<sup>4</sup>. In Northern Ireland, there are four dispensing practices (with eight dispensing doctors), accounting for 0.2% of all items dispensed. In the rest of the UK, according to the latest available figures, there are 1,107 dispensing practices, representing around 7% of all medicines dispensed annually<sup>5</sup>.

### 2.3 Distance to Nearest Pharmacy<sup>6</sup>

It is estimated that over 99% of the Northern Ireland population lived within five miles of their nearest pharmacy in 2022/23. In many cases, the distance between home and pharmacy was far shorter – 72.4% of all people lived within one mile of their nearest pharmacy. This meant that the average distance from home to pharmacy was 0.9 miles. A full overview is provided in Table 2.4 below.

Table 2.4: Population proximity to pharmacies at LGD level, 2022/23

Local Government District	Population within 1 mile (%)	Population within 3 miles (%)	Population within 5 miles (%)
Antrim & Newtownabbey	76.2	96.8	100.0
Ards & North Down	84.1	99.0	100.0
Armagh City, Banbridge & Craigavon	60.2	90.4	99.0
Belfast	98.8	100.0	100.0
Causeway Coast & Glens	57.3	86.5	98.9
Derry City & Strabane	81.6	94.9	99.2
Fermanagh & Omagh	47.7	82.0	97.9
Lisburn & Castlereagh	80.3	96.3	100.0
Mid & East Antrim	70.8	89.7	98.7
Mid Ulster	48.9	83.4	98.8
Newry, Mourne & Down	58.3	92.1	100.0
Northern Ireland	72.4	92.9	99.4

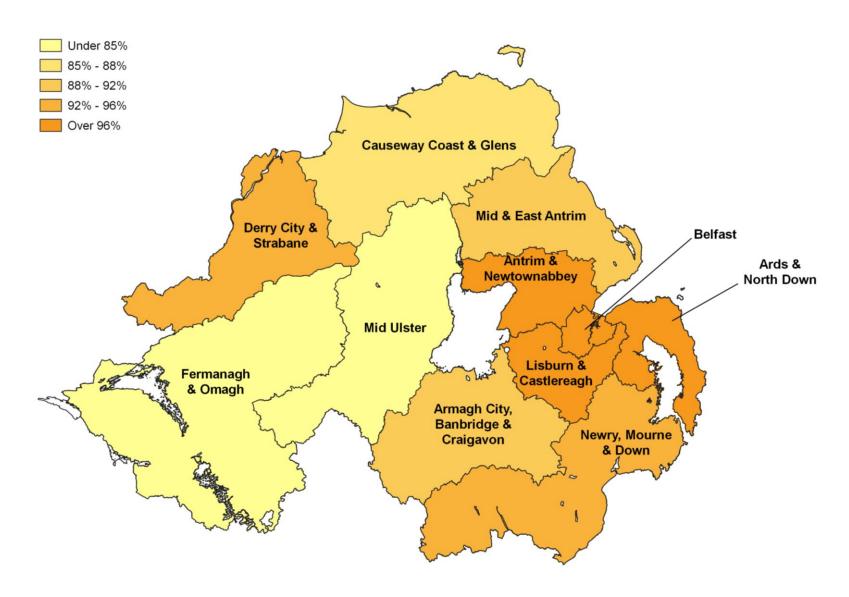
<sup>&</sup>lt;sup>4</sup> Full details of these criteria are available in the technical notes at the back of this publication.

<sup>&</sup>lt;sup>5</sup> Figures taken from Dispensing Doctors' Association.

<sup>&</sup>lt;sup>6</sup> Population is defined as active GP registration person counts at postcode level at October 2022. Distance is calculated on a straight line basis. See technical notes for further information.

While pharmacy coverage is almost universal at five mile level, there is some local variation across Northern Ireland at shorter distances. This is illustrated in Map 2.1 on the following page which shows the percentage of the population living within a three mile radius of a community pharmacy by LGD in 2022/23.

Map 2.1: Percentage of population living within three miles of a pharmacy by LGD, 2022/23



### 3. Pharmacy Dispensing Volumes

This section contains information on items dispensed solely within community pharmacies throughout Northern Ireland in 2022/23<sup>7</sup>.

### 3.1 Total Dispensing

The total number of prescription items dispensed by community pharmacies was 44.3 million in 2022/23. This was an increase of 3.4% on the previous year and continues the upward trend in the number of items dispensed that was seen prior to the COVID-19 pandemic. The total number of items dispensed has risen by 17.9% since 2012/13, when the figure stood at 37.6 million items.

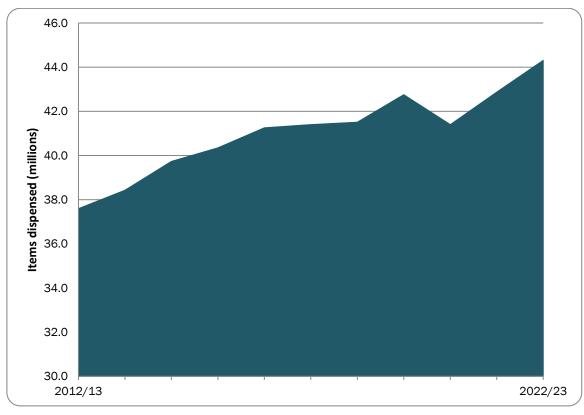


Chart 3.1: Trend in number of items dispensed, 2012/13 to 2022/23

In terms of Local Government Districts, Derry City & Strabane had the greatest number of items dispensed per head of the population at 29.1. The lowest figure was recorded in Lisburn & Castlereagh where 17.7 items were dispensed per person in 2022/23.

<sup>&</sup>lt;sup>7</sup> All geographic breakdowns in this chapter are based on pharmacy location.

Table 3.1: Total number of items dispensed by LGD, 2022/23

Local Government District	Items dispensed (millions)	Items per person <sup>8</sup>
Derry City & Strabane	4.4	29.1
Belfast	9.2	26.7
Fermanagh & Omagh	2.9	24.5
Newry, Mourne & Down	4.3	23.4
Causeway Coast & Glens	3.4	23.3
Ards & North Down	3.7	22.6
Mid & East Antrim	3.2	22.6
Mid Ulster	3.2	21.1
Armagh City, Banbridge & Craigavon	4.4	20.0
Antrim & Newtownabbey	2.9	20.0
Lisburn & Castlereagh	2.7	17.7
Northern Ireland	44.3	23.1

### 3.2 Dispensing by pharmacy

The average number of items dispensed per pharmacy was 84,364 in 2022/23, an increase of 3.5% on the previous year. This reflected the general increase in the number of items dispensed.

The average number of items dispensed per pharmacy varied considerably across individual LGDs in 2022/23. Average dispensing volumes were highest in Mid & East Antrim, where pharmacies dispensed an average of 102,456 items per annum. Fermanagh & Omagh had the lowest average figure at 63,294 items per pharmacy.

While lower dispensing volumes are often associated with rural areas, the figure for Belfast shows that this is not always the case. It had the second-lowest average in Northern Ireland at 72,230 items per pharmacy. This appears to be driven by the high concentration of smaller pharmacies in this council area.

<sup>&</sup>lt;sup>8</sup> The LGD and Northern Ireland figures have been calculated using a 2018-based population projection for 2022 due to the unavailability of 2022 mid-year estimates at the time of production. Note that patient prescriptions may be dispensed in a different LGD to their residence.

Table 3.2: Average annual dispensing per pharmacy by LGD, 2022/23

Local Government District	Average Items Dispensed <sup>9</sup>
Mid and East Antrim	102,456
Derry City and Strabane	100,134
Lisburn and Castlereagh	98,395
Ards and North Down	94,505
Armagh City, Banbridge and Craigavon	92,703
Antrim and Newtownabbey	87,999
Causeway Coast and Glens	84,712
Mid Ulster	84,694
Newry, Mourne and Down	83,101
Belfast	72,230
Fermanagh and Omagh	63,294
Northern Ireland	84,364

The number of pharmacies dispensing more than 10,000 items per month has risen significantly over the past decade. There now 91 pharmacies in that dispensing bracket compared with 47 in 2012/13. They now account for 17.3% of all pharmacies in Northern Ireland compared with 8.8% in 2012/13. This reflects the rise in items dispensed since 2012/13 and the reduction in the number of pharmacies during that period.

At the other end of the scale, the number of pharmacies dispensing an average of 2,000 or fewer items per month has nearly halved since 2012/13. In 2022/23, there were just 16 pharmacies in that bracket, 56% of which were located in Belfast.

Despite these trends, Northern Ireland continues to have the lowest average dispensing volumes per pharmacy in the UK. In 2021/22, the most recent year for which comparable statistics are available, the UK average was 7,536 items per pharmacy per month. Northern Ireland's figure was 6,792 items, which was 9.9% lower than the UK average. These figures can be seen in Table 3.3 on the following page.

<sup>9</sup> These figures do not include items dispensed from pharmacies which closed permanently prior to 31st March 2023.

Table 3.3: Average monthly dispensing at UK level, 2021/22

Region	Average items dispensed
Northern Ireland	6,792
England	7,544
Scotland	6,905
Wales	9,071
United Kingdom	7,536

It should be noted that average dispensing numbers may not be directly comparable across the UK due to differences in prescribing practices.

For example, in Northern Ireland and Scotland, GPs and other prescribers can instruct pharmacists to split single items and dispense them at set intervals in the interest of patient safety. In England and Wales, the practice can be to prescribe a reduced quantity of items at a greater frequency. See the further information section for additional details.

Further information about monthly average dispensing volumes in Northern Ireland, including historical trend data, is available in <u>Annex tables</u> 1.4 and 1.5.

### 4. Pharmacy Dispensing Costs

This section contains information on ingredient cost<sup>10</sup> of items dispensed solely within community pharmacies throughout Northern Ireland in 2022/23<sup>11</sup>.

### 4.1 Total ingredient cost

The total ingredient cost for prescription items dispensed by community pharmacies in 2022/23 was £470 million. This was an increase of 7.1% on the previous year, which was more than double the percentage increase in items dispensed during the period (3.4%).

The annual total is influenced by drug prices as well as dispensing volumes. As a result, total ingredient cost has fluctuated since 2012/13 despite generally increasing dispensing levels. In 2022/23, for example, the increase was lessened somewhat by the sharp reduction in the cost of Co-codamol.<sup>12</sup>

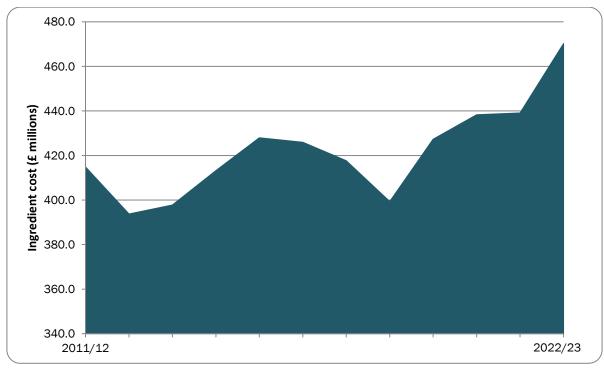


Chart 4.1: Trend in total ingredient cost, 2011/12 to 2022/23

<sup>&</sup>lt;sup>10</sup> Ingredient cost is based on the gross cost of items before discounts. It will not necessarily reflect the actual amount paid by FPS. It also excludes payments made to community pharmacists for providing dispensing services.

<sup>&</sup>lt;sup>11</sup> All geographic breakdowns in this chapter are based on pharmacy location.

<sup>&</sup>lt;sup>12</sup> See Section 1.4 for details.

The average cost per item dispensed by community pharmacies across Northern Ireland was £10.61 in 2022/23. There was considerable variation at LGD level – the figure ranged from £9.64 per item in Derry City & Strabane to £11.94 per item in Ards & North Down.

Table 4.1: Total ingredient cost and cost per item by LGD, 2022/23

Local Government District	Ingredient Cost (£millions)	Cost per item
Ards and North Down	44.0	£11.94
Lisburn and Castlereagh	30.2	£11.39
Antrim and Newtownabbey	32.0	£11.01
Mid and East Antrim	34.2	£10.78
Belfast	98.6	£10.73
Causeway Coast and Glens	36.3	£10.71
Armagh City, Banbridge and Craigavon	46.2	£10.39
Fermanagh and Omagh	30.1	£10.34
Newry, Mourne and Down	44.0	£10.18
Mid Ulster	32.0	£9.95
Derry City and Strabane	42.5	£9.64
Northern Ireland	470.2	£10.61

Belfast had the highest total ingredient cost at £98.6 million. This accounted for 21.0% of the total ingredient cost for Northern Ireland. Fermanagh & Omagh had the lowest cost at £30.1 million.

### **4.2 Ingredient cost per pharmacy**

The average ingredient cost of items dispensed per pharmacy was £895,298 in 2022/23, which was an increase of 7.3% on the previous year. As with dispensing volumes, there were noticeable variations at LGD level.

There were three LGDs - Ards & North Down, Lisburn & Castlereagh, and Mid & East Antrim – where the average ingredient cost per pharmacy was over £1.1 million. By contrast, pharmacies in Fermanagh & Omagh had an average ingredient cost of £654,344 in 2022/23. A full breakdown of average ingredient costs per pharmacy at LGD is provided on the following page.

Table 4.2: Average annual ingredient cost per pharmacy by LGD, 2022/23

Local Government District	Average Total Ingredient Cost (£) <sup>13</sup>
Ards and North Down	1,128,806
Lisburn and Castlereagh	1,120,231
Mid and East Antrim	1,104,417
Antrim and Newtownabbey	968,688
Derry City and Strabane	965,239
Armagh City, Banbridge and Craigavon	963,352
Causeway Coast and Glens	907,000
Newry, Mourne and Down	846,335
Mid Ulster	843,133
Belfast	774,949
Fermanagh and Omagh	654,344
Northern Ireland	895,299

<sup>&</sup>lt;sup>13</sup> These figures do not include items dispensed from pharmacies which closed permanently prior to 31<sup>st</sup> March 2023.

### Part Two

# Dispensing in Northern Ireland 2022/23

### 5. Dispensing Analysis

This section provides a detailed analysis of total dispensing activity in Northern Ireland in 2022/23. Unlike previous sections, it includes dispensing information from all dispensing contractors i.e. community pharmacies, dispensing doctors and appliance contractors<sup>14</sup>.

### **5.1 Background information**

The majority of the figures within this section are based on the matching of patient attributes, such as age, gender and geographical location, to prescription records.

This process relies on data captured during the scanning of paper prescriptions submitted for payment by contractors to FPS. In some cases, the data capture is unable to successfully read the patient attributes printed on the prescription.

In 2022/23, patient attribute information was retrieved for 90.5% of all prescription items dispensed. This sample has been investigated for any significant bias and is considered to be representative of patient prescribing patterns across Northern Ireland.

However, the incomplete nature of this data should be considered when examining absolute numbers or trends across time. In particular, it should be noted that scan rates vary on an annual basis. For instance, patient attributes were only retrieved from around 75% of prescriptions scanned in 2018/19.

This limitation only applies to demographic and geographical breakdowns based on patient attributes within this part of the publication. Overall figures for Northern Ireland and geographic information based on community pharmacy location are not affected by the scanning issue.

### **5.2 Dispensing by age and gender**

Females accounted for 56.7% of all prescription items which could be attributed to a gender in 2022/23. This proportion varied little at LGD level – the highest figure was 57.9%

<sup>&</sup>lt;sup>14</sup> All geographic breakdowns in this chapter are based on patient location.

for Mid and East Antrim and Causeway Coast & Glens, while the lowest was 54.7% for Fermanagh and Omagh.

Around 45% of items which could be attributed to an age were dispensed to patients aged 65 or over, with a further 34.4% to patients in the 45-64 age group. These groups also had the highest total ingredient costs of £187.9 million and £139.2 million respectively. A full breakdown is provided in the statistical tables accompanying this publication.

#### **5.3 Relative Cost Index**

The relationship between age/gender and prescribing cost can be examined through the use of a relative cost index. The index values are calculated by dividing the total ingredient cost of items dispensed to each age and gender group by the equivalent mid-year population estimates<sup>15</sup>. These are then divided by the age/gender group with the lowest relative cost, meaning the weighting for this group is 1.

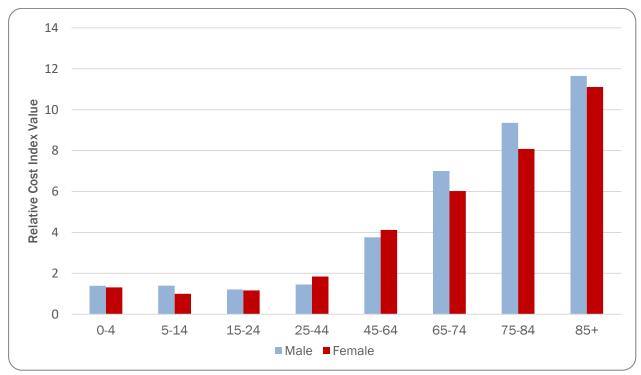


Chart 5.1: Relative Cost Index values by age and gender, 2022/23

<sup>&</sup>lt;sup>15</sup> At the time of creation, 2022 mid-year estimates were not available so 2018-based population projections for 2022 were used for 2022/23 calculations.

The chart above shows that prescribing costs for both genders generally increase with age. For example, a male in the 85+ group will typically have a cost index value which is 11.6 times higher than that for a female in the 5-14 group. In older age brackets, men tend to have higher costs than their female counterparts, which may reflect the poorer health status and/or difference in the costs of treating conditions from which they typically suffer.

### 5.4 Dispensing by BNF Chapter

The British National Formulary (BNF) is a reference source published jointly by the British Medical Association and the Royal Pharmaceutical Society providing professional guidelines on medicine use. It is divided into chapters relating to therapeutic groups, which provide an indication of the condition for which they have generally been prescribed. The table below contains an overview of dispensing and associated ingredient cost by BNF chapter in Northern Ireland in 2022/23.

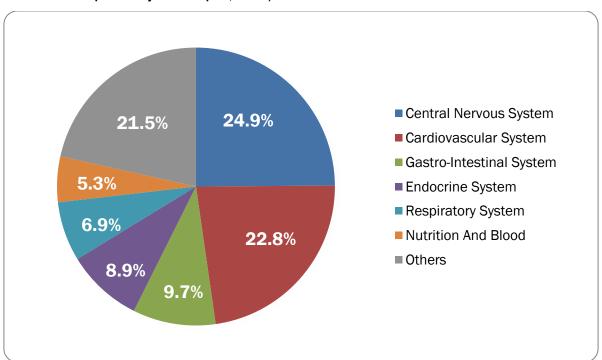
Table 5.1: Items dispensed and total ingredient cost by BNF chapter, 2022/23

BNF Chapter	No of items (millions)	Ingredient Cost (£millions)
1. Gastro-Intestinal System	4.3	32.7
2. Cardiovascular System	10.2	69.4
3. Respiratory System	3.1	46.6
4. Central Nervous System	11.1	101.1
5. Infections	2.2	12.8
6. Endocrine System	4.0	66.3
7. Obstetrics, Gynaecology And Urinary Tract Disorders	1.1	11.4
8. Malignant Disease And For Immunosuppression	0.2	12.9
9. Nutrition And Blood	2.4	37.9
10. Musculoskeletal And Joint Diseases	1.5	8.3
11. Eye	0.5	4.5
12. Ear, Nose And Oropharynx	0.6	4.4
13. Skin	1.7	14.9
14. Immunological Products And Vaccines	0.0	0.4
15. Anaesthesia	0.1	3.0
19. Other Drugs And Preparations	0.0	0.4

20. Dressings	0.3	11.8
21. Appliances	1.1	23.3
22. Incontinence Appliances	0.1	1.9
23. Stoma Appliances	0.2	13.2
99. Unclassified	0.1	9.7
Overall Total	44.6	486.9

As shown in the overview, a small number of BNF chapters represent the bulk of items dispensed. These are the chapters for the central nervous system, the cardiovascular system, the gastro-intestinal system, the endocrine system, the respiratory system and nutrition & blood. As chart 5.2 shows, these six chapters accounted for almost 80% of all items dispensed in Northern Ireland in 2022/23.

Chart 5.2: Items dispensed by BNF chapter, 2022/23



There were significant variations in average cost per item across BNF chapters, which is reflected in the limited correlation between dispensing volumes and total ingredient cost. The BNF chapter for malignant disease and for immunosuppression (Chapter 8) had the highest average cost per item in 2022/23 at £69.03. Meanwhile, items related to the treatment of infections (BNF chapter 5) had the lowest average cost per item at £5.80.

The continuing impact of the Covid-19 pandemic is still evident in relation to BNF chapter 14 (immunological products and vaccines). In 2022/23, 14,245 items belonging to this chapter were dispensed. Although this was more than double the number of items dispensed in 2021/22, it remained 60.7% lower than the equivalent figure for 2019/20. Covid-19 vaccinations did not require a prescription and so are not included in this total.

### 5.5 Dispensing by Age Group and BNF chapter

The overall figures for dispensing by BNF chapter hides variations in the type of conditions most commonly treated across different age groups. For example, medications for infections appear among the most-dispensed treatments for patients aged below 25 but do not feature within the top six BNF chapters discussed above.

Table 5.2: The three most commonly dispensed chapters by age group, 2022/23

Age Group	Most dispensed chapters	% of Items
0-4	5. Infections	24.8
	13. Skin	16.2
	3. Respiratory System	14.7
5-14	3. Respiratory System	24.6
	5. Infections	16.8
	4. Central Nervous System	14.6
15-24	4. Central Nervous System	26.3
	3. Respiratory System	13.5
	5. Infections	11.5
25-44	4. Central Nervous System	37.5
	1. Gastro-Intestinal System	9.8
	3. Respiratory System	8.3
45-64	4. Central Nervous System	29.5
	2. Cardiovascular System	20.9
	1. Gastro-Intestinal System	10.3
65-74	2. Cardiovascular System	31.8
	4. Central Nervous System	20.4
	6. Endocrine System	9.9

75-84 2. Cardiovascular System		34.1
	4. Central Nervous System	17.7
	6. Endocrine System	9.8
85+	2. Cardiovascular System	30.7
	4. Central Nervous System	18.3
	1. Gastro-Intestinal System	10.5

The breakdown of items by age group for 2022/23 was somewhat affected by a 19.3% increase in the number of antibiotics dispensed in Northern Ireland. This rise was particularly pronounced in the 0-4 and 5-14 age groups, where dispensing increased by 39.8% and 69.2% respectively.

As a result, the BNF chapter 5 (Infections), which contains antibiotics, became one of the top three most dispensed chapters for the 5-14 and the 15-24 age groups. It also accounted for a higher than normal proportion of items in the 0-4 age group, where it has traditionally been the most dispensed chapter.

It is likely that the rise in antibiotic dispensing was linked to reduced immunity after the Covid-19 restrictions and the outbreaks of Strep A and scarlet fever which occurred in schools in December 2022.

### 5.6 Dispensing by Deprivation

Patient postcode information was available for 90.4% of all items dispensed in 2022/23. Data is unavailable for the remaining prescriptions due to the limitations of the prescription scanning process used by FPS.

The availability of postcode information allows dispensing activity to be mapped to the Multiple Deprivation Measure (MDM), which is the official measure of geographical deprivation for Northern Ireland.

For the purposes of this publication, the areas covered within the MDM were divided into five quintiles, each of which contained approximately 20% of Northern Ireland's population.

The data indicates that the number of items dispensed and the total ingredient cost is higher for areas with higher levels of deprivation. There were 9.3 million items dispensed to patients living in the most deprived quintile in 2022/23 whereas 6.4 million were dispensed to those residing in the least deprived quintile. A breakdown is provided below.

Table 5.3: Items dispensed and ingredient cost by deprivation quintile, 2022/23

Deprivation Quintile	Total items (million)	% Items	Total Ingredient cost (£millions)	% Cost
1 (most)	9.3	20.9	93.4	19.2
2	8.9	19.8	92.9	19.1
3	8.3	18.6	89.7	18.4
4	7.5	16.9	84.6	17.4
5 (least)	6.4	14.2	76.9	15.8
Unassignable	4.3	9.6	49.4	10.2

While more deprived quintiles have higher total ingredient costs, this arises due to the volume of prescriptions dispensed. For many BNF chapters, the average ingredient cost per item is actually higher for patients residing in less deprived areas. This can be illustrated using the figures related to the six most dispensed BNF chapters in 2022/23.

Table 5.4: Cost per item by deprivation quintile for most dispensed BNF chapters, 2022/23

BNF Chapter	<b>Quintile 1</b> (most)	Quintile 2	Quintile 3	Quintile 4	Quintile 5 (least)
1. Gastro-Intestinal System	£6.80	£7.24	£7.70	£8.10	£8.85
2. Cardiovascular System	£5.78	£6.49	£6.83	£7.33	£8.04
3. Respiratory System	£14.68	£14.86	£14.92	£15.22	£16.41
4. Central Nervous System	£8.53	£8.85	£9.10	£9.10	£9.76
6. Endocrine System	£16.35	£16.26	£16.55	£17.14	£18.10
9. Nutrition And Blood	£14.58	£15.47	£16.09	£16.96	£18.22

In all cases, the average ingredient cost per item is substantially greater for the least deprived quantiles compared with the most deprived ones. Further research would be needed to understand what is driving this relationship.

The differences between the most and least deprived quintiles are particularly large in terms of the Cardiovascular System. In that case, the ingredient cost per item for the least deprived quintile is almost 40% greater than that for the most deprived quintile.

#### **5.7 UK comparisons**

Differences in how dispensing statistics are produced across the UK can make comparisons difficult. As a result, the Northern Ireland figures in this sub-section have been calculated on a calendar year basis to facilitate comparisons with England and Wales.

In 2022, Northern Ireland had the second-highest level of dispensing in the UK at 23.0 items per person. By comparison, Wales had the highest figure at 26.4 items. Both had a notably higher level of dispensing than either Scotland or England. These figures may, however, not be directly comparable due to differing prescribing practices across each region as described in section 3.2.

Northern Ireland had the highest ingredient cost per person in the UK in 2022. Its figure increased by 1.9% compared with the previous year to £245.47 per person. By comparison, the equivalent figure for England was £176.57. A summary of the comparative figures for 2022 is provided in the table below.

Table 5.5: Prescription items and ingredient cost per person across the UK, 2022

Region	Prescription items per person	Ingredient cost per person
Northern Ireland	23.0	£245.47
England	20.4	£176.57
Scotland <sup>†</sup>	19.5	£213.65
Wales	26.4	£198.60

<sup>†</sup> Figures for 2022/23 financial year

### 6. Detailed analysis

This section provides more detailed dispensing statistics for classes of medication which have been identified as being of particular interest to publication users.

### **6.1 Background Information**

This section contains detailed patient statistics relating to the dispensing of antidepressants, opioid analysesics and diabetes medication & products in Northern Ireland during 2022/23.

The figures in this section are based on matching patient attributes to prescription records. This process and its limitations were previously outlined in section 5.1. Due to these limitations, statistics can only be provided for 2019/20 onwards.

Although not all prescriptions can be matched, it is likely that the available data presents an accurate picture of individuals receiving medications on a long-term basis. Such individuals generally receive multiple prescriptions over a year and their information can be retrieved if any of these prescriptions are successfully matched.

It should be noted that it is impossible to infer the medical conditions for which patients are being treated on the basis of the medications dispensed to them. Many medications are used to treat multiple conditions. For example, anti-depressants are often used in the treatment of anxiety disorders. However, in the absence of a proper diagnosis, medications can often serve as a useful proxy.

#### **6.2 Anti-depressants**

Anti-depressants were dispensed to 382,288 people in Northern Ireland during 2022/23, equating to 19.9% of its total population. This was an increase of 2.7% compared with 2021/22.

There was significant variation in the proportion of individuals receiving anti-depressants among different groups with the population. For example, 25.0% of females received anti-depressants during the year compared with only 14.8% of males.

Table 6.1: Individuals receiving anti-depressants by sex, 2022/23

Sex	Number of individuals	%
Male	139,733	36.6
Female	242,555	63.4
Northern Ireland	382,288	100.0

Table 6.1 above shows that females account for the majority of individuals who received anti-depressants in Northern Ireland during 2022/23.

The variation in the proportion of individuals receiving anti-depressants extends into different age/gender segments of the population. The lowest proportion (0.4%) was observed among males aged under 18. The highest (38.6%) was seen among females aged between 45 and 64. The proportions for each segment are provided in Table 6.2 below.

Table 6.2: Percentage of population receiving anti-depressants by age and sex, 2022/23

Age Group	% Male	% Female	% Overall
Under 18	0.4%	0.9%	0.6%
18 - 24	9.1%	17.8%	13.3%
25 - 34	14.4%	24.1%	19.2%
35 – 44	18.7%	30.1%	24.6%
45 – 64	23.9%	38.6%	31.4%
65 – 74	22.6%	35.6%	29.2%
75 – 84	20.9%	34.2%	28.2%
85+	20.8%	32.7%	28.4%
All Ages	14.8%	25.0%	19.9%

There are also geographic differences in the level of anti-depressant dispensing across Northern Ireland. At Local Government District (LGD) level, Derry City & Strabane had the highest proportion of the population receiving anti-depressants in 2022/23 at 23.4%. It was closely followed by Belfast at 22.5%.

The lowest levels were seen in Mid Ulster, where 16.2% of the population received antidepressants in 2022/23 and Fermanagh & Omagh and Lisburn & Castlereagh, where they were dispensed to 17.9% of the population.

Despite this variation, the proportion of the population who had been dispensed antidepressants rose in all LGDs in 2022/23. A full breakdown of anti-depressant dispensing at LGD level is provided in table 6.3 below.

Table 6.3: Number of individuals receiving anti-depressants by LGD, 2022/23

Local Government District	Number of Individuals	% of total Population
Antrim & Newtownabbey	29,219	20.2%
Ards & North Down	33,104	20.3%
Armagh City, Banbridge & Craigavon	41,641	18.7%
Belfast	77,465	22.5%
Causeway Coast & Glens	28,589	19.7%
Derry City & Strabane	35,434	23.4%
Fermanagh & Omagh	21,289	17.9%
Lisburn & Castlereagh	26,984	17.9%
Mid & East Antrim	29,189	20.8%
Mid Ulster	24,729	16.2%
Newry, Mourne & Down	34,183	18.5%
Unknown <sup>16</sup>	462	N/A
Northern Ireland	382,288	19.9%

An analysis of anti-depressant dispensing by deprivation quintile showed that the proportion of the population receiving such medications was highest in areas with higher levels of deprivation. In the most deprived quintile, anti-depressants were dispensed to 26.1% of the population. In the least deprived areas, the equivalent figure was 16.8%. The full figures are shown in Table 6.4 on the following page.

37

<sup>&</sup>lt;sup>16</sup> Geographic information is not available for a small number of individuals due to errors and omissions in the address information. They are included in the overall Northern Ireland figures and age/sex breakdowns.

Table 6.4: Number of individuals receiving anti-depressants by deprivation quintile, 2022/23

Deprivation Quintile	Number of Individuals	% of total Population
1 (most)	92,392	26.1%
2	82,653	21.4%
3	74,907	18.8%
4	71,165	18.0%
5 (least)	60,709	16.8%
Unassignable	462	N/A
Northern Ireland	382,288	19.9%

## 6.3 Diabetes medication and products

Diabetes medication and products were dispensed to 109,762 people in 2022/23, which was an increase of 6.8% on the previous year. Overall, 5.7% of Northern Ireland's population received diabetes medication and products during the year.

As shown in Table 6.5, males represented 56.3% of individuals who received such items. This meant that these medications were dispensed to 6.5% of the male population in 2022/23. The equivalent figure for females was 4.9%.

Table 6.5: Individuals receiving diabetes medication & products by sex, 2022/23

Sex	Number of individuals	%
Male	61,812	56.3
Female	47,950	43.7
Northern Ireland	109,762	100.0

The proportion of the population receiving diabetes medication and products generally increases with age, with the notable exception of the 85+ age cohort. At one extreme, just 0.4% of individuals aged under 18 received such items. At the other, these items were dispensed to 22.4% of males aged between 75 and 84. As shown in Table 6.6 on the following page, this trend is particularly pronounced among males after the age of 44.

Table 6.6: Percentage of population receiving diabetes medication & products by age and sex, 2022/23

Age Group	% Male	% Female	% Overall
Under 18	0.4%	0.4%	0.4%
18 - 24	1.0%	1.3%	1.1%
25 - 34	1.3%	3.0%	2.1%
35 - 44	2.9%	3.2%	3.1%
45 - 64	9.9%	6.3%	8.0%
65 – 74	19.1%	11.5%	15.2%
75 – 84	22.4%	14.2%	17.9%
85+	19.7%	12.0%	14.8%
All Ages	6.5%	4.9%	5.7%

The proportion of the population who were dispensed diabetes medication and products rose in all LGDs in 2022/23. There remained, however, some geographic variation. Mid & East Antrim had the highest rate of dispensing at 6.4% of the population in 2022/23. At the other end of the scale, the equivalent rate for Mid Ulster was 5.1%. A breakdown of dispensing by LGD is provided in Table 6.7 below.

Table 6.7: Number of individuals receiving diabetes medication & products by LGD, 2022/23

Local Government District	Number of Individuals	% of total Population
Antrim & Newtownabbey	8,646	6.0%
Ards & North Down	10,031	6.1%
Armagh City, Banbridge & Craigavon	12,490	5.6%
Belfast	19,518	5.7%
Causeway Coast & Glens	8,461	5.8%
Derry City & Strabane	8,912	5.9%
Fermanagh & Omagh	6,707	5.7%
Lisburn & Castlereagh	7,952	5.3%
Mid & East Antrim	8,979	6.4%
Mid Ulster	7,780	5.1%
Newry, Mourne & Down	10,180	5.5%
Unknown	106	N/A
Northern Ireland	109,762	5.7%

An analysis of dispensing by deprivation quintile showed that the proportion of the population receiving diabetes medication and products was highest in areas with higher levels of deprivation. In the most deprived quintile, these items were dispensed to 6.6% of the population. In the least deprived areas, the equivalent figure was 5.0%. A breakdown of dispensing by deprivation quintile is provided below.

Table 6.8: Number of individuals receiving diabetes medication & products by deprivation quintile, 2022/23

Deprivation Quintile	Number of Individuals	% of total Population
1 (most)	23,506	6.6%
2	23,606	6.1%
3	22,790	5.7%
4	21,611	5.5%
5 (least)	18,143	5.0%
Unassignable	106	N/A
Northern Ireland	109,762	5.7

# **6.4 Opioid Analgesics**

Opioid analgesics were dispensed to 101,146 people in 2022/23, which was an increase of 0.4% on the previous year. Overall, the proportion of the population receiving opioid analgesics remained static at 5.3%.

As shown in Table 6.9 below, females accounted for 60.9% of individuals who received opioid analysesics. This meant that those medications were dispensed to 6.3% of the female population during 2022/23. The equivalent figure for males was 4.2%.

Table 6.9: Individuals receiving opioid analgesics by sex, 2022/23

Sex	Number of individuals	%
Male	39,584	39.1
Female	61,562	60.9
Northern Ireland	101,146	100.0

There was a clear link between the dispensing of opioid analgesics and age. The proportion of individuals receiving such medications was less than 10% in all groups under the age of 65. After this point, the level of dispensing rose sharply with a maximum level of 25.3% observed among females aged 85 and over. A detailed breakdown is provided in Table 6.10 below.

Table 6.10: Percentage of population receiving opioid analgesics by age and sex, 2022/23

Age Group	% Male	% Female	% Overall
Under 18	0.1%	0.1%	0.1%
18 - 24	0.4%	0.7%	0.6%
25 – 34	1.3%	2.2%	1.8%
35 – 44	3.1%	4.3%	3.7%
45 – 64	7.0%	9.4%	8.2%
65 – 74	9.9%	12.8%	11.4%
75 – 84	11.4%	16.7%	14.3%
85+	15.7%	25.3%	21.8%
All Ages	4.2%	6.3%	5.3%

There was some local variation in the dispensing of opioid analgesics at LGD level. Due to the link between opioid analgesic dispensing and age, it is probable that these differences are, in part, influenced by local variations in population structure.

In 2022/23, Ards & North Down had the highest proportion observed with 6.4% of its population receiving an opioid analgesic. By contrast, the equivalent figure for Mid Ulster was 4.0%. A full breakdown of the figures for opioid analgesics dispensing at LGD level are provided in Table 6.11 on the following page.

Table 6.11: Number of individuals receiving opioid analgesics by LGD, 2022/23

Local Government District	Number of Individuals	% of total Population
Antrim & Newtownabbey	7,666	5.3
Ards & North Down	10,463	6.4
Armagh City, Banbridge & Craigavon	11,217	5.0
Belfast	20,052	5.8
Causeway Coast & Glens	7,397	5.1
Derry City & Strabane	8,571	5.7
Fermanagh & Omagh	5,771	4.9
Lisburn & Castlereagh	7,301	4.9
Mid & East Antrim	7,654	5.5
Mid Ulster	6,077	4.0
Newry, Mourne & Down	8,867	4.8
Unknown	110	N/A
Northern Ireland	101,146	5.3

An analysis of dispensing by deprivation quintile showed that the proportion of the population receiving opioid analgesics was highest in more deprived areas. In the most deprived quintile, these items were dispensed to 6.8% of the population. In the least deprived areas, the equivalent figure was 4.3%. A breakdown of dispensing by deprivation quintile is provided below.

Table 6.12: Number of individuals receiving opioid analgesics by deprivation quintile, 2022/23

Deprivation Quintile	Number of Individuals	% of total Population
1 (most)	24,043	6.8
2	22,702	5.9
3	20,508	5.1
4	18,406	4.7
5 (least)	15,377	4.3
Unassignable	110	N/A
Northern Ireland	101,146	5.3

# **Additional Notes**

#### 1. Dispensing Contractors

There are three types of dispensing contractors featured in this report. These are:

#### Community Pharmacy -

Community Pharmacies provide various healthcare services to local communities in Northern Ireland. Although the dispensing of prescriptions is often seen as the primary part of their role, they do provide a range of other services such as Health Promotion, Medicines Usage Reviews, Manage Your Medicines and a Minor Ailments service.

#### Dispensing Doctors -

Dispensing doctors are general practitioners (GPs) who provide primary healthcare to patients who have difficulty getting access to a community pharmacy. Under current arrangements such patients can be put onto a dispensing patients' list if they meet the following criteria:

- A patient lives more than five kilometres away from a community pharmacy; and
- The GP practice where a patient normally attends is more than one kilometre from a community pharmacy.

Appliance Supplier -

Appliance suppliers are authorised to dispense pharmaceutical appliance devices such as Stoma appliances.

## 2. Prescriptions

Prescription forms for prescriptions are submitted on a monthly basis to the Business Services Organisation (BSO) for payment by community pharmacies, appliance contractors and dispensing doctors. In 2022/23, 25.2 million pharmacy forms were processed and paid by BSO.

They are prescribed by GPs and other nonmedical prescribers such as Community Nurses, Supplementary Prescribers, Dentists and a small proportion from Consultants working in the community.

In addition, prescriptions written in other parts of the UK but dispensed in Northern Ireland are also included. The data will include prescriptions that have been ordered on Stock Orders, Hospice Invoices and Pharmacy Vouchers.

Only prescriptions that are subsequently dispensed are included in the data – for example, if a patient does not take a prescription to the pharmacy for dispensing, then there is no information about that prescription in our source dataset.

### 3. Prescription Items

A prescription item is a single supply of a medicine, dressing or appliance written on a prescription form.

If a prescription form includes three medicines it is counted as three prescription items. Item figures do not provide any indication of the length of treatment or quantity of medicine prescribed.

Patients with a long-term condition usually get regular prescriptions.

It should also be noted that the Northern Ireland drug tariff includes the facility of instalment or Multiple Dispensing where the pharmacy supplies part of the total quantity of a prescribed medicine at set intervals (e.g. weekly or daily) as requested by the GP or other authorised prescriber. Regardless of this method of dispensing the prescription item still only counts as one item.

A similar dispensing practice is available in Scotland whilst the instalment dispensing of controlled drugs in England and Wales is facilitated through prescription items of lesser quantities being prescribed more frequently.

Further information on Multiple Dispensing in Northern Ireland can be found on page 9 of the latest version of the NI Drug Tariff.

#### 4. Ingredient Cost

This is the basic cost of a drug as used in primary care. This is the cost at list price excluding VAT, i.e. the price listed in the national Drug Tariff or in standard price lists and is not necessarily the price that has been paid.

It does not consider any contract prices or discounts, dispensing costs or fees, so the actual cost to the health service will be different.

In other parts of the UK the equivalent is called the Net Ingredient Cost (NIC) and is used in Prescription Services reports and other analyses, as it standardises prescribing costs nationally, and allows comparisons of data from different sources.

### **5. British National Formulary (BNF)**

From BNF Edition 70 onwards, the British National Formulary moved to a disease-based classification of drugs rather than a drug-based classification.

The Family Practitioner Services Payment System requires the drug-based classification to ensure the accurate reimbursement of drugs to community pharmacists. All statistics on BNF chapters are therefore based on pseudo BNF chapters as of Edition 69. This is consistent with the NHS Business Services Authority method of reporting.

### 6. Patient Information

Patient information is linked to dispensing data when a prescription form has been successfully scanned. The captured patient Health and Care Number (HCN) is then used to link to patient registration records on the National Health Application and Infrastructure

Services (NHAIS) system. Further information on NHAIS data can be found here.

In the past, BSO had experienced a reduction in scan rates resulting in around 25% of prescription items not having attributed patient information in 2017/18 and 2018/19.

The historic reduction in scanning quality was widespread across Northern Ireland and not just isolated to any particular areas. Further information on scan rates by geographical location can be found in the <a href="Background">Background</a> Quality Report.

However, this has recently improved and in 2022/23, 90.5% of prescription items had attributed patient information. This has meant that a similar proportion of prescriptions will have a geographical area or patient profile assigned.

This constitutes an extremely large and representative sample of patient prescribing patterns across Northern Ireland. As a result, the impact on the robustness of the age, gender and geographical estimates is negligible. Further information on the statistical uncertainty associated with these estimates will be provided in an updated Background Quality Report, to be published by September 2023 on the BSO website.

### 7. Population

NISRA population figures are used in this release.

The 2022 mid-year estimate was not available at the time of preparation. As a result, a 2018-based population projection for 2022 was used for all Northern Ireland and sub-Northern Ireland geographies. All figures used are published on NISRA website.

# **Technical Notes**

#### **Target Audience**

The target audience for this publication has been defined as: the Department of Health, Chief Executives of HSC Trusts in Northern Ireland, health professionals, academics, HSC Stakeholders, the media and the general public.

#### Main usages

This publication contains national statistics on community pharmacy and general pharmaceutical dispensing for the most recent financial year (and earlier years where available on a comparable basis).

They can be used to monitor trends in general pharmaceutical service over time and across Northern Ireland.

The information can be used to support decision making, inform policy, provide advice to ministers, answer a wide range of Assembly Questions and Freedom of Information requests, for national and local press articles and, where appropriate, for international comparison.

#### **Data Source Information**

The data has been primarily sourced from the Family Practitioner Service (FPS) Pharmacy Payment System. Resident population data has been sourced from official NISRA demographic statistics.

The Pharmacy Payment System enables BSO to make payments to pharmaceutical contractors for dispensing prescription items that have been prescribed in primary care (e.g. by General Practitioner, Nurse Practitioner, Dentist, Podiatrist) as well as through the minor ailments scheme available in a number of pharmacies.

Further information on this process can be found <u>here</u> on the FPS website.

#### Coverage

Data in this report are published by the financial year (1<sup>st</sup> April – 31<sup>st</sup> March) in which the dispensed prescriptions were reimbursed. Although the majority of prescriptions will have been reimbursed in the same month they were dispensed, there will be some that will lie outside this timeframe.

Such cases will include prescriptions submitted for payment at the end of the previous financial year and exclude some prescriptions submitted towards the end of this reporting year which were not submitted for payment by March 2023.

The data is based on prescriptions provided to the Family Practitioner Service (FPS) for reimbursement by community pharmacists, dispensing doctors and appliance suppliers. The information does not include prescribing in a secondary care or private setting for example medications received while in hospital.

Community Pharmacy counts are taken at 31st March for each financial year.

#### **Data Quality Summary**

The Pharmacy Payment System is a business-critical payment system which is subject to period audit. The data quality is assessed as very good based on the low percentage of claims which have to be adjusted following payment.

As an administrative data system, there will inevitably be some manual entry errors and, even for automated processes, there may be errors within the claims submitted by primary care contractors.

The extensive validation that occurs prior to payments being made, coupled with the consistency and variance checks carried out during the compilation of this publication means that the data provides a good

representation of FPS activity for the years covered by the report.

Further information can be found in the background data quality report and the Quality Assurance of Administrative Data Report.

### **National comparisons**

This publication contains comparisons between Northern Ireland and other regions of the United Kingdom. The comparative data is available from the following sources:

#### **England**

Statistics on General Pharmaceutical Services:

General Pharmaceutical Services in England 2015/16 - 2021/22 | NHSBSA

Prescription Cost Analysis:

<u>Prescription Cost Analysis – England – 2022/23 | NHSBSA</u>

#### Wales

Statistics on General Pharmaceutical Services:

Community pharmacy services: April 2021 to March 2022 | GOV.WALES

Prescription Cost Analysis:

<u>Prescription Cost Analysis - NHS Wales</u> <u>Shared Services Partnership</u>

#### Scotland

Statistics on General Pharmaceutical Services:

Community Pharmacy - Contractor Activity - Datasets - Scottish Health and Social Care Open Data

Prescription Cost Analysis:

Dispenser payments and prescription cost analysis - Financial year 2021 to 2022 - Dispenser payments and prescription cost analysis - Publications - Public Health Scotland

# **Publication Information**

## **Family Practitioner Services**

Family Practitioner Services (FPS) is part of the BSO's Operations Directorate. It provides a range of essential services to Health and Social Care organisations, primary care contractors and patients.

FPS calculates payments to health professionals in the dental, pharmacy, general practice and ophthalmic sectors through Northern Ireland. It also maintains the central register of patients registered with GP practices in Northern Ireland, issuing medical cards and processing changes such as name, address and doctor.

It provides professional advice, support and information to customers and members of the public and maintains the pharmaceutical, dental and the Northern Ireland Primary Medical Performers lists. FPS also provides the call and recall services for breast, cervical and bowel cancer screening in Northern Ireland.

# **About this publication**

This report has been produced by independent statisticians within the FPS Information Unit. They are on secondment from the Northern Ireland Statistics and Research Agency (NISRA). This publication has been compiled in accordance with the Code of Practice for Statistics.

#### **Next edition**

This publication is issued annually. It is expected that the next edition shall be published in June 2024. In the interim, quarterly tables are published separately <a href="here">here</a>. The quarterly figures are provisional until the annual publication for that year issues, at which point they are finalised. The release calendar for future statistical publications is available on the BSO website <a href="here">here</a>.

FPS General Pharmaceutical Services Annual Report 2022/23
This statistical bulletin and others published by Information Unit within
BSO are available to download from the BSO Internet site