

# **Prescribing & Medicines: Dispensing Reimbursement, Remuneration and Volume**

**Financial Year 2015/16**

**Publication date – 28 June 2016**

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## Contents

Introduction .....	2
Key points .....	3
Results and Commentary .....	4
NHSScotland .....	4
Volume .....	4
Total (Net) Cost (cost to the Scottish Government) .....	4
Gross Cost (NIC plus remuneration) .....	5
Gross Ingredient Cost (reimbursement before discount) .....	6
NHS Board .....	6
Glossary .....	8
List of Tables .....	10
Contact .....	11
Further Information .....	11
Rate this publication .....	11
Appendices .....	12
A1 – Background Information .....	12
How the data are obtained .....	12
Items .....	12
Changes to publications .....	12
A3 – Early Access details (including Pre-Release Access) .....	18
A4 – ISD and Official Statistics .....	19

## Introduction

Dispensing contractors, i.e. community pharmacists, dispensing doctors and appliance suppliers, are contracted by NHSScotland to provide a service to the populace of Scotland. To ensure medicines, dressings and appliances are available for dispensing when a patient arrives with a prescription, dispensing contractors purchase these products in advance.

Dispensing contractors receive two distinct types of payment:

- remuneration for the service they provide
- reimbursement for the products they dispense

Payments are derived from information gathered by [Practitioner Services](#), within the Practitioner and Counter Fraud Service, after the pricing of prescriptions has taken place. Payments to dispensing contractors are made by Practitioner Services on behalf of the NHS Boards. The vast majority of payments are made to community pharmacies, and are broken down further to distinguish stock order payments and oxygen payments. An example of a stock order item is a batch of influenza vaccinations. Appliance suppliers provide larger items such as bandages and, more commonly, stoma appliances.

Dispensing doctors are General Practitioners (GPs) who are also contracted to dispense medicinal products. This generally occurs in more remote areas with a smaller population, where a separate doctor's surgery and pharmacy dispensary may not be practical or financially viable.

The two main statistics reported on in this publication are volume, which is the count of all the prescription items reimbursed, and cost. There are various ways of calculating the cost: from the cost of the drugs; to the cost of fees to contractors for dispensing those drugs, deducting patient charges. The report also refers to total net cost, which is the cost to the Scottish Government. All definitions can be found in the [glossary](#) below.

## Key points

### Overall Cost

- The total (net) cost in 2015/16 was £1.3 billion; this is an increase of 6.9% compared to 2014/15. The net cost of items dispensed has increased overall by 28.0% over the last 10 years.

### Products Dispensed

- A total of 102.2 million items were dispensed in 2015/16, an increase of 1.1% compared with 2014/15. The number of items dispensed has been increasing year on year with a total increase of 28.1% over the last 10 years, however this rate of increase has slowed in recent years.
- The Gross Ingredient Cost (GIC) of items increased by 8.6% between 2014/15 and 2015/16, to £1.1 billion. This is partly due to price adjustments, new medicines and the move in supply of some high cost treatment regimes from hospital to primary care.
- This is reflected in the average cost per item which has increased from £10.04 to £10.79 between 2014/15 and 2015/16.

### Services Provided

- The cost for remuneration of services has increased by £4.9 million (2.4%) from £208.5 million in 2014/15 to £213.4 million in 2015/16.

## Results and Commentary

### NHSScotland

#### Volume

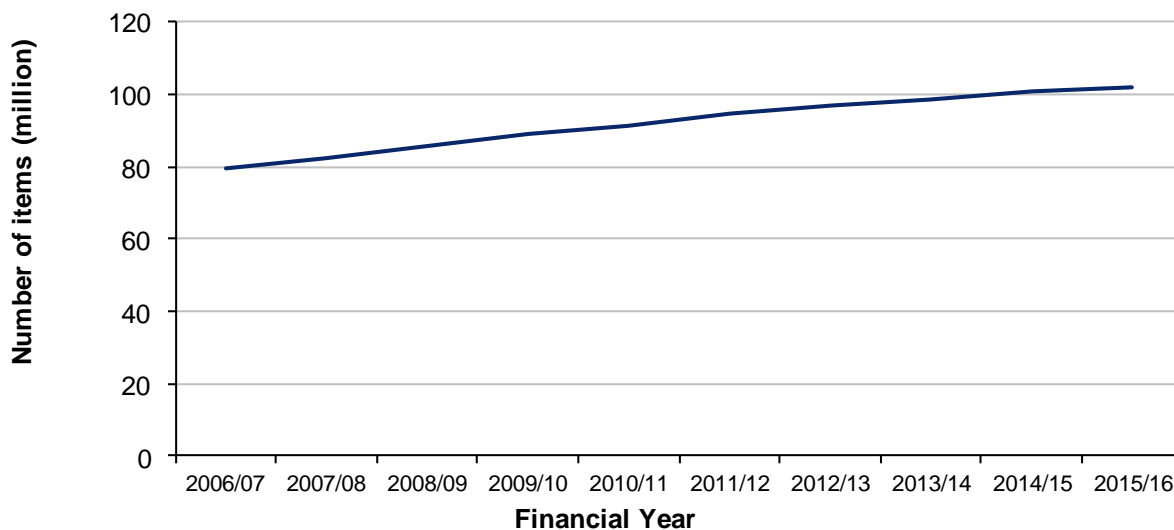
Information on the number of dispensed items (volume) and the total (net) cost has been analysed over a ten year period.

The number of items dispensed in NHSScotland over a ten year period for financial years 2006/07 to 2015/16 is shown in Figure 1. Prescribing volumes have increased year on year, with an overall increase of 28.1% from 79.8 million items in 2006/07 to 102.2 million items in 2015/16.

This growth reflects not only the availability of new or more effective medicines, but also prescription processing and demographic changes and the implementation of new clinical guidelines and recommendations.<sup>1</sup>

The rate of increase in prescribing volumes has fallen from last year. Between 2014/15 and 2015/16 the volume increased by 1.1% compared to 2.4% between 2013/14 and 2014/15.

**Figure 1 – Number of items dispensed in NHSScotland, 2006/07 – 2015/16**



Source: Prescribing Information System, ISD Scotland

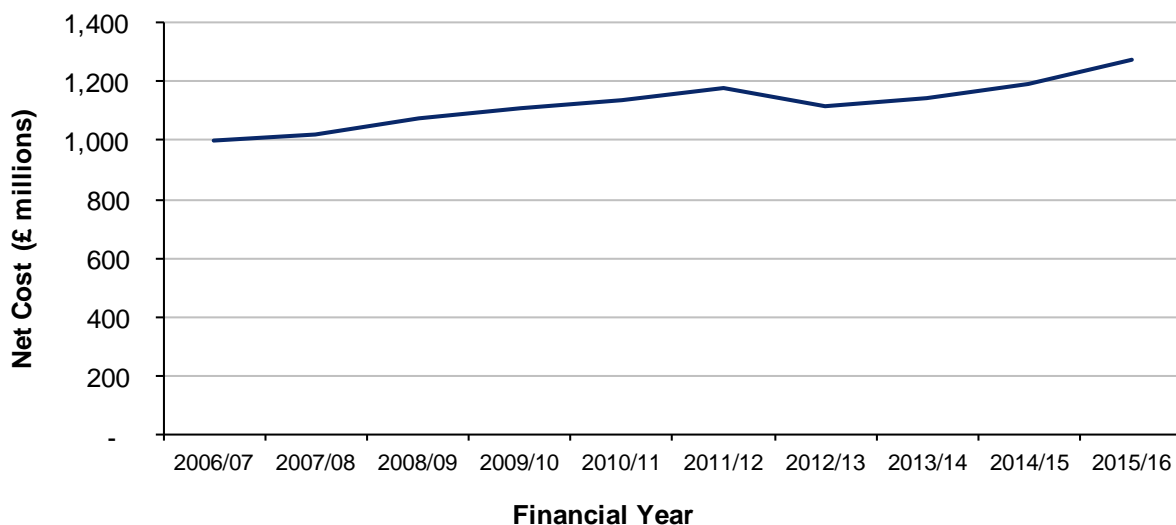
#### Total (Net) Cost (cost to the Scottish Government)

The total (net) cost in NHSScotland between 2006/07 and 2015/16 is shown in Figure 2. Between 2006/07 and 2015/16 the net cost increased by 28.0% overall, though there was a break in the upwards trend between 2011/12 and 2012/13 when the net cost fell by 5.0% (Figure 2). This fall is due to a number of widely used lines, e.g. atorvastatin, coming out of patent in 2011/12 and 2012/13.

Between 2014/15 and 2015/16 the net cost rose by 6.9% to £1.3 billion.

<sup>1</sup> Audit Scotland, Prescribing in general practice in Scotland, January 2013, point 16 ([http://www.audit-scotland.gov.uk/docs/health/2013/nr\\_130124\\_gp\\_prescribing.pdf](http://www.audit-scotland.gov.uk/docs/health/2013/nr_130124_gp_prescribing.pdf))

**Figure 2 – Total (Net) cost (£) in NHSScotland, 2006/07 – 2015/16**



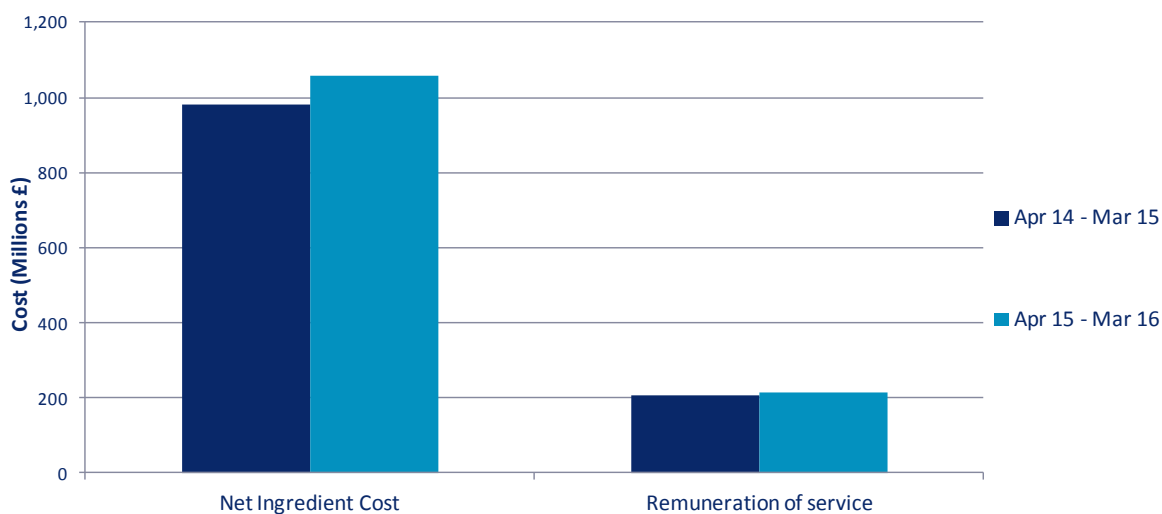
Source: Prescribing Information System, ISD Scotland

### Gross Cost (NIC plus remuneration)

The gross cost is made up of the Net Ingredient Cost (NIC) (the cost of drugs and appliances reimbursed after deduction of any dispenser discount) and remuneration for services provided (this includes costs, fees and additional payments). Gross cost differs slightly to net cost; where net cost also incorporates patient charges.

Of the gross cost, 83.2% (£1.1 billion) is attributed to NIC and 16.8% (£213.4 million) is attributed to remuneration of service (Figure 3). This is a slight increase in the proportion spent on NIC compared to 2014/15 (82.5%). The amount spent on remuneration of service rose by 2.4% between 2014/15 and 2015/16, while NIC increased by 7.7%.

**Figure 3: Gross Total Payments, 2014/15 and 2015/16, Scotland**



Source: Prescribing Information System, ISD Scotland

There has been a recent move in the supply of some treatment regimes from hospital to primary care to better suit the needs of the patient population and provide treatment closer to home. Some of these medicines have a high cost per item which contributes to an increase in the overall NIC reimbursed to dispensing contractors in recent financial years. Other factors, such as price adjustments for items with supply issues and the adoption of novel agents such as Direct Acting Oral Anticoagulants (DOACs), also contribute to the observed increase in cost per item.

## Gross Ingredient Cost (reimbursement before discount)

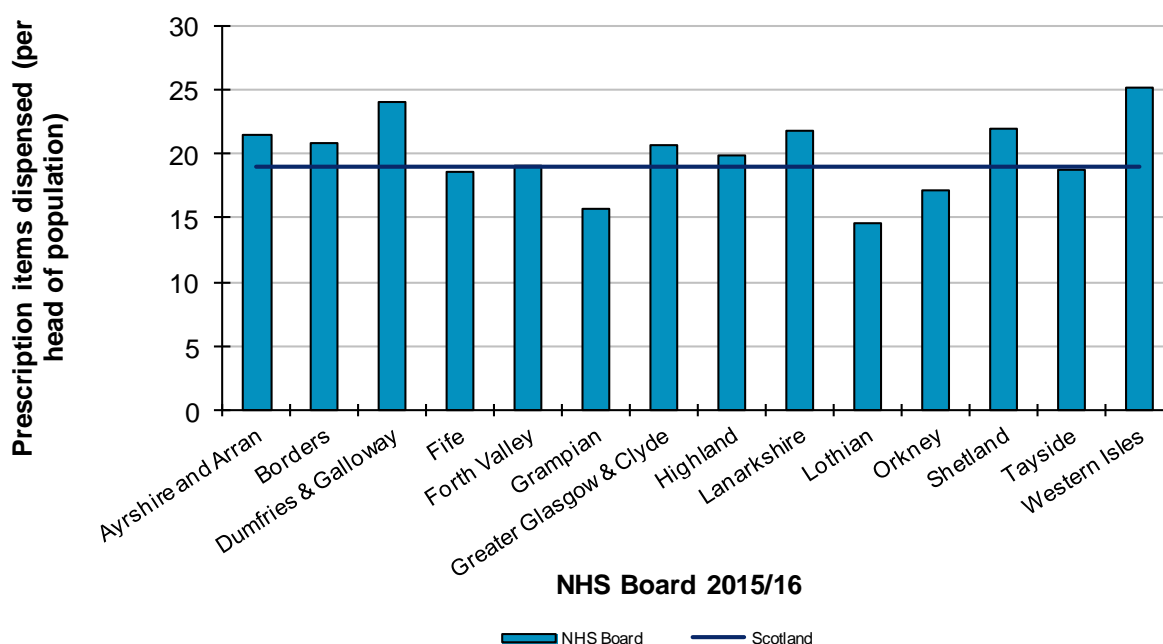
The Gross Ingredient Cost (cost of drugs and appliances reimbursed before deduction of any dispenser discount) in 2015/16 increased by 8.6% compared to 2014/15; a higher rate than the number of items dispensed (1.1%). The cost per item therefore has increased, from £10.04 to £10.79.

## NHS Board

Information on the NHS Board in which the prescriptions were dispensed within in 2015/16 has also been analysed. Data are shown per head of population and both volume and total (net) cost have been evaluated.

Figure 4 shows the variation between the NHS Boards in terms of the number of prescription items dispensed per head of population. There are multiple factors that contribute to regional variation in prescribing practice; these would include factors such as duration of repeat prescriptions, population demographics and prevalence of chronic disease. Nine NHS Boards are above the Scottish average of 19.0 prescription items dispensed per person, with NHS Western Isles the highest at 25.2 items per person and NHS Lothian the lowest at 14.7 items per person (Figure 4).

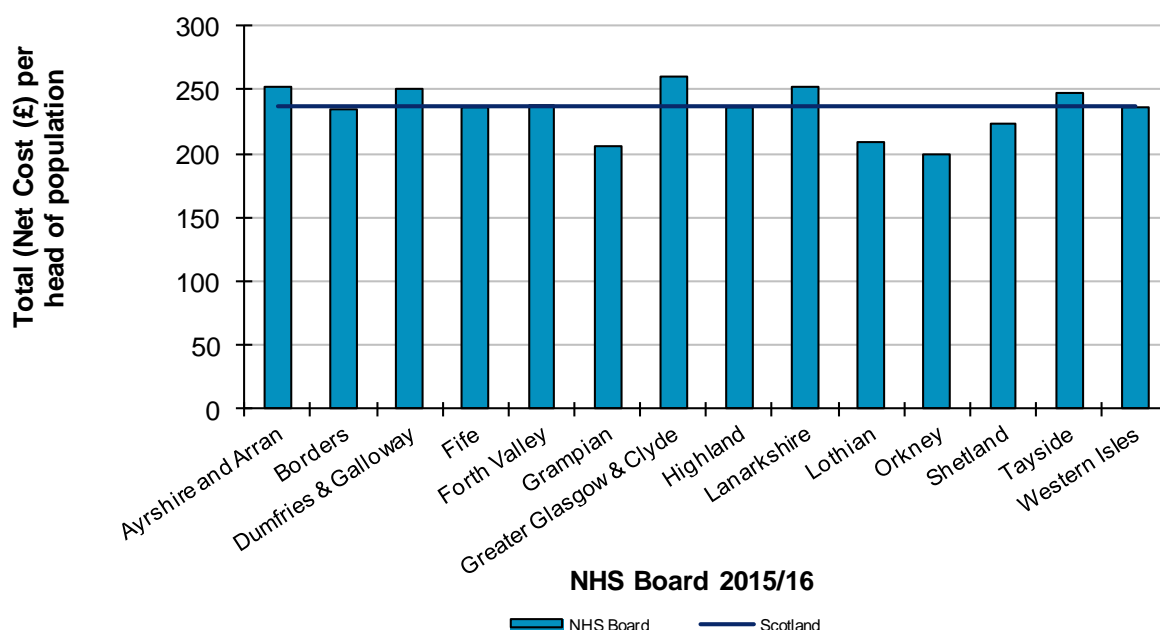
**Figure 4 – Number of prescription items dispensed per head of population by NHS Board, 2015/16**



Source: Prescribing Information System, ISD Scotland

The average total (net) cost per person by NHS Board is shown in Figure 5. Again, regional variation in prescribing costs can be influenced by a variety of factors, although as shown below the variation about the mean is less than that for the number of items per person. Four Boards are within 1% of the Scottish average in cost per person (as opposed to only one Board for items per person). This may result from a shared aim of spending efficiently. Further, only five NHS Boards have an average cost over that of the Scottish average of £237.75, but together these five Boards represent approximately half the Scottish population (2.7 million out of 5.4 million<sup>2</sup>). These are not necessarily the same NHS Boards that had a higher than average number of items per person. For example, NHS Greater Glasgow & Clyde had the highest cost per person (Figure 5), but was the 7<sup>th</sup> highest for items per person.

**Figure 5 – Average total (net) cost (£) per head of population by NHS Board, 2015/16**



Source: Prescribing Information System, ISD Scotland

<sup>2</sup> National Records of Scotland (<http://www.nrscotland.gov.uk>), mid-2015 population estimates (published April 2016)



## Glossary

Advance Payment	Each month, contractors receive an advance payment of the majority of their anticipated combined remuneration and reimbursement income for the following month, with reconciliation once prescriptions are received for payment processing.
Appliance Supplier (AS)	Appliance suppliers are a specific sub-set of NHS dispensing contractors who are contracted to supply approved medical devices on prescriptions (e.g. stoma).
British National Formulary (BNF)	A standard classification of medicines into conditions of primary therapeutic use, the aim is to provide prescribers, pharmacists and other healthcare professionals with sound up-to-date information about the use of medicines.
Community Pharmacy (CP)	A retail pharmacy outlet holding a contract with an NHS Board to provide NHS pharmaceutical services
Dispensing Doctor (practice)	Dispensing practices exist in those areas of Scotland where the population density is considered too low to support a pharmacy and where the NHS Board has determined that a dispensing service should be supplied.
Dispensing NHS Board	The NHS Board with which the dispenser holds a dispensing contract, i.e. Community Pharmacy, Dispensing Doctor or Appliance Supplier.
Dispensing Contractor	Dispensing contractors, ie community pharmacists, dispensing doctors and appliance suppliers, are contracted by NHSScotland to provide a service to the populace of Scotland.
Essential Small Pharmacy	Not all areas of Scotland that have a need for a pharmacy can support one due to the surrounding population density. The population may be such that insufficient business would be generated to make the business economically viable. The Essential Small Pharmacy Scheme (ESP) was introduced to help maintain a pharmacy service in such localities.
Gross Cost	Net Ingredient Cost plus dispensing fees plus other fees and allowances centrally paid.
Gross Ingredient Cost (GIC)	Cost of medicines and appliances reimbursed before deduction of any dispenser discount (note: this definition differs from other parts of the UK).
Net Ingredient Cost (NIC)	Cost of medicines and appliances reimbursed after deduction of any dispenser discount (note: this definition differs from other parts of the UK).
Number of Stock Order Forms	Number of stock orders placed directly by a prescriber e.g. influenza vaccinations. Stock Order Form GP10A is issued by a GP practice to top up items used by the practice for the immediate treatment of patients.
Over The Counter	A medicine or device for which a prescription is not needed.

Part 7 Items	Medicine items included in Part 7 of the Scottish drug tariff. These are unbranded items for which a price has been agreed.
Patient Charges	Income generated from paid prescriptions (£0.0 per item in Scotland as at 1st April 2011) excludes prepayment certificates.
Prescription Form	A prescription form that can contain up to three items.
Prescription Item	An item is an individual product prescribed e.g.100 aspirin tablets of 300mg, they are also called a dispensed item.
Prescribing Information System	NSS Scotland's national prescribing dataset.
Scottish Drug Tariff	The <a href="#">Scottish Drug Tariff</a> contains information regarding the prescribing, dispensing and reimbursement of medicines and appliances on primary care NHS prescriptions.
Stock Orders	Stock orders are used to request products for immediate administration by the clinician in a general practice or clinic situation.
Total (Net) Cost	Gross cost, including advance payments from 2013/14, minus charges paid by patients.

## List of Tables

Table No.	Name	Time period	File & size
1	<a href="#">Financial year 2015-16 schedules</a>	Financial Year 2015/16	Excel [124kb]
2	<a href="#">Volume and Cost (NHSScotland)</a>	Financial Years 2006/07 – 2015/16	Excel [91kb]
3	<a href="#">Volume and Cost (NHS Board)</a>	Financial Years 2006/07 – 2015/16	Excel [255kb]

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## Further Information

Further information can be found on the [ISD website](#)

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## Appendices

### A1 – Background Information

#### How the data are obtained

[Practitioner Services](#) process all NHS prescriptions for payment of pharmacists, dispensing doctors and appliance suppliers. The data includes prescribing by GPs (General Medical Practitioners) and other prescribers (nurses, pharmacists, dentists and allied health professionals (AHPs)). Also included are prescriptions written in hospitals that were dispensed in the community. Information Services Division (ISD) cannot say what proportion of the drug dispensed is actually consumed. These data do not include products purchased "over the counter". Prescriptions processed internally by Boards for payment purposes are not included in these data.

#### Items

The number of items relates to the number of prescription items dispensed and paid in the time period. There should be a maximum of three line items on a prescription; this should be three individual products defined by active ingredient, formulation type and strength for medicines, with appropriate parallel measures for appliances. A compounded product with a known formula will count as one item despite the number of ingredients. It differs from 'line items' where for example multiple pack sizes or flavours have been dispensed – that would count as one line item, but more than one dispensed/paid item.

#### Changes to publications

##### Changes to Summary Statistics publications

From 2015/16 the Summary Statistics data tables and accompanying Volume and Cost commentary previously contained in the [PCA publication](#) has been moved into this publication. Summary Statistics (now named Volume and Cost) data tables and commentary prior to 2015/16 can be found on the PCA publication webpage.

Changes were made in June 2014 to the way the number of items is calculated for the Summary Statistics publication to bring it into line with other publications. Additionally, the populations used were updated to the National Records of Scotland (NRS) re-based estimates based on the 2011 census. Both changes were applied to all data in the accompanying tables.

These changes should be noted when comparing data from PCA publications produced prior to 2013/14. Please see the [2013/14 PCA Report](#) for further information.

Additionally, the NRS mid-year estimates for 2012/13 – 2014/15 have been updated in this publication to take in to account an error that was discovered by NRS in 2015.

##### NHS Health Board boundary changes

On the 1st April 2014 a number of changes were made to NHS Health Board boundaries to ease the integration of NHS and Local Authority services. These revisions resulted in small changes to the resident populations of the majority of Scottish NHS Health Boards. NHS Greater Glasgow & Clyde and NHS Lanarkshire saw the largest changes to resident populations, with approximately 72,000 residents being reassigned from NHS Greater Glasgow & Clyde to NHS Lanarkshire. A small number of GP Practices and Community Pharmacies that had previously been affiliated to NHS Greater Glasgow and Clyde were also transferred to

sit within the revised NHS Lanarkshire boundary. The impact of these changes should be taken into consideration when comparing trends in NHS Board activity over time.

### **Changes to Remuneration arrangements**

The contractor fees have been restructured from October 2013 and again from April 2014 (as explained in the Scottish Government circulars [PCA\(P\)\(2013\)26](#) and [PCA\(P\)\(2014\)7](#)). There have been many changes to the Remuneration data tables as the contract moved through the transitional phase. These changes do not affect the overall gross total as they have involved restructuring existing payments rather than any changes to the global sum. Therefore it is still appropriate to look at changes over time. All of the quarterly remuneration arrangements can be found in the [Scottish Government circulars](#).

A2 – Publication Metadata (including revisions details)

Metadata Indicator	Description
Publication title	Prescribing & Medicines: Dispensing Reimbursement, Remuneration and Volume
Description	Dispenser remuneration looks at reimbursement and remuneration of payments made to Scottish dispensers of pharmaceuticals in the community. The publication also includes the volume and gross ingredient cost of prescriptions items dispensed.
Theme	Health and Social Care
Topic	Health Care Personnel, Finance and Performance
Format	Excel workbook
Data source(s)	Prescribing Information System (PIS). All data held in PIS are sourced from Practitioner Services within NHS National Services Scotland who are responsible for the remuneration and reimbursement of dispensing contractors within Scotland.
Date that data are acquired	Data are acquired on a monthly basis from Practitioner Services following payment approximately two calendar months after the end of the month being claimed for payment by contractors
Release date	28 June 2016
Frequency	Annually
Timeframe of data and timeliness	Data covering financial year to 31 March 2016
Continuity of data	Data are held in PIS from April 1993 onwards. The definition of the main measures such as gross ingredient cost and number of items are unchanged over this period. Types and value of dispensing fees are agreed with the Scottish Government and set annually. Details can be found in the Scottish Drug Tariff and in <a href="#">Primary Care circulars</a> issued by the Government. Drug products are first licensed as proprietary medicines but generic versions often appear once the original patent expires. This can affect the price and uptake of these drugs. The Scottish Government sets the reimbursement price of generic drug products via the <a href="#">Scottish Drug Tariff</a> which is updated and issued quarterly.
Revisions statement	Data are sourced from monthly pharmacy payments data on an ongoing basis therefore once published there is no routine requirement to revise historical data. However occasionally adjustments are made to pharmacy payments retrospectively by Practitioner Services for example due to an administrative error. Retrospective revisions can also occur in the classification of drugs in the <a href="#">British National Formulary</a> (BNF). Where either of these occur and are

	<p>deemed to be significant in line with ISD's Revisions policy, a revision will be made to published data. This will be notified on the website.</p>
Revisions relevant to this publication	<p>The figures for NHS Boards used in this publication are based on the Board boundaries that took effect on 1 April 2014. The effect of these boundary changes should be taken into account when considering time series data or comparing figures from publications released before the new boundaries took effect, NHS Greater Glasgow and Clyde and NHS Lanarkshire are the two NHS Boards particularly affected.</p> <p>From the 2015/16 publication onwards the Summary Statistics data tables and accompanying Volume and Cost commentary previously contained in the <a href="#">PCA publication</a> has been moved into this publication, and the data tables have been renamed Volume &amp; Cost.</p> <p>Changes were made in June 2014 to the Summary Statistics data tables which should be noted when comparing figures from Summary Statistics publications released prior to 2013/14.</p> <p>The populations for 2012/13 - 2014/15, calculated using NRS mid-year estimates, have been updated to take into account an error that was discovered by NRS.</p> <p>Please see appendix 1 for further information on these changes.</p>
Concepts and definitions	<p>The data published in all these releases correspond to prescriptions that have been reimbursed in the community in Scotland, i.e. dispensed by a pharmacy, dispensing doctor or appliance supplier. This includes prescriptions which were issued in another UK country but dispensed in Scotland. These data do not include prescription drugs that were supplied and administered to patients in a hospital setting. Prescriptions issued in hospital to patients on discharge and dispensed in the community are included.</p>
Relevance and key uses of the statistics	<p>These statistics are the primary source of data used to monitor the national community drugs bill within Scotland and the pharmacy contract agreed with dispensing contractors. They are also used to monitor national and local prescribing indicators covering both the quality and efficiency of prescribing in general practice.</p>
Accuracy	<p>The data are sourced from a payment system and routine monthly checks are carried out by Practitioner Services on a random sample of approximately 5% of prescription payments. These check all data captured for payment and the accuracy of the payment calculation and have a target accuracy of 98% which is routinely met. Data that are captured but are not mandatory for payment purposes can be of lower quality; principally this includes the prescriber code which links a prescription back to the individual</p>



	prescriber e.g. GP and their organisation including NHS Board. These data, however, are not used for this publication.
Completeness	The Prescribing Information System holds information on 100% of NHSScotland prescriptions dispensed within the community and claimed for payment by a pharmacy contractor (i.e. pharmacy, dispensing doctor or appliance supplier). It does not include data on prescriptions dispensed but not claimed (likely to be very small) or prescriptions prescribed but not submitted for dispensing by a patient. Some research has estimated these latter prescriptions to account for around 6% of all prescriptions issued to patients. It is not possible to determine from payment data how much of the medicine dispensed to patients is actually taken in accordance with dosage instructions.
Comparability	The main measures of drug ingredient cost and volumes of items dispensed in the community are comparable across the UK countries. However it should be noted that the Gross Ingredient Cost (GIC) within Scotland is equivalent to the Net Ingredient Cost (NIC) in England, i.e. the reimbursement cost of drugs before any pharmacy discounts are applied. Also each country determines its own dispensing fees based on separate contractual arrangements with dispensing contractors in each country. A common formulary called the <a href="#">British National Formulary</a> (BNF) is used to classify drugs based on therapeutic use.
Accessibility	It is the policy of ISD Scotland to make its web sites and products accessible according to <a href="#">published guidelines</a> .
Coherence and clarity	All prescribing tables are accessible via the <a href="#">ISD website</a> . Prescribing statistics are presented within excel spreadsheets for NHSScotland and where appropriate broken down by NHS Board.
Value type and unit of measurement	The main units of measure of drug reimbursement costs are Gross Ingredient Cost (GIC) and Net ingredient cost (NIC) quantity. The latter takes account of pharmacy discounts, the rates for which are set by the Scottish Government in the Scottish Drug Tariff. There are a large number of individual dispensing remuneration fees paid to dispensing contractors details of which can be found in the Scottish Drug Tariff. The main measure of drug volume in this publication is items (the number of individual drug items on a prescription form). Further details and definitions can be found in the glossary.
Disclosure	The <a href="#">ISD protocol on Statistical Disclosure Protocol</a> is followed.
Official Statistics designation	Official Statistics.
UK Statistics Authority	Not currently put forward for assessment.

Assessment	
Last published	N/A
Next published	27 June 2017
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Help email	<a href="mailto:NSS.isdprescribing@nhs.net">NSS.isdprescribing@nhs.net</a>
Date form completed	20/06/2016

### **A3 – Early Access details (including Pre-Release Access)**

#### **Pre-Release Access**

Under terms of the "Pre-Release Access to Official Statistics (Scotland) Order 2008", ISD are obliged to publish information on those receiving Pre-Release Access ("Pre-Release Access" refers to statistics in their final form prior to publication). The standard maximum Pre-Release Access is five working days. Shown below are details of those receiving standard Pre-Release Access.

#### **Standard Pre-Release Access:**

Scottish Government Health Department

NHS Board Chief Executives

NHS Board Communication leads

## A4 – ISD and Official Statistics

### About ISD

Scotland has some of the best health service data in the world combining high quality, consistency, national coverage and the ability to link data to allow patient based analysis and follow up.

Information Services Division (ISD) is a business operating unit of NHS National Services Scotland and has been in existence for over 40 years. We are an essential support service to NHSScotland and the Scottish Government and others, responsive to the needs of NHSScotland as the delivery of health and social care evolves.

**Purpose:** To deliver effective national and specialist intelligence services to improve the health and wellbeing of people in Scotland.

**Mission:** Better Information, Better Decisions, Better Health

**Vision:** To be a valued partner in improving health and wellbeing in Scotland by providing a world class intelligence service.

### Official Statistics

Information Services Division (ISD) is the principal and authoritative source of statistics on health and care services in Scotland. ISD is designated by legislation as a producer of 'Official Statistics'. Our official statistics publications are produced to a high professional standard and comply with the Code of Practice for Official Statistics. The Code of Practice is produced and monitored by the UK Statistics Authority which is independent of Government. Under the Code of Practice, the format, content and timing of statistics publications are the responsibility of professional staff working within ISD.

ISD's statistical publications are currently classified as one of the following:

- National Statistics (ie assessed by the UK Statistics Authority as complying with the Code of Practice)
- National Statistics (ie legacy, still to be assessed by the UK Statistics Authority)
- Official Statistics (ie still to be assessed by the UK Statistics Authority)
- other (not Official Statistics)

Further information on ISD's statistics, including compliance with the Code of Practice for Official Statistics, and on the UK Statistics Authority, is available on the [ISD website](#).