An Phríomh-Oifig Staidrimh
Central Statistics Office

Standard Report on Methods and Quality for System of Health Accounts Ireland

Standard Report

on

Methods and Quality

for the

System of Health Accounts Ireland

This documentation applies to the reporting period:

2018

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1 Overview

The System of Health Accounts (SHA) was devised by the Organisation for Economic Co-operation and Development (OECD) and has been adopted for joint reporting of health care expenditure by the OECD, Eurostat and the World Health Organisation. It is an extension of the core National Accounts and consists of a family of interrelated tables for reporting expenditure on health and its financing.

The SHA contains common concepts, definitions, classifications and accounting rules to enable comparability over time and across countries. It provides a basis for uniform reporting by countries with a wide range of different models of organising their national health systems. The SHA also draws a commonly defined boundary around what is health care and distinguishes it from related social care services. This is particularly important for international comparisons given the diversity in health and social care services provision and their funding across Europe and the rest of the world.

2 General Information

2.1 Statistical Category

Primary statistical surveys combined with internal CSO data, data obtained from administrative records and from other miscellaneous sources.

2.2 Area of Activity

Current expenditure on health care for residents of Ireland.

2.3 Organisational Unit Responsible, Persons to Contact

The Government Accounts Division produces the System of Health Accounts (SHA).
Queries should be directed to the following contacts:

Name: Elaine O'Sullivan, Statistician
Division: Government Accounts Compilation and Outputs Division
Directorate: Macro-Economic Statistics
Telephone: (01) 498 4203
E-mail: sha@cso.ie

2.4 Objectives and Purpose; History

The SHA is an international standard facilitating analysis of health expenditure (public and private) cross-classified by type of care, providers of care, and sources of funding.

The SHA analysis four important areas within health expenditure:

- Where does the money to finance the health system come from (SHA code HF – Financing schemes)?
- Who does the money go to/who provides the health care (SHA code HP – Health Care Providers)?
- What kind of (functionally defined) services are performed and what type of goods are purchased (SHA code HC – Health Care Functions)?
- Where do the funds for the financing schemes come from (SHA code FS – Revenue of Finance Schemes)?

The data that is compiled for the SHA covers the four questions above and allows for cross classification between the HP, HC, HF codes and between HF and FS codes.

In 2000, the OECD published "A System of Health Accounts (SHA 1.0)" in an effort to try to standardise the collection of information on financial flows related to health care. This included an associated set of classifications of financial flows known as the International Classification of Health Accounts (ICHA). The OECD updated the SHA 1.0 with the System of Health Accounts 2011 and a revised 2017 edition (see Eurostat: SHA manual) which introduced a number of changes and improvements to SHA 1.0. The SHA 2011 offers more complete coverage within the functional classification in areas such as prevention and long-term care and a precise approach for tracking financing in the health care sector using the new classification of financing Schemes.

In 2013 the CSO set up the SHA project to establish a coherent, coordinated and sustainable system of data collection and compilation in relation to health care expenditure in Ireland in order to satisfy national policy purposes and international reporting requirements, in particular those of the Joint OECD/WHO/EU System of Health Accounts (SHA).

The SHA data was first transmitted to Eurostat and published in 2016 for the years 2013 and 2014. It has been compiled every year since. In 2018 SHA data for the years 2011 and 2012 was also published. In June 2020 first estimates for T+1 were published along with the usual T+2 results.

2.5 Periodicity

The SHA is carried out annually.

2.6 Client

Produced for Eurostat, OECD and WHO according to regulation (EU) 2015/359[1].

2.7 Users

- CSO, the data is used in the compilation of ESSPROS accounts,
- Department of Health,
- Department of Public Expenditure and Reform (DPER),
- Economic and Social Research Institute (ESRI),
- Other researchers and third level educational institutions,
- Media.

2.8 Legal basis

The Central Statistics Office (CSO) is required to report health expenditure data in accordance with the classifications and standards of the System of Health Accounts (SHA) to Eurostat (and OECD and WHO/) under Regulation (EU) 2015/359.

European statistics such as SHA data required under the regulation are produced in the context of the European Statistical System (ESS), which is a partnership between Eurostat (the EU Statistical Office), the National Statistical Institutes (NSIs) of the member states, and other national authorities (ONAs) responsible for the development, production and dissemination of European statistics.

Regulation (EU) 2015/359[2] requires data to be reported for the years 2014 to 2020 (see Article 4, paragraphs 4 and 5). The regulation will be superseded by a further regulation for years from 2021.

[1] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015R0359&from=EN
[2] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015R0359&from=EN

3 Statistical Concepts, Methods

3.1 Subject of the Statistics

Current expenditure on health care.

3.2 Units of Observation/Collection Units/Units of Presentation

The SHA relates to final consumption expenditure of resident units on health care goods and services, irrespective of where that consumption takes place (i.e. in the economic territory of the state or in the rest of the world).

SHA uses two types of units for data compilation. Local kind of activity (KAU) operating as providers of healthcare goods, services to resident units are statistical units in SHA.

The Private Health Insurance survey collection units are expenditure aggregated by health provider group and health care function group. The Health Service Executive supplies their data on health care expenditure aggregated to health provider, health care function and financing scheme.

Data is presented as amount of national currency (€) by provider code (HP), health care function code (HC) and financing scheme code (HF). Cross classifications of these codes are also presented.

3.3 Data Sources

For the compilation of the SHA the main supplier of data is the HSE, they submit their data which is coded using the SHA 2011 classification at T+18months. The main private health insurance companies complete a survey template which they receive in August of every year, the survey template is coded to the SHA 2011 classification and returned to the CSO the following October. The main administration data sources are revenue data which are analysed and are mainly used for the compilation of out-of-pocket expenditure. Other data sources which are collected are non-HSE government expenditure - some of the other departments are contacted by email for health expenditure data (such as Department of Health, Prison Services, Department of Defence, Department of Education and Skills, Department of Employment Affairs and Social Protection, Department of Justice and the Gardaí). Data from annual reports is also extracted as it becomes available - this would mainly relate to private healthcare providers and non-profit organisations. Benefacts database is extracted for data on NPISHs.

3.4 Reporting Unit/Respondents

The following return data through survey or by annual return:

- HSE,
- Government Departments,
- Private Health Insurers.
- Health and Information Quality Authority (HIQA)
- Private Hospitals

3.5 Type of Survey/Process

The SHA survey Private Health Insurers Expenditure data annually. The survey covers the 4 largest private health insurance providers in Ireland equals to 95%+ of private health insurance funded health care expenditure.

In 2014 the CSO also conducted a once-off survey of private hospitals in Ireland to ascertain funding of services in private hospitals, Private hospitals are predominantly funded by private health insurance. This data is being obtained from the private health insurance providers.However, a profile of the non-private health insurance funding was needed (a) to ascertain how much and (b) to ascertain which services it was funding. This survey will be repeated periodically to confirm this profile of non-PHI funding in private hospitals.

Other CSO survey results which are used in the compilation of SHA data are the Household Budget Survey (HBS) and the Annual Service Inquiry (ASI).The Household Budget survey is a random sample survey of households on their income and expenditure conducted every 5 years. The Annual Service Inquiry is a survey of business in certain NACE categories including pharmacies and supermarkets. Health expenditure and financing data pertain to the calendar year (1 January to 31 December).

3.6 Characteristics of the Sample/Process

3.6.1 Population and Sampling Frame

The population for the Private Health Insurers (PHI) survey are all the main private health insurance companies.

3.6.2 Sampling Design

Not applicable as all main private health insurance companies are surveyed.

3.7 Survey Technique/Data Transfer

A questionnaire is sent to the PHI companies each August and it is requested to be returned to CSO by the end of the following October. Data is transferred by a secure SFTP link.

3.8 Questionnaire (including explanations)

The PHIs survey is conducted using a questionnaire in Excel and details all health expenditure through the classifications listed in the SHA Manual. A copy of the excel questionnaire is in the methodology section of the CSO website:

https://www.cso.ie/en/methods/surveyforms/expenditureandestimatesofprivatehealthinsurers/

3.9 Participation in the Survey

Participation in the survey is compulsory. Notice is served under Section 26 of the Statistics Act, 1993 and the Statistics (Expenditure of health insurers) Order, 2014.

3.10 Characteristics of the Survey/Process and its Results

The survey of PHIs in Ireland provides a breakdown of their expenditure by HP, HF and HC annually. The data is then collated with all the other data collected to publish the yearly SHA results.

3.11 Classifications used

The System of Health Accounts – SHA 2011 is a statistical reference manual giving a comprehensive description of the financial flows in health care and healthcare expenditure is recorded in relation to the international classification for health accounts (ICHA), (see Eurostat Website/SHA Manual):

- Healthcare expenditure by financing schemes (ICHA-HF) — which classifies the types of financing arrangements through which people obtain health services; health care financing

schemes include direct payments by households for services and goods and third-party financing arrangements;

- Healthcare expenditure by function (ICHA-HC) — which details the split in healthcare expenditure following the purpose of healthcare activities — such as, curative care, rehabilitative care, long-term care, or preventive care;
- Healthcare expenditure by provider (ICHA-HP) — which classifies units contributing to the provision of healthcare goods and services — such as hospitals, residential facilities, ambulatory health care services, ancillary services or retailers of medical goods.

https://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/KS-05-19-103

3.12 Regional Breakdown of Results

The annual SHA statistics refer to Ireland as a single regional unit.

4 Production of the Statistics, Data Processing, Quality Assurance

4.1 Data Capture

The division conducts its own data collection based on pre-defined templates agreed with the HSE . Other governmental departments supply relevant figures on expenditure by email. Data on revenues is captured from the administration records within CSO and annual report data is taken manually. The above data are received in a mix of paper and electronic formats, entered into our processing system manually.

4.2 Coding

The HSE and PHI both code their own data which is checked for consistency by the CSO. Other data sources are coded by the CSO. SHA codes are attached to the data using the descriptor fields to identify the type of health provider (HP), health care function (HC) ,financing scheme (HF) and revenue of financing scheme (FS).

4.3 Data Editing

On receipt in the CSO, all data is processed. PHI survey data is processed in SAS and then output to Excel. Data checks are done to check for atypical or unusual entries, at the moment this is a manual exercise. If necessary the CSO contacts the data provider concerned to query the data and make any necessary corrections.

4.4 Imputation (for Non-Response or Incomplete Data Sets)

Not applicable

4.5 Grossing and Weighting

The PHI data are grossed to account for reserves, data on reserves is provided in the PHI survey and the grossing factor is applied using SAS.

The four insurance companies survey account for 95% of health insurers, the other 5% are restricted membership schemes and data on these is included by grossing up the expenditure and weighting this expenditure across the HP and HC categories.

4.6 Computation of Outputs, Estimation Methods Used

The outputs required by various users are generated from the Excel files and these are aggregated and are then used to prepare the tables(HFxHC, HFxHP, HFxFS and HCxHP) for national publication and also to provide the data required by Eurostat.

4.7 Other Quality Assurance Techniques Used

Authorities responsible for SHA data collection are working to ensure that the statistical practices used to compile national health accounts are in compliance with SHA methodological requirements and that good practices in the field are being followed, according to the methodology underlined in the SHA 2011 Manual[3] and European Statistics Code of Practice[4] respecting professional independence of the statistical authorities. Procedures are in place to plan and monitor the quality of the health care expenditure statistical production process.

Prior to transmission and publication, some further manual checking is carried out to ensure its consistency across tables.

5 Quality

5.1 Relevance

The data is required under Commission Regulation (EU) 2015/359 of 4 March 2015 implementing Regulation (EC) No 1338/2008 of the European Parliament and of the Council as regards statistics on healthcare expenditure and financing.

There are trilateral meetings held between the Central Statistics Office, Department of Health and Health Service Executive where the data compilation and the tables can be discussed. Any ad-hoc queries from other users or requests for information on the SHA are answered in as much detail as can be provided. Other users of SHA data are the Department of Public Expenditure and Reform, Researchers looking at health expenditure and forecasting future health spending. The data is also used in the compilation of ESSPROS.

5.2 Accuracy and Reliability

5.2.1. Sampling Effect & Representivity

Not applicable.

5.2.2. Non-Sampling Effects

Not applicable

5.2.2.1 Quality of the Data Sources used (other than survey register)

The SHA tables are the result of a number of different processes and estimation techniques.
During the SHA Project detailed consultation was carried out with data providers (HSE and PHI) to ensure that the data is coded accurately.

[3] Eurostat - SHA Manual
[4] Eurostat - European Statistics Code of Practice

The out-of-pocket expenditure uses a number of techniques in order to arrive at an estimate. Very often the OOP expenditure is triangulated on a number of different sources such as revenue data, household budget survey and price quantity techniques. Using a number of different techniques does allow for validation of the estimates. There are some areas of out-of-pocket expenditure that need further improvement in the estimates. The following are details of missing data within the tables:

- ***HF.1.1 Government and Compulsory***. There may be a very small amount of government funding of healthcare not captured. We have not contacted all government departments and are missing a few small public health care providers.
- ***HF.2.1 Voluntary Health Insurance Schemes***:- Health care funded by holiday insurance has not been included.
- ***HF.2.2 NPISH Financing Scheme***: There are many non-profit providers of health care in Ireland, particularly in the area of providing care for those with a disability. The HSE is a major funder of this sector and this expenditure is captured in the HSE (HF.1.1) data. The accounts of some of the larger non-profit providers have been analysed and their non-HSE funded element of their expenditure has been included. However there are many providers where the non-HSE element of expenditure has not been included. There is a non-profit database that will be used in the coming years to improve the coverage of this area.
- **HF.2.3** ***Enterprise financing schemes*****:** Includes some estimates of HF.2.2 as the latter is still in development and has been combined with HF.2.3.
- ***HF.3 Household Out of pocket***: Imported health care services funded by OOP are not captured.
- ***HC.1.4 Home-Based Curative & Rehabilitative Care***: (category reported elsewhere) - Home visits by GPs are not identified separately from HC.1.3 + HC.1.4.
- ***HC.3.4 Home-Based Long-Term Care***: Some providers in this category provide a wide range of services but have been coded to this category due to the predominance of their activity. For example, they provide out-patient services and residential care - some residential care provided by these categories are recorded as outpatient care.
- ***HC.5 Medical Goods (Non-Specified by Function):*** For data confidentiality reasons some health insurance funded expenditure coded under HC.5 was recoded to HC.0.
- ***HC.6 Preventative Care*****:** Some of the data provided was only coded to first digit level, we have not been able to put this expenditure into a second digit level –where the second digit is unknown it was coded to HC.6.0.

5.2.2.2 Register Coverage

Non-Profit Providers: There is ongoing work to improve the coverage of data on expenditure on health care. In particular, further development work on non-profit providers of health care and their non-government funding is ongoing. The funding of health care services from non-profit institutions serving households financing schemes (HF.2.2) is under-represented in the current data and will be revised in future data reporting.

Residents and Non-Residents: Health expenditure should relate only to residents of the Republic of Ireland. Most data sources do not capture information on residence and thus expenditure on non-residents may be included in the data (export of health care services).Expenditure by residents in other countries is also difficult to capture, particularly out-of-pocket expenditure. Some expenditure funded by the HSE and private health insurers has been captured. There is likely to be an underestimate of import (purchasing of healthcare abroad) of health care services in the Irish SHA data. Data sources do not allow for the exclusion of medical costs for non-residents in general. A small amount of expenditure related to E111 and E112 expenditure has been excluded from HSE (HF.1.1) expenditure. Medical costs for residents abroad that are funded from out-of-pocket expenditure (HF.3) have not been captured.

Health Care/Social Care Boundary: The project to implement the SHA reporting standard in Ireland reviewed the boundary of health care and social care with the HSE Service Providers. This resulted in a number of services and the associated expenditure, previously categorised as social care, being reclassified to health care. Given that health care and social care are often delivered in the same package of services, it has been hard to separate the two types of services and thus the predominant activity (generally health care) has been used to classify the activity and associated expenditure. This has resulted in the amount of health care expenditure been somewhat over-stated in some areas.

5.2.2.3 Non-response (Unit and Item)

Not applicable

5.2.2.4 Measurement Errors

No information available

5.2.2.5 Processing Errors

The Health Service Executive Financial Data is extracted from the HSE financial management system. It covers 100% of HSE activity.

The surveyed PHI cover 95% of PHI data and the rest is estimated.

5.2.2.6 Model-related Effects

Not applicable

5.3 Timeliness and Punctuality

5.3.1 Provisional Results

Provisional data for T+1 is produced (for the first time in 2020), this data is profiled on previous years. The legal requirement is for data at T+2.

5.3.2 Final Results

Ireland is required to transmit data to Eurostat in compliance with the Commission Regulation 395/2015 transmission deadlines. Data and reference metadata for the reference year T should be transmitted to Eurostat by April T+2.

Final national data is published on the CSO website after T+18 months. A final set of checks on the quality of the data is carried out before we publish the release on our website.

5.4 Coherence

Coherence in accounting principles exist and there is coherence to the extent that the Household Budget Survey would form a basis for the estimation of some of the expenditure items in both National Accounts and SHA. However there are differences in the health classifications within SHA and National Accounts and as such it is difficult to be exact with the coherence.

SHA includes government payments for schemes such as GP care and Pharmaceuticals in government expenditure. Included in National Accounts as personal consumption are a number of goods and services, which are paid for by the state. These form part of *state transfer payments*. For national accounts purposes it is considered that the state provides the money to the households and the household pays the concern providing the good or service. They thus form part of personal income and personal expenditure. Principal among these are medical services supplied by GP's to households and medical goods supplied to households by pharmacists. Some veterinary goods and services are also included in the National Accounts estimates, while SHA gives the expenditure for human health only.
Within SHA the government health expenditure is larger than COFOG 7.

The HF.2.3 category is a combination of HF.2.2 and HF.2.3. In Ireland included in HC.7 are some patient safety and health and safety regulatory bodies which receive fees for their services. It also includes patient and disease representative groups which receive donations.

Classified in HP.6 are patient groups and charities who provide information and guidance on preventive care, these charities also provide some home nursing services

5.5 Comparability

Ireland first produced SHA data from 2011. Data prior to 2011 is based on a different methodology and different sources. Since 2011 the statistics are compiled to meet, to the greatest extent possible, the recognized statistical standards recommended in the System of Health Accounts manual.

5.6 Accessibility and Clarity

5.6.1 Assistance to Users, Special Analyses

The various results are published on the CSO website (www.cso.ie). Selected extracts from the results are posted on the CSO's data dissemination database, *Statbank*.

Each statistical release presents the relevant statistical tables along with an opening commentary on the main results. In addition, the *background notes* provided at the end of the release give the reader detailed information on the methodological basis underpinning the results and any connections with other related statistics. All SHA releases are published on our website. The CSO assists users by way of written, telephone, or e-mail contact as well as through arranged appointments to meet personal callers.

5.6.2 Revisions

Data is published for T+2 and revisions will usually be made to T+3, if there has been a review of the processing methodology then a revision to previous years may occur but this is usually small and is explained in the metadata accompanying the data. There will generally by revisions for T+3 for private health insurance (HF.2.1) as they provide revised data for the previous year in their survey return. Household out-of pocket (HF.3) category will also have revisions as this category is still under development so improvements in the processing and estimation of this will see revisions to back years if necessary.

5.6.3 Publications

SHA data is published annually on the CSO website in mid-June of each year:

https://www.cso.ie/en/statistics/governmentaccounts/systemofhealthaccounts/

Eurostat:

https://ec.europa.eu/Healthcare_expenditure_statistics

OECD: Health Expenditure:

OECD Database/health-spending

WHO: Health Expenditure International Comparison:

WHO database

5.6.3.2 Statistical Reports

Health Expenditure data would feed into a chapter in the OECD Health at a Glance publication:

OECD/Health at a Glance

Health Expenditure data is used in the Statistical Yearbook of Ireland:

https://www.cso.ie/en/releasesandpublications/ep/p-syi/statisticalyearbookofireland2019/

5.6.3.3 Internet

CSO page for System of Health Accounts

https://www.cso.ie/en/statistics/governmentaccounts/systemofhealthaccounts/

Data is available on Statbank:

CSO-Statbank

International Databases:

OECD: https://stats.oecd.org/viewhtml.aspx?datasetcode=SHA&lang=en

Eurostat: https://ec.europa.eu/eurostat/web/health/data/database

WHO: https://apps.who.int/nha/database/Select/Indicators/en

5.6.4 Confidentiality

All information supplied to the CSO is treated as strictly confidential. The Statistics Act, 1993 sets stringent confidentiality standards: *Information collected may be used only for statistical purposes, and no details that might be related to an identifiable person or business undertaking may be divulged to any other government department or body.*

These national statistical confidentiality provisions are reinforced by the following EU legislation: Council Regulation (EC) No 223/2009 on European statistics for data collected for EU statistical purposes.

In certain tables in the published data, figures relating to specific organisations are provided. This is because the source is publicly available accounting information or the organisation has given CSO permission to make its data available.

The confidentiality of individual data collected for compilation of statistics is protected under the provisions of the Statistics Act, 1993 and, where relevant, under European legislation i.e. Council Regulation (EC) No. 322/97 of 17 February 1997 on Community Statistics and Council Regulation (EC) No. 2533/98 of 23 November 1998 concerning the collection of statistical and information by the European Central Bank (ECB).

6 Additional documentation and publications

Not applicable.