Implementation of the System of Health Accounts in OECD countries

David Morgan
OECD Health Division

2nd December 2005

Overview of presentation

- Main purposes of SHA work at OECD
- Why has A System of Health Accounts (SHA) been developed?
- Basic features of the System of Health Accounts – in comparison to pre-SHA systems
- Main issues of comparative analysis of SHA-based health accounts in thirteen OECD countries
- Future challenges
- International cooperation in SHA work
Mandate from Health Ministers

OECD work agenda on health should:

– Continue to improve annual collection of OECD Health Data
– Work with national administrations to implement health accounts
– Develop, in collaboration with national experts, indicators of health-system performance, including quality indicators
– Address analytical issues that OECD countries consider important

Source: OECD Health Ministerial Communiqué, 14 May 2004

Health accounting in OECD Work program, 2005-2006

Major tasks

- Encourage and assist SHA implementation and harmonisation of health accounting practices
- OECD, EUROSTAT and WHO joint SHA data collection
- Build up an SHA database
- Analysis and publication of SHA-based national health accounts
- Developmental work - Refinement and extension of International Classification for Health Accounts (ICHA)
Main products and events of health data and health accounting work

- **OECD Health Data 2005**
  - CD-ROM released on 8th of June
  - internet update: September, 2005

- **Health at a Glance – OECD Indicators 2005** (released on 8th of November)

- SHA Implementation web-site

- OECD Health Working and Technical Papers

- Experts Meetings

Why has A System of Health Accounts (SHA) been developed?

- OECD has built up, over 20 years, the leading international database on health care systems’ financing and delivery - based on collaboration with national data correspondents in 30 OECD countries and cooperation with WHO and EU

- Until 2000, however, health expenditure data collection was not based on a consistent system

- **OECD Health Data** presented health expenditure data reported by member countries according to their national practice

- To improve availability and comparability of health expenditure data, OECD Ad Hoc Meeting of Experts in Health Statistics (May 1996) advised to develop an international standard for health care expenditure and financing
Effects of the SHA on health accounting practice

- OECD Manual, *A System of Health Accounts* Version 1.0 was published in 2000 (including *International Classification for Health Accounts*)
- Pilot implementations started in 1999-2000
- Regular OECD Meetings of Health Accounts Experts started in 1999
- 2001-2003: Harmonisation of definitions and structure of *OECD Health Data* with SHA-ICHA

Effects of the SHA on health accounting practice (cont.)

- *Guide to producing national health accounts with special applications for lower and middle-income countries (NHA Guide)* was published by World Bank, USAID and WHO in 2003
  - The Guide is built on the core concepts and classifications of the SHA
- Many non-OECD countries have started to develop health accounts using the *NHA Guide* and/or the SHA
- Several European Union projects related to SHA have been launched since 2001
- OECD, EUROSTAT and WHO joint SHA data collection to be launched in December, 2005
Basic features of the System of Health Accounts

- **International statistical standard** (an integrated system of comprehensive and internationally comparable accounts and basic accounting rules)
- **Functional definition** of health care goods and services
  - ICHA: *International Classification for Health Accounting*:
    - Functions of health care services and goods (ICHA-HC)
    - Categories of providers (health care industries) (ICHA-HP)
    - Sources of funding (financing agents) (ICHA-HF)
- **Standard SHA tables** cross-classify expenditures under the three basic dimensions

Basic features of the System of Health Accounts (cont.)

- One of the most important innovations of the SHA is the distinction made between function and provider, and the ability to cross-classify expenditure between them
- **Standard tables** (10), of which the most frequently produced:
  - Current expenditure on health by function and provider
  - Current expenditure on health by provider and source of funding
  - Current expenditure on health by function and source of funding
Basic features of the System of Health Accounts (cont.)

- Standard SHA tables cross-classify expenditures under the three basic dimensions

First results of comparative analysis of SHA-based National Health Accounts


- Country Studies: OECD Health Technical Papers No. 1 to 13 SHA-based National Health Accounts in Thirteen OECD Countries: Country Studies (HTP)
**Participating countries (1)**

- Australia (2000)
- Netherlands (2001)
- Canada (1999)
- Poland (1999)
- Denmark (1999)
- Spain (2001)
- Germany (2001)
- Switzerland (2001)
- Hungary (2001)
- Turkey (2000)
- Japan (2000)
- Korea (2001)
- Mexico (2001)

**Total expenditure on health, as per capita PPP and % of GDP**

- **Note:** Data for Japan refer to 2002.
Key methodological issues of SHA implementation

- Applying the SHA boundaries
- Implementing the International Classification for Health Accounts
  - Functional classification
  - Classification of health care financing
  - Classification of health care providers
- Applying SHA-specific accounting rules

Major requirements for applying the SHA boundaries (estimating total expenditure on health)

- The functional classification of health care (ICHA-HC) is applied in an internationally harmonised way
- Expenditure by all the financing agents defined by the SHA is accounted for
- All primary and secondary providers of health care are included
- Foreign trade of health services is estimated
- Common methods for valuation of health services are applied following the SHA framework
### Total health expenditure in SHA (THE) and in national statistics (NHE)

<table>
<thead>
<tr>
<th>Country</th>
<th>THE as % of NHE</th>
<th>Explanation for the differences: NHE includes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>99.4%</td>
<td>HC.R.2 Education and training.</td>
</tr>
<tr>
<td>Canada</td>
<td>96.7%</td>
<td>Non-health and health related activities performed in hospitals; LTC</td>
</tr>
<tr>
<td>Denmark</td>
<td>124.3%</td>
<td>NHE excludes long-term nursing care.</td>
</tr>
<tr>
<td>Germany</td>
<td>97.8%</td>
<td>HC.R.2 and HC.R.3 R&amp;D</td>
</tr>
<tr>
<td>Hungary</td>
<td>100.0%</td>
<td>No difference.</td>
</tr>
<tr>
<td>Japan</td>
<td>127.4%</td>
<td>NHE excludes services not covered by public health insurance and LTC insurance</td>
</tr>
<tr>
<td>Korea</td>
<td>83.2%</td>
<td>Household expenditure are based on different surveys; THE eliminated double counting</td>
</tr>
<tr>
<td>Mexico</td>
<td>99.1%</td>
<td>NHE includes health related functions HC.R.2-5</td>
</tr>
<tr>
<td>Netherlands</td>
<td>78.0% of TCE</td>
<td>In national statistics: “total health and social care expenditure” (TCE)</td>
</tr>
<tr>
<td>Poland</td>
<td>108.3%</td>
<td>NHE HF.2+HF.2.3; excludes household production</td>
</tr>
<tr>
<td>Spain</td>
<td>99.7%</td>
<td>HC.R.3 R&amp;D</td>
</tr>
<tr>
<td>Switzerland</td>
<td>100.0%</td>
<td>No difference.</td>
</tr>
<tr>
<td>Turkey</td>
<td>95.7%</td>
<td>HC.R.2-5</td>
</tr>
</tbody>
</table>

### Applying the functional classification (ICHA-HC)

<table>
<thead>
<tr>
<th>Pre-SHA systems: Provider approach</th>
<th>SHA-based health accounts: Functional approach (HC x HP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital activities</td>
<td>Inpatient care</td>
</tr>
<tr>
<td>Medical and dental practice</td>
<td>HC.1.1.2.1 Curative-rehabilitative Inpatient care</td>
</tr>
<tr>
<td>Other human health activities</td>
<td>HC.3.1 Long-term inpatient care</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>Services of day care</td>
</tr>
<tr>
<td></td>
<td>HC.1.1.2.1 Curative and rehabilitative day care</td>
</tr>
<tr>
<td></td>
<td>HC.3.1 Long-term care: day care</td>
</tr>
<tr>
<td></td>
<td>Ambulatory and out-patient care</td>
</tr>
<tr>
<td></td>
<td>HC.1.3.1 Basic medical and diagnostic services</td>
</tr>
<tr>
<td></td>
<td>HC.1.3.2 Dental care</td>
</tr>
<tr>
<td></td>
<td>HC.1.3.3 All other specialised health care</td>
</tr>
<tr>
<td></td>
<td>HC.1.3.9 All other ambulatory care</td>
</tr>
<tr>
<td></td>
<td>HC.4 Ancillary services to health care</td>
</tr>
<tr>
<td></td>
<td>HC.5 Medical goods dispensed to out-patients</td>
</tr>
<tr>
<td></td>
<td>HC.6 Prevention and public health services</td>
</tr>
<tr>
<td></td>
<td>HC.7 Health administration and health insurance</td>
</tr>
</tbody>
</table>
Major challenges in applying the functional classification

- Defining more precisely the boundary between health and social care
- Defining more precisely the boundary between health and health-related functions (e.g., education, research, environmental health, etc.)
- Separating health, health-related and non-health activities in the case of complex institutions
- Applying functional classification in the case of multifunctional health care organisations (e.g., inpatient care, day care, outpatient care within hospitals)
- Treatment of ancillary services (laboratories, diagnostic centres) provided in complex health care organisations

Importance of the functional approach

- One of the most important innovations of the SHA is the distinction made between function and provider, and the ability to cross-classify expenditure between them
- If properly classified, data by health care function are not biased by country-specific organisational settings, or organisational changes.
- Therefore data by functional categories should be comparable across countries and over time
Health Expenditure on Personal Health Services by Function and Provider

Applying classification of health care financing (ICHA-HF)

**HF.1 General government**
- **HF.1.1** General government excluding social security
- **HF.1.2** Social security funds

**HF.2 Private sector**
- **HF.2.1** Private social insurance
- **HF.2.2** Other private insurance
- **HF.2.3** Private household out-of-pocket expenditure
- **HF.2.4** Non-profit institutions (other than health insurance)
- **HF.2.5** Corporations (other than health insurance)

**HF.3 Rest of the world**
Major challenges in implementing the Classification of Health Care Financing

- Estimating private expenditure
  - Data on private sector expenditure (private insurance, NGOs, corporations) far from complete.
  - Household surveys tend to underestimate private health spending
  - Household surveys only provide less detailed functional distribution than is needed by the SHA

Private expenditure on health by financing agent
Applying the classification of health care providers (ICHA-HP)

HP.1 Hospitals
HP.2 Nursing and residential care facilities
HP.3 Providers of ambulatory health care
  HP.3.1 Offices of physicians
  HP.3.2 Offices of dentists
  HP.3.3 Offices of other health practitioners
  HP.3.4 Out-patient care centres
  HP.3.5 Medical diagnostic laboratories
  HP.3.6 Providers of home care services
  HP.3.9 All other providers of ambulatory health care
HP.4 Retail sale and other providers of medical goods
HP.5 Providers of public health programmes
HP.6 General health administration and insurance
HP.7 Other industries (rest of the economy)
HP.9 Rest of the world

Major challenges in applying the classification of health care providers

- To estimate the expenditure on health care activities by complex institutions that perform health, health-related and non-health activities at the same time:
  - residential-care facilities for the elderly and handicapped
  - public health authorities
  - medical universities
  - rest of the economy (economic and educational organisations)
Main issues of comparative analysis (1)

- What differences can be discerned in the level and structure of health spending across countries?
- What differences exist in the role of public and private spending across countries?
- What kind of functional patterns of health expenditure prevail?
- How do the roles of the different providers differ across countries?

Main issues of comparative analysis (2)

- How are the different functions financed? (HC x HF)
- How does the spending structure of the particular financing agents differ across countries? (HC x HF and HP x HF)
- How are the different providers financed? (HP x HF)
- How are the different functions provided (e.g., outpatient care)? (HC x HP)
- Functional structure of providers (e.g., hospitals) (HC x HP)
How are the different functions financed? (1)

In-patient Expenditure by Financing Agent

OECD Health Working Papers No. 16

How are the different functions financed? (2)

Out-patient Expenditure by Financing Agent

OECD Health Working Papers No. 16
How are the different functions financed? (3)
Pharmaceutical Expenditure by Financing Agent

SHA provides a more in-depth picture of the role of public and private spending on health care

- The fact that the whole health care system is primarily publicly financed does not entail that public financing plays the dominant role in every area.

- In only four of the thirteen countries covered in the OECD HWP No.16, namely Denmark, Germany, Japan and Spain, does the public sector play a dominant role in all three main areas.
SHA provides in-depth information on the multi-functionality of hospitals

Hospital Expenditure by Function

- Curative and rehabilitative in-patient care
- Long-term in-patient nursing care
- Day-care
- Out-patient care
- Ancillary services
- Medical goods to out-patients
- Other

<table>
<thead>
<tr>
<th>Hospital exp. = 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
</tr>
<tr>
<td>21</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

* In-patient care: Korea cannot distinguish between C&R and LTC.

The study shows:

- Hospital expenditure is not appropriate ‘proxy’ for in-patient care
- Considerable variation in the share of in-patient curative-rehabilitative care in hospital expenditure
- Hospitals provide Long-term care to a varying degree across countries
- Different roles of hospitals providing out-patient care
How are public expenditures distributed among the different health care functions?

Note: “Other” category includes Collective services, such as Prevention and Public Health expenditure, Administration costs as well as undistributed expenditure.

How are Households’ Out-of-pocket spending distributed among the different health care functions?
### Status of SHA implementation in OECD countries (as of October 2005)

<table>
<thead>
<tr>
<th>SHA-based accounts regularly produced / or a pilot SHA study already undertaken</th>
<th>SHA study / or preparatory work for SHA project currently underway</th>
<th>No immediate plans for SHA implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia, Canada, Denmark, Finland, Germany, Hungary, Japan, Korea, Mexico, Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States.</td>
<td>Austria, Belgium, Czech Republic, France, Greece, Iceland, Ireland, Luxembourg, Slovak Republic.</td>
<td>Italy, New Zealand.</td>
</tr>
</tbody>
</table>

### Overall Assessment of the SHA Implementations so far

- The implementation of the SHA is feasible
- OECD SHA serve as an international “quasi-standard”
- Improvement in the comprehensiveness, consistency and comparability of health expenditure estimates
- Current pilot implementations still have smaller or greater departures from the recommendations of the OECD SHA Manual
- Implementation may lead to break in time series
Growing expectations for implementation and further development of the SHA

What information can/should SHA-based health accounts provide for policy-makers?

- Internationally comparable data on the overall level of spending on health care
- Deeper analytic possibilities of how services are financed and provided (how resources are allocated among functions and service providers)

---------------------

- Information about changes in composition of spending

Growing expectations for implementation and further development of the SHA (cont.)

What information can/should SHA-based health accounts provide for policy-makers? (cont.)

- Factors that drive growth in health spending
- Differences across countries in expenditure growth and composition of expenditure
- Monitor the effects of particular health reform measures over time
- How services are utilised by regional and social groups in the population
Developmental work on health accounts and health expenditure data at OECD

Main task in 2005-06: Refinement and extension of International Classification for Health Accounts (ICHA)

Including extension of the ICHA with new dimensions:

- ultimate source of funding,
- beneficiary population by age and gender,
- disease-categories, and
- resources (to produce health services and goods)
International cooperation in SHA work: OECD, EUROSTAT and WHO joint SHA data collection

The most important goals are to:

- reduce the burden of data collection for the national authorities
- increase the use of international standards and definitions
  - Further harmonisation across national health accounting practices in order to improve availability and comparability of health expenditure data
- encourage SHA Implementation

Time framework:
- The joint questionnaire will be sent to countries concerned by 15 December, 2005
- The deadline for return of the completed questionnaire: 31 March, 2006

Quality of data depends primarily on contributions by member countries

Further information: www.oecd.org\health\sha