Final report of the health account in Estonia for PHARE 2002-Lot 2

1. Problems solved during the project

1. All health care providers are classified by ICHA-HP classification.

2. A short version of OECD methodology has been translated into Estonian and adapted to Estonian health system. The manual has been provided to all data providers. Questionnaire and explanations are free and easy download from the website of the Ministry. Several seminars were organised for data providers to improve the understanding about object and methodology of SHA.

3. Data sources:

a) All ministries are taken in to account since data 2004 year. Expenditures on health carried out by the Ministry of Agriculture and Minister of Population Affairs are to be taken into account as well.

b) Insurance companies will provide data by health care functions and providers for data 2004 year.

4. Continue cooperation with Estonian Health Insurance Fund in order to complete table 6 (disease-function) and table 7 (age-gender-function). Right now medical services and providers are not related to patients. Distribution of health expenditure by age, gender and diagnostic groups is not available, but can be partly carried out on those expenditures reported by Health Insurance Fund, which comprises the biggest part among general government expenditures. Data will be available for 2004 calculations.

5. A small pilot project is started to find differences between household data in NHA and SNA. HBS data are used as a component of NHA. However SNA estimates on personal household consumption are based not only on HBS, but on Retail Trade turnover as well. Right now it is difficult to say how big differences are. The pilot project aim is to find out differences and to use corrected data for private consumption for NHA.

6. A report on economic activity of health service providers is not a basis for NHA: In Estonia a separate annual report on economic activity of medical service providers is collected. However, this has not become as the input for NHA. In order it would become one of the data sources we have to carry out the analysis of its coverage which has been varying from year to year; in 2003 the coverage of the providers was around 85%. A small pilot project is started to conclusively integrate the survey of economic activities of medical service providers into NHA.

Some health care providers were chosen by sample and were asked to fill in a new questionnaire for health expenditure. They are supposed to adopt the questionnaire and its manual. The project will be finished at the end of June. After that all health care providers have to fill in the table annually since year 2006 for data 2005.

7. A big work of introduction and selling the concept of health accounts to the Ministry of Social Affair, politicians and other data users has been done trough seminars, newspapers, radio etc during 2005 year. It has been successful, the development of

health expenditures has been widely discussed by public, not only the wages of medical doctors or nurses have been argued.

8. Most of foreign financial sources (European projects and other foreign projects) are included in the state budget and do not comprise separately as financing agents: Rest of the world (HF.3). Since 2005 year (for data 2004) European Co-ordination and International Relations Department brings out foreign projects separately.

9. Rest of the world (HF.3) is taken into account for every financing agent.
   For example Central government – foreign source;
   Local/municipal government - foreign source etc. This would allow a more accurate analysis of inputs and outputs in health care and give a better ability to respond to future information needs at the national and international levels.

10. A separate HBS module for health is worked out. The survey will be annual. After 2009 year there will be no survey anymore.

11. Private sector's expenditures on prescribe medicines are mixed together with Over-the-counter medicines. We use estimation to separate these expenditures.

12. Sanatoriums are defined as providers of ambulatory health care even if people stay there over night. Only health care expenditures are included. Accommodation is included if it is an integrated part of health services received. In this case sanatoriums are classificated under HP 1.3.

2. Problems foreseen to be solved in nearest future

1. **State budget:** COFOC and ICHA do not mach. Finance Ministry (state budget) uses COFOC. For NHA more detailed information is needed. From 2008 year we will get required data, when ministries will be ready to classify health in their budget separately.

2. Data on expenditures on glasses and other vision products is underestimated. There is data about ministries and other governmental institutions spending on glasses and other vision products, but all private corporations and people are uncovered. We will get this data from HBS module and Business statistics or Employer expenditure.

3. 30% of pharmacies still have not computers, so they cannot provide exact information about their sales. From 1st March 2005 State Agency of Medicines started a special survey. We will get data about pharmacies sales from 2006 year.

4. **Health expenditure of Corporation** is underestimated. We will get data for estimation from Statistical office of Estonia from Business statistics: every 4th years. Response rate 63%. Next survey will be held in 2008 year.

5. We do not know how much of private households out-of-pocket expenditures are done from expatriate relatives' pocket and we cannot distribute the expenditures by functions. We get data from HBS module.

6. All occupational health care providers are allocated and data for 2004 will be gotten from a survey July 2005.

7. Since 2003 the capital expenditures for health institutions are covered from the sources of Estonian Health Insurance Fund (EHIF) on the basis of the expenditures for services on health care, determined by the agreement between the provider and the Fund. EHIF plans to estimate this data for getting estimates on capital expenditures. First estimation will be done for data 2004.

3. The implications of existing imperfections

Boundary problems:

1. Information and data availability for private providers or private financing are less detailed and less reliable then those for public sector which are based on administrative sources.

2. Local governments' data are not detailed enough. Difficulties have been arisen with splitting local budget by functions and providers.

3. Health care expenditure within army cannot be separated and provided.

4. In Estonia data system for long-term care (LTC) expenditure and system by itself are less well developed. For us LTC is a medical care, which is provided for people who need help because of physical or mental disability. Lower-level help (cooking, shopping and cleaning) is excluded. Cost of accommodation in hospitals is included. But in nursing houses is excluded. By the definition of the Ministry of Social Affair's nursing houses are not health care providers. Therefore we did not collect data about these institutions.

However nursing care facilities system (HP.2.1) has been established since year 2003 and now has to be separated from other providers. Only wages of medical workers and costs of pharmaceuticals together with other medical goods are included.
By law there no medical personnel working in nursing homes, but in reality there are some nurses and even doctors historically stayed and working there without any licence.
There is no clear border between LTC and social care that requires nursing care. The system is under development. The LTC can to be provided only by professionals (with medical education).

Difficulties in allocating:

1. All other miscellaneous sale and other suppliers of pharmaceuticals and medical goods (HP.4.9) are mixed with HP.4.4. We have to separate such kind of institutions.

2. **Offices of physicians (HP.3.1)** were not allocated. Data exist, but imputation could not yet be entered. We plan to use data from a survey of the Ministry of Social Affairs of economic activities of medical service providers.

Main departures:

1. Split of expenditures by providers is not always possible.

2. Distinguish between out-patient and day-care services for private providers.

Main gaps:

1. For other industries (rest of the economy) no data available. Home care, households as providers of health, all other industries as secondary producers of health care.

2. There is a lack of information in function of care HC.5.2 (for example: therapeutic' appliances and other medical durables). Only a small part of these products is sold through pharmacies and they are not classified in current reporting system of pharmacies.

Methodological problems:

1. Difficulties with getting data on cost sharing, public and private.

2. Difficulties with getting data on non-profit institutions' expenditures on health care.

3. **Proportion of shadow economy in health care is not possible to estimate.** We do not have any methodology worked out to estimate the share of shadow economy in health care. It would be an item to be discussed in the possible new working group which we hope to establish to review the data collection methodology in Estonia and elaborate the questionnaire which might capture also the part concerning shadow economy in the sphere.

4. HBS has several risks:
    a. It exists only to year 2009.
    b. Sample is too small (low representativeness)

5. Sometimes there are no clear expenditures by one funding sources, providers or services. For example services of occupational medicine can be included in curative service or a provider has several licence allowed provide different kind of services. So some expenditures have to be estimated and divided percentally by categories. So there is need use estimations based on percentages of the categories.

6. Not all data in NHA is expenditure, some data is cost. Different kinds of measures depend on data sources.

4. Advantages/problems towards the national commitment to implement SHA

1. NHA is done by the Ministry of Social Affair not Statistical Office
    a) Difficulties of organise surveys
    b) Difficulties of getting data from health care providers when the ministry is a supervisory institution. Providers deliver data what the ministry wants to see not the real data.

2. In Estonia there is no **State / provincial government** (HF.1.1.2). We have only Central and Local / municipal government.

3. In Estonia, there is no **Private social insurance system** (HF.2.1) yet.

4. **Health Insurance Fund's data on medical services have different elements**: part of the expenditures is distributed for certain services to providers directly and part is distributed as per capita costs. The analysis on what services are carried out within the per capita costs has not been estimated and thus partly the expenditures do not fall into the right items by functions (mostly they fall into medical care, not distinguishing part of it which goes to diagnostics services etc).

5. Data by HF.2.3.1 – HF.2.3.9 distribution were not allocated yet.

6. **Corporations** (HF.2.5) are all enterprises, which have expenditures on health from own profit even if final consumers are households (or persons). For example casinos made donations (2003 they did not) or private enterprises buy first aid boxes for their employees etc. We understand that HF classification is a classification of health care financing, not consuming.

7. **Classifications in health care system of Estonia are not worked out and their integration into SHA is not elaborated:** Functions in SHA are not easily corresponding to medical services. E.g. hospitals do not report separately whether function of radiological diagnostics has been carried out for in-patient services or out-patient services. These data are too aggregated. The line between in-patient services and out-patient services is not clear. More detailed distribution is needed to compile SHA.

8. There is no agreement which **alternative practices** or traditional medicine can be classified as health care services. After obtaining of the agreement we need to think out the methods of enfolding these services. One of the possibilities is a survey. However, thereby we get the problem of representativeness. Also it will be needed to work out other methods of the survey.

9. **Limited human resource:** 1 person works 3/4 time and 1 person ¼ on NHA.

5. The summary of challenges

1. To find out differences between data for private consumption in NHA and NA and to use corrected data.

2. To integrate the survey of economic activities of medical service providers into NHA.

3. To get data for estimation of health expenditure of corporations from Structural Business Statistics (SBS).

4. Include nursing houses into NHA.

6. The summary of general challenges

5. Health expenditure should be calculated by patient's age and gender groups on a periodic basis for health care services and goods (= personal health care) within measured total expenditure on health.

6. At the national level the public health expenditure price index should be used in place of the present cost of living index in converting expenditure data series into real prices.

7. A big challenge for the future is to be able to report not only expenditure data but also links between personnel resources, products and services produced. This would allow a more accurate analysis of inputs and outputs in health care and give a better ability to respond to future information needs at the international level.

8. Another big challenge is to be able to bring out the most cost-efficient services.

7. Recommendation for Eurostat

1. Different trainings which provide the same understanding of the manual and definitions should be organised for countries' experts.

2. Small workshops by participation of several countries should be organised for the discussing of some very concrete questions.

3. Criteria for quality of data can be worked out.

8. Available data sources for Health Labour Account

I Administrative sources:

1) Register of Health Care Professionals

Data is collected by Health Care Board on individual level. A personal identifying code allows to ascertain a person and to combine the data with data from other registers. The register includes information about all persons who has got a licence and entitled to provide services as physician, dentist, nurse or midwife.

Data presented:

a. Number of persons (head count).
b. Age, gender, education (not ISCED classification).
c. Profession (physician, dentist, nurse, midwife) and specialities.
d. Commercial register code and name of a health care institution where professional works.

Problems:

a. Classification by ICHA-HP is not possible.
b. No information about wages, full-time equivalence.
c. The classification of education is not detailed enough. Only the name of educational institution and the type of educational certificate are presented.
d. Does not include data about non-medical personnel working in health care institutions.
e. Does not include data about institutions, which provide health service outside the health care economical sector.
f. A combining of individual data from different registers could be limited by Estonian Data Protection Inspectorate.

II Statistical surveys:

1) Annual economical report

The annual report is collected by the Ministry of Social Affairs. This report has to be presented by all public and private health care providers. One part of this report is employment table.

Data presented:

a. Annual average number of employed persons (head count), full-time equivalent employment, total hours worked, wages.
b. Classification of occupations according to ISCO-88 is possible. The physicians, dentists and nurses are divided by specialties. The table focuses not only on medical professionals. It includes all type of professions current represented in Estonian health care institutions.
c. Classification by ICHA-HP is possible.

Problems:

a. No information about education, gender and age.
b. Data are not on individual level. This reduces the amount of different variables.
c. Significant non-response rate among institutions, specially in private sector. In 2003 the coverage was around 85% of all institutions.

2) Annual Report of Health care personnel

Annual report collected by the Ministry of Social Affairs. This report has to be given by all public and private health care providers. Only data of persons with medical education are presented. The non-medical personnel are not included.

Data presented:

a. Number of employed persons at the end of the year (head count).
b. Physicians, dentists, nurses and other medium level medical personnel are divided by specialities.
c. Physicians are divided even by gender.
d. Classification by ICHA-HP is possible.

Problems:

a. No information about education, full-time equivalence, wages and age. Only physicians are divided by gender.
b. The report does not include data about non-medical personnel working in health care institutions.
c. Data are aggregated, not on individual level.
d. Significant non-response rate among institutions, specially in private sector.

3) Other annual reports

Health Care Institution, Report of Ambulance, Report of Dental Care Institution and Report of Blood Centre are collected by the Ministry of Social Affairs. These reports cover all public and private health care.

Data presented:

a. Number of employed persons at the end of the year (head count).
b. Full-time equivalent employment at the end of the year.
c. Physicians, dentists, nurses and other medium level medical personnel are divided by specialities.
d. Classification by ICHA-HP is possible.

Problems:

a. No information about, wages, age, gender and education.
b. Data are not on individual level.
c. Significant non-response rate among institutions, specially in private sector.

4) Labour Force Survey

Sample survey is carried out by Statistical Office of Estonia.
The aim of the survey is to get information about total workforce in Estonia. Sample is representative only for total workforce of the country. Sample is too small for a concrete scope of main activity as health care labour. For example there were only 306 health care professionals presented in the sample in 2003 year, which is less then 2% of all health care professionals.

5) Structural Business Statistics

Data presented:

a. The declared number of employees.
b. Classification by ICHA-HP is possible.

Problems:

a. No information about, wages, age, gender and education.
b. Data are not on individual level.
c. Full-time equivalent employment.
d. The actual number of employees is not possible.
e. Distribution by medical and non-medical personnel is not possible.

6) State Agency of Medicines

Data presented:

a. Data about pharmaceutical employees (ICHA-HP is possible).
b. Number of employees.
c. Distribution by medical and non-medical personnel.

Problems:

a. No information about, wages, age, gender and education.
b. Data are not on individual level.
c. Full-time equivalent employment.

Conclusion

The first National Health Accounts of Estonia was compiled in 1999 on the basis of 1998 data. Up to now the calculation of health care expenditures was carried out just on the project basis. There are still problems and gaps in the account.
The Phare project helps to understand SHA, NHA and bounded problems. It is an experience that allows to elaborate methods of NHA for routine compilation in the future.
The development of health accounts is in process and calculations made during last years are a good basis to continue the work with NHA in Estonia.
Hopefully, this project will contribute to the further development of effective policies.

Estonia is able to report data. But it is not completed. However we believe that improved data does not rise % of GDP very much.

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