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Session 3 – Invited paper

**EUROSTAT HEALTH INTERVIEW SURVEY PROGRAM: HOW THE ISSUE OF
COMPARABILITY OF HEALTH STATUS MEASUREMENT IS ADDRESSED AT
EUROPEAN LEVEL**

Submitted by Eurostat*

I. OBJECTIVES

1. In September 2002, the European Parliament and Council adopted a new Programme of Community Action on Public Health (2003-2008)¹. One of the three main pillars of the new programme is “to improve health information and knowledge for the development of public health” by “developing and operating a sustainable health monitoring system to establish comparable quantitative and qualitative indicators at Community level”. The interest is for “specific information on human health at Community level, concerning health status, health policies and health determinants, including demography, geography and socio-economic situations, personal and biological factors, health behaviours such as substance abuse, nutrition, physical activity, sexual behaviour, and living, working and environmental conditions, paying special attention to inequalities

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¹ Decision No 1786/2002/EC of the European Parliament and of the Council of 23 September 2002 adopting a programme of Community action in the field of public health (2003-2008), OJEC L 271/10

in health”. Finally it is stated that “the statistical element of the system will be developed, in collaboration with Member States, using as necessary the Community Statistical Programme² to promote synergy and avoid duplication”.

2. The Health Interview Surveys (HIS) or other population surveys are widely accepted instruments that could provide comparable data for health topics (health status and its determinants, use of medical services, etc.) in relation with the personal characteristics of the population. Consequently Eurostat, in agreement with the Member States in the framework of the European Statistical System (ESS), in particular the Partnership on Public Health Statistics, the Eurostat Working Group ‘Public Health statistics’ and the Statistical programme Committee – via the group of the European Directors of Social Statistics -, has developed a stepwise strategy in order to first analyse and improve the comparability of current HIS data in Europe and in a second time develop and implement at EU level harmonised and standardised tools in the framework of a European Health Survey System.

II. ANALYSIS AND IMPROVEMENT OF THE COMPARABILITY OF CURRENT HIS DATA IN EUROPE

3. The first attempt in the development of a HIS in a coordinated way across Europe was the inclusion of 22 variables on health in the European Community Household Panel (ECHP). The ECHP contained three variables related to the general health status of the respondents, variables PH001 to PH003A (general health, chronic health problems, and limitations) – see in Annex 1 the list of the 22 variables on health in the ECHP – . Moreover, two variables were dealing with recent cuttings in usual activity (PH004 and PH005). The other variables were related with health determinants and use of health care facilities. The ECHP collected annual data over the period 1994-2001. The data of the eighth and last wave (2001) have been made available in December 2003³. An analysis on health-related longitudinal data from the ECHP is carried out and results will be available in the beginning of 2005.

4. Additionally, since 1999, Eurostat collects post-harmonised data for health and health-related items (on self-perceived health, chronic conditions, present and former smoking, physical activity, in patient care, out patient care, etc.) from national health and/or population surveys every 2 years (1999, 2002, 2004). The aim was to put the key findings of these surveys, whenever possible, in a common format and to disseminate the results. In 1999, Eurostat launched the first collection on a list of 12 different items and data on these items were received from a number of European countries.

5. In 2002 Eurostat launched the second data collection. The original list was enlarged with 6 new items, taking into account the work performed within the framework of the European Community Health Indicators (ECHI) project of DG SANCO (see point 4 below), the EuroHIS (Harmonization of Health Interview Surveys in Europe) project of WHO, the Euro-REVES⁴ network and others. Also, on the same basis, some of the initial items were modified. This new list of 18 HIS items – see Annex 2 - was endorsed by the Eurostat Working Group ‘Public Health statistics’ on 22-23/11/2001. The results from this second round of data collection in 2002, including comparisons with the ECHP results,

² Decision 2367/2002/EC of the European Parliament and the Council of 16 December 2002 on the Community statistical programme 2003 to 2007

³ See Eurostat NewCronos data base, theme 3 collection Health.

⁴ Euro-REVES is a European Concerted Action on Harmonization of Health Expectancy Calculations in Europe REVES is a French acronym of Réseau sur l'espérance de vie en santé (Network on Health Expectancy)

were published on 7/01/2004⁵.

6. The progress made in the second round as regards the comparability of most of the items was visible and confirmed the importance for continuing the data collection. In particular, concerning health status, a relatively high level of comparability has been achieved for perceived health, chronic conditions and temporary cut-down on usual activities, while difficulties remain for physical and sensory functional limitations, personal care activities, mental health and quality of life. Thus, the Working Group 'Public Health statistics' agreed at its meeting on 26-27/11/2003 to carry out a new and principle last round of data collection on the 18 HIS items in 2004 that would cover not only EU15 and EFTA countries, but also the New Member States and Candidate countries (for these countries the data collection is organised within a PHARE Project).

7. Data from national health and/or population surveys should be submitted as specified in the document *Guidelines for the collection of data on 18 HIS items*⁶. The 2004 guidelines, compared to the previous ones, were improved with the recommendations from the experience of the 2002 data collection round. They contain detailed technical explanations and post harmonisation specifications of the items for which survey data are requested. When necessary, more than one or two surveys could be used for preparing the data sets, in order to cover as much as possible all the 18 items. Micro-data files (one file per survey used) are provided. If this is not possible, two aggregated data tables are requested with absolute weighted sample numbers: one table according to sex, age and educational level and one table according to sex, age and economic activity. For almost all the items, the 2004 data request is identical to the 2002 request. The only exception concerns the background variable *economic activity*. In 2004 it is proposed to use detailed categories, whenever possible, as the dichotomy *active – non active* was proven to be not very useful in the data analysis of the 2002 round. For instance, the category *non-active* mixes various categories of population: students, housewives, retired persons, etc. for which the health problems and the lifestyle are different.

8. For one or more items national survey(s) specifications could be somewhat different from the specifications in the guidelines. In this case it is required to provide the data in a form and format as close as possible to the specifications in the guidelines and to *add the appropriate documentation*. In addition, in case there are differences from the HIS/HES database inventory⁷ or the survey used for data delivery is not included in the database, *background information* on the methodology of the survey should be also provided.

9. Finally, in order to provide data for the 2003 European Year of People with Disabilities, the 2002 European Union Labour Force Survey (LFS) contained an ad hoc module concerning the employment of disabled people. As set out by Commission Regulation (EC) No 1566/2001 of 12/07/2001⁸, the module consists of 11 variables dealing

⁵ Eurostat Detailed tables, "Health in Europe - Results from 1997-2000 surveys"

<http://europa.eu.int/comm/eurostat/Public/datashop/print-product/EN?catalogue=Eurostat&product=KS57-03-184- -N-EN&mode=download>

⁶ Available in the Eurostat Public Health Statistics Circa site

http://forum.europa.eu.int/irc/Download/greuOKH7qcFFyZ4o4O-5HJSBC-YBxSp8CtU5JjqSRl0vqJ-CBPUPcSz2cPK0QwMguSAjIcxjY1PPCTyRj5f7D2rYqSpi_SRtK2HuPTIMd74/Guidelines%2018%20HIS%20items%20-%202004%20data%20collection.pdf

⁷ The HIS/HES database was developed by NIPH-Belgium and KTL-Finland with the support of DG SANCO and Eurostat and can be consulted at <https://www.iph.fgov.be/hishes/>

⁸ Available in the Eurostat Public Health Statistics Circa site

http://forum.europa.eu.int/irc/Download/kXeyASJAm_G6Fm65-5HB7ZLxqKrglq6v5Ghautp9pEsrpFEcAxoyPckDftruK7cFZoO5JSBC-YBxSp8CtU5AjbAApMdvK2JE/H/Regulation%201566-2001_2002adhocmodule_en.pdf

with the existence, type, cause and duration of longstanding health problem or disability, work limitations (regarding the kind of work or the amount of work, and mobility problems), and assistance needed or provided to work. Although harmonised, translated questions for the variables were proposed by Eurostat, some rewording was felt necessary at national level, which may have some effect on the comparability of data. More generally, the wide-ranging spectrum of the percentage of the working-age population with longstanding health problem or disability as obtained in the results might also reflect differences in how respondents perceived the question, i.e. replies could have been mediated by cultural traits. However, results were in general, with few exceptions, coherent with data from other sources, e.g. ECHP or 18 HIS items, and the study provided important additional results at EU level on, e.g., labour force participation, unemployment or assistance to work needed or provided to disable people⁹.

III. THE EUROPEAN HEALTH SURVEY SYSTEM (EHSS)

10. However, in spite of the improvement achieved through these harmonised data collections, the frequency and completeness of the data are not the same for the Member States. In order to establish a regular collection of highly harmonised data on health, the Eurostat Task Force on Health and health related survey data proposed to develop a set of standardised surveys and/or survey modules on health, named the European Health Survey System (EHSS).

11. This framework was endorsed by the Working Group on Public Health Statistics and the meeting of the European Directors of Social Statistics in April 2002. The aim of an EHSS is to anticipate the health information needs of the Member States and of the EU in the mid-term (2003-2008), including the needs arising from the new Community public health programme and other EU programmes. It should coordinate the efforts on HIS, avoiding unnecessary overlap and incompatibility and fill gaps existing in health information. The EHSS is a comprehensive and co-ordinated but flexible set of surveys, allowing inter country comparisons, and built around an essential core survey, according to flexible and modular implementation. The structure and instruments of the EHSS are described below. A synthesis chart is also available in Annex 3.

12. The EHSS consists of three parts:

- ✓ a European Core Health Interview Survey (ECHIS): this core survey should respond to the basic information needs and demands and should be further developed by the European partnership on health statistics in the European Statistical System, as a follow-up of the ongoing HIS activities in Eurostat (within the new EU programme of public health it is stated that the statistical elements should be developed under the EU statistical programme);
- ✓ a complementary set of special surveys (ESHIS): these surveys address specific demands and the national institutes of public and research groups could play a central role in their development;
- ✓ a database of certified standard and recommended reference instruments: this is an ongoing database of “off-the-shelf” instruments for use in different types of HIS / HES (Health Examination Survey) – see footnote 7 -.

13. The ECHIS, developed by the European Statistical System, consists of two parts:

⁹ Eurostat Statistics in focus - Theme 3 n° 26/2006 – “Employment of disabled people in Europe in 2002”
<http://europa.eu.int/comm/eurostat/Public/datashop/print-product/EN?catalogue=Eurostat&product=KSNK-03-026-N-EN&mode=download>

- ✓ annual component : a small module on health in the annual Eurostat survey on Statistics on Income and Living Conditions (SILC)¹⁰, consisting of 7 variables and carried out from 2004 onwards on a routine basis. This module is described in Annex 4. The first 3 variables constitute the Minimum European Health Module (MEHM). It provides general information for perceived health, chronic illness and limitation because of health problems. The 4 other variables concern the unmet needs for medical /dental examination or treatment in the framework of social exclusion. The MEHM has been developed in particular in order to calculate the indicator “healthy life year” (see point 4 below). More generally, because of its brevity and to ensure linkage between the various modules / surveys, the MEHM should be included in any EU health survey and can also easily be used in other surveys, e.g. on labour or income, when supporting variables on health are needed.
- ✓ every five years component: a European HIS including the following modules: a module on health status (EHSM), a module on health care (EHCM), a module on health determinants (EHDM), and a module on background variables (EBM).

14. The complementary surveys (ESHIS) may be further developed in the framework of EU public health and related programmes. They might address different topics or subject groups, e.g. nutrition, injuries, mental health. However, for reasons of comparability and to strengthen coordination as mentioned above, these surveys should at least include the MEHM and preferably one or more of the modules of the ECHIS. In this domain coordination would be ensured by a Eurostat-SANCO steering workshop.

IV. THE EUROPEAN HEALTH INTERVIEW SURVEY (ECHIS)

15. As said above, the main aim of the ECHIS is to create and implement standardised instruments in order to produce comparable results at European level on a routine basis. Concerning the SILC, this survey is carried out annually in all EU15 Member States from 2004 onwards and in the 10 new Member States and remaining Candidate Countries from 2005 onwards (only 5 Member States and one EFTA country carried it out on a voluntary basis in 2003). Consequently the first pilot 2003 data will be available in 2005, the first 2004 EU15 data in 2006 and the EU25 data in 2007.

16. Concerning the every five years component, all modules conducted together in all Member States at the same time every 5 years, may be either grouped in one or various (new or existing) national interview surveys (i.e. national health, labour force or other household survey). In such a way Member States will have the maximum flexibility for implementation though across EU25 the same data are collected and become available at the same time. The first data collection is expected to take place in 2006/2007.

17. The EHSM module on health status is already available, as it was finalised in 2003 by Euro-Reves for Eurostat¹¹, and also includes the MEHM. A detailed protocol for translation into other languages has been also defined¹² and the module, which was

¹⁰The SILC has been established by Regulation (EC) No 1177/2003 of the European Parliament and of the Council of 16/06/2003 concerning Community statistics on income and living conditions (EU -SILC) and its list of variable has been defined by Commission Regulation (EC) No 1983/2003 of 7/11/2003 implementing Regulation (EC) No 1177/2003 of the European Parliament and of the Council concerning Community statistics on income and living conditions (EU -SILC) as regards the list of target primary variables.

¹¹“Report to Eurostat on the European Health Status module” – Euro-reves - October 2003
http://forum.europa.eu.int/irc/Download/g3eG0dH_qfFly_4I4P-IH1D-CBeHlBeLHt2p0cug-IWp6hfUTBQTF7jHX85sR5Glb5-kDZzNEMOBp_GZ-oWPOsOpKxGiSTuH/OK0FFBq/Report%20to%20Eurostat%20on%20Health%20Survey%20Core%20Module.pdf

¹²The protocol includes translation guidelines that have been prepared in order to help the translators to understand and translate the underlying health concepts. In a first step, translators working in health research, having an understanding

developed initially in English, is already available in Danish, French, German and Italian (see footnote 11). At its meeting on 26-27/11/2003 the Working Group 'Public Health statistics' welcomed the final EHSM module as well as its translation protocol and it asked Eurostat to take the lead for the translation in all European languages, according to the protocol, and first national tests. This action will be carried out in 2004-2005.

18. The EHSM covers the following topics (see also paper of Euro-Reves in Session IV):

- ✓ self-perceived health (global);
- ✓ limitations in the last 6 months due to health problems (global);
- ✓ chronic conditions (global and detailed);
- ✓ physical and sensory functional limitations;
- ✓ personal care activities;
- ✓ household care activities;
- ✓ other daily activities;
- ✓ mental health.

19. For the remaining modules (i.e. on health care, health determinants and background variables), the development will be carried out in 2004-2005. The EHDM module on health determinants should cover the following topics: height and weight, present and former smoking, consumption of alcohol, physical activity, use of illicit drugs, quality of life. The EHDM module on health care should cover at least the following issues: hospitalisation, consultation of doctors/dentists, use of medicines, preventive actions. Finally, the EBM background module should include basic demographic and socio-economic variables, such as age, sex, educational level and socioeconomic status. Some basic information on working conditions and environmental issues could also be tackled in the EHDM or the EBM.

20. The instruments that have to be selected or designed for each topic of the modules will take into account the previous experiences from other related European and international projects (Eurohis, etc.), including those developed under the European Health Monitoring Programme (HMP) 1997-2002, and national experiences. However some items on health status or health determinants either are difficult to measure through a HIS, need special surveys (ESHIS) to go into a detailed analysis or still suffer contradictions in the existing international recommendations. Concerning these topics to be completed with special surveys or for which further research should be carried out in order to define widely agreed standards, the corresponding part of the health determinants and health care modules will be limited to a first approach. Also, for the health care module, the fact that the health systems differ between countries will involve some limitations.

21. The modules, including the concepts, variables and guidelines, will be developed in English but will be ultimately harmonised in all European languages of all 25 Member States and Candidate Countries and to the extent possible tested in pilot surveys for each language. The selected or designed instruments must have the same interpretation in all languages, so they need not only to be translated, but also culturally adapted. In each language, the concepts that are used must be defined and explained to get across the same, or very similar, meanings. In order to achieve this conceptual equivalence, before starting the translation process, precise guidelines which explain the concepts to be measured and how the translation will be performed will be developed, as done for the EHSM.

of the health concepts used and having the target language as mother tongue and English as working language are chosen. After the initial translation, checkers with the same characteristics as translators judge the adequacy of the translation with reasons through completion of a questionnaire. Finally, the checkers views and the initial translation are brought together in a final translation.

22. The standard procedure for checking the performance of the instruments is field testing. However, preliminary tests (pre-testing) will be carried out first in order to identify possible problems in implementing the instruments or related to their translation. Moreover, in all cases where questions have already been successfully tested in the framework of previous international developments of standard, both pre-testing and field testing could be considered as not necessary. For the field testing, some minimum requirements concerning quality aspects will have to be considered.

23. In order to have standards procedures for the test and final approval for these new instruments, a Task Force on “guidelines / criteria for the development and/or adoption of Health Survey instruments” has been launched by the Core Group HIS and will present its final report at the Technical Group HIS meeting in November 2004. A second Task Force will be created in a second step in order to address the minimum requirements for the surveys that will host the modules of the ECHIS (sample characteristics including sample size, type of interview, place of the module in the survey, etc.).

V. INDICATORS TO BE CALCULATED FROM THE ECHIS DATA

24. The data necessary to calculate the selected items in the European Community Health Indicators (ECHI) project – SANCO -, in particular those to be found in the ECHI “short list”, should be covered, as far as possible, by the ECHIS modules. A first version of the ECHI short list was presented in 2003 to the Network of Competent Authorities on Health Information and Knowledge and was recently updated¹³.

25. Moreover, the Commission Communication COM (2003) 585 final of 08/10/2003 on Structural indicators¹⁴, in its Annex 2 – «Improving the structural indicators»,

1 stated in part «Environment», § 24 page 16, that «In July 2003, the newly established Network of Competent Authorities on Health Information and Knowledge studied a proposal for a recommended set of first phase core indicators on health status. The set includes an indicator to measure healthy life years The elements to calculate this indicator are now contained in the Minimum European Health Module included in EU SILC (Statistics on Income and Living Conditions) for which routine data collection will start in 2004 in the Member States and 2005 in the acceding and candidate countries. Before having EU SILC data available, for a transition period, some national sources could be used. »

2 included in the consequent «New list of indicators to be developed», § 28 page 17, under part «V. Environment», the indicator «16. Healthy life years».

26. This indicator "Healthy Life Years" - HLY - selected for development by the 2003 Communication is a «Health expectancy» indicator. Health expectancies are composite indicators which combine information on mortality and morbidity. Analogous to life expectancy, health expectancy gives the number of years that a person of a certain age can still expect to live in good health. Life expectancy is then the sum of the life expectancy in good health, i.e. the health expectancy, and the life expectancy in poor health. Consequently, health expectancies extend the concept of life expectancy to morbidity and

¹³ See in SANCO web site the information from the last ECHI meeting 19-20/02/2004, including current versions of the short and long list http://europa.eu.int/comm/health/ph_information/indicators/ev_20040219_en.htm

¹⁴ See on the Eurostat Circa site on Structural indicators http://forum.europa.eu.int/Public/irc/dsis/structind/library?l=/general_information/communications_commis_sio/2003&vm=detailed&sb=Title

disability in order to assess the quality of years lived. The standard method used for calculation of health expectancies is the Sullivan method based on prevalence measures of the age specific proportion of the population in healthy and unhealthy conditions - generally gathered in cross-sectional surveys- and a life table – from demographic statistics -. Its interest lies in its simplicity, the availability of its basic data and its independence of the size and age structure of the population.

27. However, since health expectancy is a combination of life expectancy and a concept of health, there are potentially as many health expectancies as there are concepts of health. It is then necessary to define the proportion of the population in good health on strongly harmonised and widely accepted health concepts and carry out calculations on comparable HIS data collected according to these concepts.

28. A first attempt at EU level on harmonised HIS data was made on ECHP data by Euro-Reves. In particular in 1998 Euro-Reves used the results of variable PH003A in the third wave of the ECHP (1996), i.e. calculated a « Disability-free Life Expectancy » - DFLE - at the age of 15 measuring disability according to the concept of « severely or moderately hampered in daily activities by any physical or mental health problem, illness or disability ». On the basis of this first experience and the results of the «Euro-Reves II » project under the Health Monitoring Programme (DG SANCO), it was decided to tackle the specific needs for the general health expectancies, after the last reference year 2001 of the ECHP data collection, in the framework of the MEHM in the annual Eurostat EU-SILC survey (SILC variables PH010 to PH030), as reminded by the 2003 Communication and described above.

29. The HLY / DFLE (also included in ECHI) is also selected as the first level indicator for Theme 4 «Public Health » under the set of Sustainable Development Indicators implemented in 2004 by Eurostat¹⁵, and is also discussed by the Indicator Sub-Group of the Social protection Committee (Laeken Indicators). Currently, preparatory activities are carried out in Commission services in order to finalise methodological work (on the basis of the Euro-Reves standards) and first calculations in the following months so that, after adoption of the final list in the 2004 Commission Communication on structural indicators, final data will be available in November 2004 for the 2005 report to the Spring European Council. The indicator will then be updated each year in the framework of the various set of indicators above, including further calculations based on SILC data when available (depending on the availability of the first 2004 – EU15 - and 2005 – EU25 - reference years data collections, in principle in 2006 and 2007 respectively).

¹⁵ See on the Eurostat Circa site on Sustainable development indicators, document “SDI-TF-044 Preliminary list version 3” <http://forum.europa.eu.int/Public/irc/dsis/susdevind/library?l=/datastablesandscharts&vm=detailed&sb=Title>

Annex 1 - ECHP - Description of variables - PH / HEALTH

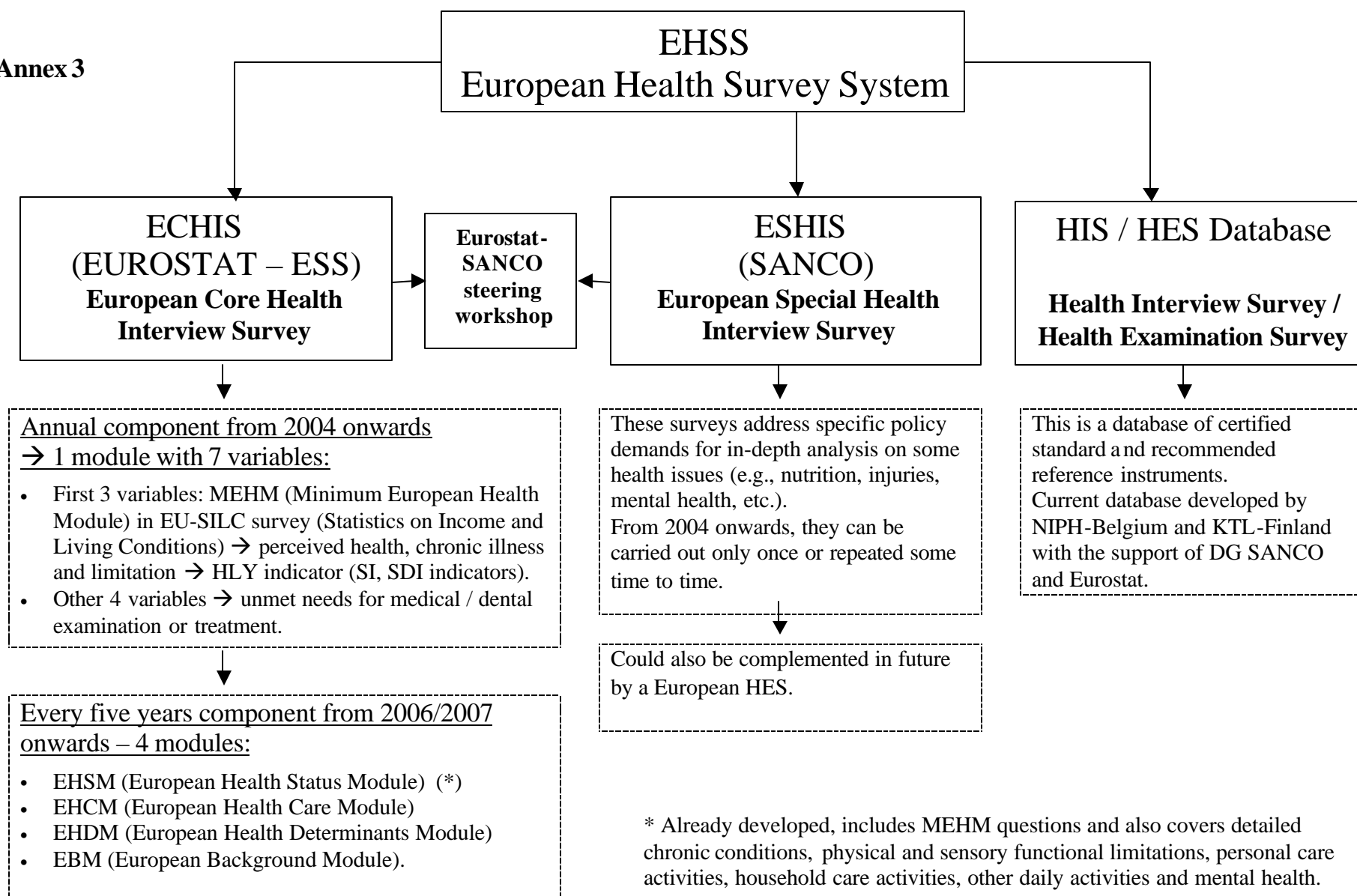
| | |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PH001 | How is your health in general? |
| PH002 | Do you have any chronic physical or mental health problem, illness or disability? |
| PH003 | Are you hampered in your daily activities by this physical or mental health problem, illness or disability? (only for persons with a physical or mental health problem, illness or disability) |
| PH003A | Are you hampered in your daily activities by any physical or mental health problem, illness or disability? (all persons) |
| PH004 | During the past two weeks, have you had to cut down things you usually do about the house, at work or in free time because of illness or injury? |
| PH005 | During the past two weeks, have you had to cut down things you usually do about the house, at work or in your free time because of an emotional or mental health problem? |
| PH006 | During the past 12 months, have you been admitted to a hospital as an in-patient? |
| PH007 | Number of nights spent in hospital during the past 12 months |
| PH008 | During the past 12 months, about how many times have you consulted a general practitioner (including home visits by the doctor)? |
| PH009 | During the past 12 months, about how many times have you consulted a medical specialist (including out-patient consultations but excluding any consultation during hospitalisation)? |
| PH010 | During the past 12 months, about how many times have you consulted a dentist? |
| PH011 | Number of times the person has been to a doctor or a dentist or optician, during the past 12 months. (aggregated) |
| (PH012 | Are you entitled to free - or nearly free - medical treatment under a state financed health care system? |
| PH013 | Are you (also) covered by private medical insurance whether in your own name or through a family member? |
| PH014 | How is the private medical insurance paid for? |
| PH015 | How much do you pay per month for this private medical insurance?) * |
| PH016 | Do you smoke or did you ever smoke? |
| PH017 | Number of cigarettes smoked per day (currently or in the past) |
| PH018 | Number of cigars smoked per day (currently or in the past) |
| PH019 | Number of pipes smoked per day (currently or in the past) |
| PH020 | What is your height without shoes? |
| PH021 | How much do you weigh without clothes and shoes? |
| PH022 | Body mass index |

* Not available after 1996

Annex 2 – 18 HIS items data collection – List of items

- 1 chronic conditions
- 2 self perceived health
- 3 activity restriction (general question)
- 4 physical and sensory functional limitations
 - limitation as regards walking (preferably 500 meters)
 - limitation in seeing clearly newspaper print
 - limitation in seeing clearly the face of someone from 4 meters (across a road)
 - limitation in hearing what is said in a conversation with one person
 - limitation in lifting and carrying a shopping bag of 5 kgs
- 5 personal care activities
 - difficulty in feeding oneself
 - difficulty in transferring oneself in and out of bed
 - difficulty in dressing and undressing oneself
 - difficulty in using toilets
 - difficulty in bathing and showering oneself
- 6 mental health
 - general Health Questionnaire GHQ-12
 - psychological distress (MHI-5 from the SF-36)
 - positive mental health (5 questions in the SF36 on energy and vitality)
- 7 temporary cut down of usual activities
- 8 height and weight (BMI)
- 9 present and former smoking
 - present smoking
 - number of cigarettes smoked per day
 - former smoking
- 10 consumption of alcohol
 - drinkers of alcohol in the past 12 months
 - drinkers of alcohol in the past 4 weeks
- 11 physical activity
 - hard training and competitive sports
 - jogging and other recreational sports or heavy gardening
 - walking, bicycling or other light activities
 - reading, watching TV or other sedentary activities
- 12 in patient care (hospitalisations)
 - inpatient hospitalisation in the past 12 months
 - daypatient hospitalisation in the past 12 months
- 13 out patient care (medical doctor, dentist)
 - consulting a medical doctor (including GP, Specialist) during the past 4 weeks
 - consulting a medical doctor (including GP, Specialist) during the past 12 months
 - consultations to the dentist/orthodontist (past 4 weeks) Consultations to the dentist/orthodontist (past 4 weeks)
 - consultations to the dentist/orthodontist (past 12 months)
- 14 preventive care (check ups)
 - immunisation/vaccination against influenza + delay since last one
 - screening on breast cancer + delay since last one
 - screening on cervical cancer + delay since last one
- 15 use of medicines (prescribed/non prescribed)
 - medicines prescribed by a physician
 - medicines notprescribed by a physician
- 16 use of drugs (specific items)
 - drugs used in the past 30 days
 - drugs used in the past 12 months
- 17 diet/food consumption habits
 - diet followed
 - change in eating habits
- 18 quality of life

Annex 3



Annex 4 – EU-SILC – Health-related variables

| Component | Variable name | Code | Target variable |
|-------------------------------------------------------------------------|---------------|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal data | | | Health |
| Health, including health status and chronic illness or condition | | | |
| X,L | PH010 | 1 2 3 4 5 | <i>General health</i> Very good Good Fair Bad Very bad |
| | PH010_F | -3 -1 1 | Not selected respondent Missing Variable is filled |
| X,L | PH020 | 1 2 | <i>Suffer from any chronic(long-standing) illness or condition</i> Yes No |
| | PH020_F | -3 -1 1 | Not selected respondent Missing Variable is filled |
| X,L | PH030 | 1 2 3 | <i>Limitation in activities people usually do because of health problems for at least the last 6 months</i> Yes, strongly limited Yes, limited No, not limited |
| | PH030_F | -3 -1 1 | Not selected respondent Missing Variable is filled |
| Access to health care | | | |
| X | PH040 | 1 2 | <i>Unmet need for medical examination or treatment during the last 12 months</i> Yes, there was at least one occasion when the person really needed examination or treatment but did not receive it No, there was no occasion when the person really needed examination or treatment but did not receive it |
| | PH040_F | -3 -1 1 | Not selected respondent Missing Variable is filled |
| X | PH050 | 1 2 3 4 5 6 7 8 | <i>Main reason for unmet need for medical examination or treatment</i> Could not afford to (too expensive) Waiting list Could not take time because of work, care for children or for others Too far to travel/no means of transportation Fear of doctor/hospitals/examination/ treatment Wanted to wait and see if problem got better on its own Didn't know any good doctor or specialist Other reasons |
| | PH050_F | -3 -2 -1 1 | Not selected respondent na (PH040 not = 1) Missing Variable is filled |

| Com - ponent | Variable name | Code | Target variable |
|------------------------------|------------------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal data | | | Health |
| Access to health care | | | |
| X | PH060 | 1 2 | <i>Unmet need for dental examination or treatment during the last 12 months</i> Yes, there was at least one occasion when the person really needed dental examination or treatment but did not receive it No, there was no occasion when the person really needed dental examination or treatment but did not receive it |
| | PH060_F | -3 -1 1 | Not selected respondent Missing Variable is filled |
| X | PH070 | 1 2 3 4 5 6 7 8 | <i>Reason for unmet need for dental examination or treatment</i> Could not afford to (too expensive) Waiting list Could not take time because of work, care for children or for others Too far to travel/no means of transportation Fear of doctor/hospitals/examination/ treatment Wanted to wait and see if problem got better on its own Didn't know any good doctor or specialist Other reasons |
| | PH070_F | -3 -2 -1 1 | Not selected respondent na (PH060 not = 1) Missing Variable is filled |