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« Création d'un module *violences conjugales* dans les enquêtes européennes harmonisées de santé par interview – EHIS – d'Eurostat »

HARMONISATION PROCESS

OF THE EUROPEAN HEALTH INTERVIEW SURVEYS

Abstract

The project EHIS/IPV aims at proposing a European common tool for the assessment of intimate partners violence.

In this paper, we firstly present a brief reminder of the historical and current public health context that has been progressively developed within the European Union (EU). Since early stages and up to now, the need of an overall health information strategy was acknowledged. Therefore, three consecutive monitoring programmes have been the framework of projects, of policies and reforms implemented at the European level. Among other things, these monitoring programmes are enhancing the production of reliable data and are pursuing a greater level of statistical comparability among State Members. We are mentioning some of the most important projects in which the EU has been involved, that were based on standardisation processes and through which a selection of specific good-quality indicators have been proposed.

In a second part, we come back on the harmonisation process that took place in the field of population health interview surveys in the European Union. This harmonisation process has been designed and carried out by the main experts of several EU countries. It describes step by step the decisions that have been made, based on the domain assessment, in order to elaborate a core European Health Interview Survey (EHIS) and to implement it in a standardized way in the different States Members. This EHIS thus becomes throughout the UE, the main source of comparable population-based health-related information. While searching to produce comparable data, this process constitutes a common ground on which additional health-related issues can be investigated at national and EU levels.

In the last part of the document, we recall the main general recommendations that have risen from this harmonisation process and that are relevant to the elaboration of a European survey on IPV.

Contents

1 General context regarding health statistics and health indicators in the European Union

The European Union (EU) commits itself in the public health field mainly through two of its Agencies: the DG Health & Consumers (DG Sanco) on a general point of view and concerning health information and statistics, Eurostat. Since its creation in 1956, the EU – that was previously called European Community – has very progressively developed public health competences and policies. From a health protection ideal (EC Treaty, Art 152, Amsterdam, 1997[1]), the EU has evolved towards a "*good health for all*" vision, in which citizens live and are active longer, in better conditions (1). The current strategic approach is exposed in a White Paper entitled "Together for Health" (2). The EU wishes to strengthen policies taken by its State Members, to build a strong network among them, to act at a supranational level for relevant issues without overstepping into national fields of competence. Additionally, a principle underlying the European strategies consists in enhancing coherence among other health-related policies and fostering synergies with other partners and in other domains that have an impact on populations' health. Since the early stages of this evolution, the need of an overall health information strategy was acknowledged. Therefore, the EU developed a health-related strategic vision, which put health information to a priority level. From then until now, this strategic vision has been implemented through successive programmes.

1.1 European initiative for the harmonisation of the population health survey methods and instruments

This initiative was launched during the eighties under the leadership of the CBS (Centrum voor Bevolking Studies, the Netherlands) with the support of the WHO regional office of Copenhagen. Is was already on that time felt to be difficult to compare the data / results of the population surveys between different countries. Post harmonisation of the data was used but with poor results. That is the reason why the suggestion was put forward to harmonise the survey instruments and methods a priori and propose standard methods.

The European countries with the longer experience with population health surveys participated to this intitiative, but also the USA and Australia. The main outcomes of this initiative have been summarised in a book in 1996(3).

1.2 European Community Health Monitoring Programme

The first package of programmes covered the years 1997 to 2002[2] and the health information issue was addressed in the Health Monitoring Programme (HMP) supported by DG Sanco. The HMP gave rise to different projects. The most famous project born in this context is probably the ECHI project (see below), but other projects are also well known:

- the ISARE project for regional indicators
- Euro-REVES project dealing with life expectancies in good health as well as other health indicators
- other more specific projects about nutrition or perinatal statistics.

[1] See : http://europa.eu/legislation_summaries/institutional_affairs/treaties/amsterdam_treaty/a16000_en.htm

[2] See: http://eurlex.europa.eu/smartapi/cgi/sga_doc?smartapi!celexapi!prod!CELEXnumdoc&lg=EN&num-doc=31997D1400&model=guichett

These are also the circumstances in which was born the project we are focusing on in this paper. The project "Health surveys in the EU: HIS and HIS/HES[3] evaluations and models" has been contributing to a "harmonisation process" through which methods, questions, categories of answers and examinations content have been listed and compared (4). This so called HIS/HES project was supported by DG Sanco but developed in close relation with the Eurostat initiative on public health statistics.

This HIS/HES project set up an inventory of the methods and instruments most frequently used in health survey in Europe to be included in the standardized European Health Interview Survey that will later be proposed to all States Members as a tool of health surveillance and of international comparability. Here, the term "instruments" stands for the set of questions (although an instrument can also be made of a single question) that are elaborated together in order to cover a specific topic and obtain the necessary information to compute selected indicators or scores. The extensive inventory that has been carried out has enabled the constitution of a unique tool, an open access database[4] gathering the vast majority of health-related questions asked throughout European and associated countries in the framework of general population health surveys.

The project "Health Surveys in the EU: HIS and HIS/HES evaluations and models" (5) has been implemented in order to improve and obtain comparable and reliable ECHI.

In parallel, the Health Monitoring Programme also supported the WHO Copenhagen in further development of survey instruments to cover those items that were not included in the 1996 publication; this was the so called EuroHIS project (6).

In the second part of this paper, we detail the steps of this "harmonisation process"; whereas the third part of the document recalls the main recommendations that emerged from it.

1.3 The Community Action Programmes for Public Health

The Health Monitoring Programme has been followed by a Community Action Programme for Public Health, designed to contribute between 2003 and 2008 to the European strategic vision. The first objective mentioned in this action programme concerns the improvement of information and knowledge for the development of public health (7). A second Community Action Programme for Public Health has been planned for the years 2008-2013, whose one of the three main objectives is to "generate and disseminate health knowledge" (8). It is an important pillar of the current strategic approach mentioned here above.

As a matter of consequence, several projects dealing with health information, with health indicators and with health systems have been funded by these successive programmes. The search of a greater comparability and of an efficient European networking is clearly expressed, not only within the field of public health, but more widely, comparability is expected all over the European statistics issues.

During those programmes the funding of the HIS/HES database was maintained either directly via DGSANCO or indirectly via Eurostat. In parallel, Eurostat developed the so called partnership for public health statistics covering four main domain:

- Vital statistics
- Morbidity statistics
- Health care statistics
- Population health related surveys.

[3] HIS: Health Interview Surveys; HES: Health Examination Surveys.

[4] https://wiv-isp.be/hishes.

1.4 The European Statistical System (ESS)

In August 2009, the European Commission introduced to the European Parliament and to the Council a reform of the production method of the European statistics (9). The reforms is aiming at updating the previous system, where national Statistical Offices collected and gathered data produced specifically for statistical purposes to a new integrated framework and global system. The reform is implemented under Eurostat's coordination.

In the old system, each Member State was providing its own calculations to the EU level, where they were aggregated to become European statistics. In the new concept, routine, administrative and all types of data that are produced during the activities and in each State Member can be re-used for statistical purposes and are available at the national as well as at the European level. The new system is based on the development of micro data linkage. In this case, a better coordination of all State Members is necessary, as well as a harmonization of the definitions, of the collection methods and the development of collaborating networks to support the State members and their national or regional institutions (9).

The European Statistical System applied to the public health field takes the shape of a European Health Survey System (EHSS[5]), which sets up of "a framework for a regular collection of harmonised data by means of survey and/or survey modules on health" (10). Along with the EHSS, Eurostat has set up a Partnership on Public Health Statistics that is a network of experts in the field of public health and a cooperation ground with other international organisations such as the World Health Organization.

The EHSS emphasizes the reinforcement of the public health statistics basic system; the harmonisation and comparability improvement of data and the common use of defined basic concepts, definitions and classifications on health statistics (10).

The EHSS is composed of several surveys and survey modules (cfr. (10)) whose results can be used separately or linked:

- 1. Eurobarometer survey
- 2. SILC is the annual Eurostat social survey on Statistics on Income and Living Conditions. Since 2004, this survey includes the Minimum European Health Module (MEHM, see § 1.4.4).
- 3. The European Health Interview survey (EHIS) is the European major population-based source of information on health. It is planned to occur every five years (5-year waves) and is built of 4 complementary modules on health status (EHSM), health care (EHCM), health determinants (EHDM) and a complementary on socio-demographic variables (EBM). Each module can be used together or separately in different surveys.
- 4. The EHSS is also made up of other specific surveys, held on a regular basis or ad hoc. An example is for instance the European Disability & Integration Module (EDsIM).
- 5. Later on, EHIS will be completed by another type of population-based survey, the European Health Examination Survey (EHES). This survey investigates health issues and health risk factors, but the particularity is that it combines both self-evaluated health issues and clinical measurements and blood analyses; for the time being, this type of survey is not yet systematically implemented all over Europe.6
- 6. Last but not least, the HIS/HES database mentioned earlier in this paper is constitutive of the EHSS in the sense that it greatly contributes to assess the comparability of the surveys data and results (see § 2.1).

[5] http://circa.europa.eu/Public/irc/dsis/health/library?l=/methodologiessandsdatasc/healthsinterviews-survey/diagramme_ehsspdf/_EN_1.0_&a=d

[6] http://www.ehes.info

DG Communication is in charge of the item (1); Eurostat is in charge of the items (2) and (3); DG Sanco is in charge of the items (4) and (5); DG Sanco and Eurostat are in charge of the item (6)

The first wave of this European health interview survey has been implemented between 2006 and 2010, which is currently followed by an evaluation phase, before the second wave to be launched in 2013/2014.

The EHSS aims at providing a general framework for organising and coordinating the collection, on a regular basis, of harmonised and comparable health data. This should answer the specific needs expressed at the State Members level as well as at the European level, including regarding health programmes implemented by the European Commission. Moreover, the EHSS should enable comparison of health and health-related data throughout the European Union and provide indicators according to the ECHI project (10,11). In the close future, EHSS should implement EHES and develop diagnosis-specific morbidity statistics.

1.5 Other projects aiming at harmonizing health indicators at international level

The different programmes and projects funded and implemented by the EU play a part in the general context evolving not only towards a greater capacity to better measure health status, health care, health systems and health factors but also towards the possibility to compare European States among them, for their policies, performances and efficiency by the use of common indicators. Furthermore, to be comparable, the common indicators need to be based on common definitions and concepts, to be computed from likewise data, with similar and appropriate methodologies. Here after, we present few projects aiming at the same objective of elaborating common indicators, carried out by different organisations in various aspects of public health.

1.5.1 Health-for-All indicators, World Health Organization

During the years 1988-1992, the WHO Regional Office for Europe organised three consecutive consultations with the aim of developing common methods and instruments for Health Interview Survey (11).

In preparation of this WHO project, invitations have been sent to experts “involved in HIS in the European Region” as well as in “selected countries outside the Region”, which had demonstrated an experience or a leadership in this matter. WHO had already elaborated a list of important health indicators, the Health-for-All indicators that were expected to be regularly computed by States and provided to the WHO. Meetings were therefore Health-for-All oriented: Health Interview Surveys are the major source of information concerning people’s health experience and thus, appeared to be one of the necessary tool for the production of the Health-for-All indicators. This is probably the main reason why WHO encouraged the harmonization of Health Information Surveys, to get better quality Health-for-All indicators and comparability among countries (3). The interest of common indicators was stimulated, but despite these efforts, concrete results were not yet visible.

1.5.2 Health Care Quality Indicators, Organization for Economic Co-operation and Development

In January 2003, the OECD launched a Health Care Quality Indicators projects in order to check the feasibility and to elaborate the information assessing the quality performances of the health care provided in its State Members (12,13). Indeed, developed countries were involved into structural reforms of their healthcare systems but monitoring the effects of the reforms at national level was weak. International and supra-national organisations were invited to participate to the research. The project is based on the identification of priority areas and of quality criteria for the indicators (12). As a result, 86 indicators were

recommended, in the key domains that are diabetes, mental health, cardiac care, patient safety, primary care and prevention (13). But the project was also restricted to selecting existing quality indicators which hampers the quantitative assessment of certain heath care aspects, the inclusion of fast-changing domains like new technologies and concepts. In domains were few data were available or were recorded in dissimilar ways, no agreement was made. Thus, a consensus recommendation was achieved, but further efforts are necessary to enlarge the international quality performance reporting.

1.5.3 The ECHI projects

The ECHI project has been launched under the HMP for the years 1998 to 2000 and then 2001 to 2004. It specifically aimed at establishing a set of European Community Health Indicators that is coherent with the objectives of the HMP and with the broad health strategic vision of the EU. The selection of indicators was based on several explicit criteria and begun with the identification of key domains (demographic and socio-economic factors, health status, determinants of health and health systems) (14). The ECHI project took into account previous and current works instead of creating de novo indicators. The flexibility pattern that was initially considered is supposed to enable the same generic indicator to "survive" irrespective of possible future changes in the conceptual or methodological elaboration of primary data.

According to the public health's scope, this immense project has been extended; the implementation of the selected indicators was continued through the successive Community Health Programmes (see ECHIM projects[7]) and was connected with others convergent projects (Health-for-All, International Compendium for Health Indicators, WHO). The ECHI projects have released an extensive list of 251 indicators and a short list of 88 indicators that are available on the Internet[8]. The injury and violence domain is scarcely approached.

1.5.4 Euro-REVES projects

The objective of this project, run between 1998 and 2003 mostly under the HMP, was to set up a coherent set of health expectancies for the European Union. The concept of "health expectancies" implies that health is taken with a "life-course definition" and not only as a cross-sectional statistics. While the current health-related data are mostly based on mortality rates, "these indicators simultaneously assess the evolution of mortality, morbidity and disability" (15). The idea is not only to measure the number of years that European populations have gained, but more precisely, to measure the number of year in good health, in other terms, the lifetime gained with good quality of life.

There again, a whole conceptual framework was needed and has been drawn. On the implementation ground, recommendations regarding selected indicators definitions and calculations were provided. In the end, a set of 10 instruments has been proposed with three generic questions about perceived health, chronic morbidity and activity restrictions, which constitute the Minimum European Health Module (MEHM) usable without restriction in various investigations and introduced in several European surveys (e.g. SILC). This enables countries who started HIS long before the will of harmonization, and who therefore are not always willing to change their design (in order to follow trends) to produce in few time those global indicators with a minimum adaptation to their HIS. The second and full set of indicators is produced only by willing countries.

[7] See : http://www.echim.org and
[8] http://www.healthindicators.eu

1.5.5 Washington initiative

This international initiative launched by the United Nations is aiming at the development of standardised instruments for the measurement of functional limitations. See also the publication of the new ICF classification.

1.5.6 Budapest initiative

Along the same line, this international initiative launched by UNECE aims at developing standardised instruments for the measurement of health state.

2 The different steps of the harmonisation process

As seen earlier, the European Health Survey System is based on several pillars, one of them being the European Health Interview Survey (EHIS). This survey is prepared under the leadership of Eurostat and is planned to be implemented every five years in all European States Members. The survey is made up of four modules covering health status, health determinants, healthcare and the socio-demographic characteristics of the interviewees. It assesses the self-perceived health of the European citizens, providing Eurostat, besides the national administrative data, with a complementary source of information. At the time the project has been started, most of the developed countries already used population-based health interview surveys, but the methodologies used and the questions asked varied in many different aspects. As a results, health indicators that were delivered by national authorities could not be properly compared.

Several centres such as statistical Offices and public health Institutes located in Belgium, Finland, Hungary, Denmark, Italy, United Kingdom, Germany, France, Portugal and Netherlands have build a partnership around the project "Health surveys in the EU: HIS and HIS/HES evaluations and models" and have joined Eurostat to lead the works.

In a first phase of the project, a core group of experts in the field of health survey methodology has been established (Eurostat HIS core group), on which a broader network of national people in charge of HIS & HES (in the framework of the HIS/HES database) has been build. The network has then performed a comprehensive inventory of all the main, representative and general HIS, HIS/HES and HIS/HES databases implemented at regional, national or international level. A questionnaire has been sent to all agencies responsible for the identified surveys, in order to gather detailed information on the methodology, design, target population, sample size, non-response, etc. used in each case (4).

The second phase of the project has started with the set up of a network of country representatives in charge of the health surveys at national level (Eurostat HIS technical group)… this group will approve the decisions made by Eurostat as far as the development of the EHIS is concerned. The second phase continued with the collection of information on design, methodology, target population, sample size, non-response, etc. through literature review, personal contacts, questionnaires sent to all concerned institutions

Then, the information has been encoded in the HIS/HES database. The core experts agreed upon the inclusion and exclusion criteria on the basis of which surveys could be entered or not in the database. An analysis of the survey questionnaires and protocols has led to the design of a classification for the content of the questions; this classification has further been adapted to the ECHI classification (4). An important task of the project concerned the study of the comparability of the questions and the establishment of instruments' disparities and similarities. At this step, experts decided on which topic to be reviewed. Then, all instruments belonging to the selected topics were evaluated. Certain questions related to declared morbidity, such as diabetes, hypertension and smoking habits were found already comparable (4). Afterwards, the HIS/HES database made available to main national, international bodies and institutions via a web-based version.

During this second phase, task forces were established on specific topics such as : questionnaire development, survey methods and sampling, ethnicity and health, institutionalised people. Furthermore, an additional task consisted in the development of standardised modules for the future European health interview survey : health status(5,16,17), health determinants and health consumption.

The third and final phase of the project continued the evaluation of instruments and protocols, the update of the HIS/HES database, the collaboration with topic or group-specific projects and developed recommendations such as to enabling the computation of the ECHIs. During the evaluation, a systematic search of all existing recommendations, field tests and validation was first conducted; then, it was taken account of previous recommendations and testing made concerning identified instruments, the consistency of those existing recommendations (being weak or partial), the existence of translated versions etc. Apart from the instruments, the project has then focused on the further development of standardised modules : underlying concepts have been documented, selected instruments have been ordered, instruments and response categories have been listed, variable have been described and other practical aspects of each module unfolding have been arranged. The method of calculation of the ECHIs have also been described. Questions have then been tested according to several methods (pre-test, critical review, cognitive testing and field testing. Translated versions of the modules have been elaborated by public health experts, into national languages such as Danish, French, German, Italian and Hungarian and those national versions have been further field tested. Eventually, the EHIS source questionnaire (in English) has been adapted on the basis of the comments issued by the Member States.

In the fourth and final phase, once the data are collected in the different countries, an evaluation process must take place in order first of all to compare the wording of the questions in the different languages, secondly to evaluate the comparability of the data/results between the different countries.

3 Main recommendations regarding the elaboration of a health survey

The experts meetings organised around the harmonisation process of the European Health Interview Survey (EHIS) have led to the identification of quality criteria and to comparability among multinational surveys and to methodological standard with regard to health measurement in the general population. Moreover, these criteria have been agreed upon, which makes of them a scientific reference of "good practice". The related definitions and requirements are made public through five different reports, written by the involved experts themselves, working into five sub-groups called Task Forces.

Their documentation exhaustively lists the recommendations that are made in order to build heath surveys and health survey components (instruments) that can be supported and used by European Community State Members. Overall, these guidelines introduce the "methodological requirements to obtain comparability between data collected through Health Surveys in different European Community Member States" and concern the content and the validity of the survey instruments as well as the survey procedures (TFI, p.5). Irrespective of the type of survey, the first report helps researchers to select and validate individual item or instrument and also to describe to potential users how to use those selected instruments. Indeed, this report provides all the elements to be found in a sort of "user's manual". The second report, which is specific to population health interview surveys and which could actually be used at the first stages of a health survey elaboration, mostly guides researchers through the structural and methodological aspects of the design and data collection processes. These documents are entitled:

Task Force I: Guidelines for the development & criteria for the adoption of Health Survey instruments (18).

Task Force II: Report on guidelines & quality criteria for population health survey design & methods (10).

Those recommendations are crucial and useful for the development of a population survey aiming at measuring all over Europe (sensitive) public health issues; that is the reason why, within the framework of the Daphné-project about Intimate Partners Violence (IPV), we proposed ourselves to recall in this section the main generic points that are recommended by the experts, leaving for a more operational stage the very technical aspects related to sampling procedures and statistical methods.

A thorough documentation of all processes and decisions is needed because the methodologies used to sample the population, to interview the participants, to collect data, to compute results can produce greater differences than those to be actually measured. Also, confounding factors and bias can mislead and end up in wrong conclusions; being informed on the unfolding of the whole survey's process enables to point out the survey's limits and to which extent its results can or cannot be used (TF2, pp.31-32).

The Task Force II's report is mostly dedicated to Health Interview Surveys. Nevertheless, it exposes several considerations that are also relevant for other types of population surveys. For instance, the report warns that if an international survey is being prepared, important decisions should be made regarding the mode of administration or the implementation procedures, before to establish the international collaborations that will carry it out (TF2, p.8).

At the start of a personal and health data collection, ethical considerations constitute an important issue. Researchers will be guided in this topic by national laws, guidelines or restrictions but also by ethical and professional code of practice (TF2, pp. 7-8). Similarly, the survey's results must ensure the participants' anonymity; micro-data and disaggregated outputs cannot be disseminated unless no direct nor indirect links can be done with respondents' identities (TF2, p.32).

Eventually, documenting all steps of the survey's implementation contributes to the quality assurance, which is a method aiming "at maintaining or enhancing the data reliability or validity" (TF2, p.32).

The main idea behind the development of the EHIS is that the data collection methods and instruments (questionnaires) have to be harmonised a priori (pre harmonisation). That is the only way to get comparable data between different countries. It means the adoption of a common source questionnaire (in English) together with a common translation and testing procedure. In addition, once the data collected in the different countries an evaluation process must take place in order to 1) compare the wording of the questions in the different languages, 2) evaluate the comparability of the data/results between the different countries.

3.1 Survey's objectives

The general aim of population Health Surveys is, beside the information provided on a routine basis by the health system, to increase the scientific knowledge about the population's health status in order to elaborate sound public health policies (TF1, p.13; TF2, p.7). The main goal of the survey should be defined and then itemized into more specific objectives. Defining the survey's objectives provide answers to the "what-do-we-want-to-know" questions. Once the objectives are clarified, the modules and instruments that will constitute the whole survey can be worked out (TF1, p.13).

Along with the definition of the objectives will also come the definition of the target population. Depending on the investigated issue, the unit of record (and of analysis) could vary, to be the person in case of individual experiences topics or a household in case of life style or incomes and expenses for instance. Some surveys even combine both levels whereas others focus on other levels such as groups, schools, etc. (TF2, p.21). Other participants' characteristics should be fixed at the same time (inclusion and exclusion criteria) and an adequate sampling frame should be found to best suit the survey's objectives and to cover the target population with the greatest possible coverage (TF2, pp.21-22). Whenever complete population lists or registers are not available, a geographic frame can be drawn to stratify the population and randomly select the participants (TF2, pp.22-23). The sampling process as well as the weights and variance calculations are extensively treated by Health Interview experts in another report that we did not integrate in this working paper due to its very technical and statistical approach (19).

3.2 Type of interview

As pointed out earlier in this paper, "instrument" is used here to mention a question or a set of questions that will address very specific topics. Several instruments are grouped together into sub-modules and modules. A questionnaire is usually made of several modules. Surveys can take several forms. Some can be entirely dedicated to health matters, while others can cover various issues like social, demographical, familial issues and include only a module on health. In this case, differences and inequities among the population sub-groups can be better analysed (TF2, p.7).

Health interviews can take the form of personal interviews, where an interviewer interacts with the respondent, and the dialogue can happen either face-to-face or through a telephone call. Otherwise, the questionnaire can be self-administered, which means that the respondent fills it in without help apart from the joint instructions (TF2, p.12). Deciding which type of survey is going to be implemented depends on several elements like available financial resources, the issue under study, the target population, the targeted response rate, etc. Also, hybrid forms of interviews can be set up to combine various assets (TF2, pp.13-15).

3.3 Underlying concepts

Measuring health status and phenomenon is submitted to a subjective approach. Anyone can develop its own appreciation of many health aspects, of their causes and consequences. Therefore, the definition of the concepts underlying the expected measurements that will be made by the instruments and the survey must be clarified (TF1, p.14). This will most likely require a scientific literature review and lead to an historical understanding of how certain concepts have evolved along the time.

For each developed instrument, researchers will have to "justify the necessity of it" and "the expected use of the provided data" in terms of utility and of policy relevance (TF1, p.13). They will also have to justify why the questions and modules are to be included into a population survey rather than in another type of data collection (TF1, p.14); for instance, population surveys are not suitable to investigate rare events but could be useful to evaluate at a national level the satisfaction of healthcare consumers.

Task Force I reminds that following this clarification, it will necessary, firstly "to describe the instrument selected in order to have the health issue measured" and secondly that "the range of measures that will be obtained" and the "linkage or proximity between what is really being measured and the concept defined a priori" will also need to be stated (TF1, p.15).

For each question a "conceptual translation card" will be prepared explaining what is the concept explored through the question and why it is important to have it included in the survey. This card will have to be translated at the same time when the question will be translated in national languages.

3.4 Information on the indicators

Indicators will be chosen or selected, that reflect what is targeted, that help to apprehend complex realities and through which changes occurring in the targeted phenomenon can be illustrated. As indicators are computed from the instruments' results, researchers will make sure that the questions are properly implemented, in order to obtain the data and the information needed to do so (TF1, pp.15-16). The guidelines are mentioning three different levels of indicators: Those "associated with the health status of persons and populations"; those "related to physical environmental conditions"; and those "concerned with health services and activities" (TF1, p.16).

Different projects gathering State Members but also supra-national institutions have provided a selection of health indicators. Typically, the most important project was called ECHI and ended up with a list of 251 health indicators (TF2, p.10) and a short list of 88 indicators, but also the:

- So-called Open method of Coordination defining at the EU level what are the most needed indicators for all the EU directorates,
- EU indicators of social exclusion
- EU structural indicators

Nevertheless, very few of these indicators are suitable to characterise or to follow the facts of violence, especially the one that concerns intimate partners.

3.5 Development of the instrument

With regard to health surveys' instruments, the EHIS experts propose to describe the context in which they have been implemented. Here again, a literature review will be necessary, in search of "important underlying concepts and what is the public health relevance of the domain investigated" and of the history of the measurement, of its use and of its utility (TF1, p.17). Additionally, a "short review of the validity of each of the instruments used in the past" should be provided (TF1, p.17).

Experts also propose to assess the instruments currently available all over the European Commission State Members and beyond the European Union. This step is named “survey of surveys” and allows verifying whether existing instruments can be used and if not, to justify why and to which extent new instrument should be developed (TF1, p.18; TF2, p.8). if valid and relevant, already existing instruments should be kept in order to enable the computation of time series (TF2, p.8)

In case a new instrument is developed, a full description of it should be provided, concerning how it has been designed and how its content was decided on (TF1, p.18). Each old, modified or new instrument should therefore be characterized in terms of (TF1, p.19):

- Position in a specific part of the questionnaire
- Order of the questions
- Administration mode (face-to-face, self-administrated questionnaire...)
- Proxy respondents
- Core questions and optional questions
- Targeting the whole population or only sub-groups
- Time reference (recall period of time)
- Answers categories and scores, etc.

The order of the topics and of the questions can influence the answers’ reliability. It is therefore recommended to begin with general questions and to keep sensitive issue at the end (TF2, p.10)

Unless socially acceptable or desirable responses could be induced, it is usually recommended to respect aspects “such as neutral language, lack of ambiguity, simple terminology, etc.” (TF1, p.19). “Social desirability” is a bias introduced by respondents when their answers do not reflect the reality they have experienced but instead attenuate or modify that reality in a sense that is socially more common, more usual and therefore better accepted. Sensitive issues are especially at risk of facing this problem that is why under such conditions, self-administrated questionnaires are likely to be a better choice than face-to-face interviews (TF2, pp.13-14).

Eventually, an additional element should be taken into account when selecting or elaborating instrument, which is related to the stability of the instrument over time. Foreseeing how the measurement of a phenomenon could evolve and be influenced by projects and tools currently under progress (TF1, p.20).

Criteria for judging the pertinence of the questions were identified:

- questions need to fulfil a public health model
- questions should be policy driven (matter of Eurostat, requests from DG Employ, DG Sanco, …)
- questions could be expert driven (matter of the experts of the Core group)
- questions used for the estimation of indicators (OMC, ECHI, regional, …)
- avoid questions related with items with very low or very high prevalence
- avoid domains with comparability problems (not explainable differences) based on wording and/or on frequency analysis (to be checked with other sources when possible)
- avoid to duplicate data available in other surveys of the ESS (e.g. questions on accidents at work place)
- add items needed for specific analysis (by example on health inequalities for DG Employ).

3.6 Interviewers recruitment and training

Interviewers constitute a bridge between the team survey on one side and the interviewed people on the other side. Their recruitment and training is of utmost importance and needs various requirements (TF2, p.10), among which:

- interviewers should perfectly master the language in which they carry out the survey as well as the local cultural specificities;
- they must be able to explain the meaning of the question to the respondent upon request.
- they should neither interpret the questions nor influence the interviewee's answers (TF2, pp.10-11).

Their responsibilities cover some facts like contacting the participants, establishing with them a trustful relationship that will help them to fully and sincerely answer the questionnaire or providing help without influencing the answers. A supervision of all interviewers is also necessary, in order "to ensure uniform interviewing practices and a high level of accuracy in recording answers" (TF2, p.20). This supervision can be direct, based on their feedbacks or indirect, based on completed interviews they brought back to the central office, for which purpose participating households could be re-contacted (TF2, p.20).

3.7 Survey arrangements

When handling large sample sizes, it is recommended to spread the data collection over a full year. This will not only control potential seasonal variations but most of all, will facilitate the logistic and organisational aspects of the survey's implementation. This long time frame could require an actualisation of the sampling frame, though, because of the natural demographic movements that have a negative influence on the initial sample selection (TF2, p.15). It is also advised to set up a coordination centre to supervise and manage the fieldwork (TF2, p.15).

Once the sample is done and the survey ready to begin, the contact with respondents can be prepared, announced in advance through an official letter clearly specifying the aim and conditions of the survey. This procedure can attenuate refusals to participation up to a certain level. It seems that telephonic contacts do not achieve the same efficacy (TF2, p.16). In Belgium, Ministries that need and finance the main population surveys are themselves taking the responsibility of sending the advance letter to citizens selected to participate to these surveys. The Task Force II gives many advices on how to contact the participants and how to record the information related to contact attempts (TF2, pp.16-19). It also indicates that small monetary prepaid incentives can positively influence the response rate, while post-paid incentives seem to have no impact (TF2, p.19).

Once questionnaires are filled, it must reach the central office in a secure way, which means that anyone being; accidentally in contact with a questionnaire should not be able to recognize the respondent's identity.

3.8 Quality evaluation

Before translating any instrument, its quality should be evaluated in order to assess "the reliability and the validity of the instrument". International experts recall that "each step (...) should be documented and (...) published" (TF1, p.21). The quality assessment takes several steps that are hereafter mentioned.

The team who prepared the survey can carry out a critical review the questions. Then colleagues and/or family members can do the same.

Then arrives the pre-testing phase, which aims at testing the "clarity, comprehensiveness and acceptability" of the question on a little sample of about 50 persons sharing the same background profile as the survey's target population (TF1, p.21). The interviewers acting in this pre-testing phase should not all be experimented ones, but also beginners who do not have the skills to "compensate some problems related to the questions" yet (TF1, p.21).

Pre-testing a survey goes through simple testing, cognitive testing and/or behaviour coding. During the simple testing, experimented interviewers conduct few interviews and report their [own] experience of the questions. "In a cognitive interviewing, the respondent thinks aloud while processing the question and decides how to answer to the question". In a behaviour coding, both the respondent and interviewer's behaviour are coded (TF1, pp.21-23).

Once the survey has been pre-tested, further evaluation can be performed thanks to special probes disseminated scarcely in each interview to carefully check what the respondent has understood with specific questions (TF1, p.23).

Another step is provided by an expert panel method, during which at least two professionals used both to the content surveyed and to surveys design independently go through the survey and outline its potential problems. A discussion is then organised and recorded in a report (TF1, p.24). When comparing the different pre-testing methods, it seems that the expert panel is the most cost-effective one. The behaviour coding and the conventional pre-testing are more expensive but are also sensitive to possible problems (TF1, p.24).

Besides the validity (the real measurement of a selected outcome), the reliability of the question should also be evaluated. Reliability has to do with consistency of the instrument, in other words, with the fact that the same respondent provides the same answer when a question is repeatedly asked by the same interviewer or by another one (TF1, p.24). Speaking about internal validity, one can say that "The question is valid when it measures the correct outcome"; on the opposite, external validity is achieved when the survey results "can be generalised to the whole population" (TF1, p.25). The validity of a question is assessed either through the comparison with other information or data sources (registers, other surveys...) or through other statistical methods (TF1, p.25).

When replacing "old" questions by "new" ones, those ones should be validated against "gold standard" which means against already existing questions. New and old versions of the same question are asked to the same respondent and outcomes are then compared. It has been shown that factual questions lead to more reliable answers; along the same line, a too long recall period of time will induces less reliable answers. In the case of healthcare utilisation, the recall period should not exceed 2 weeks (TF2, p.9). Testing the validity of a question includes checking whether the administration mode and the instructions to the interviewers are adapted (TF1, p.25).

3.9 Field testing

Once each individual question has been tested for clarity and validity, the whole questionnaire should be submitted to a field (pilot) testing. The aspects to be assessed are: i) the order and location of the questions in the questionnaire; ii) whether the jumps over unnecessary questions are well organized; iii) the time necessary to fill in the questionnaire; and iv) the respondent's burden (TF1, p.26). Pilot testing reproduces as much as possible the exact conditions of the real survey, on a much smaller number of participants (about 150) and offer therefore important organizational and logistic issues (TF1, p.26).

3.10 Translation

At this stage, the guidelines step into the translation phase which is a crucial point in terms of comparability goals. The translation guidelines provided by the health interview experts aim to ensure "the technical, linguistic and conceptual equivalence of health interview questions". The idea is to "Ask-the-Same-Question" ASQ whatever language and cultural backgrounds are involved. Indeed, "the original instrument and all the translated versions are expected to 'capture' a particular phenomenon in the specific target populations with consistent reliability and validity" (TF1, p.27). The questions must be "culturally adapted" and "suitable to the circumstances of each of the countries" (TF2, p.8). The translation process requires first standardized procedure and second quality evaluation to tackle linguistic particularities and difficulties. Particular attention should be brought to the following points:

- Translation done by two separate experts of public health / health survey
- Translating the question but also the conceptual translation card and the answer categories
- The two translation are compared to get a common agreement
- If no agreement then a third expert is acting as a jury and will take the decisions

… so there should be no more back translation process at least at this stage !

The most commonly used translation process implies a set of finalized instruments, written in a source language, that have been validated and that have been approved by the survey's coordinators and steering group (TF1, p.27). From this starting point, translated versions are worked on until they are validated, including for the ASQ criterion. Alternatively, a parallel approach could be designed. In this case, the underlying concepts of each question and answer are extensively developed by the steering committee. Then, each State holds the responsibility and the freedom to elaborate their instruments (TF1, p.28). In a way or in another, countries sharing the same language should organise a joint translation process and check that specificities are taken into account (TF1, p.28).

"It is highly recommended to centralize the coordination, monitoring and evaluation of the translation process, in conjunction with national study coordinators" (TF1, p.28). Obviously, translation costs have to be estimated and included into the survey's budget. The steps of the translation are thus: i) the translation of the questionnaire from the source language to the target languages by two independent translators (the Task Force gives criteria to select the translators), ii) the independent review of the translation and iii) a committee or panel adjudication. Eventually, whether a fourth step, the back translation is useful is not clearly stated (TF1, pp.29-31). The important efforts provided to elaborate and evaluate the instruments in the source language should here again take place in order to ensure the comparability of all versions.

3.11 Data collection

Carrying out a survey can take different forms, according the selected implementation method. The nature of the investigated topic, the length of the questionnaire, the characteristics of the targeted population and the available resources are some of the elements that will be taken into account when defining which method best suits the survey's objectives and constraints. The Task Force I report tracks all the stages of this decision-making process that should, once again, be described in a so-called "user's manual". It also provides a reminder of the advantages and disadvantages of each method (TF1, p.34).

Any selected data collection method can be enhanced if proper decisions and indications are given regarding the layout, the instructions for completion of the questionnaire and the training of interviewers (TF1, p.34). And those evocated elements can in turn influence the response rate which becomes thus an indicator of the instrument's quality (TF1, p.35).

Factors influencing the response rate can more or less be controlled by the researchers. But it is important to realize that non-respondents are not a random sample. “Quantifying refusals and understanding the reasons behind” is crucial to implement further strategies and to properly interpret the survey’s results (TF1, p.35).

3.12 Data management, analyses and reporting

The way to check, code, enter and clean the data should be set up at the beginning of the survey. The procedure to carry out these steps should be well described and all researchers working with the survey’s data should use the same rules. Moreover, instructions to encode answers difficult to read or to interpret should also be provided. When recoding the original answers, special attention must be given to out-of-range values and while computing scores. Specific instructions should be provided for those cases (TF1, p.36). All surveys should be developed with an integrated control system that can help identifying the various error sources and causes, which may bias the survey’s results and lower its quality (TF2, p.28).

We have seen earlier some comments regarding non-respondents, those persons who refuse to take part to the survey. We are now approaching non-response, that concerns missing answers in a module or of an instrument (hence, in this situation, the questionnaire is partly completed). Non-response bias the final survey estimates, that is the reason why different techniques have been elaborated to reduce this bias. The most common one is imputation. “It consists in assigning substitute values to the missing data, to be able to restore the complete data matrix” (TF1, p.37; TF2, pp.28-29).

With specific instruments, made of a single or of several questions, desired indicators and indices can be calculated. The manner to treat the collected data in order to build the indicators have to be mentioned in the “User’s Manual” (TF1, p.37). Also, statistical methods that will be used to analyse the data should be agreed upon and fixed before any computation is made. All researchers should use the same “package” or software for their analyses (TF1, p.37). And of course, in a joint publication, analyses should be conducted in a common way and results presented in a same manner (TF1, p.38)

The survey’s results are the final output of the whole process and they have to be disseminated in ways that will fulfil end users’ needs. Decision-makers, researchers or the general public should all have access to the information gained thanks to the survey, but obviously this information should be presented under different forms, complexity levels and details, depending on the user’s ability to apprehend it (TF2, p.31). Results can be presented according to geographical or territorial areas, according to population groups or sub-groups characteristics, according to the time for instance. Survey’s analysts and researchers compute tables and outputs on the basis of the objectives defined at the beginning of the venture (TF2, pp.31).

3.13 Conclusion

The international experts who participated to the European Health Interview Survey have, through these guidelines, disentangled as much as possible the numerous stages of the non less numerous decisions taken during the elaboration of a survey. Decisions intervene at different levels: the whole survey in its whole, but also the modules that articulates it and the specific questions or groups of question. All along their reports, the experts ask researchers first, to take the time to identify and evaluate all possible alternative instruments in order to give the survey informed and proper orientations. They also recommend documenting this process with as much possible details because this is the only way to reproduce it and/or to improve the survey or the questions, on the basis of evidence. This immense work

reflects the long route that developing a survey involves. But it also gives the keys to achieve surveys' comparability through different setup, different regions or countries.

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5 Annexes

5.1 Annex 1.

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