Part 2: MEHM

The Minimum European Health Module

Introduction

The Minimum European Health Module

The increasing needs for information and the progress made in the domains of health, health related and social indicators (Commission Health Monitoring Programme of the European Statistical System (ESS).), have made necessary to establish a proposal for a EU programme for the coherent development of consistant disability statistics.

During a meeting of experts from the MS, held in Brussels on 31 January and 1 February 2002, the following aim was formulated: " the program of the ESS should aim at a minimum set of items with reference questions and data to be available in the EU (all MS and Eurostat) by 2006, at least for supporting in a regular way disability and disability related programmes and public health programmes of the Community."

The emphasis is on population based surveys as the backbone of a statistical information system for disability and related matters.
Therefore the disability items and questions/instruments have been proposed to fit into **a census or general nation wide surveys**; this is the first priority of the Washington Group.

It is proposed to accept for the EU the 3 general disability/health items and questions from the "Survey on Income and Living Conditions"(SILC) questionnaire, which is called **the Minimum European Health Module (MEHM)**. The set of three MEHM questions should be used as one entity and not as separate questions.

The MEHM (reference instrument) is:

How is your health in general? *Very good, good, fair, bad, very bad.*

Do you have any long-standing illness or health problem? *Yes/no.*

For at least the past 6 months, have you been limited in activities people usually do because of a health problem? *Yes, strongly limited; yes, limited; no, not limited.*

The SILC questionnaires have been accepted by the appropriate Working group of Eurostat and as such is a formally accepted reference instrument at EU level for use in the European Statistical System (ESS).
This means also that MS should justify possible adaptations of national (operational) instruments.
It was stressed that due to differences in culture and language the emphasis should not be on common instruments but rather on common items and agreed related reference questions or instruments, leaving the operationalization of the reference questions and /or instruments at national level.

The MEHM is based upon Euro-REVES recommendation and it takes into account the results of several research projects particularly on the development of common instruments, e.g. EuroHis of WHO-Euro (financed by BIOMEDII programme), REVES etc.

Selection of questions

The list of surveys, presented in *Appendix 2 – Information on selected Surveys* - were used as reference also for the activities carry out related with MEHM.

The main goal of the activities was to see how many surveys and which one had already used one or more of the MEHM questions, and their similarity and difference in comparison with the MEHM instruments proposed.

The period of time was so 1998- 2002, also in this case some exception were made for e.g. EL01 (1991).

In some case the same survey has more than one question on the topic and both of them were taken into account (e.g.: I04, N01). Furthermore, same survey carried out more than one time in the defined period of time (e.g.: I03 and I04; IRL01 and IRL03, IRL02 and IRL04) were taking into consideration.

For an overview of surveys using questions related to MEHM see *Appendix 5a,* and for an overview of the questions see *Appendix 5b.*

Criteria for analysing similarity and difference in the instruments used were identified. (see *Appendix 6).*
To present the results of the comparison between MEHM questions and the other questions three table were developed, one for each MEHM question (*see Appendix 7, 8, 9*).

In the following pages, the results of this analysis will be presented for each question related to MEHM. Each analysis will be introduced by a brief description of the MEHM question and the criteria used for the analysis.

First question of MEHM**: Perceived Health: general question**

---

* "How is your health in general?
Very good, good, fair, bad, very bad"

* This instrument is recommended by the World Health Organization (WHO-Europe, 1996).

A simple question on the self-perception of health status (SPH) is one of the most commonly used in health interview surveys.

Self Perceived Health (PH) is a global measure that includes the different dimensions of health, i.e. physical, social and emotional function and biomedical signs and symptoms. Whereas with many health indicators we get only a partial indication of health, SPH appears to be an effective summary of health.
Its "holistic" approach and its generalizability of the health concept, as well as the comprehensiveness of the population responses, allows it to be used when comparing different populations (Euro-REVES, 2002)

The instrument is based on the existing recommendations; the question chosen is that already recommended by the World Health Organization (WHO-Europe,1996). Its importance has been also acknowledged by Euro-REVES project on "Setting up of a coherent set of health expectancies for the European Union", carried out under the European Health Monitoring Programme .

A systematically review research on the self-perceived health measurement instrument (with particular reference to the essential characteristics and quality assessment when measurement of perceived health are used cross nationally) has been presented in the Final Report of the Euro-REVES project (Coherent Set of Health Indicators for the European Union, Chapter 6, (Euro-REVES, 2002).

Context/Brief Summary
In recognition of the need to elicit an individual's own assessment of their health and of the considerable advantages of measuring overall health through the use of a simple question, the notion of 'self-perceived health' (SPH) has become popular.

SPH is considered to be one of the best health indicators at both, the individual and population level. Several cross-sectional and longitudinal studies have demonstrated its relationship with other health status variables, thus reinforcing its validity as a global indicator of health.

SPH has consistently been shown to be a good predictor of general and specific mortality, by selected causes, over both the short and long term, as well as of the future functional capacity of individuals. This characteristic has stimulated the increased use of SPH in clinical and public health surveys as a key indicator of individual health status. It has become a commonly used indicator available in many countries. Furthermore, the association between SPH and physical symptoms, limitations on daily activities and the use of health services has also been well documented. The level of perception of bad health in the population is a clear indication on the needs, services and health care requirements of a community.

Question characteristics

Domain: The reference domain is a general state of health
Format: The proposed indicator is an absolute, single-item measure of SPH.
Age reference: The question is not age related.
Time reference: The question is not time limited. The exact wording of the question is absolute in that it omits any reference to either an age or time comparison. WHO argues that the inclusion of such comparisons would prevent the monitoring of progress in the average health of a population.
General wording: The reference is to 'health **in general'** rather than 'present state of health'. The question is not intended to measure temporary health problems. Short-term disturbances should ideally not influence answers to the question (WHO-Europe,1996).
Response categories: Five: Very good, good, fair, bad, very bad.

Main Results
The following criteria have been used in the analysis process and in filling out the related table (see also *Appendix 7*)

Absolute format: It refers to questions that do not specially asked the respondents to compare their health with others of the same age or with their own previous or future health state. Answers categories: Yes, No (when comparison is asked)

Age reference: When the respondent are specifically asked to compare their health with others of the same age. Answers categories: Yes, No

Time reference: When the wording includes a reference time. Answers categories: Yes (it is specified the time reference), No

Verbs used (What the respondent have to do): What respondent are asked to do with respect to self-perceived-health. It is reported the verb used.

What the respondent must analyse: It is related with the object of the analysis. The different expression used referring to "health" are reported.

In general: It is reported if a generalizing word is used. Answers categories: Yes, No

Response categories: The response categories are reported. (nominal or numerical)

A total of 42 European surveys, out of 53 surveys analyzed contain questions on SPH were identified, however two surveys (I04 and N01) included more than one SPH question. As result, 44 questions have been examined.
If we take into consideration the instrument as whole (wording-question and answer categories) only 5 surveys (B02, B03, Bc02, I01, I04 -in both questions) out of 42 surveys have identical wording proposed by MEHM.
It must be underline that, among the others surveys, in some case difference are minimum such as for example in F09 "How is your general state of health?", or in P01 "What is your general state of health?" or in S01 and S02 "In your opinion, how is your state of health?" or in UK02 "How is your health in general? Would you say it was…?", or in H01 "What do you think about your health in general?".

In other cases the wording is quite different (such as for example in E02 "In the last twelve months, i.e. since February 2000, would you consider your health as being very good, good, normal, bad or very bad?", in F03 "Can you indicate, between 0 and 10, your state of health?" or in IS02 "In general, how do you evaluate your physical health? Do you find it very good, good, fair or poor?" or in IS03 "Are you generally in good or poor health? Do you find it very good, good, fair or poor?").

If we take into consideration only the answer categories the number of surveys using exactly MEHM answer categories is higher (13 surveys, plus at least other 3 in which the difference seems to be related with English translation).

Differences in wording among the selected ones appear according to:

- **Absolute format**

Only two surveys use a not absolute format -as describe above, in fact F08 and F12 (same survey carried out in two different years: 1999 and 2001 ask "Compared with other people your age, would you describe your state of health as…". They use an age-related format to measure SPH.

- **Time reference**

28 out of 42 surveys do not refer to any time and use the verb in present tense.

14 surveys out of 42 use a time limited format, as they include a reference to time in their question to measure SPH. In particular, in the majority of these surveys (11 out of 14), respondents are asked about their *'present' or 'current'* state of health using the follows expressions: "Now" (CH01, CH02), "Present" (D02, Dk02, FIN01, FIN06, FIN09), "At present" (F05, F07, F11), "Nowdays" (FIN03).

While the others 3 surveys refer to the *past*: "In the last 12 months" (E02), "Over 12 months" (UK11, UK15).

- **Verbs used** (What respondents are asked to do with respect to SPH).

In fact several verbs were present in the wordings as follows:

To be ("…how is your …."): 11 surveys   B02, B03, Bc02, F09, FIN03, I01, I04 (in both questions) NL03, P01, S01, S02;

To say   10 surveys D05, EL02, IRL01, IRL02, IRL03, IRL04, N01 (in only one question), UK02, UK11, UK15;

To assess/to evaluate: 5 surveys   A01, FIN01, FIN06, FIN09, IS02

Verbs such as To describe and To consider were used both in 4 surveys respectively in D02, F08, F12, N01 -in only one question; and in E02, F05, F07, F11. While CH01, CH02, L01 surveys use To feel and DK02, E04 use To rate.

The each of the following verbs was used in 1 survey: To Find (FIN07), To indicate (F03), To think about (H01).

Anyway, in several wording more than one verb is used. The most common combination is To say and To be in a wording such as "In general, would you say your health is…" (D05, IRL01, IRL03, N01) or "Would you say that your health, during the last 12 months was.." (EL02) or "In general, how good would you say your health is? Would you say it is…" (IRL02, IRL04), or "How is your health in general? Would you say it was" (UK02), "Over the last twelve months would you say your health has on the whole been good, fairly good, or No good?" (UK11), "Over the last twelve months would you say your health has on the whole been?" (UK15).

- **What the respondent must "analyze".**

This refers to different expressions used for concept of health.

The majority of the surveys (21 out of 42) use only the word "Health" (B02, B03, Bc02, D05, E02, E04, EL02, I01, I04 (in both questions), IRL01, IRL02, IRL03, IRL04, IS03, L01, N01 (in both questions), NL03, UK02, Uk11, UK15, H01)

Followed by 14 surveys (A01, D02, Dk02, F03, F05, F07, F08, F09, F11, F12, FIN01, P01, S01, S02) using "State of health".

Only 4 surveys (FIN03, FIN06, FIN07, FIN09) use the expression "Health status".

Survey IS01 specified to what kind of health it interesting on (Physical health) while surveys Ch01 and Ch02 do not introduces directly the concept of health, in fact the wording is "How do you feel now?"

- **Use of generalizing words**

Referring to this aspect there are 19 surveys (CH01, CH02, D02, E02, EL02, F03, F05, F07, F08, F11, F12, FIN01, FIN03, FIN06, FIN07, FIN09, L01, S01, S02) that do no not use any of this kind of word, while 23 surveys do it (A01, B02, B03, Bc02, D05, DK02, E04, F09, I01, I04 (in both questions), IRL01, IRL02, IRL03, IRL04, IS02, IS03, N01 (in both questions), NL03, P01, UK02, UK11, UK15, H01).

- **Response categories**

In addition to the specific wording of the questions, major differences also appear in the response categories.

Five answer categories have been used in 33 surveys out of 42 (A01, B02, B03, Bc02, CH01, CH02, D02, D05, DK02, E02, E04, F05, F09, FIN01, FIN03, FIN06, FIN07, FIN09, I01, I04 (in only one question), IRL01, IRL02, IRL03, IRL04, IS03, L01, N01 (in both questions), NL03, P01, S01,S02, UK02, H01). It must be underline that among these 13 surveys use exactly the five MEHM response categories recommended (very good, good, fair, bad, very bad).

These surveys are: B02, B03, Bc02, Ch01, Ch02, E04, I01, I04 (in only one question), IRL02, IRL04, S01, S02, UK02.

Different seems to be related with the translation in the following cases DK02 (very good = really good), H01 (very bad = very poor), P01 (fair = reasonable).

The other 17 surveys also include five response categories but the wording of these categories does not correspond to the MEHM recommendation. There are variations in the distribution of positive, neutral and negative response categories. So, although a number of surveys include the same number of response categories, slight deviations in the wording of the responses makes it impossible to compare results. (A01, D02, D05, E02, F05, F09, FIN01, FIN03, FIN06, FIN07, FIN09, IRL01, IRL03, IS03, L01, N01 (in both questions), NL03).

A different number of categories is used in 8 surveys as follows:

3 categories (UK11, UK15)

4 categories (EL02, F08, F12, IS02)

6 categories (F07, F11)

2 surveys use rating scales ranging from 1 to 10 (F03) or from 1 to 5 (104, only for one questions). These differences of course have a strong implications on the score systems and on the possibility to make international comparisons.

Second question of MEHM: **Chronic morbidity**

> **"Do you have any long-standing illness or health problems?**
> **Yes**
> **No"**

The second global instrument of the MEHM is an open-ended question used to measure the global indicator on chronic morbidity.

Chronic diseases represent, as well known, one of the most relevant problem for the health-related quality of life, especially for the elderly, and one of the main cause of utilisation of health services. Often, the chronic diseases play a key role, altering an individual's ability to be self-sufficient and affecting his psychic and motor skills for long periods of time or indefinitely. These reasons allow acknowledging the diffusion of chronic diseases in a population.

The instrument has been developed by ISTAT for Euro-HIS and also accepted by Euro-REVES.

The exact wording of the question depends on the cross-cultural applicability and validity, for this reason the instrument proposed by Euroreves was a conceptual translation of the Chronic Disease question developed by ISTAT for EuroHIS

Context/Brief Summary:
According to the functional approach, that was developed, in the last twenty years, mainly to assess the consequences of the emerging poor health status on daily life activities, chronic morbidity is strongly related to the disability indicators since many impairments or disorders, which are usually parts of the "diseases process" can result in long term disability; more exactly, the consequences of the diseases can conduct an individual to suffer from functional limitations and activity restrictions as a result of interaction between physical conditions and social environment.
Chronic morbidity indicators have been officially adopted as relevant to policy by the Member States of the WHO for evaluation of national health policies, and they have been included as a field of actions in the EuroHIS project (WHO-Euro, granted by the Union, BIOMED 2).

The Euro-HIS project.
The project aims at selecting the common instruments and methodology to be used in the European Region by all the Member States in the context of health interview surveys.
Common instruments proposed for chronic conditions are the result of a two year work on this topic by the Euro-HIS project. The stages undertaken were:
  Concept exploration
          What do we mean as chronic condition?

  Analysis of some important methodological aspects
          What is the right methodological approach for the surveying of chronic conditions?
          What is the right reference period?
          What are the criteria for reporting?

  Analysis of the instruments adopted by the European countries
          Based on the main results from the survey on surveys.

  Development of preliminary common instrument to survey chronic physical conditions

On the base of an international review on chronic diseases, comparability of questions and methodological aspects in different surveys have been analysed.

Pre-test and Field-test
To assess the applicability of the instrument, the quality of transfer into national environment, the comprehension of the questions proposed.

Draft proposal of common instrument to survey chronic physical conditions,
Based on the Italian pre-test and field-test experience and on the pre-testing results of other European countries.

Definition

Very few countries have indicated an explicit criteria for defining chronic conditions, usually these criteria refer to the nature of the disease and to its duration. Most of the countries have reported the question (open ended and/or specific disease) used by them to survey chronic conditions.

There is a general agreement on the following characteristics of chronic condition: are permanent and may be expected to require a long period of supervision, observation or care.

Type of questions

In surveying chronic conditions, two types of questions can be used: open-ended questions and disease-specific questions. The open-ended question inquires whether respondents have a chronic condition and, eventually, which one. The disease-specific question includes a checklist of condition or diseases (or a card that has to be shown) and respondents are questioned whether or not they are affected from one or more of them.

Open-ended questions used by different countries rarely refer explicitly to physical and/or mental conditions, generally they refer to "any chronic conditions, defect or injury". In most cases open-ended questions include explicitly handicaps and/or disabilities.

Similar problems are found in the disease-specific questions. The checklist includes different type of conditions: physical and/or mental and/or disabilities.

The prevalence of chronic diseases resulting from the global question is generally underestimated if compared with the prevalence coming from the specific questions. The higher prevalence for female and the increasing trend with age are consistent with the knowledge of the phenomenon.

Question characteristics

ICF domain: BS- BF
Duration (long term/short term): Long standing
Dichotomous/Multiple response categories: Dichotomous (Yes/No)
Terminology: Neutral
Reference/Norm/:   NO
Complexity: NO
Age-oriented: NO
How the question address mental functioning: Not directly, it is included in "illness/health problem".

Main Results

A total of 39 out of 53 European Surveys have questions related on long standing illness or health problems. Survey B02 has two questions.

As already pointed out, two types of questions are used in surveys: open-ended questions and disease-specific questions.

Following the criteria of these two approaches the 39 surveys can be divided in two groups:

- 24 Surveys with global approach: *B02 in both questions,* B03, Bc02, CH01, CH02, DK02, EL01, EL02, F08, F09, F12, FIN03, FIN06, IRL02, IRL04, IrlC02, N01, NL03, S01, S02, UK02, UK11,UK15, H01.

- 15 Surveys with specific approach: A01, D02, D05, E02, E04, F03, FIN07, FIN09, I01, I04,IRL01, IRL03, IS02, NL02, H01.

Out of the 24 surveys using a global approach question, 7 surveys (B02, Ch01, Ch02, EL02, FIN03, FIN06, NL03) have also a question with specific approach using a list.

Only the "global approach" questions were analyzed following these criteria (see also *Appendix 8*)

Global approach: it is considered as global approach when the question simply asks if the person is suffering/has a chronic disease. Answer categories: Yes, No.

Specific approach: it is considered as specific approach when the question asks which is disease (with or without reference list). Answer categories: Yes, No. If yes, it is also specified if the answer categories is open or has a list.

Time reference: It is related with reference time given in the wording. Answer categories: present, past, future.

Long-standing/chronic: It refers to concepts present in the wording. Answer categories: Yes, No

Illness, condition or health problem: It refers to concepts present in the wording. Answer categories: Yes, No
.
Other concepts: It refers to other concepts specific included in the wording. Here are reported the words used.

Use of neutral terminology: It is related with the use of word neutral connotation. Answer categories: Yes, No.

Response categories: Dichotomous, Multiple.

In some cases difference are related with the introduction of others concepts such as cause of the health problems or typologies of health or to underline that this/these illness limits the respondent in carrying out activities.

Differences in wording among the selected ones appear according to:
▪   **Time Reference**
No time reference in 17 surveys (B02 – in both questions, B03, Bc02, DK02, EL01, EL02, F09, FIN03, FIN06, IRL02, IRL04, IrlC02, NL03, S01, S02, UK15, H01).

<u>Time reference</u> is given in 7 surveys as follows:

- <u>Future</u>: F08 and F12 "that will continue to affect you in the future?"
- <u>Past and Future</u>: N01 "it has lasted or is expected to last for 6 months or more"; UK02 and UK11 "has trouble you over a period of time or that is likely to affect you over a period of time"
- <u>Past</u>: Ch01 e CH02 "you have had for more than one year"

- **Long standing/chronic**

Only 4 surveys (CH01, Ch02, EL02, Fin06, H01) <u>do not refer</u> in the wording directly to long standing/chronic illness but Ch01 and Ch02 specified that the problem or illness should have "more than one year" duration.
A total of 20 surveys out of 24 use long-standing or chronic in the wording.

- **Other concepts:**

Some surveys add other concepts to indicate cause of the health problems or typologies of health or to underline that this/these illness limited the respondent in carrying out activities.
For example, Dk02, FIN03, N01, S01 and S02 refer respectively to "after effect from injury", "Some defect, trouble or injury", "disorder congenital, disease or effect of an injury", "after effect from an accident", while EL02, F08 and F12, IRL02 and IRL04 refer respectively to "physical disease", "physical infirmity", "Physical and mental problem". IrlC02 refers to specific type of disabilities such as "blindness, deafness, or a severe vision or hearing impairment".
Furthermore, 5 surveys (FIN03, FIN06 IrlC02, UK15, H01) include reference to the concept that the respondent can be affected by this/these illness in working capacity, in functional ability or can be limited in usual activities.
The introduction of other concepts quite often include also the use or not neutral terminology.

- **Neutral Terminology**

18 surveys out of 24 do not use neutral terminology. The word "disability" is used by 10 Surveys: DK02, FIN06, IRL02, IRL04, IrlC02, S01, S02, UK02, UK11, UK15. The word "handicap" is used by 8 surveys: B02 – in only one questions, B03, Bc02, EL01, EL02, F08, F12, NL03.

- **Response categories:**

All 24 surveys with global approach use a dichotomous as answer category. Only B02, B03, Bc02, F08, F09, F12 add also "Doesn't Know".

Third question of MEHM: **Limitation in usual activities**[1]

> **"For at least the past 6 months or more have you been limited in activities people usually do because of a health problem?**
> **Yes, strongly limited**
> **Yes, limited**
> **No, not limited"**

Context/Brief Summary

A Global Activity Limitation Indicator (GALI, previously referred to as Global Disability Indicator (Verbrugge, 1997) is defined as an instrument that is able to identify subjects, in both general and/or specific populations, who perceive themselves to have long-standing, health-related limitations (restrictions) in the usual activities.

There are two main reasons to develop a GALI for public health policy.

First, due to the ageing of populations and the change in the morbidity-profile to chronic health conditions, simple information on health has to be extended with a concise instrument which provides policy makers with easily obtainable information on the **perception of activity limitations** that could result in a need for support. Further activity limitations may lead to disadvantages in social participation.

Instruments to measure limitations in usual activities are normally complex (multi-item) instruments. The output of these instruments depends on the specific activities included. In different countries or surveys different instruments are used, making comparisons almost impossible.

Secondly, similar to the concept of perceived health, there is a search for developing a global single question instrument to measure these activity limitations, independently of the type of activity, the specific life situations, the kind of health problem causing the activity limitation, specific age groups, sexes or other subgroups.

A single question instrument should make it more acceptable for countries and researchers to include it in their different surveys, making comparison between countries and subgroups possible. The proposed instrument is a global single item instrument.

The following steps were taken in developing the proposal for a GALI:
- the conceptual framework of the ICF, and previous work in the framework of REVES was used to develop a set of criteria for evaluation of candidate GALI instruments;
- instruments were collected for evaluation by a Medline search, over the time period 1990-1999 and using key words disability/measurement/activity limitations, and by an extensive E-mail survey among experts in the field of disability research;
- instruments were qualitatively screened for a set of criteria;
- selection of existing or the creation of a new instrument to be proposed.

Validation

A standard procedure was set up to develop the GALI-instrument in the different languages of the European Member States (MS). In a first step a translation procedure was developed with focus on the concept rather than the technical translation. The formulation into an other language was done by both a linguist and a public health scientist independently; another linguist and public health

---

[1] (The following information is based on Cap. 5 "Limitation in usual activities, a global approach" - Contributors: Rom Perenboom, Herman Van Oyen, Loes van Herten-, enclosed in "Selection of a Coherent Set of Health Indicators for the European Union. Phase II- Fianl Report, Edited by J-M Robine, C. Jagger and I. Romieu)

scientist were then responsible for a back translation. All were provided with technical information explaining the concept of the GALI. After the control through back-translation the proposed version was evaluated against the major concept within the instrument:

Activity limitations or restriction
• Caused by a health problem or condition
• Duration of the limitation: at least 6 months before the interview
• Population norm : activities people usual do

The GALI-instrument is currently translated in 10 languages.

Purpose

The instrument will allow estimation of the number of persons in a population that perceive themselves to have limitations in their activities, estimating the prevalence of the perceived activity limitations of that population.

Depending on the type or the objectives of the survey and the need for more information, the GALI instrument can be extended by additional questions providing information on the life situations in which the activities are limited, on the causes of the activity limitation and on the use of personal assistance and/or devices.

Question characteristics

ICF domain: Activities

Capacity/Performance: The measure address Performance.

Duration (long term/short term): 6 months but it is related with activity limitation and not with health problems/disability.

Dichotomous/Multiple response categories: Nominal Scale responses (Yes strongly limited,/ Yes, limited/ No, not limited).

Causes of disability: General health-related problems as cause of the limitations.

Terminology: Neutral words

Reference/Norm/: NO, In the definition of the GALI, the term "usual activities" refers to the fact that the limitations in the execution of actions and tasks are assessed against a generally accepted population standard, relative to cultural and social expectations. This is consistent with the self-perceived health instrument and gives no restrictions by culture, age, gender or the subjects own ambition.

Complexity: NO

Age-oriented: NO, there is no reference to specific type of activities, the same instrument can be used for subgroups in a population: age, gender, cultural. All these specific subgroups have their own usual activities.

In order to provide good estimates of the perceived activity limitations of a population, this instrument should be administered to a general population of all ages or to special groups within a population. The wording of the proposed instrument does not relate to any age group in particular. The simple wording should also allow administration in institutionalized populations and can be used in different survey methods.

How the question address mental functioning: NO directly. It is enclosed in the concept of health problems

Instructions: It is defined long-standing as a time period of 6 months or more. The time period refers to the duration of the activity limitation <u>and not</u> of the health condition, as the focus of a GALI instrument is on the activity limitations and not as much on the health problems.

The GALI should refer to health-related problems as cause of the limitations. The indicator <u>is not meant</u> to measure limitations due to financial, cultural or other none health-related causes.

To be general, specification of health concepts (e.g. physical and mental health) should be avoided. Existing instruments sometimes refer only to physical health problems, other instruments to physical and mental health problems and a few of them to additional problems, mainly combined in one question, but often in up to three specific questions. This makes comparison more difficult.

According to the ICF an activity is defined as: '*the execution of a task or action by an individual*' and thus activity limitations are defined as '*the difficulties the individual experience in executing an activity*' (World Health Organization, 2001) Within the framework of the ICF, limitations should be due to a health condition.

In the definition of the GALI, the term "usual activities" refers to the fact that the limitations in the execution of actions and tasks are assessed against a generally accepted population standard, relative to cultural and social expectations.

Main Results

A total of 26 European surveys containing question on activities limitation (as global approach) were identified. Surveys A01 and B02 have two questions on the same topic both of them were included. The total of question analyzed is 28.

It must be underline that several survey investigate "activities limitation" with more than one or two questions and usually they refers to ADL, IADL scale or similar. The surveys using such scale and without a global approach to the topic were not taken into account.

Furthermore, several surveys adopt a global approach question followed by more detailed question on type of activities limitation.

All questions selected were analyzed *(see Appendix 9)* using the following criteria:

Time reference for activities limitation: it is related with time reference used in the question, if Yes, it is reported.

Norm reference: it refers to if it is asked to compare with what people of the same age done. Answers categories: Yes, No

Attribution to health: This address the issue if the wording enclosed a reference to health problem as caused of the limitation in activities and participation. Answer categories: Yes (words used are reported), No

Limited in activities: It refers to if the question does or doesn't indicate specific activities. Answer categories: Yes (if it is a specific reference to activities or environment), words are reported), No.

Need of help: It refers to whether in the wording it is also asked if the person needs assistance in doing activities. Answer categories: Yes, No

Use of neutral terminology: It is related with the use of word with neutral connotation. Answer categories: Yes, No

Response categories: The response categories are reported.

In same case difference are related with the introduction of details on the type of activities or context, or on the type of health conditions, or with the introduction of other concepts such as "need of help"; in others difference are related with the omission of the time reference for activities limitation.

Differences in wording among the selected ones appear according to:

- **Time reference for activities limitation**

Almost all the surveys (23 out of 26 surveys) do not use expression to give a time reference related with activities limitation.
Only B02 ("for the last past 6 months or more") and F09 ("during at least six months") give a time reference related with the past. H01 indicates "today" as time reference.
Must be underline that B02 survey has two questions and only one gives time reference.

- **Norm Reference**

In the European surveys analysed, the questions never use a norm reference.

- **Attribution to health conditions**

22 surveys out of 26 in the wording attribute the activities limitation to health conditions. (A01- in both questions, B02 – in both questions, B03, Bc02, D02, DK02, E02, F02, F09, I01, I03, I04, IRL01, IRL02, IRL03, IRL04, IrlC02, N01, NL02, NL03, UK02, UL11).
Only 4 surveys (F1999, FIN06, IS02, H01) do not ask if the activities limitation is due to health conditions.

- **Activity restriction**

8 surveys refer to activity with any other specification in the wording/instruction (B02 – in both questions, B03, Bc02, F09, IRL02, IRL04, UK02, UK11), while
17 surveys refer not only to "usual activities" or "everyday life" but also to context or example of activities (A01- in both questions, D02, DK02, E02, F1999, FIN06, I01, I03, I04, IRL01, IRL03 IrlC02, IS02, N01, NL02, NL03, H01).
F02 do not ask about activities limitation but to "physical, sensorial intellectual or mental difficulties".

- **Need of help**

The majority of the surveys (21 surveys out of 26) do not include this concept in the question (B02 – in both questions, B03, Bc02, D02, DK02, F02, F09, F1999, FIN06, IRL01, IRL02, IRL03, IRL04, IrlC02, IS02, N01, NL02, NL03, UK02, UK11, H01), while
5 Surveys (A01 – in both questions, E02, I01, I03, I04) ask the respondent if he/she needs help in doing everyday life activities.

As examples of wordings:

I01, I03, I04 "Are you affected by a longstanding illness or a permanent disability that reduces your personal freedom till requiring help from other people for daily needs inside and outside the home?
    NO
    YES, intermittently, for some needs
    YES, continuously, or for important needs";

E02 "Does some of people of the household need some type of special dedication for the fact of suffering a handicap or some limitation *(not being able to be alone at nights, to need help to go out in the street, personal hygiene, etc.)* to carry out with normality the activities of the family, social and labour life?
Yes
No"

- **Use neutral terminology**

14 surveys use neutral terminology (A01 – in both questions, D02, DK02, F02, F09, F1999, FIN06, I03, I04, IrlC02, IS02, NL02, NL03, H01), *while*
11 surveys (B03, Bc02, E02, I01, IRL01, IRL02, IRL03, IRL04, N01, UK02, UK11) use "handicap" or "disability2 that are not considered as neutral words.
B02 survey uses neutral terminology in one question and no neutral terminology in other where is added "handicaps".

- **Response categories**

The total of 26 surveys can be divided in two groups by following the response categories used:
- *multiple* in 17 surveys
- *dichotomous* in 7 surveys (E02, F02, F09, F1999, IrlC02, UK02, UK11). To this surveys should be add IRL01 e IRL03 that use an unique type of answer categories "Yes No, Do not have any of the above".

The 17 surveys using multiple response categories can be also split in two groups taking into account if the answer categories are based on "degree of restrictions/limitations/difficulties" or on the "frequency" of the limitations:
- 10 surveys refer to the degree of the limitations (D02, Dk02, FIN06, IRL02, IRL04, IS02, N01, NL02, NL03, H01)
- 6 surveys refer to the "time" dimension (A01- for both questions, B03, Bc02, I01, I03, I04)
B02 utilize both aspect of the limitation, one for each questions.

Examples of answer categories regarding to "degree" of the limitations are as follows:
"Yes, strongly limited/Yes limited/No, not limited" (B02 – in only one question)
"Not at all/ A little/ Considerably" (D02)
"Yes, very much/ Yes, a little/No" (DK02)
" No difficulty coping/ Slight difficulty coping/ A great deal of difficulty coping/ I cannot cope on my own" (Fin06)
"Yes, severely/ Yes to some extent/ No" (IRL02, IRL04)
"Very difficult/ Rather difficult/ Slightly difficult/ Not at all difficult" (IS02)
"Not possible / Extremely difficult / Somewhat difficult / Not difficult" (N01)
"No difficulties/ Some difficulties / unable to carry out" (NL02)
"Severely limited/ Moderate limited/ Not limited" (NL03)

"I have no problems with performing my usual activities/ I have some problems with performing my usual activities/ I am unable to perform my usual activities" (H01).

Examples of answer categories regarding to "frequency" of the limitations are as follows:
"Never/Sometimes/Frequently/Always" (A01);
 "Continually/At intervals/ Not or seldom" (B02 – in only one question, B03, Bc02);
"Yes, Intermittently or occasionally for some needs/ Yes, continuously or for important needs/No" (I01, I03, I04).

Among the surveys using multiple answer categories (19 out of 26 surveys) adopt 3 or 4 categories as follows:
-       3 answer categories are used in 14 surveys (B02- in both questions, B03, Bc02, D02, Dk02, Fin06, I01, I03, I04, IRL02, IRL04, NL02, NL03, H01);
-       4 answer are used in 3 surveys (A01 in both questions, IS02, N01).

Final Remarks

From the review of the questions related to MEHM used in European surveys the following conclusion can be drawn:

- 48 out of 53 surveys selected have at least one question related to MEHM. It is important to underline that for some other surveys the full questionnaire or the full wording were not available. Furthermore, for some of the surveys included in the 48 more information and documents are needed to have a better complete picture of the questions used.

- Among the 48 surveys *(see appendix 5a)*:

  - 66% of 48 surveys cover all the three topics of MEHM questions. Differences to the instruments proposed by MEHM are due to add more specification on health condition or to activity restriction. The instruments used are generally quite similar to the ones proposed; differences are also due to the translation in English.

  - Only 5 surveys (EL01, F02, F1999, IrlC02, NL02) seem not ask question on SPH. F08 and F12 ask in not absolute format using "compared with other people your age" and IS02 asks specifically on physical health.

  - Only 9 surveys (F02, F05, F07, F11, F1999, FIN01, IS03, L01, P01) seem do not have any kind of questions on long standing / chronic illness. 24 surveys use a global approach while 16 surveys prefer a specific approach.

  - In some cases a question refer to both long standing illness/disability and activities limitations (e.g. Ch01, Ch02, FIN03, FIN06, IrlC02, UK15, H01). Among these surveys only 4 surveys (FIN06, IrlC02, UK15, H01) have another question with global approach to activities limitations.

  - 30 surveys have a global question on activity limitation. 18 surveys (Ch01, Ch02, E04, EL01, EL02, F03, F05, F07, F08, F11, F12, FIN01, FIN07, FIN09, IS03, L01 S01, S02) seem do not use a global approach on Activity Limitations issue.

  - All three questions with global approach in the second question are included in 14 surveys (B02, B03, Bc02, Dk02, F09, FIN03, FIN06, IRL02, IRL04, N01, NL03, UK02, UK11, H01)

  - All three questions with specific approach in the second question are included in 18 surveys (A01, D02, D05, E02, I01, I03, I04, IRL01, IRL03, IS02).

Appendix 5a (cfr file Annex 5a)

"Overview of using MEHM- related questions in the European surveys"

Appendix 5b (cfr Annex 5b)

"Overview of the questions used in the European surveys"

Appendix 6

"Legend of criteria used for analyzing MEHM- related questions"

Questions 1 – self-perceived health

Code: Database His/Hes survey number code

Country: Name of the Country

Year: Year of the survey

Title Survey: Title of the survey

Wording: The exact wording is reported. Some survey have is more than one question on this topic; each one was under analysis.

Absolute format: When the respondent are not specifically asked to compare their health with others of the same age or with their own previous or future health state. Answers categories: Yes, No

Age reference: When the respondent are specifically asked to compare their health with others of the same age. Answers categories: Yes, No

Time reference: When the wording includes a reference time. Answers categories: Yes (it is specified the time reference), No

Verbs used (What the respondent have to do)**:** What respondent are asked to do with respect to self-perceived-health. It is reported the verb used.

What the respondent must analyse: It is related to the object of the analysis. The different expression used referring to "health" are reported.

In general: It is reported if a generalizing word is used. Answers categories: Yes, No

Response categories: The response categories are reported. (nominal or numerical)

Questions 2 – Chronic and long standing illness

The analysis is done only for the questions that are considered related with "global approach".

Code: Database His/Hes survey number code

Country: Name of the Country

Year: Year of the survey

Title Survey: Title of the survey

Wording: The exact wording is reported. In some case there is more than one, for each one analyse is done

Global approach: it is considered as global approach when the question simply asks if the person is suffering/has a chronic disease. Answer categories: Yes, No.

Specific approach: it is considered as specific approach when the question asks which is disease (with or without reference list). Completed analysis is done only for question is not done for this type of question. Answer categories: Yes, No. If yes, it is also specified if the answer categories is open or has a list.

Time reference: It is related to reference time given. Answer categories: Yes (time is reported), No

Long-standing/chronic: It refers to concepts present in the wording. Answer categories: Yes, No

Illness, condition or health problem: It refers to concepts present in the wording. Answer categories: Yes, No
.
Other concepts: It refers to other concepts specific included in the wording. Here are reported the words used.

Use of neutral terminology: It refers to using words with neutral connotation. Answer categories: Yes, No

Response categories: Dichotomous, Multiple.

Questions 3 – Activities Limitations

Code: Database His/Hes survey number code

Country: Name of the Country

Year: Year of the survey

Title Survey: Title of the survey

Wording: The exact wording is reported. In some case there is more than one, for each one analyse is was made.

Time reference: it is related to time reference used in the question, if Yes, it is reported.

Norm reference: it refers to if it is asked to compare with what people of the same age done. Answers categories: Yes, No

Attribution to health: This address the issue if the wording enclosed a reference to health problem as caused of the limitation in activities and participation. Answer categories: Yes (words used are reported), No

Limited in activities: It refers to if the question do not indicates specific activities. Answer categories: Yes (if it is a specific reference to activities or environment), words are reported), No.

Need of help: It refers to whether in the wording it is also asked if the person need assistance in doing activities. Answer categories: Yes, No

Use of neutral terminology: It refers to using words with neutral connotation. Answer categories: Yes, No

Response categories: The response categories are reported.

Appendix 7 (cfr Annex 7 MEHM1 in Annex 7 8 9 MEHM analysed)

"Analysis of questions related to MEHM 1"

Appendix 8 (cfr Annex 7 MEHM1 in Annex 7 8 9 MEHM analysed)

"Analysis of questions related to MEHM 2"

Appendix 9 (cfr Annex 7 MEHM1 in Annex 7 8 9 MEHM analysed)

"Analysis of questions related to MEHM 3"