



# European Survey of Health in Spain EHS-2009

Methodology

INSTITUTO NACIONAL DE ESTADÍSTICA

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## 1 Introduction

The framework of health strategies that are developed in the main countries of our environment, whose objective is to improve the health of the population, requires, among other indicators, of the subjective information of individuals regarding their state of health, in addition to the different social and environmental factors and lifestyles that even go beyond the health system.

These indicators constitute one of the primordial elements for the planning and adoption of Public Health measures, and likewise, constitute a fundamental instrument in the assessment of health policies.

In order to collect this information, there is the possibility of referring to different statistical sources, some of which are based on administrative registers, such as mortality and illnesses, or the statistics on causes of death; however, even if all of these are of a comprehensive nature, they do not cover all of the aspects of health, and they cannot be related in many cases with socio-demographic variables or with other determinants of state of health. For this reason, it is necessary to refer to other instruments based on Surveys. As a result, the great majority of the countries in the European Union (EU) and in the OECD currently use a Health Survey in order to collect this information, according to its statistical characteristics and practices. The fact that there is no uniformity in conducting the surveys implies difficulties in comparability between the data of the different countries of our environment, and creates difficulties in providing joint indicators for the planning of the common policies of the EU.

For the purpose of harmonising the information, and making common indicators available, the Directors of Social Statistics of the Member States of the EU agreed to implement, within the European Statistical System, a European Health Survey System (EHSS), in which a Health survey would be found through a personal interview (EHIS). The objective of this survey would be to measure, in a harmonised way, the state of health of the EU citizens, as well as their lifestyles, which is a determinant of health, and the use that they make of the available health services, and to guarantee with this a high degree of comparability among the members of the EU.

The first edition of the Survey was conducted in the Member States of the EU between 2006 and 2009, allowing each one of the 27 member countries its implementation during the period that they considered most convenient, and admitting the possibility of adapting the questionnaire. As of 2014, the second edition will begin, this type in accordance with the Regulations of the European Council and Parliament.

In Spain, the two bodies involved in the project, the MSPSI (Ministry of Health, Social Policy and Equality) and the INE, have carried out the statistical operation under the name of European Health Survey 2009 (EHS-2009), included in the National Statistical Plan. In the different phases of the development of the questionnaire, the INE has followed the protocols set out by Eurostat for

translation with the purpose of guaranteeing the meaning of the questions in the original questionnaire. Both the MSPSI and the INE have jointly carried out a comparison with the existing National Health Survey (NHS), in order to compile an adaptation of the questionnaire that will maintain, wherever possible, the previously existing main series, without failing to guarantee the comparability of the information, the basic objective of EHS-2009.

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## 2 Background and origin of the EHS.

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### 2.1 THE EUROPEAN HEALTH SURVEY WITHIN THE EUROPEAN STATISTICAL SYSTEM

The European Health Survey (EHS) - more specifically in English, *The European Health Interview Survey (EHIS)* - is framed within the proposal of the European Commission of creating a European health information system through surveys - *European Health Survey System (EHSS)*-. For the purpose of answering demands for information, the Member States decided to implement a European system of health surveys, both flexible and coordinated, which would provide harmonised information for the 27 countries, and built around a central survey with a modular nature. This system would be comprised by the following three pillars:

- *European Core Health Interview Survey (ECHIS)*, which should respond to the needs and demands for basic information from the Commission, and be developed within the European Statistical System. This survey is made up of the health module of the Living Conditions Survey (of an annual nature) and of the European Health Survey (EHIS), of a five-yearly nature.
- A set of surveys designed as a complement, according to specific needs and mainly developed by the Public Health Institutes and research groups of the Member States. Within this group, we currently work in the development of a health survey through medical exams.
- A database of standardised and recommended instruments that are already being implemented in different health surveys. Currently, Belgium and Finland are in charge of the updating.

In September 2002, the Social Statistics Directors decided to implement this information system, and they established the EHIS as the central axis thereof. Worth mentioning are the previous steps leading to the Survey: Firstly, a "post-harmonised" selection was made of 12 indicators from National Health Surveys, which were reviewed and broadened to 18 items in 2002 and in 2004 (they included self-perception of the state of health, chronic illnesses, tobacco use, physical activity, medical care). However, the quality and the comparability of the data were insufficient, due to the different time scopes considered in each country, as well as the specific methodological characteristics. A second step was constituted by the Minimum Health in Europe Module), which included 3 questions relating to the perception of the state of health and chronic illnesses, which was included in the European Living Conditions Survey (SILC). The

simplicity of this module enable introducing it in different social surveys, and facilitated the comparability and the transversal analysis between countries. It is currently recommended to consider this in the Social Surveys (the health module of the SILC keeps it, expanding it with another four questions).

Lastly, and bearing in mind the advantage of a common model, it was decided to carry out a harmonised Survey on a European level, the European Health Interview Survey (EHIS), which would overcome the harmonisation and comparability problems among the member countries. A working group was created to carry out a questionnaire with a high degree of standardisation, taking particular care with the subsequent translation carried out by the member countries in order to maintain the general concept of each question. The questionnaire would include questions relating to both the needs for information for health policies and the elements of interest for researchers, though always limiting this to the needs on an EU level, in such a way that it did not consider those questions that had already been answered by other European surveys or that were the objective of solely national interest. The survey tries to respond to the health indicators of the EU: ECHI Indicators (European Community Health Indicators), Indicators of the OMC (Open Method of Coordination on Social Inclusion and Social Protection) of health care and Structural Indicators (SI) and of Sustainable Development (SDI).

The questionnaire is structured into four modules:

- EHSM: *European Health Status Module*
- EHDM: *European Health Determinants Module*
- EHCM: *European Health Care Module*
- EBM: *European Background Module*

The development of the modules was carried out in two stages, the first focusing on the first module, and the second focusing on the three remaining modules. Once the modules for each stage were agreed, the member countries carried out a translation and a cognitive pretest, to ensure a better adaptation of the questions without losing harmonisation.

The final version of the questionnaire was passed in the Working Group on Public Health Statistics in November 2006.

Member States could conduct the survey independently, or adapting it to some existing population survey, especially national health surveys. Even the possibility of implementing each module in different surveys was accepted, so long as they maintained the Minimum Health in Europe Module and the Basic Social Variables module. In any case, it was essential for all the questions to be posed, and in the order established in the original questionnaire.

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## 2.2 THE EUROPEAN HEALTH SURVEY AND THE NATIONAL SURVEY OF HEALTH IN SPAIN

As with the countries in its environment, Spain carried out the National Health Survey (NHS), which has the general objective of providing the information necessary regarding the health of the population to be able to plan and assess actions in terms of health. The NHS was conducted for the first time by the MSPSI in the year 1987, and since then, 7 editions have been conducted, the last two in partnership with the INE. Both surveys have items in common, but as mentioned previously, the methodology used was not harmonised, and therefore, it did not allow for direct comparability. The latest edition of the NHS, from 2006, coincides with the first part of compilation of the European questionnaire, and for this reason, some questions were introduced and others were reformulated, for the purpose of beginning the approximation between the two surveys, so as to improve the comparability of the common sections.

The final questionnaire of the EHIS differs in some key points from NHS-2006. Aside from the differences in the health aspects that each one undertakes, and the in the use of the different measurement instruments (mental health, for example), even in the common concepts, there are differences in the formulation, or the reference periods change for many questions (for example, the perception of state of health at the current time that the EHIS measures, as compared with the perception of state of health in the last 12 months that the NHS measures). In the second place, the questions do not adapt to the reality of the health system itself (specialist care in emergencies), and lastly, the administration methodology of the questionnaire is different (use of the PC-table, existence of a self-administered part in the European Survey).

In order for the comparison between countries to be possible, the EHIS requires a degree of homogeneity that limits its scope. There are numerous concepts that are difficult to measure in a manner that is comparable among the different European countries. It will be necessary to delimit a common nucleus, and try to resolve the differences that this nucleus has with the NHS, and at the same time, guarantee whenever possible the continuity of the data series. We have decided to maintain both surveys for the moment, each one with its methodology, and modify the frequency of the national survey (from two-and-a-half years to five years), alternating its implementation with the following edition of the European Survey. Moreover, questions are introduced in the National survey, completing the European survey, and thereby a possible link in the series, leading to a partial convergence of the two surveys in the future

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### 3 Translation of the Questionnaire and Pretest

The existence of a single questionnaire written in English was not enough to guarantee the methodological harmonisation required. It was necessary to translate it, without losing the meaning of the concept that was being measured in each question, and adapt it to the characteristics of each country. To this end, Eurostat proposed carrying out the translations under a detailed protocol, and

the subsequent assessment of the translated questionnaire through cognitive tests.

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### 3.1 TRANSLATION

For each of the two compilation phases of the questionnaire (compilation phase of the State of Health module, and compilation phase of the three remaining modules), the guidelines indicated in the translation protocol were followed. A translator with experience in the health field and contrasted English knowledge participated. This translator provided a first translation, with pertinent comments on each question; in a second stage, a translation reviewer, with experience in health surveys, checked in detail as to whether the translator had followed the guidelines received, understood the intrinsic meaning of the questions and their response categories, and provided a conceptual translation into Spanish, rather than a literal translation. Lastly, the translation was analysed, question-by-question, by a working group comprising the translator, the reviewer, the coordinator of the pretests and personnel from the MSPSI and the INE, and the version that would reach the cognitive tests was agreed on.

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### 3.2.- COGNITIVE TESTS

Cognitive tests were carried out from the translated version, in order to assess the correct comprehension of the questions and their relationship with the objectives that the questions intended. The validity of the comparisons between the results obtained and versions of the questionnaires in different languages is a function of the degree of "functional equivalence" achieved in the adaptation process of the questionnaires to each one of the target languages; and the questions of the questionnaires are "functionally equivalent" if they measure the same variable and consider linguistic and cultural differences among the different populations. Therefore, the procedures used in the cognitive pretest examined how the surveyed persons interpreted the questions, and whether these interpretations were consistent with those expected for the source version of the questionnaire.

The main objective of the pretest was to analyse the functional equivalence between the source version in English of the questions from the four modules, and the target versions in Spanish. Moreover, a goal was to obtain evidence regarding potential sources of error in the source versions of the modules.

The "cognitive pretest" label groups a whole set of specific procedures. The procedures used during the pretest provide evidence regarding different phases and elements of the model. Subsequently, a very simplified list is made of the main types of test carried out and the evidence that each one of them intended to provide.

- I. *Behavioural encoding*: The behavioural indicators registered during the interaction between the interviewer and the interviewee allowed for identifying "problematic" questions. This also allowed for registered errors in

the format of the task, instructions for the registration of the answers, time of execution, etc.

- II. *Cognitive interviews*: These provide direct evidence regarding the development of the phases of the "question-and-answer" process implemented by the interviewees: errors of comprehension, recovery in the memory of the required information, mistakes in the compilation, and incongruencies in the communication, of the answer.
- III. *Discussion groups with "surveyable persons"*: Perspective and contents of the "role" of survey participants; knowledge and comprehension of the most general concepts; attributes regarding the objective and purpose thereof; attitudes and degree of implication, etc.

With the results from the cognitive tests, possible source of measurement error were identified, relating to difficulties in the comprehension of the questions or in the election of the alternatives for response, memory strategies used, reactions to sensitive questions, etc; and from the information provided, proposals and recommendations were suggested, in order to optimise the functioning of both the source version and the objective (target) version.

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## 4 Objectives of SHS-2009

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### 4.1 GENERAL OBJECTIVE

SHS-09 has the general objective of providing information regarding the health of the Spanish population, in a way that is harmonised and comparable with the European level, and for the purpose of planning and assessing actions in terms of health.

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### 4.2 SPECIFIC OBJECTIVES

1. To provide information on the assessment of the general state of health and identify the main problems that citizens feel (chronic illnesses, pain, accidents, limitations for carrying out everyday activities).
2. To ascertain the degree of access and use of the health services and the features of this.
3. To ascertain the determining health factors, such as the characteristics of the environment (physical and social characteristics) and the living habits on which interventions can be carried out on health promotion, for the purpose of evaluating the effects of health policies and strategies.



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## **5 Phases of the Survey**

Within each survey in a household, the performance of the study has been carried out in two phases: the first refers to variables regarding the members of the household and the second refers to target variables of the Survey for the adult person selected (aged 16 years old or over).

### **First phase**

The first phase included all of the persons residing in the household, requesting information on all of the members therein, regarding fundamental socio-demographic variables. Subsequently, information was requested regarding the composition of the household and regarding the level of regular monthly income.

The person who was to answer the questions from the modules comprising the Survey was selected from among the surveyable members of the household: the modules being State of health, Health determinants and Health care, initially asking the person for information regarding additional socio-demographic variables, such as country of birth, nationality, marital status, educational level, professional status, etc. (henceforth, the individual part of the questionnaire).

### **Second phase**

The second phase collected information on an individual person aged 16 years old and over, selected at random within the household. The individual part of the questionnaire was provided by the selected person, except if this person was absent due to being admitted to a hospital centre, or was unable to respond to the interview due to old age, disability, illness, lack of knowledge of the language, or any other circumstance, in which cases another person from the household who was sufficiently informed and capacitated as such (information proxy) was allowed to respond for the selected person. In none of the cases mentioned could the information proxy provide the information corresponding to the self-administered part.

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## **6 Research scopes**

### **Population scope**

The research was aimed at the set of persons who reside in main family dwellings. When a single dwelling was comprised of two or more households, the study included all of them, but independently for each household.

### **Geographical scope**

The Survey was conducted throughout the country.

## **Time scope**

The collection period for the information was throughout the year, from April 2009 to March 2010.

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## **7 Sample design**

### **Type of sampling. Stratification**

The survey has used a three-stage sampling with first-stage-unit stratification.

The first-stage units have been the census sections. The second-stage units have been the main family dwellings, studying all households who have their regular residence therein. Lastly, an adult person (aged 16 years old or over) has been selected within each household.

For the selection of the sample, we have used the framework of areas comprising the list of existing census sections with reference to January 2008. For the selection of second-stage units, we have used the list of main family dwellings in each of the sections selected for the sample obtained from the use of the Continuous Register of inhabitants.

The stratification criterion used was the size of municipality to which the section belongs. The following strata are considered:

**Stratum 0:** Municipalities with more than 500,000 inhabitants.

**Stratum 1:** Municipalities that are provincial capitals with fewer than 500,000 inhabitants.

**Stratum 2:** Municipalities with more than 100,000 inhabitants and that are not provincial capitals.

**Stratum 3:** Municipalities with 50,000 to 100,000 inhabitants and that are not provincial capitals.

**Stratum 4:** Municipalities with 20,000 to 50,000 inhabitants and that are not provincial capitals.

**Stratum 5:** Municipalities with 10,000 to 20,000 inhabitants.

**Stratum 6:** Municipalities with fewer than 10,000 inhabitants.

### **Sample size. Allocation**

In order to fulfil the goals of the survey, to provide estimates with a specific degree of reliability on a national level and by Autonomous Community, we have selected a sample of 1,927 census sections, with 12 dwellings selected in each census section.

The distribution of the sample of sections, by Autonomous Community, has been as follows:

## Distribution of the sample of sections, by Autonomous Community

<b>Autonomous Communities</b>	<b>Sections</b>
01 Andalucía	219
02 Aragón	87
03 Asturias (Princ. de)	84
04 Baleares (Islas) (*)	87
05 Canarias	92
06 Cantabria	66
07 Castilla y León	118
08 Castilla-La Mancha	98
09 Cataluña	204
10 Comunitat Valenciana	148
11 Extremadura	87
12 Galicia	120
13 Madrid (Comunidad de)	174
14 Murcia (Región de)	87
15 Navarra (Com. Foral)	64
16 País Vasco	92
17 La Rioja	56
18 Ceuta	22
19 Melilla	22
<b>Total</b>	<b>1,927</b>

(\*) Due to non-sampling problems, it has not been possible to obtain the information for the initially designed sample of 1,044 dwellings.

### Sample selection

The selection of the first-stage units in each stratum has been carried out with a probability that is proportional to the size of the section. In the second stage, dwellings have been selected by means of a systematic sample with random start and equal probabilities of selection for each dwelling in the section. This procedure provides self weighted samples of dwellings in each stratum.

In the third stage, we have selected, with equal probability, an adult person to complete the Individual Questionnaire.

### Distribution over time

The sample has been distributed uniformly throughout the four quarters that comprise the time scope of the survey. Within each quarter, we have also tried

for the distribution of the sample by reference week to be as homogeneous as possible.

### Estimators

In order to estimate the characteristics of the population, we have used ratio estimators, calibrated according to the information from external sources.

The steps towards building the estimators have been as follows:

#### A. Estimates for households (and resident persons)

##### 1.- Estimator based on the design of the sample.

$$\hat{Y}_d = \sum_h \sum_{i,j \in h} \frac{1}{K_h \cdot \frac{12}{V_h^{(08)}}} \cdot y_{hij} = \sum_h \sum_{i,j \in h} \frac{V_h^{(08)}}{v_h^t} \cdot y_{hij}$$

where:

h: Stratum

i: Section

j: Household

and  $y_{hij}$ : Value of objective variable Y in household j, from section i, stratum h

$K_h$ : Number of sample sections in stratum h

$V_h^{(08)}$ : Number of dwellings from stratum h according to the framework from 2008

$v_h^t$ : theoretical number of dwellings selected in stratum h. It is confirmed that:

$$v_h^t = K_h \cdot 12.$$

The factor  $K_h \cdot \frac{12}{V_h^{(08)}}$  is the probability of selection of a household from stratum h.

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2.- **Correction of non-response.** This aspect is corrected on a stratum level, by multiplying the aforementioned elevation factor  $\frac{V_h^{(08)}}{v_h^t}$  by the inverse of the probability of response therein, that is to say:

$$\hat{Y}_2 = \sum_h \sum_{i,j \in h} \frac{V_h^{(08)}}{v_h^t} \cdot \frac{v_h^t}{v_h^e} y_{hij} = \sum_h \sum_{i,j \in h} \frac{V_h^{(08)}}{v_h^e} \cdot y_{hij}$$

where  $v_h^e$  is the effective sample of dwellings in stratum h.

3.- **Ratio estimator**, using the demographic population projections at the time of the survey as the auxiliary variable. Its fundamental aim is to improve the estimator obtained via the previous steps, updating the population employed when selecting the sample to the moment when the survey is conducted. It is expressed as:

$$\hat{Y}_3 = \sum_h \frac{\sum_{i,j \in h} \frac{V_h^{(08)}}{v_h^e} \cdot y_{hij}}{\sum_{i,j \in h} \frac{V_h^{(08)}}{v_h^e} \cdot p_{hij}} \cdot P_h = \sum_h \sum_{i,j \in h} \frac{P_h}{p_h^e} \cdot y_{hij}$$

where:

$P_h$  is the projection of the population aged 16 years old and over halfway through the period of conducting the survey for stratum h.

$p_h^e$  is the population of the effective sample of dwellings ( $v_h^e$ )

If the previous factor is denoted by  $F_j^{(1)} = \frac{P_h}{p_h^e}$ ,

Then:

$$\hat{Y}_3 = \sum_h \sum_{i,j \in h} F_j^{(1)} \cdot y_{hij}$$

4. **Calibration techniques.** The previous factor is re-weighted to adjust the estimated distribution to external sources. This calibration has been carried out by means of the CALMAR framework of the French National Statistics and Economic Studies Institute (INSEE). The variables used in this adjustment process were:

- Age groups and sex. Men and women distributed throughout the following age groups: 16-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65 years old and over.
- Population totals by province.
- Total population aged 16 years old and over, by nationality, Spanish or foreign.
- Households by size: 1, 2, 3, 4 or more members.

After implementing the previous steps, a final elevation factor is obtained  $F_j^{(2)}$  for each one of the households in the effective sample.

Thus, the estimator for the total  $\hat{Y}$  of a characteristic Y can be expressed by:

$$\hat{Y} = \sum_{j \in S} F_j^{(2)} y_j$$

where the sum is extended to of the households in sample S,  $y_j$  is the value of characteristic Y observed in household j.

The estimators of proportions  $P = \frac{X}{Y}$  are of the form  $\hat{P} = \frac{\hat{X}}{\hat{Y}}$  where estimates  $\hat{X}$  and  $\hat{Y}$  are obtained using the previous formula.

The previous household factor is also assigned to all its members for estimates of characteristics of all persons.

## B. Factor of selected persons.

In addition to the estimates obtained from the characteristics of the household and of all its members, it is necessary to consider the characteristics obtained from information provided by the person selected who has completed the Individual Questionnaire. In a similar way to section A, the factor is obtained via a series of steps.

1.- **Design factor:** From the previous household  $F_j^{(1)}$  factor (Step 3), we obtain:

**Factor of person selected for household j:**  $F_{jk}^{(3)} = F_j^{(1)} A_j$ , where sub-index jk represents person (aged 16 years old and over) k from household j, who must complete the individual questionnaire, and where  $A_j$  is the number of persons aged 16 years old and over in household j.

2.- **Correction of non-response.** Due to the existence of non-response for individual questionnaires, it is necessary to correct the previous factors.

The correction is carried out in the following manner:

$$F_{jk}^{(4)} = F_{jk}^{(3)} \frac{\sum_{lm \in \text{CIAT}_G} F_{lm}^{(3)}}{\sum_{lm \in \text{CIAE}_G} F_{lm}^{(3)}}$$

where the sum of the numerator extends to the set of theoretical individual questionnaires from group G ( $\text{CIAT}_G$ ), and the sum of the denominator to the set of effective individual questionnaires from that same group ( $\text{CIAE}_G$ ). Sub-index lm represents person m from household l.

The groups G considered have been the five-year age and sex groups, by Autonomous Community.

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3.- **Calibrating techniques.** Finally, calibrating techniques have been applied to the previous individual factors, using CALMAR software.

The external sources (demographic projections) used have been, within each Autonomous Community:

- Total population aged 16 years old and over, by nationality, Spanish or foreign
- The population, by age group and sex: Men and women aged 16-24, 25-34, 35-44, 45-54, 55-64, and 65 years old and over.

These are the factors used in the estimates of characteristics from the Individual Questionnaire.

### Sample errors

For the estimation of sampling errors, the **Jackknife method** has been used, allowing for obtaining an estimate of the variance of the estimator of characteristic Y through the expression:

$$\hat{V}(\hat{Y}) = \sum_h \frac{A_h - 1}{A_h} \sum_{l \in h} (\hat{Y}_{(lh)} - \hat{Y})^2$$

where  $\hat{Y}_{(lh)}$  the estimation of characteristic Y, obtained by removing the group of sections l from stratum h, and  $A_h$  are the random groups of sections formed in stratum h.

To obtain the estimator, and for simplicity's sake, rather than recalculating the elevation factors, the stratum factors are multiplied where the sections have been removed by the factor  $\frac{n_h}{n_h - \#(lh)}$ .

In accordance with the above:

$$\hat{Y}_{(lh)} = \sum_{j \in h} F_j y_j + \sum_{\substack{j \in h \\ j \notin l}} F_j \frac{n_h}{n_h - \#(lh)} y_j$$

where:

lh is the group of sections from stratum h

$n_h$  is the total sections from stratum h

$A_h$  are the groups of sections from stratum h

$\#(l)$  is the number of sections from group l

The variation coefficient appears as a percentage in the tables, whose expression is:

$$CV(\hat{Y}) = \frac{\sqrt{\hat{V}(\hat{Y})}}{\hat{Y}} \cdot 100$$

The sampling error facilitates obtaining a confidence interval, within which, the real value of the estimated characteristic is found.

Sampling theory determines that, in the interval between

$$\left( \hat{Y} - 1,96\sqrt{\hat{V}(\hat{Y})} \quad , \quad \hat{Y} + 1,96\sqrt{\hat{V}(\hat{Y})} \right)$$

there is 95 percent confidence in finding the real value of parameter Y.

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## 8 Information collection

The period of time for the information collection was 12 months (from April 2009 to March 2010).

The information collection method is by computer-assisted personal interview (CAPI). The interviewer had a laptop computer for reading the questions and introducing the answers.

The interviewers visited the dwellings in order to conduct the interviews and complete the questionnaires according to the previously assigned work quota, carrying out the visits necessary for obtaining the required information.

The tasks involved in the collection, inspection, monitoring and control of the information were performed in the Provincial Delegations of the INE. This work was the responsibility of the survey inspectors, interviewer inspectors, and interviewers.

Previously, staff training courses were held in the Central Services of the INE and in its Provincial Delegations. In Central Services, training courses were taught, targeting the Survey inspectors, and in which, they explained the methodological concepts, the norms for completing the questionnaire, the administration procedure of the questionnaire, the norms for performing the fieldwork (collection and inspection), the incidences in the collection and their treatment, and other practical aspects. Once the Survey Inspector has attended the course, s/he taught it in her/his corresponding Provincial Delegation, to the interview inspectors and to the Survey interviewers.

For the purpose of confirming, in practice, the good operation of the information collection, inspections were periodically made of the visits made by the interviewers. In addition to these periodical inspections, other occasional inspections were carried out in those places where problems or doubts regarding the collection had arisen.

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## PROCESS FOR THE ADMINISTRATION OF THE QUESTIONNAIRE

The interview has been conducted jointly between the interviewer and the interviewee, except the questions regarding "out-of-pocket expenses", "tobacco use", "alcohol consumption" and "drug use", which are self-administered, for the purpose of further preserving anonymity and enabling the veracity of the responses.

During the first part of the interview, in which the interviewer intervenes, they took advantage of the opportunity for the interviewee to familiarise her/himself with the functioning of the computer so as not to have difficulty in answering the self-administered part.

Once the first part of the interview was finished, the interviewer turned the laptop computer over to the interviewed person, for her/him to continue answering the self-administered part her/himself. On completing these modules, the questionnaire closed itself, and the interviewer could not access the answers. Nevertheless, the interviewer was able to intervene if the person so required during the self-completion process.

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## BASIC UNITS

For the purposes of the Survey, the following concepts are defined:

- Family dwelling

A family dwelling is considered to be any room or set of rooms and their outbuildings which occupy a building or a structurally separated part of the same and that, by the way in which they have been constructed, reconstructed or transformed, are intended to be inhabited by one or more households, and which on the date of the interview are not used totally for other purposes. This definition includes:

Fixed accommodations: areas which do not respond totally to the definition of a family dwelling, due to their being semi-permanent (huts or cabins), improvised with waste material such as tins and boxes (huts or shacks), or not having been conceived initially for residential purposes, nor reformed to be used for these purposes (stables, barns, mills, garages, storage units, caves, natural refuges), but which, nevertheless, constitute the main and regular residence of one or more households.

Dwellings of a family nature existing within collective dwellings, so long as they are for the managing, administrative or service personnel of the collective establishment.

- Household.

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A household is defined as a person or group of persons who regularly reside in a family dwelling, and share food or other goods paid for within the same budget. Also considered members of the household are those employed persons resident therein, and fixed guests resident in the household. If two or more human groups with different budgets reside in the dwelling, each of them comprises a household.

Included in this definition are private households that take root in collective dwellings, as long as they have autonomy in spending with regard to the group household.

- Members of the household.

The conditions established to determine whether or not a person is a member of the household, try to avoid the possibility of the same person being classified in more than one household, or on the contrary, not being classified in any household. All persons who have resided regularly in the household most of the time in the last 12 months, or who plan to reside most of the time in the next 12 months, are considered to be members of the household. Those persons who are going to form a new household, or who will join a previously existing household, will be considered members of the household in their new location. Specifically, the following are considered to be members of the household:

- Regular residents who are related to other members of the household
- Regular residents who are not related to other members of the household
- Internal residents, guests, tenants, etc., without another private address, who currently live or plan to reside in it one year or longer, so long as the number of guests does not exceed 6, in which case it is considered a collective or group establishment.
- Persons, without another private address, who currently live or plan to reside in the selected dwelling one year or longer.
- Internal domestic staff, au-pairs, etc., without another private address, who currently live or plan to reside in the selected dwelling one year or longer.
- Persons who regularly reside in the selected dwelling, but who are temporarily absent (because they are on trips for holidays, work, studies or the like), without another private address, who currently live or plan to reside in the selected dwelling one year or longer.
- Persons who are absent for long periods of time, but who have ties to the household (for example, persons who work in another city or country), and who are a child or partner of another member of the household, without another private address, who continue to maintain ties with the household.

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- Persons who are temporarily absent, but with ties to the household (for example, persons who are admitted in hospitals or other institutions), so long as the absence is shorter than one year.
- As an exceptional case, those persons who reside in several households, but in none the greater part of the year, are considered members of that household in which they are residents at the time of the Survey (for example, elderly persons who alternate their residency, living with different children or other relatives throughout the year).

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## INCIDENCES IN THE SAMPLE AND TREATMENT

Incidences are the different situations an interviewer can encounter when working in a section.

This survey distinguishes three types of incidence:

- I. Incidences concerning dwellings
- II. Incidences concerning households
- IV. Incidences concerning persons

### **I. Incidences concerning dwellings**

Every dwelling, depending the situation it is in when the interview is carried out, is included in one of the following classification types:

#### **I.1 Surveyable dwelling (E)**

This is the dwelling that is used all or most of the year as a regular residence. Considering a dwelling as surveyable is the first step towards conducting the interview.

#### **I.2 Unsurveyable dwelling**

- Empty dwelling (V):

The dwelling selected is uninhabited, due to death or because the persons who lived there have changed residence, it is in ruins or it is a temporary dwelling.

- Unlocatable dwelling (IL):

The dwelling cannot be located at the address that appears on the list of selected dwellings, either because the address is wrong or because the dwelling no longer exists, or for other reasons.

- Dwelling intended for other purposes (OF):

The dwelling selected is used completely for purposes other than a family residence, due to an error in the selection or because its purpose has

changed, and therefore it does not form part of the target population of study.

#### I.3 Inaccessible dwelling (IN):

This is the dwelling that the interviewer is unable to access, due to climatological reasons (snow, flood, etc.) or geographical reasons, when there are no passable roads leading to the dwelling.

#### I.4 Previously selected dwelling (SA):

This is the dwelling that, having been selected previously (less than five years ago) in the sample of any other population survey, and having participated therein, is newly selected.

## II. Incidences concerning households

Once the interviewer located the selected dwelling and confirmed that it was a main family dwelling, that is, a surveyable dwelling, as a result of contacting the household, the following cases could occur:

#### II.1 SURVEYED Household (E)

A household is considered to be surveyed when it has been willing to participate, and whose selected person agrees to provide the information, which enables attaining the completed questionnaire.

The questionnaire was completed, for the most part, by the interviewer, with the answers provided by the selected person. The only exception to this rule was the case in which the person could not answer, due to illness, disability, or because s/he was going to be absent during the period of work in the section due to being hospitalised; in this case, the only person who could provide the data referring to the selected person was another person from the household who was capable of informing on the situation (proxy). Considering that this person could only provide the information regarding the part of the questionnaire that the interviewer filled out, the self-administered part was not conducted.

#### II.2 UNSURVEYED Household

This situation occurs when the household that inhabits the selected dwelling does not participate in the survey, due to one of the circumstances listed below.

- Refusal (NH)

The household as a whole, or the person(s) whom the interviewer first contacts, refuse(s) to participate in the survey. This incidence may occur at the time of the first contact with the household, or subsequent to the first contact, when for some reason, the household as a whole, or one or more of its members, refuses to provide the information requested.

- Absence (AH)



This incidence occurs when all of the members of the household are absent, and will continue to be so during the period of time in which the fieldwork in the section is to last.

- Inability to respond (IH)

This incidence occurs when all of the members of the household are unable to respond to the interview or complete the questionnaire, due to either old age, illness, lack of knowledge of the language or any other circumstance, and when there is no other person who can inform on the household and on the persons who reside therein.

### **III. Incidences concerning the selected person**

After having established satisfactory contact with the household, and once the first part of the questionnaire has been completed (including the persons resident in the dwelling), and the selection of the person has been made, it could be that this selected person does not provide the information requested in the questionnaire, due to one of the following causes:

- Refusal (NP)

The selected person refuses to provide the information required. This may be an initial flat-out refusal, or it may occur subsequently, after having begun to participate.

- Absence (AP)

This incidence occurs when the person selected to respond to the questionnaire is away, and will be away during the whole period during which the fieldwork will be performed in the section.

- Inability to respond (IP)

The selected person is unable to respond to the interview, due to either old age, disability, illness, lack of knowledge of the language or any other circumstance.

### **Treatment of the incidences**

#### **I. Incidences concerning dwellings**

- Empty or unlocatable dwellings or dwellings intended for other purposes are replaced by other dwellings in the same section.

For this, the interviewer had a listing of reserve dwellings to be used when it was necessary to replace any of the originally selected (incumbent) dwellings.

- Inaccessible or unavailable dwellings were only replaced if the cause of the inaccessibility did not disappear during the time in which the fieldwork in the sector lasted.

- In the case of the dwellings selected previously in another population survey, when this situation was detected prior to the fieldwork, the dwelling was replaced by the first available valid reserve dwelling, without having to be visited, assigning it the incidence of SA (previously selected).

In the event that the previous collaboration was detected not prior to the beginning of the fieldwork, but rather during the visit itself to the dwelling, there were two possible treatments:

- a) If the human group that inhabited the dwelling accepted participating in the survey, the interview was conducted normally, considering, in this case, that the dwelling was surveyable and the household was surveyed.
- b) If the human group did not accept participating in the survey due to a previous collaboration, the dwelling was replaced by the first available valid reserve dwelling, assigning it the SA incidence.

## **II. Incidences concerning households**

- Those households that refused to participate were replaced. For the replacements, the same norms were followed as in the case of incidences in dwellings.
- In case of absence, the interviewer had to ensure that it was truly an absence and not simply the circumstance that, at the time of the visit, all of the members of the household were away from the dwelling.

Once this situation of absence was verified, the dwelling was replaced, following the rules given in the section on incidences concerning dwellings.

- Households with an inability to respond were also replaced, according to the same norms.

## **III. Incidences concerning persons**

- When the selected person refused to participate, the dwelling was replaced by one from the list of reserve dwellings, not allowing for the information regarding it to be provided by any other person.
- If the selected person was absent, and was going to continue to be absent during the entire duration of the work in the section, then the dwelling was replaced by a reserve dwelling.

Only when the absence of the selected person was due to her/his admission to a hospital centre, was another person from the household and capacitated to respond for her/him (information proxy) allowed to do so. In this case, only the information regarding the part of the questionnaire to be filled out by the interviewer was collected, but not that which should have been self-completed by the selected person her/himself.

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- When the selected person was not able to respond to the interview, due to old age, disability, illness, lack of knowledge of the language or any other circumstance, it was allowed for another person from the household and able to do so (information proxy) to answer for her/him, but with the same exception as the above section.

If there was no possibility of a proxy providing the information, then the dwelling was replaced by a reserve dwelling.

#### **IV Listing of reserve dwellings**

For each census section, there was a listing of dwellings to be used as replacements in the case of incidences concerning the incumbent dwellings. The list of reserve dwellings was not extended, except in exceptional cases.

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## **9 Variables and Definitions. Fundamental target characteristics of study.**

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### GENERAL STRUCTURE OF THE QUESTIONNAIRE

The questionnaire consists of five sections:

- Characteristics of the household
- Socio-demographic characteristics of the selected person
- Module on state of health (selected person)
- Module on health care (selected person)
- Module on health determinants (selected person)

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### CHARACTERISTICS OF THE HOUSEHOLD

This purpose of this section is to identify those persons who meet the conditions established to be considered members of the household, and to obtain basic information on the household and on the persons who comprise it: age, sex, relationship with the reference person, relationship with economic activity of each one of them, type of household and household income (sources and percentile).

#### **Definitions**

##### **Reference person.**

That person in the household around whom the kinship relations in the household "revolve", and in case of doubt, that person who contributes the most to the family budget.

## **Members of the household.**

The conditions established to determine whether or not a person is a member of the household, try to avoid the possibility of the same person being classified in more than one household, or on the contrary, not being classified in any household. The following are considered to be members of the household:

- Regular residents who are related to other members of the household
- Regular residents who are not related to other members of the household
- Internal residents, guests, tenants, etc., without another private address, who currently live or plan to reside in it one year or longer, so long as the number of guests does not exceed 6, in which case it is considered a collective or group establishment.
- Persons, without another private address, who currently live or plan to reside in the selected dwelling one year or longer.
- Internal domestic staff, au-pairs, etc., without another private address, who currently live or plan to reside in the selected dwelling one year or longer.
- Persons who regularly reside in the selected dwelling, but who are temporarily absent (because they are on trips for holidays, work, studies or the like), without another private address, who currently live or plan to reside in the selected dwelling one year or longer.
- Persons who are absent for long periods of time, but who have ties to the household (for example, persons who work in another city or country), and who are a child or partner of another member of the household, without another private address, who continue to maintain ties with the household.
- Persons who are temporarily absent, but with ties to the household (for example, persons who are admitted in hospitals or other institutions), so long as the absence is shorter than one year.
- As an exceptional case, those persons who reside in several households but in none the greater part of the year, are considered members of that household in which they are residents at the time of the Survey (for example, elderly persons who alternate their residency, living with different children or other relatives throughout the year).

A person will be considered a regular resident if s/he spends most of her/his daily life there, assessed with regard to the year prior to the interview. Those persons who are going to form a new household, or who will join a previously existing household, will be considered members of the household in their new location.

### **Kinship relations:**

Spouse or partner. This should consider both the legal spouse, by religious or civil marriage, with the selected adult, and the partner, whether legalised or not,



so long as the selected adult maintains a continuous (not occasional or sporadic) cohabitation with this person in a common household.

Son/daughter. This refers to the children of the selected adult and those of her/his spouse or partner. This should consider both biological children and legally adopted children, with it not being necessary for the interviewer to ask for further details on the filiation.

Father/mother. This should consider both biological parents and adoptive parents.

### **Household income**

This module solely covers the regular monetary income received by the members of the household who are not household employees or guests. Therefore, the income of the latter is not considered. This should consider the income of all the persons who are currently members of the household, as well as the income received by the household as a whole.

For practical reasons, the following sources of income are not considered: capital and investment income (goods, assets, savings, shares, holdings, etc.); imputed rent, the value of the goods produced for self-consumption; transfers of income from other households (for example, maintenance and support); instalments that are not paid in every payment period (for example, annual benefit shares); end-of-year adjustments for the deduction of taxes, social security contributions and pensions.

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## SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE SELECTED PERSON

The questions included are independent variables that enable analysing the results of the survey, according to demographic and socio-economic characteristics of the surveyed persons. These correspond to the social variables established by Eurostat.

Once the person from the household who is to carry out the survey is selected, the following individual characteristics are collected: Country of birth, nationality, marital status (legal status and real cohabitation situation with the partner), highest educational level attained, current or last professional situation, current or last occupation, profession or trade, and type of contract.

Likewise, for the case in which the information comes from a proxy, the reason was included, as well as the age of the informant and her/his relationship with the selected person.

### *Definitions*

#### **Regulated studies.**

Generally, regulated studies are deemed to be those belonging to the official education system or which enjoy official recognition (by the Ministry of

Education or Universities), with the academic requirements for enrolling, duration of study and programmes being officially regulated, such that the qualification is attained with a stable and basically common curriculum for all types of centres delivering those study programmes.

Studies (with the former and current systems) included in each heading are set out in detail below. This classification corresponds to the 2000 National Classification of Education.

Description of the educational levels

1. Cannot read or write

Persons aged 10 years old or over who are unable to read or write, are able to read but not to write, or are able to read and write only one or more memorised sentences, numbers or their own name.

2. Incomplete primary education

Persons who can read and write and have been to school for less than 5 years, without considering the years possibly spent in preschool or infant education. These persons do not usually have any qualifications.

3. Primary education or the equivalent

Persons who are able to read and write and have attended school for 5 years or more. This includes the studies that generally begin at six years of age and end at the age of 11 or 12 years old. This level includes: Primary Education (LOE/LOGSE), first stage G.B.E. (five academic years passed), attendance at school for at least five years, Basic Education in Special Education Centres (including all those persons who have received education at a Special Centre or in a Special Education Classroom in ordinary regime teaching centres).

4. 1st stage Secondary Education (with and without the School Graduate or Secondary Education Graduate qualification)

This is the education that extends the instruction received at the primary level. It provides general training to persons normally aged between 11 or 12 and 14 years old, under the former systems, and 16 years old under the current system, which is taught over the course of three or four academic years. This level includes: Obligatory Secondary Education (O.S.E.) / Secondary Education Graduate, G.B.E. (higher cycle or second stage) / School graduate, School certificate or any other certificate that proves attendance at school during the compulsory schooling period (from six to 14 year old, age at which persons may leave school), and having passed a minimum of academic years, Elementary Post-Secondary Education (general, labour or technical) or four complete academic years of Post-Secondary Education from the plans prior to the General Education Law, Primary studies certificate, issued prior to the 1970 General Education Law, Social Guarantee programmes, Social Guarantee programmes in Special Education (including all those persons who have received them in a special centre or in a special education classroom in ordinary-regime teaching centres), from six to 16 years of age (age at which a person may leave school,

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learning tasks in Special Education, attendance at school during the compulsory schooling period.

#### 5. Post-secondary education

This level includes: Post-Secondary Education (LOE/GLSES), B.U.P. (with or without C.O.U.), Higher Post-Secondary Education (with or without pre-university studies)

#### 6. Intermediate-level professional education or the equivalent

This level includes: Intermediate-Level Vocational Training or Plastic Arts and Design Cycles and Intermediate-Level Sports Education, Professional Intermediate-level Music and Dance Qualification, Basic Scale of the Civil Guard, First-Degree Vocational Training or the equivalent: VT1 and Professional Modules, level 2, Special vocational training or first-degree adapted vocational training, Other first-degree technical-professional education: Industrial officer, Assistant technician, Agricultural foremen, First-level intermediate command, Certificate in Official Language Schools, Qualification from the former Trade Schools, Professional Intermediate-level Music and Dance Qualification, Other regulated studies equivalent to VT1 or intermediate-level specific vocational training education

#### 7. Advanced professional training or the equivalent.

This level includes: Advanced-Level Vocational Training or Plastic Arts and Design Cycles and Advanced-Level Sports Education, Second-degree Vocational Training: VT II and Professional Modules, level 3, other second-degree technical-professional education: Draughtsperson, Mercantile expert, Industrial teacher, Specialised technician, Graduate in ceramics, Second-level Intermediate Command, Graduate in Applied arts and artistic professions, Home education teachers, Qualification of the Scale of Subofficials of the Armed Forces and Civil Guard, other regulated studies in all cases equivalent to VT II (giving access to this qualification).

#### 8.- 1st and 2nd cycle university studies or the equivalent

This level includes: 1st and 2nd cycle university studies (Diploma, Graduate, Technical engineer, Advance engineer, Technical architect, Architect), complete First cycle passed of 3 years in duration or 180 credits from a two-cycle university study programme, Advanced-Degree Qualification in Music and Dance, Drama, Official Scales of the Armed Forces and Civil Guard, Advanced Studies in Design, Ceramics, Preservation and Restoration of Cultural Goods, Tourism Studies

#### 9. Doctorate or the equivalent

University studies for graduate school. (University Doctorate)



## **Relationship with Economic Activity**

1. Working: Those persons who, at the time of the interview, have a contractual relationship by which they receive remuneration in cash or in kind are considered to be in this situation.

Entrepreneurs, independent workers, members of cooperatives who work in said cooperatives are considered to be working as self-employed workers.

Included in this category are those persons who might have been absent from their work due to being on leave. Moreover, considered under this heading are those persons who, in the reference week, were not working due to being on holiday or leave, carrying out trade union activities and due to temporary suspension of work for reasons such as bad weather, mechanical breakdowns or other similar reasons, so long as they are formally linked to their job.

Those persons who, in the reference week, were not working due to work conflict, job and salary disciplinary suspension, study leave, maternity or other leave, are considered to be working.

Those suspended or separated from their work as a result of an employment regulation will be considered employed persons only in the event of them expecting to be rehired by the company.

The following persons will not be considered to be working:

- Persons absent from work or suspended and weakly linked to their job.
- Seasonal, occasional or discontinuous workers employed by others in the period of least activity, who did not work during the reference week.
- Persons who undertake unpaid housework, unpaid social services or charitable services, and other unpaid persons who perform activities outside the scope of economic activities.
- Seasonal self-employed workers and seasonal or occasional unpaid family workers in the season of least activity, who have not worked during the reference week.

2. Unemployed: This considers to be unemployed all those persons who are without work, are available to work and are seeking employment. Likewise, those persons who are absent from their work through suspension as a result of an employment regulation, who do not expect to join the company and who have sought work and are available to start, are considered unemployed.

3. Studying or in training in unpaid internships Considered to be in this situation are those persons who receive instruction in any degree of training. Persons preparing for public examinations are included.

4. Retired or no longer in the business: Persons are considered to be in this situation when they have had a previous economic activity, and due to age, disability or other causes they have left it, thereby receiving a pension because of their previous activity. This includes persons who receive a non-contributory

old-age/retirement pension, in other words, periodic benefits granted due to age and not derived from a previous economic activity, and non-contributory disability pensions.

Persons receiving a pension derived from someone else's contributions (widowhood, orphanhood, etc.) are also considered under this heading.

Persons taking early retirement due to redundancy (with a reduction in the normal amount of pension) without fulfilling the general requirements set out by law for receiving a retirement pension are also classified under this heading.

5. Incapacitated to work (this includes disability pensions or permanent disability): Considered to be in this situation are those persons who are permanently incapacitated, both if they have worked previously or not, and if they are receiving a disability pension.

This considers both disabilities from birth and those acquired that are of a permanent nature, but not disabilities of a transitory nature, that is, temporary disabilities due to common or professional illnesses or accidents, whether work-related or not, while they receive health care or medical leave is necessary.

6. Mainly dedicated to homemaking (non-economic activity): Those persons who spend most of their time carrying out unpaid work looking after their own household (housework, looking after children, etc.) are considered to be in this situation. Mainly does not mean exclusively, since a person may spend most of his or her time carrying out housework and studying or working a few hours each day (so long as they spend less time carrying out this activity than doing housework). However, it is important for the person to estimate that he or she mainly carries out housework, otherwise a large number of interviewees will be included in this option, since almost all adults carry out some housework (making the bed, preparing breakfast, preparing a bottle for a child, etc.), and the latter is not the objective of this heading.

We can conclude from the aforementioned there may be an infinite number of households in which no member may be included in the option of spending their time carrying out housework, given that, as has been shown, those spending the most time out of all household members have not been included in this option; rather, it has been those persons who, among the other activities which they carry out, concentrate on housework.

7. Other situations: Included in this category are those persons who receive public or private aid, without carrying out any economic activity, and all those not included in any of the previous categories: independently wealthy persons, persons temporarily deprived of their freedom, etc. Those persons who, out of altruism and solidarity, freely and without charge, carry out a civic and social activity in aid of others, through a public or private social services organisation, are considered to be in this situation.

**Professional situation:**

1. Wage-earner. A wage-earner is considered to be that person who works for a company or public organisation (wage-earner in the public sector) or private

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organisation (wage-earner in the private sector), and receives for that work a salary, commission, benefit, payments by results, or any other form of regulated remuneration, in cash or in kind.

Those persons who fulfil the requirements to be wage-earners, do not lose said condition, even in the case that they directly pay taxes due to performance of personal work and/or Social Security contributions

Also included as wage-earners are the following:

- The worker-partners of public limited labour companies who have an employment relationship with wage-earners.
- The managers, directors or other wage-earning employees who are not owners of the company in which they work, even when they carry out the same functions as the employers or businesspersons, such as the hiring or dismissal of other workers in the name of the company.
- Home workers, when they have an explicit or implicit contract or labour agreement, and their remuneration basically depends on the time worked or the amount produced.

2. Businessperson or self-employed worker with wage-earners (employees). This is considered to be the person who manages her/his own company, industry or trade (except cooperatives), or manages on her/his own, a liberal profession or trade, and who due to this, hires one or more employees or workers whom s/he pays via salary, wages, commission, etc. Therefore, classified in this category are managers, businesspersons and professionals, including wage-earning personnel.

Members of productive cooperatives are not included, even if they employ wage-earning personnel.

3. Businessperson or self-employed worker without wage-earners (employees). This considers the person who manages her/his own company, industry, trade or farm, or who exercises, on her/his own, a liberal profession or trade and does not employ wage-earning personnel. It includes those who work in their own company with the sole assistance of family members without reglamentary remuneration; partners of production cooperatives who work therein, whether they are associated work cooperatives or community land exploitation cooperatives and home workers (when they have no contract or labour agreement, and the decisions regarding markets, financing, etc., are in the hands of the worker her/himself, who also possesses or rents the capital goods used in the production process, or when the remuneration of the person depends on the income or benefits from the sale of her/his goods or services).

4. Member of a cooperative. These are all of the production cooperative members working therein. Working members of public limited labour companies are not included in this section, since they are regarded as wage-earners. Wage-earners working in cooperatives are not included in this code either. Working partners of associated work cooperatives, community land exploitation cooperatives, etc., however, are included.

5. Worker in the family business. This is considered to be that person who works, without reglamentary remuneration, in the company or business of a relative with whom s/he lives. The persons who help a relative with whom they do not live, and from whom they receive no type of remuneration, are considered to be unemployed. If they receive any remuneration (in cash or in kind), they will be considered to be employed, and their professional situation will be that of a wage-earner.

6. Another situation. This considers those persons who cannot be included in any of the above sections, with this option being reserved only for very specific cases:

- Wage-earners hired by foreign embassies (these are public sector employees of another country).
- Persons cooperating in the work of a wage-earner, and who therefore cannot be encoded as family assistance (since there should therefore be a businessperson or independent worker in the family unit of which they would be family assistance). For example, textile sector workers working in their own homes, in receipt of wages in return for this, and who are helped by other members of the family unit. The latter cannot be considered family assistance.

### **Type of Contract**

#### Indefinite or permanent contract (or labour relationship)

If there are no objective criteria for the termination of the contract or work relation, it is considered indefinite. Work may be carried out on a permanent basis throughout the year or only at specific times of the year.

#### Temporary contract (or labour relationship)

In general terms, a job can be defined as temporary when the end of the labour relationship or the contract is determined by objective conditions, such as the expiry of a certain deadline, the performance of a specific task, the re-incorporation of an employee who was temporarily replaced, the performance of work placement or a training period or the replacement of part of the tasks not performed by persons who are partially retired. As regards limited duration contracts, the conditions for their termination is usually envisaged in the contract.

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## EUROPEAN HEALTH STATUS MODULE

The fundamental target characteristics of study of the European Health Status Module range from the three basic measurements of state of health to some variables selected from the SF-36 instrument regarding the state of mental health, covering chronic illnesses, physical conditions, accidents, functional limitations, etc., as presented in detail below.

### *1. Mini-European Health Status Module*



The goal is only to analyse the general state of health, therefore excluding temporary health problems. This includes:

#### 1.1 The person's own perception of state of health (HS1a, HS1b)

A distinction is made between the assessment of state of health in general and the assessment of state of health in the last twelve months. This considers both the physical and the mental state of health.

#### 1.2 Chronic or long-term illnesses (HS2)

The objective is to ascertain whether the informant has any chronic or long-term illness or problem. The main characteristics of a chronic illness or health problem are that it is permanent and that it may need a long period of supervision, observation or care.

Chronic or long-term: this refers to illnesses or health problems with an approximate duration of at least 6 months; therefore, they cannot be considered temporary health problems.

The term, chronic or long-term illness or health problem, does not refer to isolated illnesses or diseases, such as a pain.

If the informant has some congenital illness, injuries due to accidents, birth defects... s/he should mark the option "YES".

If the informant has an illness, which though it may not bother the person, is supervised and controlled with medication, s/he should mark the option "YES". For example, a person with hypertension.

This must consider seasonal or intermittent problems, such as allergies.

#### 1.3 Limitations in activities due to health problems (HS3)

The question refers to activities that persons do regularly; it does not refer to activities of the interviewed person her/himself, since in many cases, persons with long-lasting limitations have gone through an adaptation process that may have caused a reduction in their activities. The time indication of at least six months intends to measure long-lasting limitations. New limitations that have not yet surpassed the six-month period, though they are expected to last six months or more, must not be considered.

This should bear in mind injuries, accidents and congenital malformations.

#### **Definitions**

##### **Regular activities**

Regular activities are considered to be both those related to the main activity (work, studies, housework, volunteer, activities, etc.) and those which are carried out in the person's free time (socialising with friends, participating in sports, going to see shows, etc.).



## 2. *Chronic or long-term diseases. (HS4, HS5, HS6)*

These questions measure the common long-term health problems, which constitute one of the main concerns in public health. The increase in the importance of this type of illness lies not only in the ageing of the population, but also in the development of therapeutic treatments, which enable overcoming this type of illness, or at least living with them, increasing life expectancy.

The analysis of these characteristics is distributed as follows.

### 2.1 Illnesses suffered

### 2.2 Illnesses diagnosed by a doctor

### 2.3 Illnesses suffered in the last 12 months

## 3. *Accidents (HS7, HS8)*

The objective of questions HS7 and HS8 is to research the incidence of the different types of accident in persons, according to where they take place and the health care they require.

### 3.1 Accidents, by type, in the last twelve months:

- Traffic accidents
- Accidents at work
- Accident at school or the centre of studies
- Accident at home or during leisure time:

### 3.2 Health care as a result of an accident or injury

#### **Definitions**

**Accident:** A fortuitous and unforeseen occurrence which strikes the individual and causes him or her an identifiable corporal injury. This includes falls, burns, knocks, traffic accidents as the driver, passenger or pedestrian, etc. Intoxications are also considered accidents. This includes intentional acts by another person, cases of poisoning, and wounds caused by animals or insects. It excludes self-harm.

**Intoxication and poisoning:** Alteration of the state of health of a person. This is caused by:

- The ingestion of drugs and/or medicines (including alcohol intoxication)
- The ingestion of corrosive or caustic products, paints, varnishes and other toxic substances, whether they are solid, liquid or gaseous.

- The ingestion of other toxic products: wild mushrooms and/or poisonous plants, etc.

Accidents are classified into four different categories:

**Traffic accidents:** all accidents occurring on public roads, or public or private parking lots, so long as the accident does not occur while working. The accident may occur as a driver, passenger or pedestrian.

**Accident at work:** All accidents occurring during the working day period, even if they have not occurred while carrying out the regular work, or in the place where the person normally carries out her/his activity.

The following cases shall be considered accidents at work:

1. Accidents during the lunch period or any other rest period, so long as they occur in the company establishment. If the accident occurs when a person is leaving the establishment of her/his workplace in order to go home or elsewhere for lunch, it shall be considered a traffic accident.

Traffic accidents during work; slips, falls, aggressions, etc., in public places (sidewalks, stairs, etc.) or arrival or entry points (stations, ports, airports, etc.)

3. Accidents in means of transport used during work (metropolitan, bus, aeroplane, boat, train, etc.)

4. Accidents occurring while carrying out a task for work, and accidents occurring while working in the installations of another company.

5. If the person is going to carry out the work directly from home, without first going to the workplace, and an accident occurs, then it shall be considered an accident at work.

6. Accidents with machines used outside of the public roads, for example, forklift trucks, elevators, excavators, agricultural tractors, etc.

7. Accidents occurring from home or from the regular lunch place to work are considered traffic accidents.

**Accident at school or the centre of studies:** all accidents occurring in the installations of the centre, including those accidents that might occur during physical education class.

**Accident at home or during leisure time:** All accidents that are not included in the previous groups. Accidents at home are accidents occurring in the home or in the external areas that are the property of the estate (stairs, doorway, yard or

garden, garage, etc.). This may refer to the person's house or to that of another person. Accidents during leisure time occur in a public or private place, while carrying out a leisure activity (gymnasium, football pitch, pool, rock-climbing wall, etc.).

**Examples of leisure activities:** walking, running, ballgames, dancing, climbing a mountain, cutting wood, etc.

#### *4. Health problems and employment situation (HS9a, HS9b)*

The objective is to measure those health problems that are a result of working conditions. The analysis is carried out for both persons who are currently working and persons who worked at another time, including retired persons, since health problems may arise after a long period exposed to the cause that led to them. Therefore, this measures:

4.1 Illnesses or health problems that are a result of the current job

4.2 Illnesses or health problems that are a result of a previous job

#### *5. Absenteeism due health problems. (HS10, HS11)*

The questions relating to labour absenteeism measure the impact of any health problem on economic activity; this is achieved by collection information regarding:

5.1 Absence from work due to health problems in the last 12 months

5.2 Exact number of days missed from work due to health problems in the last 12 months

This shall consider all types of health problem, both physical and mental, whether they are temporary or chronic, in addition to injuries.

It only considers absence from work during complete working days. The period refers to the absence, and not to the time when the interviewee began with her/his health problem. Absences from work due to routine check-ups that do not refer to a specific health problem should not be considered. Absences due to caring for an ill person (such as a child) shall also not be considered.

When the calculation of days is made, this shall consider both working days and non-working days, including Saturdays, Sundays and holidays. For example, a person who works from Monday through Friday, and who missed work due to health problems for two weeks, must reflect that s/he was absent for 14 days.

Absence from work needs not have been certified by a doctor. For example, missing work for two days due to health reasons does not imply that it is necessary to have sick leave documentation.

If the person did not work for a period of time, and then returned to work gradually, for example, working part-time, only the days that s/he was absent for the complete day shall be counted.

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6. *Physical and sensory limitations.* (PL1, PL2, PL3, PL4, PL5, PL6, PL7, PL8, PL9, PL10, PL11)

The objective is to measure the main physical and sensory functional limitations, following the International Classification of Functioning, Disability and Health (ICF).

To measure the existence of these limitations constitutes a basic assessment of the state of health of the population, in terms of capacity for functioning, irregardless of the reason that caused the limitation.

The target characteristics of study are as follows:

- 6.1 Vision
- 6.2 Hearing
- 6.3 Getting around on foot
- 6.4 Problems in going up and down stairs
- 6.5 Problems in kneeling or bending
- 6.6 Picking up and carrying objects
- 6.7 Fine hand use
- 6.8 Biting and chewing

The degree of limitation for carrying out the activity is assessed without using assistance (for example, a cane or crutches), except for the vision and hearing limitations, for which the limitation is considered when using assistance (glasses and hearing aids, respectively) when such assistance is available.

**Definitions**

**Functional Limitation:** A person is considered to have a functional limitation if s/he displays some problem or degree of limitation in carrying out any of the following activities: getting around on foot, going up and down stairs, kneeling or bending, picking up and carrying objects, making fine hand and finger use, biting and chewing.

The degree of functional limitation considered is the maximum degree of limitation that the person finds in carrying out any of the activities considered.

7. *Activities of daily living: Self-care activities (PC1, PC2, PC3, PC4)*

The objective is the measure the difficulty in carrying out activities of daily living; and in case of having problems at the time of doing them, the objective is to assess whether the person has sufficient assistance, and if the answer is no, whether assistance would be necessary.

The personal care activities considered are:

- 7.1 Feeding oneself: Eating and drinking
- 7.2 Getting up and laying down (bed)
- 7.2 Getting up and sitting down (chair)
- 7.3 Dressing and undressing
- 7.4 Using the lavatory
- 7.5 Showering or washing oneself (the whole body)

The measurement of the difficulty found in carryout out the activities of daily living constitutes a first basic assessment of the degree of disability in the population. The goal is to collect what the interviewee does, and not what s/he believes s/he can do, and therefore it is not an assessment of capability, but of what is actually carried out. In order to evaluate the degree of difficulty, assistance from other persons is excluded, as well as technical assistance and adaptations in the dwelling. The objective is to ensure that the restrictions are not due to economic reasons or other reasons (for example, the lack of availability of personal assistance). In the case of a person who has different degrees of difficulty in carrying out two activities within one characteristic (for example, getting up and sitting), we obtain the response corresponding to the activity with the highest degree of difficulty.

Subsequently, questions are asked regarding the availability of assistance, the degree of satisfaction with the assistance received, and in case of not having said assistance, the need to have the type of assistance. This considers the following three types of assistance:

- Personal assistance,
- Technical aid
- Adaptations in the home

### **Definitions**

**Feeding oneself:** The interviewee is able to pick the food up from the plate and guide it to her/his mouth, able to bring a glass to her/his mouth, cut the food, use a fork, use a spoon, spread jam or butter on a slice of bread, sprinkle salt on food, etc. This activity excludes grocery shopping or cooking.

**Sitting down, standing up from a chair or from a bed, lying down:** The interviewee must consider her/his difficulty in carrying out these activities, without considering any type of assistance; managing to stand is included. In the case that the person has a different degree of difficulty in carrying out the two activities, the interviewer must include that which offers the highest degree of difficulty for the respondent.

**Dressing and undressing:** this includes taking clothing from the wardrobe or from the dresser drawers, buttoning clothing, tying shoelaces. In the case that

the person has a different degree of difficulty in carrying out the two activities, the interviewer must include that which offers the highest degree of difficulty for the respondent.

**Using the lavatory:** this refers to the following activities: using toilet paper, cleaning oneself, undressing and dressing before and after using the toilet.

**Showering or washing oneself (whole body):** this refers to the following activities: washing and drying the whole body, entering and exiting the shower or bathtub. In the case that the respondent has a different degree of difficulty in carrying out these two activities, the interviewer must include that which is the simplest for the interviewer.

**Personal assistance:** this means assistance received from another person. For example, the assistance that a person with a disability receives in washing her/himself. This may refer to both the assistance received from another member of the household, and that received from another person who does not live in the home.

**Technical aid:** this may be, for example, a wheelchair or a cane.

**Adaptations in the home:** adaptations of the place where the person with disabilities lives, and without which s/he could not carry out everyday activities. For example: adapted bathtubs, adapted kitchens, wide hallways (for persons who need wheelchairs).

#### 8. *Activities of home life. (HA1, HA2, HA3, HA4, HA5)*

The objective is to obtain information regarding the problems encountered on carrying out housework due to health reasons, and whether or not the person has assistance, or needs it. The concepts and definitions considered are again based on ICF, and are as follows:

- 8.1 Preparing meals
- 8.2 Using the telephone
- 8.3 Carrying out shopping
- 8.4 Providing medicine: being able to take one's own medicine
- 8.5 Carrying out light household chores
- 8.6 Carrying out heavy household chores
- 8.7 Being in charge of the daily economic tasks of the household

The measurement of the difficulty found in carrying out activities of home life constitutes a second basic assessment of the degree of disability in the population, for health reasons, irregardless of their origin (problem from birth, age, accident, illness, etc.). This excludes temporary problems. The interviewee must assess the degree of difficulty when s/he does not receive assistance, be it technical or personal.

The objective is to assess whether the person has difficulty when s/he actually carries out these activities, and not to assess whether or not s/he has the capacity to carry them out. If the interviewee cannot assess the difficulty because s/he does not carry out the activity by choice, because another person does it, mark the option "Does not know". A subsequent question asks whether the reason for the difficulty is due to health problems or to other causes.

Subsequently, questions are asked regarding the availability of assistance, the degree of satisfaction with the assistance received, and in case of not having said assistance, the need to have the type of assistance. This considers the following three types of assistance:

- Personal assistance,
- Technical aid
- Adaptations in the home

The results have been tabulated of the degree of limitation for carrying out activities of home life, according to the maximum degree for any of the activities considered.

#### Definitions

**Prepare one's own meals:** the person is able to prepare meals for her/himself

**Use the telephone:** the person is able to make calls and answer the telephone

**Carry out shopping:** the person is able to do the shopping without the need for assistance from another person.

**Take one's medicine:** the person does not require assistance in taking her/his own medication. This activity only refers to the fact of whether the person is able to take her/his own medication and remember the dose, and not to the fact of purchasing the medication in the pharmacy.

**Light household chores:** the person is able to carry out activities of the following type: cook, do the washing up, iron, take care of the children, etc.

**Heavy household chores:** the person is able to carry out activities of the following type: carry heavy groceries for more than 5 minutes, move heavy furniture, do the general household cleaning, mop floors, clean windows, etc.

**Manage one's own money:** for example, to pay one's own bills.

#### *9. Physical and mental state*

Variables are introduced that try to measure some aspects of the state of health, at both physical and mental levels, for the purpose of gaining a general perspective of the state of health of the population.

The questions that enable analysing these characteristics have been extracted from the SF36 instrument, established as a measurement of the quality of life.

The target of study of this topic appears divided into two differentiated blocks:

## 9.1 Suffering physical discomfort

## 9.2 State of mental health. EHS fundamentally focuses on four aspects

### 9.2.1 Emotional impact

### 9.2.2. Psychological weariness

### 9.2.3 Vitality

### 9.2.4 Mood

Physical discomfort is measured through a direct question that considers any physical pain or discomfort that the person has had. In order to measure mental health, two indicators are obtained: positive state of mental health and psychological dysfunction. Both indicators are obtained through 9 items.

The programming of both indicators has been carried out in the following way:

### **Psychological Dysfunction**

Values of the variable: 0 - 100 (100 represents optimal mental health)

Variables in the questionnaire: SF03, SF04, SF05, SF07, SF09

Calculation method (according to the manual of SF36, pages 18 and 19):

The variables are re-named: SF03=MH1

SF04=MH2

SF05=MH3

SF07=MH4

SF09=MH5

The missing values are assigned:

DO I = 1 TO 5;

IF MHI(I) < 1 OR MHI(I) > 5 THEN MHI(I)=. ; /\* the SFXX questions have valid values from 1 to 5, and therefore any different value, including Does not know is considered missing\*/  
END;

New variables are defined for SF05 and SF09:

RMH3 = 6-MH3;

RMH5 = 6-MH5;

The average value of the missing values is imputed:

MHNUM=N(MH1,MH2,MH3,MH4,MH5); /\*number of non-missing MH(i) variables\*/

MHMEAN=MEAN(MH1,MH2,RMH3,MH4,RMH5);

IF MH1 =. THEN MH1 = MHMEAN;

IF MH2 =. THEN MH2 = MHMEAN;

IF RMH3 =. THEN RMH3 = MHMEAN;

IF MH4 =. THEN MH4 = MHMEAN;

IF RMH5 =. THEN RMH5 = MHMEAN;

The value of the variable is obtained, so long as the number of non-missing variables is greater than or equal to three:

IF MHNUM GE 3 THEN RAWMH = SUM(MH1,MH2,RMH3,MH4,RMH5);

MH = ((RAWMH-5)/(25-5)) \* 10 /\*Value of psychological dysfunction\*/

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## Positive Mental Health

Values of the variable: 0 - 100 (100 represents optimal mental health)

Variables in the questionnaire: SF02, SF06, SF08, SF10

Calculation method (according to the manual of SF36, pages 18 and 19):

The variables are re-named: SF02=VT1

SF06=VT2

SF08=VT3

SF10=VT4

The missing values are assigned:

DO I = 1 TO 5;

IF VTI(I) < 1 OR VTI(I) > 5 THEN MHI(I)=. ; /\* the SFXX questions have valid values from 1 to 5, and therefore any different value, including Does not know is considered missing\*/

END;

New variables are defined for SF02 and SF06:

RVT1 = 6-VT1;

RVT2 = 6-VT2;

The average value of the missing values is imputed:

VITNUM = N(VT1,VT2,VT3,VT4);

VITMEAN = MEAN(RVT1,RVT2,VT3,VT4);

IF RVT1 =. THEN RVT1 = VITMEAN;

IF RVT2 =. THEN RVT2 = VITMEAN;

IF VT3 =. THEN VT3 = VITMEAN;

IF VT4 =. THEN VT4 = VITMEAN;

The value of the variable is obtained, so long as the number of non-missing variables is greater than or equal to two

IF VITNUM GE 2 THEN RAWVT= SUM(RVT1,RVT2,VT3,VT4);

VT = ((RAWVT-4)/(20-4)) \* 100; /\*Value of positive mental health\*/

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## EUROPEAN HEALTH CARE MODULE

The questions from the European Health Care Module intend to measure the use of the main types of medical service: hospitalisations, consultations and visits to the doctor, the specialist, the dentist and other health professionals. Likewise, it assesses the consumption of medicine by the interviewee, whether by medical prescription or not. Special attention is paid to the assessment of the use that the population makes of the health prevention services, and to their satisfaction with the health services, irregardless of whether they have recently needed to use them personally or not.

Using a self-administered form, information is obtained regarding the cost, to citizens, of the health services used and of the medicine consumed.

The previously mentioned characteristics are distributed into blocks as follows:

### *10. Hospitalisations, consultations and visits to health professionals*

#### 10.1 Hospitalisations, specifying whether they were hospitalisations to give birth

- 10.2 Care in outpatient hospital centres
- 10.3 Necessary hospitalisations that did not take place
- 10.4 Visits to the dentist or orthodontist
- 10.5 Consultations and visits to the general practitioner or family doctor
- 10.6 Consultations and visits to the specialist
- 10.7 Necessary consultations and visits to the specialist that did not take place
- 10.8 Consultations and visits to alternative medicine specialists
- 10.9 Use of assistance services.

Due to the ageing of the population, the demand for this type of service is on the rise. This variable intends to assess whether the system is prepared to answer the demand.

#### **Definitions**

**Hospitalisation.** This is any admission to hospital to receive medical or medical-surgical care, involving at least one overnight stay or having a bed assigned. Stays of less than 24 hours in an accident and emergency service or in another service for diagnostic or therapeutic tests to be performed are not regarded as hospitalisation. Stays of persons accompanying the admitted person are not considered hospitalisation, even if they occupy a bed and are there more than one day.

**No hospitalisation due to "Waiting list or other reasons due to the hospital"** includes persons who, at the time of the interview, were on the waiting list, and were therefore not attended to, persons who had been called were waiting to be hospitalised, as well as persons who gave up due to the perception they had of long waiting lists. And if the reason was that the hospitalisation was not covered by insurance, this is included in the "*I could not afford it*" category.

**Hospital.** Health establishment with an in-patient system whose main purpose, regardless of its name, is to provide medical care or surgery to patients admitted therein. Nursing homes, orphanages, crèches, charity homes, etc., are not included.

**Admitted patient:** this is a patient who has been formally admitted or hospitalised in an institution for treatment or care, and remains for a minimum of one night or more than 24 hours in the hospital or another institution.

**Stays:** the number of occasions in which a person was hospitalised.

**Days admitted:** the total nights that the informant spent hospitalised in the last 12 months. If the selected person is admitted at the time of the interview, this is not considered to be one of those days.

**Admittance to give birth:** The woman selected is considered to have been admitted to give birth if she was hospitalised and childbirth occurred, either naturally or by caesarean section.

**Admission to outpatients:** is admission to a hospital bed for diagnosis and/or scheduled treatment and discharge before midnight the same day. This includes admission to a bed or a couch. This does not include stays in accident and emergency or in observation.

**Visits to the dentist:** Any visit to a qualified professional (dentist, stomatologist or dental hygienist) for examining, advising, treating or reviewing dental or oral problems.

**Visits to the general practitioner or family doctor.** Any visit to a certified medical professional (personally or by telephone or by home visit) for diagnosis, examination, treatment, monitoring, advice or any other procedure. Also considered to be medical visits are check-ups and requests for prescriptions. **Group medical examinations** (work, school, etc.), simply requesting an appointment, stomatology, dental or dental hygiene consultations, the carrying out of any diagnostic test (x-rays, analyses, etc.) are not considered medical consultations, nor are therapeutic procedures as instructed by a doctor, contacts with pharmacists or opticians for acquiring medical prescriptions.

**Visits to specialists.** This refers to consultations to medical specialists in outpatient offices or in accident and emergency, including maxillofacial surgeons and other surgeons, but not general dentists. This also considers the medical consultations in the workplace or centre of studies, or visits to a specialist abroad. It excludes those visits made in a hospital as an admitted patient or in outpatients.

**Outpatient hospital office or medical centre:** Consultations made at the actual hospital or outpatient medical centre for those patients requiring diagnostic means, treatment and/or rehabilitation which cannot be provided at Primary Care level, including the performing of minor surgical procedures. They do not require hospital admission, but are carried out in outpatients.

**Visit to a Health Centre/Office:** Centres at which primary care is afforded to those receiving Social Security. Care is provided by family doctors, paediatricians and nursing staff.

**Service in accident and emergency at a hospital** Service provided in the hospital, regarded as being any service with an organised team of professionals which provides urgent attention 24 hours a day.

**Visit to Specialists in the workplace or centre of studies** Consultations to specialists which, on occasion, are in the workplace or centre of studies. In the particular case in which the workplace is a hospital and one of the workers (nurses, receptionists, etc.) requests an appointment, this is not considered a visit in their workplace, but rather, they should mark the "External visit to a hospital or medical centre" option.

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**Nurse:** personnel dedicated to the management, assessment and provision of nursing care aimed at the promotion, maintenance and recovery of health, as well as the prevention of illnesses and disabilities.

**Physiotherapist:** specialist who uses treatments with physical media and agents, with the objective of the recovery and rehabilitation of persons with somatic dysfunctions or disabilities, as well as the prevention thereof. A physiotherapist applies one or more of the following therapies in order to recover or improve motor functions: movement therapy, therapeutic massage and physical therapy in the strict sense, that is, the application of physical stimuli, electrotherapy, hydrotherapy, balneotherapy, etc. Therapy may be carried out in public hospitals, private offices, outpatients, schools, gymnasiums, etc. Physiotherapists treat problems in bones, muscles, circulatory problems or nervous system problems.

**Dieticians, nutritionists:** specialist who carries out activities aimed at the diet of a person or group of persons, so that it is adequate for their physiological needs, and as may be the case, the pathologies thereof, and in accordance with the principles of prevention and public health. By recommending specific diets or changes in eating habits, they prevent and treat certain types of illness.

**Speech therapist:** specialist who carries out activities in the prevention, assessment and recovery of disorders involving hearing, fonation and language, through therapeutic techniques specific to this discipline. A speech therapist assesses, diagnoses and treats problems with language, communication, voice, verbal fluency and other similar problems. S/he works with persons who cannot produce sounds or cannot produce them clearly, with persons with fluency problems, for example, stutterers, in addition to with persons with voice disorders, such as inappropriate low and high tones. S/he also works with persons who wish to improve their communication abilities, modifying their accent, and with persons with communication problems, such as attention, memory, etc. Some patients have difficulties in swallowing.

**Chiropractor:** professional who treats bodily anomalies that are caused by interferences with the nervous system. Treatment generally includes the manipulation of the spinal column. Chiropractic is based on the premise that good health depends on the nervous system functioning correctly. Thus, spinal manipulation is not used only to combat illness, but also to treat its causes, maintaining the well-being of the patient.

**Manual therapist:** physiotherapist specialised in manual and technical interventions for treating problems with movements that cause pain. S/he generally treats problems in the back, neck, muscular tension, problems in the hips and knees and shoulder pain. Manual therapy is defined as the medical speciality concerned with the diagnosis, assessment, prevention and treatment of disability, aimed at enabling, maintaining or developing the highest degree possible of functional capacity and independence.

**Occupational therapist:** specialist who applies techniques and carries out activities of an occupational nature which tend to potentiate or replace diminished or loss physical or psychological functions, and to guide and

stimulate the development of such functions. Occupational therapy aids patients in improving their ability to carry out activities of daily living, including working activities. S/he works with individuals who have some type of mental, physical, developmental or emotional disability. S/he helps to develop, recover or maintain the activities of daily living and abilities at work, for example, using the computer, dressing, cooking, eating, etc.

**Other paramedical specialists:** hearing specialists, chiroprodists, orthopaedic surgeons, etc.

**Homoeopathic specialist** for curative reasons, provides small doses of substances, which given in greater proportions would provide the same symptoms of the illness to completely healthy persons. A homeopathic specialist selects the doses of the substances according to the person, not considering only their illness, but also their lifestyle, emotional and mental state and other factors.

**Acupuncturist:** treats complaints by inserting needles in different parts of the body of the patient, depending on the organs affected by the illness.

**Herbalist:** uses plants or plant extracts to treat an illness and improve the health of the patient.

**Other alternative medicine specialists:** use other forms of medical care and product that are not considered part of traditional medicine, excluding the aforementioned. For example: professionals specialised in aromatherapy, music therapy, oriental medicine, etc.

**Homecare:** this refers to the care, both medical and non-medical, of persons with some type of physical or mental illness, with some type of disability, or of persons who, due to being elderly, are unable to carry out personal care activities or housework. This includes home services provided by a nurse or midwife from a hospital, by agencies, associations or volunteers.

**Homecare provided by a nurse or midwife:** this refers to the care, both medical and non-medical, of persons with some type of physical or mental illness, with some type of disability, or of persons who, due to being elderly, are unable to carry out personal care activities or housework.

Examples of medical services provided: extra assistance after a hospital stay, aid to persons with chronic health problems who need care for a long period of time, dialysis, care instruction for parents before and after the birth of their children.

Examples of non-medical services provided: assistance for personal hygiene, eating, dressing, bathing, etc.

**Homecare for household chores or for elderly persons:** these services include tasks such as cleaning the home, preparing meals, doing the laundry, ironing, giving or remembering medication, helping with economic or financial household tasks, doing the grocery shopping, etc. These services are offered by municipal councils, private associations, NGOs, etc., for the purpose of enabling those persons with needs to continue living in their own homes.

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**Home delivery of meals for elderly persons:** service whose objective is to provide meals to persons who cannot leave home to do the grocery shopping or who have difficulty in preparing their own meals, due to suffering from some type of physical or mental illness, having some type of disability or because their advanced age prevents them from doing so.

**Special home delivery/transport services:** services that enable getting around for persons who are confined in their homes, due to some type of disability or due to their advanced age. Getting around may be for different reasons, such as, doctor visits, doing the grocery shopping or participating in recreational activities.

**Other homecare services:** this includes the support for personal development aimed at persons with physical or mental illnesses or with some type of disability who are isolated due to their situation. The objective is to help them to overcome obstacles in accessing employment and education and to offer them the opportunity to participate in recreational activities. This also includes moral, general and family support. It also includes assistance in interpretation for deaf and mute persons and assistance in reading for blind persons.

#### *11. Consumption of medicine.*

These questions measure the consumption of medicine by the population, whether or not they have been recommended by a health professional. The medicines considered therefore includes both curative and preventive medicines. Consumption has increased in recent decades, possibly due to the increase in the elderly population, and this may also be an indicator of accessibility, quality and cost.

11.1 Consumption of medicine prescribed or recommended by a doctor

11.2 Consumption of medicine not prescribed by a doctor

#### **Definitions**

**Medicine.** All **medicinal substances** and their associations or combinations to be used on persons, presented with properties for preventing, diagnosing, treating, relieving or curing illnesses or complaints, or in order to affect bodily functions or mental health.

**Prescribed medicines:** those which a doctor has prescribed or recommended to the selected person, and which this person has consumed during the reference period. If they have been recommended by a chemist, they are not considered to be prescribed. Only pharmaceutical specialities, patent medicine, preparations or officinal formulas and manufactured medicines are considered to be medicines. Personal hygiene products are excluded, as are bandages and other dressings, food products, cosmetics, sweets, chewing gum, etc.

**Homoeopathic products** are medicines regulated by the Ministry of Health, Social Policy and Equality (Homoeopathic treatment is the therapeutic method based on the administration of small doses of medicinal substances in order to activate the body's own defences and gradually improve or cure illnesses)

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## *12. Preventative practices*

This title includes the questions whose objective is to measure the use of preventative care services by citizens. For the purpose of improving the state of health of the population and decreasing mortality, preventative actions are necessary, which constitute a strategic element for achieving a system of sustainable health care and quality, focusing, among other things, on the increase of life expectancy.

The characteristics included through these questions are as follows:

- 12.1 Flu vaccination
- 12.2 Blood pressure reading
- 12.3 Cholesterol level measurement
- 12.4 Blood sugar level measurement
- 12.5 Preventative tests for women: mammogram
- 12.6 Preventative tests for women: pap smear
- 12.7 Faecal occult blood tests

### **Definitions**

**Flu vaccination:** This considers the seasonal flu vaccination. It does not consider the vaccination against the H1N1 variant.

**Blood pressure reading:** This is the measurement of the systolic and diastolic arterial pressure, carried out by a health professional. It also considers blood pressure readings taken by chemists in the chemist's themselves.

**Cholesterol level reading** This determines the total blood cholesterol figures.

**Blood sugar level measurement:** This is the amount of blood glucose on an empty stomach.

**Mammogram:** radiography or ex-ray image of the breasts that is used for diagnosing different lesions in the breasts.

**Pap smear:** this procedure consists of collecting a sample of cells that are subsequently analysed in a laboratory. It is a diagnostic method for uterine and vaginal cancers and certain infections. It also allows us to learn about female hormonal activity.

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## *13. Satisfaction with health services.*

In order to measure the satisfaction of the population with the health services, five questions are included, considering that the assessment of the different services may be completely different.

- 13.1 Satisfaction with hospital services, including accident and emergency



13.2 Satisfaction with services from dentists, orthodontists and other dental care specialists

13.3 Satisfaction with service provided by specialists

13.4 Satisfaction with service provided by family doctors

13.5 Satisfaction with homecare services

*14. Expenditure on medical services and medicine.*

The objective is to measure the cost of any type of health care (medical, dental or pharmaceutical) that is not free-of-charge or reimbursed by the State, insurance company or private company. This considers only out-of-pocket expenses to be those costs that the person has had to pay directly. These include:

14.1 Expenses on one's own dental care

14.2 Expenses on visits to the family doctor, general practitioner or specialists

14.3 Expenses on medicines prescribed by a doctor

This only considers the expenditure made for some visit made to dentists or general practitioners or specialists in the last four weeks, and for some medicine consumed or used in the last two weeks. Even if the payment was made outside of the periods considered, it should be considered if the service was provided or the medicine was consumed in the respective period.

**Definitions**

**Out-of-pocket expenses:** the cost of any health care that has been received (medical, dental or pharmaceutical) free-of-charge and that has not been reimbursed by any public society, insurance company or private company. This considers out-of-pocket expenses to be only those costs that the person selected, or another member of the household who has done so on their behalf, has had to pay directly. If after making the payment, the expenses have been totally or partially reimbursed (by a State society - MUFACE, ISFAS or MUGEJU -, a private insurance company or as social assistance from a company), this must consider only the part that is not reimbursed. In the case that the person has not yet received the reimbursement, the out-of-pocket expenses shall be estimated by subtracting the amount that is expected to be reimbursed from the total amount paid for said health care. It does not consider to be out-of-pocket expenses those payments made to companies as insurance premiums.

If the person has not paid anything but has used the service, 0 shall be noted in the space intended for responses.



The questions in this module intend to assess the physical characteristics (weight and height) and habits that are advisable for health, such as, for example, physical exercise and the consumption of fruits and vegetables. The goal is to analyse the different lifestyles and environmental and social conditions that influence the quality of the state of health, such as exposure to noise, pollution, harassment or intimidation. A self-administered part is included, in which the person interviewed shows her/his habits regarding tobacco, alcohol and drug use.

The characteristics collected in detail are the following:

#### 15. Physical characteristics

This collects the height and weight of the selected person, for the purpose of ascertaining the Body Mass Index. In the case that the informant does not exactly know both variables, s/he shall give an estimate. Pregnant women must give their weight prior to the pregnancy.

##### **Definitions**

**The Body Mass Index (BMI)** is defined as the relationship between the weight of the individual (in kilograms) and the square of the height (in meters).  $BMI = \text{kg/m}^2$

The classification of categories according to the BMI for children under 18 years of age has been carried out for underweight cases, according to the following proposal: *Cole TJ, Flegal, KM, Nicholls D, Jackson AA "Body mass index cut offs to define thinness in children and adolescents: international survey". BMJ 2007;335:194-197*, and for obese and overweight cases, according to: *Cole TJ, Bellizzi MC, Flegal KM, Dietz WH. Establishing a standard definition for child overweight and obesity worldwide: international survey. BMJ 2000; 320: 1-6.*

#### 16. Physical activities

The interest in measuring the physical activities that the individuals of a population participate in is linked to the concern for the consequences of obesity, from the perspective of the state of health, and to the effect that the practice of physical activities has on the decrease in mortality. It reduces the possibility of having cancer, diabetes or depression, and is an important factor in the prevention of osteoporosis.

Information is collected regarding:

- 16.1 Participating in intense physical activity
- 16.2 Participating in moderate physical activity
- 16.3 Time dedicated to walking

##### **Definitions**

**Intense physical activity:** intense physical activities are those requiring a great deal of physical effort and result in the person breathing more heavily than usual. For example:

Intense activities at work: carrying heavy loads, digging, etc.

Intense activities in the home: digging in the garden, carrying heavy loads, cutting wood, etc.

Intense activities during leisure time: doing aerobics, running, swimming fast, riding a bicycle fast, playing football, etc.

**Moderate physical activity:** moderate physical activities are those requiring a moderate physical effort and result in the person breathing somewhat faster than usual.

Examples of moderate activities: carrying light loads, riding a bicycle at a normal speed, mopping the house or cleaning the garden.

**Light physical activity:** walking for at least 10 minutes straight.

#### *17. Consumption of fruits and vegetables.*

Both Eurostat and the Member States consider that, as with physical activity, the consumption of fruits and vegetables constitutes a fundamental determinant for a good state of health, hence, the interest in including questions that measure the consumption of these foods. The characteristics studied are:

17.1 Frequency of the consumption of fruit

17.2 Frequency of the consumption of vegetables or salads

17.3 Frequency of the consumption of fresh fruit or vegetable juices

#### *18. The environmental and social environment*

Many studies indicate the close relationship between the environment and the state of health, and therefore, both Eurostat and the Member States have decided to include these characteristics in the health determinants module. We must not forget that this also constitutes information that is essential for the development of important policies.

The fundamental characteristics analysed are as follows:

18.1 Degree of exposure to pollution, noise and odours

18.2 Degree of exposure to delinquency, violence or vandalism in the area of residence

18.3 Degree of exposure to harassment, discrimination or violence in the workplace

18.4 Degree of excessive workload

18.5 Risk of accident at work

## 18.6 Exposure to strained postures, movements or handling heavy loads at work.

For the purpose of preserving the privacy of the informant, in the case of another person other than the interviewer and interviewee being present, a card with the answers was provided.

Being exposed is understood to mean the existence of the mentioned conditions. In the case of exposure to certain conditions in the workplace, these may be caused by the circumstances of the environment surrounding the workplace, or by persons who work in the same establishment or by clients.

This only considers noise in homes due to factors that are outside of the homes, that is, it excludes the noise produced within the home or by a member of the household. Noise at the centre of the workplace may be caused by the type of job itself, that carried out by other colleagues or that which comes from outside, such as the noise caused by excessive traffic.

### Definitions

**Area of residence** refers to the area in which the dwelling where the person resides is located.

**Workplace:** This refers to geographical environment of the work, generally alluding to the locale or establishment in which the person carries out her/his labour activity. For those workers who do not carry out their activity in an establishment, such as firefighters, forest rangers, etc., this must consider the general environment in which they carry out their work.

**Violence or violent treatment:** this refers to the use of physical force towards another person or group of persons, and the result of which is physical, sexual or psychological damage. This considers both real situations and the sensation of fear of these actions.

In the case of violence in the home, this considers that which may be caused by persons both outside and inside of the household.

Violence at work does may come, not only from a colleague, manager or subordinate, but also from another person with whom the informant relates in her/his workplace, such as a client or supplier.

**Harassment or intimidation:** This refers to an intentional behaviour against a person or group of persons, the result of which is physical, mental or moral damage, or negative consequences in the social behaviour of the person. Psychological violence must be considered in this category.

**Psychological harassment** covers all forms of abusive behaviour, systematic or repetitive conduct against a person, works, actions, gestures or the written work that might have a negative affect on the personality, dignity or well-being of the person.

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**Sexual harassment** refers to an undesired conduct of a sexual nature, or to a sex-related conduct, affecting the dignity of the man or woman at work. This includes verbal offence.

**Discrimination:** this refers to a derogatory treatment toward a person, due to her/his personal characteristics or to the category of persons to which s/he belongs (race, social condition, etc.)

**Pressures or an excessive workload:** this refers to the volume of work that must be carried out during the working day, when this demand exceeds the abilities and resources of the person who must perform it.

**Chemical products, dust, smoke or gases:** Exposure to this type of product refers to having to handle it, touch it or inhale it.

This does not consider factors such as radiation, the presence of magnetic fields, inadequate temperatures and inappropriate light conditions.

A person with more than one job must consider all of them at the time of responding.

#### *19. Tobacco consumption*

Tobacco consumption or use is one of the main determinants of the state of health. In all of the European Union countries, noteworthy policies are being developed, focusing on the limitation of tobacco use, for the purpose of avoiding illnesses derived from the habit of smoking.

The target characteristics of study are as follows:

- 19.1 To ascertain whether the person is a regular smoker.
- 19.2 The type of tobacco consumed by a regular smoker.
- 19.3 The number of daily units consumed by the regular smoker.
- 19.4 The years that s/he has smoked and the number of daily units consumed by ex-smokers.
- 19.5 The frequency of time exposed to smoky environments.  
This quantifies the number of passive smokers and the intensity with which they are subjected to smoky environments.

#### **Definitions**

**Daily** tobacco consumption: Daily, or per day, is understood to be the complete day that ends when the person goes to sleep, without considering the time, even if it is after midnight.

#### *20. Alcohol intake.*

As with tobacco use, the consumption or intake of alcohol is considered to be one of the main determinants of the state of health, being the causal factor of numerous long-term illnesses.

The groups of questions is designed to detect those persons who have the habit of consuming alcohol frequently, what type of beverages they drink and what amount they drink, according to the day of the week, and whether the alcohol intake of the person interviewed is considered excessive.

The characteristics analysed may be summarised as follows:

- 20.1 Detect whether the person consumes alcohol frequently.
- 20.2 The type of alcoholic beverage consumed each day of the week.
- 20.3 The amount of alcohol consumed each day of the week.
- 20.4 The frequency with which the person consumes alcohol excessively.

#### **Definitions**

**Alcohol consumption frequency:** A 'time' refers to each of the different moments during the day in which alcoholic beverages are consumed (in the morning, before meals, during meals, in the afternoon, in the evening, etc.). For example, if a person drinks wine with lunch and with dinner, this is considered to be two times. However, if in the afternoon, a person drinks an alcoholic beverage, follows this with soft drinks and then continues to drink alcoholic beverages, this is considered to be one time.

**Intensive alcohol consumption or intake (heavy drinking):** Consumption of 6 or more alcoholic beverages on one occasion (time). The same occasion is understood to be consumption in the same situation, for example, a continuous period of leisure, a meal, a party, etc. This is not considered in an entire day, unless the consumption took place continuously throughout the day.

#### *21. Drug consumption (drug use)*

Although collecting information on drug consumption is a complicated task, there is special interest in it due to the impact it has on the state of health of users. For the purpose of the interviewed persons providing more sincere answers, and for them to find it easier to ignore those questions that they might consider too delicate, the formulation of these questions uses the incremental strategy, which consists of introducing some questions regarding drug use by persons in the environment, these being barely or not at all compromising, enabling the progressive approach of the surveyed person towards the target question.

This type of question, in turn, allows for indirectly assessing the consumption of the interviewed person her/himself.

Specifically, the target characteristics of study focus on:

- 21.1 Persons in the environment who use cannabis
- 21.2 The person's own cannabis use
- 21.3 Persons in the environment who use other types of drug

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## 21.4 The person's own use of other types of drug

### **Definitions**

**Cannabis:** Cannabis indica, used as a narcotic.

**Hashish:** Compound of flower tips and other parts of cannabis indica, mixed with different sugared or aromatic substances, which causes a particular intoxication.

**Marijuana:** Cannabis indica, whose leaves, smoked as tobacco, cause physical and mental disorders.

**Pot/weed:** (slang) Marijuana.

**Marijuana:** Fast-growing herb from a tropical climate and corresponding to the family of the Compounds. The stem is branchy, the leaves alternating and divided into splayed segments, the flowers are yellow and the root is almost cylindrical, and approximately two centimetres in diameter, being porous, cinder-like, with a brownish bark and a bitter flavour. It is also used as a tonic, diuretic and carminative.

**Joint:** Rolled cigarette made of marijuana, or made of hashish mixed with tobacco.

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## 10 Dissemination of the results

The following types of publication are available:

### DETAILED RESULTS.

Statistical tables are provided, covering the researched variables, classified by socio-demographic characteristic, on national and Autonomous Community levels.

Sampling error tables are obtained and non-response is analysed. Their dissemination is in electronic publication format, via the websites of the INE and the Ministry of Health, Social Policy and Equality.

### MICRODATA FILES

The final microdata files are the basis for dealing with information requests from specific, detailed operations. The content of these files shall adjust to the norms set out in the Law on Public Statistical Services with regard to the confidentiality of individual data, and its dissemination corresponds to both the National Statistics Institute and the Ministry of Health, Social Policy and Equality.

