

# European Survey of Health in Spain 2014 ESHS-2014

Methodology

# INE. National Institute of Statistics

## **Table of Contents**

1.	Introduction	
1.1.	The European Survey of Health within the European statistical system	
1.2.	The European Survey of Health within the national statistical system	
2.	Objectives of ESHS2014	
3.	Research Scope	
4.	Sample Design	
4.1.	Type of sampling Stratification	
4.2.	Sample size Allocation	
4.3.	Sample selection	
4.4.	Distribution over time	
4.5.	Estimators	
4.6.	Sampling errors	1
5.	ESHS2014 Questionnaires	1
5.1.	Review of ESHS Questionnaires	1
5.2.	Adaptation of the questionnaires to the Spanish version	1
5.3.	Structure of the questionnaires	1
6.	Information collection	1
6.1.	Collection method	1
6.2.	Training of interviewers	1
6.3.	Phases of the interview	1
6.4.	Questionnaire respondents	1
6.5.	Basic units	1
6.6.	Incidents in collection and processing	1
6.7.	Response rate	2
7.	Concepts and fundamental characteristics subject of study	
7.1.	Module of socio-economic variables	2
7.2.	Health Status Module	2
7.3.	Healthcare Module	3
7.4.	Health Determinants Module	
8.	Processing of information	5

9.	Dissemination of the results	esults 58	
ANNEX I Social class		60	

### 1 Introduction

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

These indicators constitute one of the primary elements for the planning and adoption of Public Health measures and also constitute a fundamental instrument in the evaluation of health policies.

In order to collect this information, it is possible to resort to different statistical sources, some of them based on administrative records such as morbidity records, causes of death or health records. But all of them, although they may be comprehensive in nature, do not cover all aspects of health and in many cases cannot be related to socio-demographic variables or other determinants of health status.

For this reason, it is necessary to resort to other instruments based on Surveys. As a result, the vast majority of European Union (EU) and OECD countries now use their own Health Survey to collect this information according to their statistical characteristics and practices. The fact that there is no uniformity in the way in which these surveys are carried out makes it difficult to compare data from the different countries around us, and therefore distorts the joint indicators necessary for the planning of common EU policies.

With the aim of harmonising information and having common indicators, the EU decided to implement within the European Statistical System, a European Health Surveys System (EHSS), among which was a Health Survey through a personal interview (European Health Interview Survey-EHIS). The main objective was to measure in a harmonised way the health status of EU citizens, their lifestyles and other health determinants, as well as their use of health services.

### 1.1 THE EUROPEAN SURVEY OF HEALTH WITHIN THE EUROPEAN STATISTICAL SYSTEM

Since 2002 Eurostat, together with the statistical offices and public health bodies of the Member States, worked on a first survey draft. A questionnaire was developed, divided into four modules: European Health Status Module (EHSM), European Health Determinants Module (EHDM), European Health Services Module (EHCM) and Basic Social Variables Module (EBM). This first survey was carried out between 2006 and 2009, adapting the time and method of implementation to each country's convenience, as well as the possible adaptation of the questionnaire. In Spain, this survey was carried out in 2009 (European Health Survey in Spain 2009).

On the other hand, the need to guarantee the statistical component of the information system associated with the Community public health programmes led to the regulation by the EU of statistics in this area through Regulation (EC) No 1338/2008 of the European Parliament and of the Council of 16 December 2008. This general regulation on Community public health statistics envisaged the existence of a Health Survey through Interviews (EHIS) to report on aspects of perceived health, determinants and health care and established a five-yearly periodicity. Finally, this survey was defined both in its content and methodological aspects as well as in the deadlines and forms of data transmission to the EU with the approval of Commission Regulation (EU) 141/2013 of 19 February 2013, which implements Framework

Regulation 1338/2008. With these regulations, the European Health Survey was included in the European Statistical System, establishing the obligatory nature of its implementation in all Member States.

This new edition of the survey, which according to Regulation (EU) 141/2013 was to be carried out between 2013 and 2015 in the Member States, was carried out in Spain in 2014.

### 1.2 THE EUROPEAN HEALTH SURVEY WITHIN THE NATIONAL STATISTICAL SYSTEM

The first edition of the European Health Survey was carried out in Spain in 2009 and was included in the National Statistical Plan. The survey was carried out by the INE with the collaboration of the Ministry of Health, Social Services and Equality (MSSSI) through the working groups that defined the questionnaire.

In application of the aforementioned regulations, a second edition of the survey (European Health Survey in Spain 2014- ESHS20014) has been included in the National Statistical Plan 2013-2016 to be carried out in 2014. This survey therefore forms part of the Spanish statistical system, as well as the health information system.

The national statistics also include a survey with objectives similar to those of the ESHS, with a long tradition and a wide series of data that feeds some of the key indicators of the health information system: the National Health Survey.

In order to avoid duplication, the INE and the MSSSI decided to intercalate both surveys every 2/3 years so that information on the population's health could be obtained at appropriate intervals and with the aim of fulfilling commitments to the EU. Both bodies also agreed to adapt the ESHS2014 questionnaires to include those key questions necessary for the health indicators maintained by the information system of the national health system and which are not included in the original version of the EHIS. This collaboration was embodied in the Collaboration Agreement for the Expansion of the ESHS-2014 variables signed by both organizations in April 2014.

### 2 Objectives of ESHS2014

The **general objective** of ESHS2014 is to provide information on the health of the Spanish population, in a harmonised and comparable manner at European level, with the aim of planning and evaluating health-related actions.

### SPECIFIC OBJECTIVES

- 1. To provide information on the assessment of the general state of health, and identify the main health problems of citizens: chronic diseases, illnesses, accidents, limitations and functionalities.
- 2. To know the degree of access and use of health services and their characteristics.

3. To know the determinants of health: characteristics of the environment (physical and social) and life habits that pose a risk to health.

### 3 Scope of research

Regulation (EU) No 141/2013 sets out the basic application areas of the European Health Survey. In the case of Spain they are as follows:

### POPULATION SCOPE.

According to what is established in the Regulation, the **target population** is the group of persons aged 15 years old and over who habitually reside in one of the main family dwellings. When the same dwelling is made up of two or more households, the study extends to all of them, but in an independent manner for each household.

### GEOGRAPHICAL SCOPE.

The geographical scope covers the entire national territory.

### **TEMPORAL SCOPE**

The Regulation stipulates that data collection must be carried out during at least three months of the autumn month and the reference year may be 2013, 2014 or 2015. In the case of ESHS2014, and in order to collect data that may be affected by seasonality, the collection period extends over one year, from January 2014 to January 2015.

### 4 Sample Design

4.1 TYPE OF SAMPLING. ESTRATIFICATION.

A three-stage sampling with stratification of the first stage units has been used.

The first stage units are the census tracts. The second-stage units are the main family dwellings, and all households that have their habitual residence therein are investigated. Within each household, an adult (15 years or more) is selected.

As a framework for the selection of the sample of primary units, the list of existing census tracts referring to February 2013 was used. For the second stage units, the list of main family dwellings has been used in each of the tracts selected for the sample. These two frameworks have been obtained from the information provided by the exploitation of the Continuous Register of inhabitants. The third stage units are selected from the list of surveyable persons in the dwelling, obtained at the time of conducting the interview.

The first-stage units are grouped into **strata** according to the size of the municipality to which the tracts belong.

The following strata are considered:

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

**Stratum 1**: Province capital municipality (except the previous ones).

**Stratum 2**: Municipalities with more than 100,000 inhabitants (except the previous ones).

**Stratum 3:** Municipalities with 50,000 to less than 100,000 inhabitants (except the previous ones).

**Stratum 4**: Municipalities with 20,000 to less than 50,000 inhabitants (except the previous ones).

Stratum 5: Municipalities from 10,000 to less than 20,000 inhabitants.

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

For each Autonomous Community, an independent sample is designed to represent it, as one of the objectives of the survey is to provide estimates with this level of disaggregation.

### 4.2 SAMPLE SIZE ALLOCATION

In order to cover the objectives of the survey of providing estimates with an acceptable level of accuracy at the national and Autonomous Community levels, a sample of approximately 37,500 dwellings distributed in 2,500 census tracts has been defined. The number of dwellings selected in each census tract is 15.

The sample is distributed among Autonomous Communities, assigning one part uniformly and another in proportion to the size of the Autonomous Community.

The distribution of the sample of tracts by Autonomous Community is:

Tracts
296
108
96
100
124
88
148
128
276
204
100
144
240
108
88
128
76

Ceuta	24
Melilla	24
Total	2500

### 4.3 SAMPLE SELECTION

In the first stage, the tracts are selected within each stratum with a probability proportional to their size, measured by the number of main family dwellings. In the second stage, in each tract, dwellings with equal probability are selected by means of systematic sampling with random start. This procedure provides self-weighted samples in each stratum.

For the selection of the person who must complete the individual part of the questionnaire, a random procedure based on the Kish method is used, which assigns equal probability to all adults.

### 4.4 DISTRIBUTION OVER TIME

The sample is distributed uniformly among the four quarters that make up the temporal scope of the survey. We also endeavour to ensure that the distribution of the sample by reference week is as homogeneous as possible within each quarter.

### 4.5 ESTIMATORS

Ratio estimators, calibrated according to information from external sources, have been used.

The steps for constructing the estimators have been the following.

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

1.- Estimator based on the sample design.

$$\hat{Y}_d = \sum_h \sum_{i,j \in h} \frac{1}{K_h \cdot \frac{15}{V_h^{(13)}}} \cdot y_{hij} = \sum_h \sum_{i,j \in h} \frac{V_h^{(13)}}{v_h^t} \cdot y_{hij}$$

Being:

h: Stratum

i: Tract

j: Household

 $y_{hij}$ : Value of target variable Y in household j, of tract i, stratum h

K<sub>h</sub>: Number of sample tracts in stratum h

 $V_h^{\!\!\!(13)}$  : Number of dwellings in stratum h according to the 2013 framework

 $\textbf{V}_{h}^{t}$  : Theoretical number of dwellings selected in stratum h. It is verified that:  $v_{h}^{t}=K_{h}\cdot 15$ 

 $K_{\rm h}.\frac{15}{V_{\rm h}^{\rm (13)}}$  The factor is the probability of selection of a dwelling in stratum h.

### 2.- Correction of non-response.

It is corrected at the level of stratum multiplying the previous raising factor by the inverse of the probability of response within the same, that is to say:

$$\hat{Y}_2 = \sum_{h} \sum_{i,j \in h} \frac{V_h^{(13)}}{v_h^t} \cdot \frac{v_h^t}{v_h^e} \, y_{hij} = \sum_{h} \sum_{i,j \in h} \frac{V_h^{(13)}}{v_h^e} \cdot y_{hij}$$

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

### 3.- Ratio estimator

It uses as an auxiliary variable the population totals, coming from the Preliminary Population Figures, referring to the central moment of the survey. Its fundamental objective is to improve the estimator obtained in the previous steps, updating the population employed at the time of the selection of the sample when conducting the survey. Its expression is:

$$\hat{Y}_{3} = \sum_{h} \frac{\sum_{i,j \in h} \frac{V_{h}^{(13)}}{v_{h}^{e}} \cdot y_{hij}}{\sum_{i,j \in h} \frac{V_{h}^{(13)}}{v_{h}^{e}} \cdot p_{hij}} \cdot P_{h} = \sum_{h} \sum_{i,j \in h} \frac{P_{h}}{p_{h}^{e}} \cdot y_{hij}$$

where:

 $\mathsf{P}_{\mathsf{h}}$  is the population aged 15 and over at the midpoint of the survey period for stratum h.

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

If the above factor is denoted by  $F_j^{(1)} = \frac{P_h}{p_h^e} \; , \; \text{then} \quad \hat{Y}_3 = \sum_h \sum_{i,j \in h} F_j^{(1)} \cdot y_{hij}$ 

- 4.- Calibration techniques. The previous factor will be replaced to adjust the estimated distribution to external sources. This calibration has been carried out using the CALMAR macro of the French National Institute of Statistics and Economic Studies (INSEE). In each Autonomous Community, the variables used in the adjustment process have been:
  - Age groups and sex. Men and women distributed in the following age groups 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65 and more.
  - Population totals by province.
  - Household totals by province
  - Households by size: 1, 2, 3 and 4 or more members.

After applying the above steps, a final raising factor  $F_j^{(2)}$  is obtained for each of the households in the effective sample.

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

$$\boldsymbol{\hat{Y}} = \sum_{j \in S} \boldsymbol{F}_{j}^{(2)} \, \boldsymbol{y}_{j}$$

where the sum extends to all households in sample S,  $Y_j$  is the value of characteristic Y observed in household j.

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

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

### B. Estimates based on the information of the selected persons.

In addition to the estimates obtained from the characteristics of the household and all its members, we must consider the characteristics obtained from the information provided by the selected person who has completed the Individual Questionnaire. Similarly to section A, the factor is obtained in several steps.

### 1.- Initial factor

We use the household factor  $F_j^{(1)}$  obtained in section 3 above.

2.- Factor of selected person in household j

 $F_{jk}^{(3)} = F_j^{(1)} A_j$ , where the sub-index jk represents the person (aged 15 and over) k from household j who must fill in the individual questionnaire and where  $A_j$  is the number of persons aged 15 and over from household j.

### 3.- Calibration techniques.

Finally, calibration techniques using the CALMAR software have been applied to the above individual factors.

In each Autonomous Community, the variables used in the adjustment process have been:

- •Total population aged 15 years old and over by nationality, Spanish or foreign
- •Population by age group and sex: Men and women aged 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65 and over.

These factors are those used in the estimation of characteristics of the Individual Questionnaire.

### 4. 6 SAMPLING ERRORS

For the estimation of sampling errors, the Jackknife method has been used, which allows the estimation of the variance of the estimator of the total of a characteristic Y by means of the expression:

$$\widehat{V}(\widehat{Y}) = \sum_{h} \frac{n_h - 1}{n_h} \sum_{i \in h} (\widehat{Y}_{(hi)} - \widehat{Y})^2$$

where:

 $\hat{Y}$  is the estimate of the total of characteristic Y obtained with the complete sample

 $\hat{Y}_{(hi)}$  is the estimate of the total of characteristic Y obtained after removing from the sample the units of tract i of stratum h.

nh is the number of sample tracts in stratum h.

To obtain the estimator  $\hat{Y}_{(hi)}$ , and for simplicity's sake, instead of recalculating the raising factors (with correction of non-response, calibration, etc...), the factors of the stratum where the tract has been removed are multiplied by the factor  $\frac{n_h}{n_h-1}$ 

According to the above:

$$\hat{Y} = \sum_{l,j,k \in S} F_{ljk} y_{ljk}$$

$$\hat{Y}_{(hi)} = \sum_{l \neq h} F_{ljk} y_{ljk} + \sum_{\substack{l = h \ i \neq i}} F_{ljk} \frac{n_h}{n_h - 1} y_{ljk}$$

Where  $F_{ijk}$  is the raising factor of unit k of tract j of stratum l in the complete sample S. That is to say, the available raising factor. In this way the variance can be estimated without the need to recalculate the raising factors.

In the tables, the relative sampling error is published in percentage, coefficient of variation, whose expression is:

$$\widehat{CV}\left(\hat{Y}\right) = \frac{\sqrt{\widehat{V}(\hat{Y})}}{\widehat{Y}} \ 100$$

The sampling error makes it possible to obtain a confidence interval, which contains the true value of the estimated characteristic.

Sampling theory determines that there is 95 percent confidence that the interval

$$\left(\hat{Y} - 1.96\sqrt{\hat{V}(\hat{Y})} , \hat{Y} + 1.96\sqrt{\hat{V}(\hat{Y})}\right)$$

contains the true value of the Y parameter.

### 5 ESHS2014 questionnaires.

### 5.1 REVIEW OF THE ESHS QUESTIONNAIRES.

The content of the ESHS2014 questionnaires is determined by the provisions of Regulation (EU) No. 141/2013 for the survey variables, which in turn maintains the same structure as the first edition of the EHIS. This first questionnaire for 2009 was agreed over four years in various working groups involving Eurostat, DG SANCO of the Commission, statistical institutes and national officials responsible for health information. It was structured in four modules:

- i. Health Status Module
- ii. Healthcare Module
- iii. Health Determinants Module
- iv. Module of socio-economic variables

Each of the specific health information modules contained sub-modules of questions that adopted validated instruments or a series of questions whose purpose was to specifically measure some dimension of the state of health, lifestyle or type of health resource demanded.

Once the first edition of the survey had been completed, Eurostat proceeded to analyse the quality of the results. It was concluded that the first objective of harmonisation of information on core indicators between countries had been achieved and it was therefore appropriate to continue with the basic core of the questionnaire. However, the following weaknesses were detected: an excessive number of questions, the difficulty of applying some of them given the important

differences between the structures of the health systems and finally the low quality of the information provided by some of the instruments used, in particular those relating to mental health, alcohol consumption and physical exercise. In order to review alternatives to these last chapters of the survey, Eurostat together with technicians from some member countries created sub-working groups that proposed other instruments with greater guarantee of quality of information and comparability between countries.

In 2010, a working group was set up within Eurostat's EHIS Technical Group to revise the questionnaire and methodology for the second edition of the survey, taking into account the results of the Eurostat review and proposals from the subgroups referred to above. Technicians from INE and the MSSSI participated in these works. The revision work continued for two years until the final draft of the Regulation in which the variables to be included in the questionnaire were determined.

The main changes in the 2014 questionnaire with respect to 2009 were the following:

- The contents were defined as variables and not as questions as was done in 2009, although a reference questionnaire in English was maintained along with the methodology.
- The number of questions was reduced (from 207 to 115) by detecting those that were not necessary to report on the European Community Health Indicators (ECHI). In this way, it was possible not only to reduce the burden on respondents, but also to give countries the opportunity to include their own questions in the questionnaire in response to their national needs.
- The instruments for measuring the state of mental health, alcohol consumption and physical exercise were modified.

### 5.2 ADAPTATION OF THE QUESTIONNAIRES TO THE SPANISH VERSION.

Although Regulation (EU) No 141/2013 covers only the variables to be obtained, a questionnaire was developed in English to be used as a reference by all European Union countries. The Spanish version was obtained based on this questionnaire. To this end, efforts were made to respect the formulation of the questions drawn up in 2009 based on the translation of the original questionnaire<sup>1</sup>.

As mentioned above, the Collaboration Agreement between the INE and the MSSSI reflected the variables that should be added to the ESHS 2014 to cover national information needs. The corresponding questions were included to obtain these variables.

Section 7 details the variables included in each module of the questionnaire.

In order to improve the collection of information, the questions have been structured in two questionnaires: the household and the individual questionnaires. The first collects the main socio-economic characteristics of all members of the household, and the second the health variables of one of the residents of the target population (15

<sup>&</sup>lt;sup>1</sup> The translation of the Spanish version of the ESHS2009 was carried out following the protocols established by Eurostat and detailed in the ESHS2009 Methodology (http://www.ine.es/en/metodologia/t15/t153042009\_en.pdf). The importance of the translation lies in the fact that it should not be a mere literal conversion from English to the national language versions but should respect the meaning of what is intended to be measured in all its nuances with the original question of the questionnaire in English.

years old and over) randomly selected from the residents in the household. The mechanics of collection is detailed in section 6.

### 5.3 STRUCTURE OF THE QUESTIONNAIRES

The information collected by the survey is divided into two questionnaires:

- I. Household Questionnaire
- II. Individual Questionnaire

The household questionnaire collects some basic socio-demographic variables of all members of the household. It also collects additional information on the reference person (the person who contributes the most to the household budget).

The individual questionnaire collects information from a person aged 15 years old and over, probabilistically selected among the members of the household. This information corresponds to additional socio-demographic variables of the selected person and to all the target health variables of the survey.

A modular structure is chosen for the health variables according to the dimensions researched:

- a) <u>Health Status Module:</u> state of health and chronic illnesses, accident rate, activity restriction, absence from work due to health problems, physical and sensory limitations, limitations for carrying out daily life activities (only for people aged 65 and over) and mental health.
- b) <u>Health Care Module:</u> access to and use of health services (medical consultations, hospitalisations, emergencies, dental care), unmet needs, type of insurance, consumption of medicines and general and women's preventive practices.
- c) <u>Health Determinants Module</u>: physical characteristics (body mass index), physical activity, diet, tobacco and alcohol consumption, social support and informal care.

### 6 Information collection

### 6.1 COLLECTION METHOD

The information collection method has been based on computer-assisted personal interview (CAPI), which could be supplemented, when necessary and in exceptional cases, by means of a telephone interview.

Interviews are carried out in the selected dwellings. The personnel in charge of carrying out the interviews are assigned a quota of periodic work distributed in accordance with the sample design. In each dwelling, the necessary visits have been made to obtain the required information.

The fieldwork (data collection, inspection, monitoring and control of the information corresponding to each province) was carried out in two phases: in the first phase, between 27 January 2014 and 14 September 2014, the data collection was carried out by a company awarded the contract published by the INE; the contract detailed the minimum work required for the collection of information. In the second phase,

between 15 September 2014 and 25 January 2015, data collection was carried out from the provincial delegations of the INE.

In order to check on the ground the good progress of the collection of information, both the company in charge of the collection in the first phase and the provincial delegations of the INE in the second phase have periodically carried out inspections of the visits made by the personnel in charge of carrying out the interviews.

In addition to these periodic inspections, other occasional inspections have been carried out in those places where problems or doubts have arisen in the collection.

The main purpose of the inspection has been to verify that the interviewers have correctly carried out their work in the original interview, following the established rules, checking in particular that the assignment of incidents by the interviewers has been accurate, correcting the errors they have made.

In addition to the previous inspections carried out by the company in charge of collection and the provincial delegations, personnel from INE's central services have carried out weekly and systematic inspections and controls by telephone, in order to corroborate the quality of the collection work and the fulfilment of the tasks of the company that was awarded the tender.

### 6.2 TRAINING OF INTERVIEWERS

Before starting the fieldwork, INE staff gave training courses to the area managers of the company in charge of collection in the first phase and to those responsible for the survey in the provincial delegations (PDs), in the second phase. They were also responsible for the training of the personnel in charge in the respective areas.

The courses for those in charge of the company were held in January 2014, two weeks before the start of the collection and were given in person in Madrid. The courses for those responsible for the PDs were conducted by video-conference previously recorded in the month of September 2014.

These courses explained the methodological concepts and theoretical considerations of the survey content, the handling of portable devices and the rules for completing the questionnaire. It was also explained the procedure for administering the questionnaire, the rules for conducting the interview, the rules for carrying out the fieldwork (collection and inspection), the incidents in the collection, its treatment and any practical considerations deemed necessary, supporting the presentation with hypothetical cases for clarification on the completion of the questionnaires and the work report.

The use of the Field Work Monitoring and Control application (ADM) and the procedure for downloading information into the Database were also explained.

The training courses were based on the ESHS2014 Manual for interviewers prepared by the INE, which comprehensively includes the information collection procedure.

It was also explained to the interviewers the relevance of their mission and the importance for data collection of the correct conduct of the interview and the management of those factors that influence the collaboration of people and the quality of the responses they provide.

### 6.3 PHASES OF THE INTERVIEW

In the ESHS2014, the initial contact with the selected households is carried out through the sending of a letter from the INE requesting their collaboration, in which they were informed that they had been selected for the survey and of its confidential nature, and warning them about the next visit of an accredited interviewer.

In each dwelling selected, the number of existing households is identified, and for each household in the dwelling, the study is carried out in two phases: the first is identified with the Household Questionnaire and the second with the Individual Questionnaire (persons aged 15 years old and over).

### FIRST PHASE

In the first phase, an attempt is made to capture all persons resident in the household, requesting information from all its members on some fundamental socio-demographic variables. All of this is collected in the household questionnaire.

The Household Questionnaire must be answered by an adult capable of informing on the characteristics and composition of the household.

At this stage of the interview, the adult person who must answer the individual questionnaire is selected. The selection is made randomly through the Kish table implemented in the portable device.

The identification of the reference person of the household (person who contributes most to the household budget) is requested, and in the event that this person does not coincide with the selected adult, information is requested on additional socio-demographic variables of this person.

Finally, the question is asked about the characteristics of the household.

### **SECOND PHASE**

In the second phase, information is collected from a single person aged 15 years old or over, randomly selected among the usual residents of said age in the household, through the individual questionnaire.

This questionnaire first collects socio-demographic information on the selected person in addition to that obtained in the household questionnaire, as well as all the questions of the three modules of the health variables.

### 6.4 RESPONDENTS OF THE QUESTIONNAIRES.

The collection of information has been carried out following the two questionnaires, and the respondents of each of them are:

### Respondent of the household questionnaire

The Household Questionnaire has been answered by the reference person or his/her spouse or partner (if they have one), or, failing this, by some other adult capable of informing about the characteristics and composition of the household.

### Respondent of the individual questionnaire

The individual Questionnaire is answered by the selected person aged 15 years old or over. It was only admitted that another person other than the selected person was the respondent (PROXY) if:

- a) The selected person was admitted to a hospital or residence
- b) The selected person is unable to respond due to serious illness or disability
- c) The selected person cannot answer because of the language

In these cases, it is allowed that another adult person from the household or another person of legal age who is not a member of the household may respond to the questionnaire instead of the selected person. If the reason for proxy is due to a lack of knowledge of the language, it is admitted that the respondent acting as a translator is a minor, if there is no other person of legal age who can act as an interpreter.

### 6.5 BASIC UNITS

### **FAMILY DWELLING**

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

- Fixed accommodations: enclosures that do not fully meet the definition of family dwelling because they are semi-permanent (shacks or huts), improvised with waste materials such as cans and boxes (shanties), or not originally conceived for residential purposes or refurbished to be used for these purposes (stables, haystacks, mills, garages, warehouses, caves, natural shelters), but which nevertheless constitute the main and habitual residence of one or more households.
- Family dwellings existing within collective dwellings, provided that they are intended for the management, administrative or service personnel of the collective establishment.

### Household

Household is defined as the person or group of persons who occupy in common a main family dwelling or part of it, have a common budget and consume and/or share food or other goods charged to said budget.

According to this definition it should be borne in mind that:

- a) A household may consist of a single person (one-person household) or several persons (multi-person household) and the persons making up the household may or may not be related. Indeed, the household may be formed exclusively by unrelated persons, by a family together with unrelated persons or exclusively by a family.
- b) A multi-person household is a group of persons who occupy in common a main family dwelling or part of it. Therefore, the group of persons who live in a collective establishment (hospital, hotel, residential college, etc.) does not constitute a household. However, it should be borne in mind that within the enclosure of a

collective establishment there can be a household, as in the case of the director of a prison who has his home within the enclosure of the prison.

c) A household is a group of persons who share expenses, i.e. who have a common budget, understood as the common fund that allows the person(s) in charge of the administration of the household to cover the common expenses of the household (rent, gas, electricity, water, telephone, etc.). Individuals with a partially independent economy are not considered to form different households if they share most of the basic expenses with the other members of the household. In the case of a dwelling within a collective establishment, it is considered a household if it keeps its budget separate from that of the collective.

It is generally understood that people have a common budget or economy, both those who contribute resources to the budget, helping to cover common household expenses and participating in them, and those who without contributing resources, depend on the common budget or economy.

d) For the purpose of locating the number of households residing in the dwelling, this survey considers that several households reside within the same dwelling only when these households maintain differentiated budgets, that is, separation of economies between them (being therefore autonomous with respect to all relevant expenditure: rent, gas, electricity, water, telephone, etc.) and occupy different and delimited areas of the dwelling, although they have some common room (for example, dwellings with sublet, dwellings shared by two or more families that have independent economies, etc.).

Therefore, if the dwelling is occupied by two or more human groups with these characteristics, it should be considered that each of these groups forms a household and a Household Questionnaire should be opened for each of them.

- e) For the purpose of considering the maximum limit of households in a main dwelling, the following is considered:
- @When in the same dwelling there are only persons who are independent of each other, who exclusively use one or more rooms and who do not have a common budget (guests, subtenants, etc.), each person shall be considered to constitute a private household provided that the number of such persons resident in the dwelling is 5 or less. In that case, each person will be considered as an independent household and interviews will be conducted with each of them. When the number of persons with these characteristics resident in the dwelling is greater than 5, the dwelling is considered to be a collective dwelling and these persons are not surveyable.
- reside other persons who among themselves constitute a household and have a common budget, the household formed by the persons who do constitute a household shall be considered, on the one hand, and the other persons resident in the dwelling shall be considered as independent! @When in the same dwelling reside persons who use some or several rooms than 5, and interviews shall be carried out for each of them. On the contrary, if the number of these persons is greater than 5, they will not be the object of research, although the group that makes up the household and is therefore a surveyable dwelling will be.

### **Household members**

The conditions established to determine whether or not a person is a member of the household seek to avoid the possibility that the same individual may be classified in more than one household or, conversely, may not be classified in any one household.

Once the number of households in a dwelling has been determined, for the purposes of this survey, members of the household of the surveyed dwelling are considered to be all those persons who, sharing a common budget and goods in charge of said budget, habitually reside in said dwelling.

### Usual residence

For the purpose of establishing who is a usual resident of a household, persons who live or spend most of their daily rest in the household address are considered to be part of the household.

### PARTICULAR CASES:

- a) Change of address or residence in multiple homes: If a person has or is going to have, in the next 12 months, one or more other home addresses in which they are going to reside habitually (for example, an elderly person who alternates their residence, living with different children or other relatives throughout the year), they are considered to be a member of the household in which they are going to reside for the longest time. If it is not possible to determine which is the one in which they are going to reside the longest, they will be considered as a member of the household being interviewed at that time.
- b) <u>Absence</u>: If a person is temporarily absent, he/she is considered a member of the household if
- he/she resides in a health centre and plans to return to the household before the next twelve months
- usually resides in another type of collective establishment and plans to return to the surveyed household before the next twelve months.

In turn, they are not considered members of the household if:

- they habitually reside in another family dwelling and plan to return to the surveyed household before one year and do not expect to stay there for most of the next twelve months. For example, students who, during the school year, reside in another dwelling and return to the surveyed dwelling only during the holiday period.
- They usually reside in another family dwelling or collective establishment and do not plan to return to the surveyed dwelling before one year. For example, elderly residents in a nursing home and do not plan to return to the dwelling in at least one year.
- c) Household guests and employees
- Household members are also considered to be persons employed in the household and guests who habitually reside with the household, provided that they share the household budget.

Incidents are the different situations that an interviewer may encounter during his or her work in a tract. A treatment is defined for each one of them.

### 6.6.1 INCIDENTS

There are three types:

- I. Incidents in dwellings
- II. Incidents in households
- III. Incidents in the selected person

### I. Incidents in dwellings

All dwellings, according to the situation in which they find themselves at the time of the interview, are classified into one of the following types:

### I.1 Surveyable dwelling (E)

It is that used all or most of the year as usual residence. The consideration of a dwelling as surveyable will be the previous step to carry out the interview.

### I.2 Unsurveyable dwelling

- Empty dwelling (V):

The selected dwelling is uninhabited due to the death or change of residence of the persons who lived in it, being in ruins or being a seasonal dwelling.

- Unlocatable dwelling (IL):

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

- Dwelling intended for other purposes (OF):

The selected dwelling is entirely dedicated to purposes other than family residence, due to an error in the selection or having changed its purpose and, therefore, it does not form part of the population under study.

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

It is that which cannot be accessed to carry out the interview due to climatic (snowfalls, floods, etc.) or geographical causes, when there are no transitable roads to reach it. This incident will have a temporary character when there is the possibility that the conditions may change and therefore the dwelling can be accessed in a later visit and will have a definitive character when the dwelling is inaccessible during the whole period of time that the fieldwork takes place in the tract.

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

This is the dwelling that, having previously been selected (less than three years ago) in the sample of any other population and household survey and having collaborated in it, has been selected again.

### Il Incidents in households

Once the interviewer has located the selected dwelling and verifies that it is a main family dwelling, in other words, it is a surveyable dwelling, as a result of making contact with the household, the following cases may arise:

### II.1 SURVEYED HOUSEHOLD (EH)

This is considered to be the case if the household agrees to provide the information and the completion of the Household Questionnaire and the individual Questionnaire are obtained.

### II.3 NON-SURVEYED HOUSEHOLD

This situation occurs when the household that inhabits the selected dwelling does not collaborate in the survey due to any of the circumstances mentioned below.

### - Refusal (NH)

The household as a whole or the person(s) contacted by the interviewer in the first instance refuses to collaborate in the survey. This incident may occur at the time of the first contact with the household or after the first contact, when for some reason the household as a whole or some of its members refuse to provide the information requested. This incident will have a weak character when there is the possibility of interviewing the household in a later visit and will have a definitive character when the members of the household refuse to collaborate.

### - Absence (AH)

All members of the household are absent. This incident will have a temporary character when there is the possibility of interviewing the household in a subsequent visit and will have a definitive character when the members of the household are going to be absent during the period of time that the fieldwork in the tract lasts.

### - Inability to respond (IH)

This incident occurs when all members of the household are unable to respond to the interview or complete the questionnaire, due either to advanced age, illness, lack of knowledge of the language or any other circumstance.

### III Incidents in the selected person

After having established satisfactory contact with the household, once the first part of the questionnaire has been completed (including the persons resident in the dwelling) and after the person has been selected, it may occur that the person does not provide the information requested in the individual questionnaire for any of the following reasons:

### - Refusal (NP)

The person completing the individual questionnaire refuses to provide the required information. This incident will have a weak character when there is the possibility of interviewing the selected person in a subsequent visit, and will have a definitive character in the opposite case.

### - Absence (AP)

This incident occurs when the person selected to respond to the individual questionnaire is absent. This incident may have a temporary or definitive

character, if the person who must respond is going to continue to be absent for the entire period of time that the fieldwork of the tract lasts. In the case that the selected person is going to be absent during the fieldwork period in the tract due to being admitted to a health centre, he/she may provide the data referring to that person, another person capable of informing (proxy).

### - Inability to respond (IP)

The person selected to respond to the individual questionnaire is unable to respond to the interview, whether due to age, disability, illness, lack of knowledge of the language or any other circumstance. In the case of disability, illness or lack of knowledge of the language, the data may be provided by another person from the household capable of providing information.

### 6.6.2 TREATMENT OF INCIDENTS

In no case the dwellings with an incident have been replaced; in fact, a list of reserve dwellings has not been available.

A dwelling with several households has been considered to be surveyed when at least one of the households composing it has been surveyed, even though some of them are not.

In the dwellings that have been absent or temporarily inaccessible, and in the weak refusals, subsequent visits have been carried out in order to complete the questionnaire.

### 6.7 RESPONSE RATE

Among the errors that affect any survey are the so-called non-sampling errors, which occur in the different phases of the statistical process, and may appear before the information is collected (deficiencies in the framework, insufficiencies in the definitions or in the questionnaires), during its collection (defects in the work of the interviewers, incorrect statements or lack of response on the part of the respondents) and, finally, in the operations subsequent to the fieldwork (errors in coding, recording, etc.).

Evaluating these errors presents many difficulties, not least because of the wide variety of causes that can lead to them.

Among these causes, the lack of response of the reporting units stands out. In the European Health Survey, it has been considered that this may be due to:

- Definitive refusal of household (NH) or selected person (NP).
- Definitive absence of household (AH) or selected person (AP).
- Inability to respond of household (IH) or selected person (IP).

Non-response is calculated =  $\% \frac{NH+NP+AH+AP+IH+IP}{Encuestables}$ 

Being therefore the Response Rate = 1 – Non-response

In order to analyse the non-response of the European Health Survey, an evaluation questionnaire of non-response has been designed in order to obtain information on the basic characteristics of the units that have not collaborated in the survey, in order to analyse the possible biases in the sample as a consequence of the non-response.

The questionnaire contains the household identification data. In addition, there is another section, depending on whether the incident involves a household or a selected person, in which the aim is to obtain information on the number of household members and the type of household in the case of a household incident. And in the case of a selected person incident, the aim is to collect a series of basic data such as: sex, age, level of studies, marital status, relationship with the activity and nationality.

The non-response assessment questionnaire is completed when there are incidents in households or in the selected person: NH, AH, IH, NP, AP or IP.

### 7 Fundamental concepts and characteristics object of study

As mentioned in section 5, the survey is divided into four modules, which in turn is distributed into two questionnaires. These include the target variables of the questionnaire, as well as the socio-economic classification variables necessary for subsequent tabulation and analysis. The fundamental concepts and definitions included in the survey in each module and in each questionnaire are detailed below.

### 7.1 SOCIO-ECONOMIC VARIABLES MODULE.

This module is divided between the two questionnaires: in the Household Questionnaire, socio-economic information is collected regarding all members of the household and those specific to the reference person, and in the Individual Questionnaire, some socio-economic variables related to the selected person that are not collected in the Household Questionnaire.

### (I) IN THE HOUSEHOLD QUESTIONNAIRE

**Reference person (main breadwinner)**: this is the member of the household who regularly contributes the most (not occasionally) to the household budget, to cover its common expenses.

Higher level of studies completed: the highest level of studies achieved is obtained for each member of the household according to the following classification (the objective is to facilitate a subsequent aggregated codification in accordance with the National Classification of Education 2014 in levels of education achieved (CNED14-A):

- Not applicable, under 10 years of age
  These individuals have not completed any stage of the school system, so they are assigned this code directly.
- Cannot read or write Corresponds to code 01 of CNED14-A

- Incomplete primary education (Has attended school less than 5 years) Corresponds to code 02 of CNED14-A.
- Primary education (Has attended 5 or more years of school and did not reach the last year of compulsory education)
  Corresponds to code 10 of CNED14-A.
- First stage of Secondary Education, with or without qualification (2nd CSE passed, BSE, Basic Secondary Education)
  Corresponds to codes 21, 22, 23 and 24 of CNED14-A.
- Baccalaureate education Corresponds to code 32 of CNED14-A.
- Intermediate or equivalent professional education Corresponds to codes 33, 34, 35, 38 and 41 of CNED14-A.
- Higher professional education or equivalent Corresponds to codes 51 and 52 of CNED14-A.
- University studies or equivalent Corresponds to codes 61, 62, 63, 71, 72, 73, 74, 75 and 81 of CNED14-A.

### Status in relation to economic activity

### Working:

This situation includes persons who, at the time of the interview, have a contractual relationship for which they receive remuneration in cash or in kind, persons who are self-employed and members of production cooperatives who work in such cooperatives.

### Unemployed

Unemployed persons are all persons who, on the date of the interview, are not working, and who are also available to work within two weeks and are looking for a job, that is to say, who have taken specific measures during the last four weeks to find employment or to become self-employed.

### Retired or pre-retired

This situation refers to persons who have had a previous economic activity and who have abandoned it due to age or other causes other than disability, and whose means of living are pensions and/or income obtained as a result of their previous activity.

It also includes persons who receive a non-contributory old-age/retirement pension, that is, a periodic benefit that is granted due to age and that does not derive from a previous economic activity.

Persons who receive a pension derived from the contribution of another person (widowhood, orphanhood, etc.) are also considered under this heading.

Persons who, due to staff regulations, **retire earlier** (with a reduction in the amount of the normal pension) without fulfilling the general requirements established by law for receiving a retirement pension, are also classified under this heading.

### Studying

This situation refers to persons who, at the time of the interview, are receiving instruction in any educational level.

Unable to work (includes disability pension or permanent disability)

This situation includes persons who are permanently disabled (not temporarily), whether or not they have previously worked, or whether or not they are receiving a disability pension.

Mainly engaged in housework (non-economic activity)

This situation comprises persons who dedicate themselves mainly to taking care of their own home without remuneration (taking care of the house, children, etc.).

### Other situations

This category includes all those persons who are not assigned to any of the previous categories, in particular the following: renters (persons who, without exercising any salaried or self-employed activity, receive income from property income and/or other investments); persons temporarily deprived of liberty, and those who, without exercising an economic activity, receive public or private aid.

### **Professional Situation**

### **Employee**

An employee is considered to be a person who works for a public (public sector employee) or private (private sector employee) company or body and for this reason receives a salary, commission, bonus, piecework or any other form of regulated compensation in cash or in kind.

Business owner or professional with employees.

It is considered to be a person who runs his own business, industry or commerce (excepting cooperatives), or exercises on his own an independent profession or trade and who, as a result, hires one or more employees or workers whom he remunerates by means of a salary, daily wage, commission, etc.

Business owner without employees or self-employed person.

This refers to a person who runs his or her own business, industry, commerce, farm or who exercises an independent profession or trade on his or her own account and does not employ salaried personnel. This includes those who work in their own company with the help only of family members without regulated remuneration.

Contributing family workers.

It is considered to be a person who works without regulated remuneration in the company or business of a relative with whom he or she lives.

Member of a cooperative.

All those members of production cooperatives who work in these cooperatives.

Other situation.

This considers those persons who cannot be included in any of the previous sections.

### Type of income

Self-employment or employment income.

Self-employment income is income obtained as a self-employed person, businessman or employer from the exercise of their business, professional and artistic activities, regardless of whether such income comes from work carried out in previous periods or is an advance on future activities.

Unemployment benefits and subsidies

This is the income received by the unemployed for a certain period of time, after having worked for a given period of time as a contributor (benefits) or after having exhausted the unemployment benefit and fulfilling one of the circumstances established in the law (subsidies). Other unemployment aids or benefits are also included.

Retirement pension, survivor's pension, orphan's pension or pension for other family members

The contributory retirement pension comprises ordinary retirement and the various types of early retirement for those entitled to receive this pension.

The non-contributory retirement pension refers to economic benefits that are recognised to those citizens who, being in a situation of retirement and in a state of need for protection, have not contributed long enough to reach the benefits of the contributory level.

Survivors', orphans' and other family members' pensions are benefits intended to compensate for the economic need caused, for certain persons, by the death of another person, provided that they meet the required conditions.

Invalidity or disability pension

Economic benefit that tries to cover the loss of salary or professional income suffered by a person, when being affected by a pathological or traumatic process derived from an illness or accident, and their work capacity is reduced or annulled in a presumably definitive way. It can be contributory (disability) or non-contributory (invalidity).

Economic benefits for dependent children or other economic benefits such as family assistance

The economic benefits for a dependent child are the income received in the form of economic allowances for each child under 18 years of age, or over 18 years of age affected by a disability to a degree equal to or greater than 65%, for which the beneficiary is responsible. The beneficiaries may also be the disabled themselves, provided that they are orphans of both parents, as well as children abandoned by their parents, whether or not they are in foster care.

Housing benefits or subsidies

This aid relates to the intervention of public authorities to help households meet the costs associated with housing, such as for example: rent subsidy or subsidy to residential owners.

Education-related benefits or subsidies

Grants, scholarships, and other study aids received by students.

Other regular income / Other regular social benefits or subsidies (social inclusion wage, etc.)

This is the regular income received by the household without any labour consideration and not contemplated above.

### (II) IN THE INDIVIDUAL QUESTIONNAIRE

**Highest level of studies completed by the selected adult**: the highest level of studies reached by the selected adult is obtained, but on this occasion with a 2-digit detail according to CNED14-A

**Type of working day**: It is the time that each worker dedicates to the execution of the work for which he has been hired. It is counted by the number of hours that the employee has to perform in order to carry out his or her work within the time period in question.

- *Split working day*: This is the working day that includes at least 1 hour of rest that is not counted as time worked.
- Continuous working day: This is the daily working day that is carried out continuously, exceeding 6 hours, with a rest period of no less than 15 minutes that is counted as time worked. In this working day, the work can be morning, afternoon or night work (**night work** is considered to be work carried out between ten o'clock at night and six o'clock in the morning).
- Reduced working day: It is a shorter working day as a consequence of the particular physical circumstances in which the work is carried out.
- Shift work: It is any form of teamwork organisation according to which the workers successively occupy the same work stations, according to a certain rhythm, continuous or discontinuous, implying for the worker the need to provide his services at different times in a given period of days or weeks.

### 7.2 HEALTH STATUS MODULE.

This module collects information on the perceived state of health, chronic illnesses, accidents, activity restriction, absence from work due to health problems, physical and sensory limitations, limitations for carrying out daily life activities and mental health.

### **General state of health**

A person's perception of his or her general state of health over the past 12 months.

In the self-assessment of the state of health 5 levels are distinguished:

- Very good
- Good
- Regular
- Bad
- Very bad

### **Chronic or long-term illnesses**

The aim is to find out whether the respondent has any chronic or long-term illness or health problem, i.e. of a lasting or permanent nature, which may or may not require long-term care. It may refer to isolated conditions, such as a pain.

The **chronic or long-term** character refers to illnesses or health problems of a duration of at least 6 months. Temporary problems are not considered, but seasonal or recurrent problems are.

# Limitations due to health problems to carry out normal activities. Degree of limitation and type of problem.

The aim is to find out whether the person, due to some health problem, has been limited in the usual activities. It must be assessed according to norms generally accepted by the population about the activities that people usually do.

The following degrees of severity are considered:

- Severely limited
- Limited but not severely
- Not limited

The **type of problem that caused the limitation(s)** to perform the activities of daily living is studied.

- Physical (is that which causes difficulty in moving, speaking, seeing, hearing, as well as restrictions of bodily functions. These can be diseases of the nervous system [multiple sclerosis, essential tremor, chorea, etc.], muscular diseases [rheumatism], cerebrovascular accidents [haemorrhages, thrombosis and cerebral embolisms], trauma sequels, congenital anomalies, etc.)
- *Mental* (it is the one in which the difficulty of carrying out activities is caused by a mental illness and does not cause any limitation or physical problem. Example: Depression, dementia and in general psychosis and neurosis.)
- Both (diseases of the nervous system that initially take place with physical disorders, such as difficulty of movements, but that can have mental manifestations. Examples: Parkinson's disease that initially presents movement disorders and can evolve into dementia, some degrees of cerebral palsy in children with mental retardation... It also includes mental illnesses that are so seriously affected that they also cause physical problems)

### Diseases and health problems

The aim is to investigate what type of diseases or long-term health problems the population has suffered at some time, which ones it has suffered in the last twelve months and whether they have been diagnosed by a doctor.

### Types of diseases and health problems:

- 1. Hypertension
- 2. Heart attack
- 3. Angina pectoris, coronary heart disease
- 4. Other heart disease
- 5. Varicose veins in the legs
- 6. Arthrosis (excluding arthritis)
- 7. Chronic back pain (cervical)
- 8. Chronic back pain (lumbar)
- **9.** Chronic allergy, such as rhinitis, conjunctivitis or allergic dermatitis, food or other allergy (allergic asthma excluded)
- 10. Asthma (including allergic asthma)
- 11. Chronic bronchitis, emphysema, chronic obstructive pulmonary disease (COPD)
- 12. Diabetes
- 13. Ulcer of stomach or duodenum
- 14. Urinary incontinence or urine control problems
- 15. High cholesterol
- 16. Cataracts
- 17. Chronic skin problems
- 18. Chronic constipation
- 19. Cirrhosis, liver dysfunction
- 20. Depression
- 21. Chronic anxiety
- 22. Other mental problems
- 23. Ictus (embolism, cerebral infarction, cerebral haemorrhage)
- 24. Migraine or frequent headache
- 25. Haemorrhoids
- 26. Malignant tumours
- 27. Osteoporosis
- 28. Thyroid problems

- 29. Kidney problems
- **30.** Prostate problems (men only)
- 31. Problems of the menopausal period (women only)
- 32. Permanent injuries or defects caused by an accident

### **Accident rate**

The aim is to find out whether the person has had in the last 12 months an **accident** (a fortuitous and unforeseen event that happens to the individual and produces an identifiable bodily harm) among the following types:

- *Traffic accident*: all accidents occurring on public roads, public or private car parks, provided that the accident does not occur in the course of work. The accident can be as a driver, passenger or pedestrian. A vehicle must be involved in the accident.

Train, plane or any other type of vessel accidents are not considered. Accidents that occur while commuting from home to work are considered traffic accidents.

- Home accident: Any accident occurring at home regardless of the activity being performed. Accidents at home are accidents that occur in the home or in external areas owned by the property (stairs, doorway, garden, garage...). It may refer to your own home or someone else's.
- *Accident during leisure time*: These are accidents that occur during leisure time, excluding those that have occurred in accidents at home or in traffic accidents.

Medical care as a consequence of an accident:

The survey investigates the **type of medical care** received in the event of having had one of the previous accidents in the last 12 months (and in the case of having had several, in the most serious).

Types of medical care:

- They were admitted to a hospital
- They attended an emergency centre
- They consulted a doctor or nurse
- There was no consultation or intervention.

### **Activity restriction**

The restriction of usual activity in the last two weeks is analysed, due to one or more pains or symptoms.

It is investigated if the person has had to reduce or limit their usual activities in the last two weeks, if they have been bedridden because of these symptoms and the number of days they had to do so.

Usual activities: Activities carried out in the workplace, as well as domestic work or attendance at educational or training centres and activities carried out in free time and which normally include relations with friends and family, practice of sports, attendance at shows, etc.

Day in bed: one in which a person remains in bed at least half of the daytime hours.

### Absenteeism due to health problems.

Information is collected on:

- Absence from work due to health problems in the last 12 months
- Number of work days missed due to health problems in the last 12 months

Only absences from work for full working days (including holidays between working day absences) are considered.

Absence from work does not have to be certified by a doctor. If the person did not work for a period of time and then joined gradually, only the days completely absent should be counted.

### Physical and sensory limitations

The aim is to measure the functional limitations (physical and sensory) that affect the state of health of the population in terms of functional capacity, regardless of the reason for the limitation. The International Classification of Functioning, Disability and Health (ICF) has been adopted.

The characteristics under study are:

- *Vision* (it is researched on difficulty in seeing, including wearing glasses or contact lenses)
- *Hearing* (it is researched into the difficulty of hearing both in a quiet and noisy place, including using a hearing aid)
- Walking (it is researched on the difficulty of walking 500 meters on a flat terrain without any kind of help).
- *Problems going up and down stairs* (it is researched on the difficulty of going up or down 12 steps without any help)

The levels of difficulty considered have been:

- No difficulty
- Some difficulty
- Very difficult
- Cannot do it

### Limitations on the performance of activities of daily living

The aim is to measure difficulties in carrying out everyday activities in people aged 65 and over, following the International Classification of Functioning, Disability and Health (ICF), as well as the help received or the need for help in carrying out these activities (both technical and personal help). This provides the first basic indicator of the prevalence of disability in the population.

Activities of daily life considered:

- Eating: The interviewee is capable of taking food from the plate and putting it in his mouth, is capable of putting a glass in his mouth, cutting the food, using the fork, the spoon, spreading jam or butter on a slice of bread, adding salt to the meals...

This activity excludes shopping or cooking.

- Sitting, getting up from a chair or bed, lying down: The interviewee should consider his or her difficulty in performing these activities without considering any kind of help; the fact of being able to stand is included. In the event that the person has a different degree of difficulty in carrying out the two activities, the interviewer has to pick up the one that offers the greatest degree of difficulty for the respondent.

- *Dressing and undressing*: includes taking clothes from the wardrobe or drawers, putting them on, fastening clothes, tying shoes. In the event that the person has a different degree of difficulty in carrying out the two activities, the interviewer has to pick up the one that offers the greatest degree of difficulty for the respondent.
- Going to the toilet: refers to the following activities: using toilet paper, cleaning, removing and putting on clothes before and after relieving themselves.
- Showering or bathing: refers to the following activities: washing and drying the whole body, getting in and out of the shower or bathtub. In the event that the respondent has a different degree of difficulty in these two activities, the interviewer should collect the one that is easiest for the interviewee.

The levels of difficulty considered have been:

- No difficulty
- Some difficulty
- Very difficult
- Cannot do it

### Limitations on the performance of household activities.

The aim is to measure in persons 65 years of age and over the difficulties in carrying out household activities, following the International Classification of Functioning, Disability and Health (ICF), as well as the aid received or the need for aid to carry out these activities (both technical and personal aid). It constitutes the second basic indicator of the prevalence of disability in the population.

Household activities considered:

Prepare your own food: the person is able to prepare meals for themselves

*Use the phone*: the person can make calls and answer the phone

*Make purchases*: the person can make purchases without the help of another person.

Take their medicines: the person does not need help to take their own medicine. This activity only refers to the fact that the person is able to take their own medicine and remember the dose, not to the fact of buying the medicine in the pharmacy.

*Light household chores*: the person is able to carry out activities of the following type: cooking, washing dishes, ironing...

Heavy household chores: the person is capable of performing activities of the following type: carrying heavy shopping for more than 5 minutes, moving heavy furniture, general house cleaning, mopping floors with a mop, cleaning windows...

Manage their own money: for example, pay their own bills.

The levels of difficulty considered have been:

- No difficulty
- Some difficulty
- Very difficult
- Cannot do it

### **Pain**

It measures the intensity of physical pain experienced by the interviewee (six levels) and the interference of pain in daily activities (both those performed in their usual activity and in their leisure time).

Pain covers an important domain of the state of health, specifically in terms of the physical state of well-being. The questions about pain included are part of SF-36. The time reference is the last 4 weeks.

### **Mental Health**

The objective of the questions in the mental health sub-module is to assess the prevalence of depression according to the criteria of the Diagnostic and Statistical Manual of Mental Disorders version 4. For this purpose, the questionnaire uses the instrument Patient Health Questionnaire (PHQ-8).<sup>2</sup>

With the time reference of the last two weeks, the person assesses the frequency with which he or she has had the following problems or situations:

- A. Little interest or joy in doing things
- B. Feeling of being downcast, depressed, or hopeless
- C. Trouble falling asleep, staying asleep, or sleeping too much.
- D. Feeling tired or having little joy
- E. Poor appetite or overeating
- F. Feeling bad about themselves, feeling like they are a loser or have disappointed their family or themselves.
- G. Trouble concentrating on something, such as reading the newspaper or watching TV
- H.Moving or talking so slowly that others may have noticed it. Or the opposite: being so restless or excited that they have been moving around more than usual.

Possible answers to indicate frequency are:

- Never
- Several days
- More than half of the days
- Almost every day

### 7.3 HEALTH CARE MODULE

This module collects information on the type of health services received: medical consultations, health coverage, visits to stomatology, diagnostic tests and other services, hospitalisations, day hospital and use of emergency services, need not covered by medical assistance, consumption of medicines and preventive practices.

<sup>&</sup>lt;sup>2</sup> The variables are tabulated following the recommendations of Eurostat in its report "Improvement of the European Health Interview Survey (EHIS) modules on alcohol consumption, physical activity and mental health".

### 7.3.1.- Medical consultations

The aim is to investigate the frequency with which primary care and specialised outpatient medical consultations have been attended, the location of the consultation, the functional dependence of the doctor, the reason for the consultation, waiting time, carrying out non-urgent tests, consultations with other health professionals and home care services.

The following characteristics of the consultations carried out are investigated:

- \* Last time they consulted a general practitioner or family doctor:
  - In the last four weeks
  - Between four weeks and twelve months
  - Twelve months ago or more
  - Has never been to the doctor
- \* Number of times they have seen a general practitioner or family doctor in the last four weeks
- \* Last time they consulted a specialist:
  - In the last four weeks
  - Between four weeks and twelve months
  - Twelve months ago or more
  - They ever consulted a specialist
- \* Number of times they have consulted a specialist in the last four weeks
- \* Place of the last consultation carried out in the last four weeks
  - Health Centre/Office
  - Outpatient Clinic/Speciality Centre
  - Hospital outpatient services
  - Non-hospital emergency department
  - Hospital emergency department
  - Doctor's office of a company
  - Private doctor's office
  - Company or place of work
  - Residence of the interviewee
  - Telephone consultation
  - Other place

### **Definitions**

**Medical consultation.** Any visit to a licensed medical professional (personally or by telephone) for diagnosis, examination, treatment, follow-up, advice or any other procedure. Reviews and requests for prescriptions are also considered medical consultations.

**Health Centre/Office**: Centres in which primary care assistance is provided to Social Security beneficiaries. The assistance is provided by general practitioners, paediatricians and nursing staff, although they can also count on a series of support services that deal with problems related to their specific training.

**Outpatient clinic/Speciality centre:** Centres where specialized assistance is provided to Social Security beneficiaries. Outpatient care includes all legally recognised medical and surgical specialities. The patient's access is generally provided by the primary care physician for outpatient care.

**Hospital outpatient services:** Consultations performed at the hospital itself for those patients who need diagnostic means, treatment and/or rehabilitation that cannot be provided at the Primary Care level, including the performance of minor surgical procedures. They do not require hospital admission, but are performed on an outpatient basis.

**Non-hospital emergency department**: Service provided in the outpatient clinic with professionals to provide emergency care outside normal working hours.

**Hospital emergency department**: Service provided in the hospital, understood as that service that has an organised staff of professionals who provide emergency assistance 24 hours a day.

- \* Reason for consultation
  - Diagnosis of a disease or health problem
  - Accident or assault
  - Check-up
  - Prescription dispensing only
  - Admission, confirmation or discharge report
  - Other reasons

### **Definitions**

**Diagnosis of a disease or health problem:** The reason for the consultation is a condition, discomfort or illness that requires medical examination for proper diagnosis and treatment, if appropriate.

**Accident or assault**. The reason for the consultation is due to a possible event by which a person is voluntarily or involuntarily injured.

**Check-up:** The reason for the medical consultation is the control and continuous monitoring of illnesses or processes already diagnosed and under treatment.

**Prescription dispensing only**: The reason for the consultation is exclusively the request of medicines for already established treatments.

**Admission, confirmation or discharge report**: When the reason for the consultation is to obtain the work leave report, its confirmation or the discharge report.

**Other reasons:** For example: request for reports, certificates or other documents.

- \* Time from when they started feeling sick to when they felt they had a health problem and time from when they made an appointment to when they were attended.
- \* Functional dependence of the doctor

This refers to the institution or system in which the doctor carries out the healthcare work

- Public health (Social Security)
- Medical society
- Private office
- Other (company doctor, etc.)

#### **Definitions**

**Public health (Social Security):** The doctor is considered to be a Social Security doctor when he or she depends on the National Health System, which includes the health services of the Autonomous Communities and other public entities such as Provincial Councils, Councils, Local Authorities or INGESA.

*Medical society:* This includes private healthcare societies (ASISA, ADESLAS, DKV, SANITAS, PREVIASA, etc.).

**Private office:** It is the consultation carried out by a private doctor (who in the free exercise of the profession receives direct remuneration from the patient for the medical act).

**Other:** It includes company doctors, occupational health and safety mutual companies, concierge medicine, traffic accident insurers, NGOs, etc.

\* Use of other services in the last 12 months

It is asked whether the following services have been attended

- Physiotherapist
- Psychologist, psychotherapist, or psychiatrist
- Nurse or midwife
- Radiology centre or service

#### **Definitions**

**Physiotherapist:** specialist who treats bone, muscle, circulatory or nervous system problems for recovery, rehabilitation and prevention of somatic dysfunctions or disabilities with movement therapy, therapeutic massage and application of physical stimuli, electrotherapy, hydrotherapy, balneotherapy, etc. Therapies can be carried out in public hospitals, private offices, day hospitals, schools, gymnasiums, etc.

**Psychotherapist:** a graduate in medicine or psychology who devotes himself professionally to the application of psychotherapy, understood as a scientific treatment of a psychological nature for physical or psychic manifestations.

- \* Performance of an analysis in the last 12 months
- \* Performing of diagnostic tests in the last 12 months

It is asked whether the following tests have been carried out

- X-ray
- CT or scanner
- Ultrasound
- MRI
- \* Use of home care services in the last 12 months (adults only)

It is asked whether the following socio-health services have been used at home

- Home care provided by a nurse or midwife
- Home help for household chores or for the elderly
- Meals at home for the elderly (only for people over 65)
- Special home transport services to get to a medical service, a day hospital or for recreational activities.
- Other home-care services

#### **Definitions**

**Home care:** refers to both medical and non-medical care for people with a physical or mental illness, a disability, or people who due to their advanced age are unable to perform personal care activities or household chores. It includes home-based services provided by a hospital nurse or midwife, agencies, associations, or volunteers.

Home care provided by a nurse or midwife: this refers to both medical and non-medical care provided by a nurse or midwife to persons with any type of physical or mental illness, with any type of disability, or to persons who, because of their advanced age, are unable to perform personal care activities or household chores.

Home help for domestic chores or for the elderly: these services include tasks such as cleaning the house, preparing food, doing laundry, ironing, giving or remembering medication, helping with economic or financial household tasks, shopping... offered by town councils, private associations, NGOs...

Home-delivered meals for the elderly: service that provides food to people who cannot leave home to do their shopping or who have difficulty preparing their own food because they suffer from some kind of illness or disability or because their advanced age prevents them from doing so.

**Special home transport services**: services that allow people who are confined to their homes due to some type of disability or due to their advanced age to move around. The trips may be for different reasons

**Other home care services**: includes support for personal development aimed at people with physical or mental illnesses or any type of disability who are isolated by their situation.

#### 7.3.2.- Consultations with stomatologists, dentists and dental hygienists

The aim is to find out how long the person has been attending a stomatology consultation, the type of care received, the functional dependence of the professional attended and the state of the person's teeth and molars.

The following characteristics are investigated:

- \* Last time they visited the dentist, stomatologist or dental hygienist
  - Three months ago or less
  - More than three months ago and less than six months
  - Six months ago or more but less than twelve
  - Twelve months ago or more
  - Never
- \* Type of care the last time they went to a dentist, stomatologist, or dental hygienist:
  - Check-up
  - Mouth cleaning
  - Fillings (obturation), endodontics
  - Extraction of a tooth or molar
  - Crowns, bridges or other types of prosthesis
  - Treatment of gum disease
  - Orthodontics
  - Fluoride application
  - Implants
  - Other type of assistance

#### **Definitions**

**Consultation with the dentist:** Any visit to a licensed professional (dentist, stomatologist, or dental hygienist) for examination, advice, treatment, or review of dental or mouth problems.

**Check-up.** The reason for the consultation is the control and continuous follow-up of illnesses or processes already diagnosed and under treatment.

**Mouth cleaning:** Use of ultrasound to remove plaque and dirt from the teeth.

Filling (obturation): Treatment that consists of filling a tooth or molar affected by cavities with paste.

**Endodontics:** Therapeutic techniques for conditions of the dental nerves.

Crowns, bridges and other types of prosthesis: Rehabilitation that replaces or covers one or more teeth, supported, fixed, retained or stabilised by the adjacent remaining dental or gingival structures.

**Treatment of gum diseases**: Treatment of bleeding gums, moving teeth, exudation of pus ("pyorrhoea") or any other gum disease.

**Orthodontics**: Placement of appliances in the mouth to correct improper positions of the teeth or molars.

**Fluoride application**: Fluoride application is understood to be only that applied by the dentist or hygienist (it does not refer to the fluoride contained in the toothpaste).

**Implants**: Replacement of a missing tooth with a biocompatible artificial piece permanently anchored in the maxillary bone.

#### \* Functional dependence of the professional

- Public health (Social Security, town council, private office financed by the government of the Autonomous Community)
- Medical society
- Private office
- Other

**Definitions** (See definitions in the section on medical consultations).

#### \* Condition of teeth and molars

- Has cavities
- Teeth or molars have been extracted
- Has filled (obturated) teeth or molars
- Their gums bleed when brushing or spontaneously
- Their teeth/molars move
- Has crowns, bridges, other prostheses or dentures
- Has missing teeth or molars that have not been replaced by prostheses
- Has or retains all of their natural teeth/molars

#### **Definitions**

**Cavities:** It consists of the erosion of the enamel and ivory of the teeth and molars by the action of certain bacteria.

#### 7.3.3.- Hospitalisations, Emergency Services and Health Insurance

This sub-module studies cases of hospitalisation both in inpatient care and day care, as well as the use of emergency services. The type of health insurance available to the interviewee is also investigated.

#### **HOSPITALISATIONS:**

This section is aimed at persons who have been admitted to hospital for at least one night in the last twelve months.

The characteristics researched are:

\* Hospitalisation in the last twelve months

#### **Definitions**

**Hospitalisation**: Any admission to a hospital to receive medical or surgical care that involves at least staying overnight or having an assigned bed. It is not considered as hospitalisation to stay less than 24 hours in an emergency department or in another department to carry out diagnostic or therapeutic tests. Neither is it considered hospitalisation the stay of the people who accompany the patient even if they occupy a bed and stay more than one day.

**Hospital:** Inpatient health establishment which, regardless of its name, has as its main purpose the provision of medical or surgical medical assistance to the patients admitted to it. It does not include nursing homes, orphanages, nursery schools, charity homes, **etc**.

- \* Number of times hospitalised in the last twelve months
- \* Number of nights hospitalised in the last twelve months
- \* Hospitalisation for birth or caesarean section (women under 50)
- \* Number of nights hospitalised at last admission
- \* Reason for last admission
  - Surgical intervention
  - Diagnostic medical study
  - Medical treatment without surgical intervention
  - Childbirth (including caesarean section)
  - Other reasons
- \* Waiting list
  - Number of months on the waiting list.
- \* Hospitalisation expenses to be paid by:
  - Public health (Social Security)
  - Compulsory mutual insurance (MUFACE, ISFAS, etc.)

- Private medical society
- At the expense of themselves or their household
- At the expense of other persons, bodies or institutions

#### **Definitions**

**Hospitalisation expenses to be paid by:** The aim is to find out which body or institution is ultimately responsible for the expenses arising from the interviewee's hospitalisation. If the person who initially finances these expenses (e.g. ASISA) does so in agreement with a compulsory mutual insurance company (e.g. MUFACE), the category is "Mutual Insurance".

#### DAY HOSPITAL:

The aim is to find out whether the person has been treated in a day hospital in the last twelve months, the reason for the last admission to a day hospital and the number of times they have attended a day hospital.

- \* Admission to a day hospital in the last twelve months for an intervention, treatment or testing
- \* Number of days they went to a day hospital

#### **Definitions**

Day hospital admission: is the admission to a hospital bed for diagnosis and/or scheduled treatment and the discharge is before midnight of the same day. It includes admissions to a bed or sofa bed. It does not include stays in the emergency room or under observation.

- \* Reasons for last day hospital admission
  - Treatment
  - Surgical intervention
  - Other reasons

#### **EMERGENCY SERVICES**

We study whether the person has had to use an emergency service in the last twelve months due to a problem or illness and the frequency, as well as, with respect to the last time they attended, the place where they were attended, the time from when they began to become ill until they requested assistance, the time from when they requested assistance until they were attended and the type of service where they were attended.

\* Use of an emergency department in the last twelve months

#### **Definitions**

**Emergency services**: These are those services that attend to clinical processes, whatever their nature, that require urgent diagnostic and therapeutic guidance.

- \* Number of times they have used an emergency service in the last twelve months
- \* Place where they were attended
  - In the place where they were (home, place of work, etc.)
  - On a mobile unit
  - In an emergency service or centre
- \* Time from when the person began to feel sick until they asked for assistance
  - Days, hours and minutes
- \* Time from the time they asked for assistance until they were attended
  - Hours and minutes
- \* Type of emergency service
  - Public Health Hospital (Social Security)
  - Non-hospital emergency centre or department of Public Health (Social Security). For example, health centre, outpatient clinic, etc.
  - Sanatorium, hospital or private clinic
  - Private emergency department
  - First-aid centre or emergency department of the town hall
  - Other type of service

#### **Definitions**

Non-hospital emergency centre or department of Public Health (Social Security): An established emergency department, understood as a service that has a staff of professionals who provide emergency assistance. These services are located in primary care centres or outpatient centres with emergency care (points of continuous attention) and operate outside the normal opening hours of primary care centres.

They also include the medical emergencies coordination centres (061, 112,...), which operate 24 hours a day and have specialised health teams for emergency care at home and in the street.

#### **HEALTH INSURANCE**

The modalities of health insurance of which the person is the holder or beneficiary are investigated.

- \* Modalities of insurance
  - Public Health (Social Security)
  - State Mutual Insurance Companies (MUFACE, ISFAS, MUGEJU) covered by Social Security
  - State Mutual Insurance Companies (MUFACE, ISFAS, MUGEJU) under private insurance
  - Private medical insurance, arranged individually (medical societies, professional associations, etc.)
  - Medical insurance arranged by the company
  - No health insurance
  - Other situations

#### **Definitions**

**Public health:** Includes persons who have the right to be attended by the health services of the Social Security or Health Service of the corresponding Autonomous Community. They are holders or beneficiaries of a Social Security card or health card because they are registered with the Social Security (active worker or pensioner, registered in unemployment, or without sufficient economic resources), or by a foreign person covered by the Immigration Law, or an EU citizen resident in Spain. Also included in this section are persons who contribute and are directly attached to the health service of the Autonomous Community in which they reside.

This type of health coverage is exceptionally compatible with that of *State Mutual Insurance Companies covered by Social Security* and *State Mutual Insurance Companies covered by private insurance*. For example, it is possible for a civil servant to have MUFACE health coverage with health care provided by the Social Security and, in turn, to have a business as a self-employed person and, therefore, to be insured by the Social Security. A civil servant with MUFACE health coverage with Social Security health benefit is not included in the Social Security option.

State Mutual Insurance Companies (MUFACE, MUGEJU and ISFAS) covered by Social Security: It includes civil, military and judicial civil servants of the State (affiliated to MUFACE, MUGEJU or ISFAS) and their respective beneficiaries, when they have chosen to receive public health care.

This type of health coverage is exceptionally compatible with that of *Public Health* (Social Security).

State Mutual Insurance Companies (MUFACE, MUGEJU and ISFAS) covered by private insurance: It includes civil, military and judicial officials of the State (affiliated to MUFACE, MUGEJU or ISFAS) and their respective beneficiaries, when they have chosen private entities and organisations to receive health care (ADESLAS, ASISA, DKV, SANITAS, etc.). This section includes users who, being affiliated to the Mutual Societies of civil servants and having chosen private insurance companies, as a result of living in rural areas and through special agreements, they receive family or general medicine and paediatrics assistance from the Public Health Service.

This modality of health coverage is exceptionally compatible with that of *Public Health (Social Security)* and with that of *Mutualidades del Estado acogidas a la Seguridad Social.* 

Private medical insurance, arranged individually (medical societies, professional associations, etc.): It includes people who have taken out policies out of their own pocket arranged with insurance

companies to receive health care in hospitals, centres and private offices or dependent on the insurance companies with which they have contracted such policies.

**Private medical insurance arranged by the company:** Includes persons who are entitled to receive health care through private companies contracted or arranged by the company in which they work. Generally, this private insurance covers workers and their families.

They do not have health insurance: It includes people who are not entitled to public health care, do not have any type of insurance arranged individually or by the company with private companies, and when they need it, they are attended by doctors to whom they pay directly.

This option is incompatible with any other.

**Other situation:** This will include people who refer to situations not contemplated in the previous sections, for example, irregular immigrants who do not have insurance.

This option is incompatible with any other.

#### 7.3.4.- Consumption of medicines

It is investigated if the person has taken medication in the last two weeks, which have taken and which of these were prescribed.

- \* Consumption of medicines prescribed by a doctor in the last two weeks.
- \* Consumption of non-prescribed medicines by a doctor in the last two weeks.
- \* Type of medication taken in the last two weeks and if prescribed by a doctor
  - 1. Medicines for colds, flu, throat, bronchi
  - 2. Medicines for pain
  - 3. Medicines to lower fever
  - 4. Restorative products such as vitamins, minerals, tonics
  - 5. Laxatives
  - 6. Antibiotics
  - 7. Tranquillisers, relaxants, sleeping pills
  - 8. Allergy medicines
  - 9. Medications for diarrhoea
  - 10. Medicines for rheumatism
  - 11. Medicines for the heart
  - 12. Medicines for high blood pressure
  - 13. Medicines for stomach and/or digestive disorders
  - 14. Antidepressants, stimulants
  - 15. Pills to prevent pregnancy (for women only)

- 16. Hormones for menopause (women only)
- 17. Medications to lose weight
- 18. Cholesterol-lowering medications
- 19. Medications for diabetes
- 20. Medications for the thyroid
- 21. Homoeopathic products
- 22. Naturist products
- 23. Other medications

#### **Definitions**

**Medicines**: Only pharmaceutical specialities, magistral formulas, officinal preparations or formulas and prefabricated medications are considered to be medicines.

Personal hygiene products, bandages and other dressings, food products, cosmetics, sweets, chewing gum, and others are excluded.

**Pharmaceutical speciality**: A medicine of defined composition and information, in a specific pharmaceutical form and dosage, prepared for immediate medical use, ready and conditioned for distribution to the public, with a uniform name, packing, container and labelling, to which the State Administration grants health authorisation and which is entered in the Register of Pharmaceutical Specialities.

Magistral formula: Medication intended for an individualised patient, prepared by or under the direction of the pharmacist, to expressly meet a detailed medical prescription for medicinal substances which it includes according to the technical and scientific standards of pharmaceutical art, dispensed in his pharmacy or pharmaceutical service.

**Prepared or officinal formula** Medication prepared and guaranteed by or under the direction of a pharmacist, dispensed at the pharmacy or pharmacy service, listed and described by the National Form, intended for direct delivery to the patients supplied by the pharmacy or pharmacy service.

**Prefabricated medication:** A medication that does not meet the definition of a pharmaceutical speciality and that is marketed in a pharmaceutical form that can be used without the need for industrial treatment and to which the State Administration grants sanitary authorisation and registers in the corresponding Register.

**Personal hygiene product**: Product that, applied directly on the skin or healthy mucosa, has the purpose of combating the growth of micro-organisms, as well as preventing or eliminating ectoparasites from the human body or eliminating the health risks derived from the use of therapeutic prostheses that are applied on the human body.

**Homoeopathic product:** Small doses of medicinal substances to activate the body's own defences and gently reach the improvement or cure of diseases. In Spain, as in the rest of the European Union, homoeopathic products are regulated medicines, prescribed by doctors and dispensed by pharmacists.

**Naturist product**: Treatment that is based on the administration of herbal medicines, that is, whose medicinal substance is natural.

#### 7.3.4.- Preventive practices

It investigates both preventive practices aimed at the general population as well as those specific to women.

#### GENERAL PREVENTIVE PRACTICES

It is studied the coverage of influenza vaccination, the carrying out and frequency of blood pressure monitoring, the measurement of the cholesterol level, the measurement of the blood sugar level, the carrying out of a faecal occult blood test and colonoscopy.

#### Variables investigated:

\* Influenza vaccination in the last campaign

Date (month and year) of last vaccination

#### \* Blood pressure measurement

It is asked about the last time the blood pressure was checked

- In the last 12 months
- 1 year ago or more but less than 2 years ago
- 2 years ago or more but less than 3 years ago
- 3 years ago or more but less than 5 years ago
- More than 5 years ago

#### **Definitions**

**Blood pressure measurement**: It is the measurement of systolic and diastolic blood pressure performed by a healthcare professional (including pharmacies)

#### \* Cholesterol measurement

It is asked about the last time cholesterol was measured

- In the last 12 months
- 1 year ago or more but less than 3 years ago
- 3 years ago or more but less than 5 years ago
- 5 years ago or more

#### **Definitions**

**Measurement of cholesterol levels:** Is the determination of total serum cholesterol numbers

\* Measurement of blood sugar level

It is asked about the last time they measured their blood sugar level

- In the last 12 months
- 1 year ago or more but less than 3 years ago
- 3 years ago or more but less than 5 years ago
- 5 years ago or more

#### \* Faecal occult blood test

It is asked about the last time they took a faecal occult blood test

- In the last 12 months
- 1 year ago or more but less than 2 years ago
- 2 years ago or more but less than 3 years ago
- 3 years ago or more but less than 5 years ago
- More than 5 years ago

Reasons for performing the faecal occult blood test

- For any problem, symptom or disease
- On the advice of their primary care doctor or specialist, although they did not have any problems
- Because they received a letter, were called on the phone or asked at their health centre whether they wanted to do this test
- Other reasons

#### **Definitions**

**Faecal occult blood test**: a test used for the early detection of colon or colorectal cancer. It detects by laboratory analysis the presence of blood in one or more stool samples obtained by the patient following the doctor's instructions.

#### \* Performing colonoscopy

It is asked about the time since they performed a colonoscopy

- In the last 12 months
- 1 year ago or more but less than 5 years ago
- 5 years ago or more but less than 10 years ago
- 10 years ago or more

#### **Definitions**

**Colonoscopy**: It is an examination in which the inside of the colon (large intestine) and rectum are visualized using an instrument called a colonoscope. The colonoscope has a small camera attached to a flexible tube that can reach the entire length of the colon.

#### WOMEN'S PREVENTIVE PRACTICES

It is studied the performance of mammography and cytology, frequency and reasons.

#### **Definitions**

**Mammography:** A test used for the early detection of breast cancer. It consists of an x-ray of one or both breasts. It does not include breast ultrasound.

**Vaginal cytology:** Test used for the early detection of cervical and vaginal cancer and certain infections. It also allows to know the hormonal activity of the woman. It consists of taking a sample of cells that are analysed in a laboratory.

#### Characteristics investigated:

It is asked about the time since the last mammogram was done

- In the last 12 months
- 1 year ago or more but less than 2 years ago
- 2 years ago or more but less than 3 years ago
- More than 3 years ago

#### Reasons to have your last mammogram

- For any problem, symptom or disease
- On the advice of your primary care doctor or specialist, even if they had no problems
- Because they received a letter, were called on the phone or told at their health centre whether they wanted to do this test
- Other reasons

#### \* Performance of cytology

It is asked about the time since the last cytology was done

- In the last 12 months
- 1 year ago or more but less than 2 years ago
- 2 years ago or more but less than 3 years ago
- 3 years ago or more but less than 5 years ago
- 5 years ago or more

Reasons for having their last cytology

- For any problem, symptom or illness
- On the advice of their primary care doctor or specialist, although they did not have any problems
- Because they received a letter, were called on the phone or asked at their health centre whether they wanted to do this test

- Other reasons

#### 7.3.5.- Medical care needs not covered

The aim is to measure whether the person has needed medical assistance and has not received it in the last twelve months. It is investigated whether the main cause for not obtaining assistance was a waiting list, a transport or distance problem or economic reasons.

- \* Need for medical care not covered due to an overly long waiting list
- \* Need for medical care not covered due to problems with transportation
- \* Need for medical care not covered due to financial problems
  - Medical care
  - Dental care
  - Prescription medicines
  - Mental health care

#### 7.4 MODULE OF HEALTH DETERMINANTS.

This module tries to investigate certain basic physical characteristics of the interviewed person, such as weight and height, and life habits that are considered to be of risk to health, such as the consumption of tobacco and alcohol. Likewise, the habits of diet and physical exercise are investigated. Environmental determinants such as exposure to tobacco smoke and social support are also investigated. A section is included to find out if the respondent spends part of his or her time caring for other people with health problems.

#### 7.4.1.- Physical characteristics

The aim is to obtain data on self-reported weight and height in order to classify the interviewee according to the body mass index.

#### **Definitions**

**Body mass index (BMI)**: the relationship between the weight of the individual (expressed in kilograms) and the square of the height (expressed in metres)

In the population aged 18 and over, it is considered:

- Underweight if BMI < 18.5 kg/m<sup>2</sup>
- Normal weight if  $18.5 \text{ kg/m}^2 \le BMI < 25 \text{ kg/m}^2$ .
- Overweight if 25 kg/m<sup>2</sup> < = BMI < 30 kg/m<sup>2</sup>.
- Obesity if BMI  $> = 30 \text{ kg/m}^2$ .

In the population aged 15 to 17 years, the classification of categories according to the BMI has been carried out for underweight, according to the 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 obesity and overweight, 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.

#### 7.4.2.- Physical activity

Information is collected on the physical exercise that is carried out during the main activity and in their free time. Research is carried out on the days and time that the interviewed person spends walking in order to move around and on whether he/she uses the bicycle for this purpose. It is asked about the number of days dedicated to physical exercises aimed at strengthening muscles.

- \* Type of physical activity in the workplace, teaching centre, etc.
  - Sitting most of the day
  - Standing for most of the day without making large movements or efforts
  - Walking, carrying some weight, making frequent trips
  - Performing tasks that require great physical effort
- \* Type of physical activity in the free time
  - Doesn't exercise. They occupy their free time almost exclusively in a sedentary way (reading, watching television, going to the cinema, etc.)
  - They do some occasional physical activity or sport (walking or cycling, gardening, gentle gymnastics, recreational activities that require a slight effort, etc.)
  - They do physical activity several times a month (sports, gymnastics, running, swimming, cycling, team games, etc.)
  - They do sports or physical training several times a week
- \* Number of days per week that they walk at least ten minutes to get around and time spent.
- \* Number of days a week that they use the bicycle at least ten minutes to travel and time spent.
- \* Number of days in which they perform activities specifically designed to strengthen muscles

#### 7.4.3.- Diet

The frequency of consumption of certain foods is recorded. It is investigated in more detail if there is a daily consumption of fruit, either piece or juice.

# VE. National Institute of Statisti

#### **Food**

- Fresh fruit (excluding juices)
- Meat (chicken, beef, pork, lamb, etc.)
- Eggs
- Fish
- Pasta, rice, potatoes
- Bread, cereals
- Vegetables and salads
- Legumes
- Sausages and cold cuts
- Dairy products (milk, cheese, yoghurt)
- Sweets (biscuits, pastries, jams, cereals with sugar, candies, etc.)
- Sugared soft drinks
- Fast food (fried chicken, sandwiches, pizzas, hamburgers)
- Appetisers or salty snacks (chips, hooks, salty cookies)
- Natural fruit or vegetable juice

#### **Frequency**

- One or more times a day
- 4 to 6 times a week
- Three times a week
- Once or twice a week
- Less than once a week
- Never

#### 7.4.4.- Tobacco use and exposure to tobacco smoke

#### Tobacco use

The aim is to investigate the prevalence of tobacco consumption among people aged 15 and over, type of smoker (daily, non-daily or ex-smoker), type of tobacco, frequency of cigarette consumption, age of onset and intention to quit in smokers.

- \* Type of smoker
  - Smokes daily
  - Smokes but not daily
  - Does not currently smoke but has smoked before
  - Does not smoke or never smoked regularly

#### **Definition**

Smoker: Person who currently consumes cigarettes, cigars and/or pipes.

For daily smokers it is investigated:

- \* Type of tobacco they smoke most often
  - Cigarettes (including rolling tobacco)
  - Cigars
  - Pipe tobacco
  - Other
- \* Number of daily cigarettes
- \* Age of onset of tobacco use
- \* Attempts to stop smoking

#### Exposure to tobacco smoke

For the general population, the number of passive smokers and the time they are usually exposed to indoor tobacco smoke are studied

- \* Frequency of exposure to indoor tobacco smoke
  - Never or almost never
  - Less than one hour a day
  - Between one and five hours a day
  - More than five hours a day

#### 7.4.5.- Consumption of alcoholic beverages

The frequency of alcohol consumption during the past 12 months and the frequency of heavy alcohol consumption are investigated. For people with regular alcohol consumption, the type of drinks and units in a week of normal activity are investigated in detail.

- \* Frequency of consumption in the last 12 months
  - Daily or almost daily
  - 5 or 6 days per week
  - 3 or 4 days per week
  - 1 or 2 days per week
  - 2 or 3 days in a month
  - Once a month
  - Less than once a month
  - Not in the past 12 months, they have stopped drinking alcohol

- Never or only a few sips to try throughout their lives
- \* Consumption quantity/frequency. Number of consumptions of each type of drink each day of a typical week
- \* Types of alcoholic beverages consumed
  - Beers with alcohol
  - Wines, cava
  - Vermouths, fino, sherry and other aperitifs with alcohol
  - Liqueurs, anisette, patxaran
  - Whisky, cognac, mixed drinks, rum, gin, vodka, orujo, cubatas and other distilled beverages, single or combined
  - Local drinks, cider, carajillo
- \* Frequency of heavy consumption
  - Daily or almost daily
  - 5 or 6 days per week
  - 3 or 4 days per week
  - 1 or 2 days per week
  - 2 or 3 days in a month
  - Once a month
  - Less than once a month
  - Not in the last 12 months
  - Never in my entire life

#### **Definitions**

**Heavy consumption of health risk:** Consumption on the same occasion of 6 or more standard drinks (for men), or 5 or more standard drinks (for women). Consumption on the same occasion is understood to be consumption in the same situation, in an interval of approximately 4-6 hours. In order for the person interviewed to have a clear idea of the concept of "standard drink", a card is provided with the most common examples of drinks corresponding to one or two standard drinks.

#### Equivalence of grams in pure alcohol:

» Beer with alcohol 10 g per unit of beverage

» Wine or cava10 g per unit of beverage

» Aperitifs with alcohol (vermouth, fino, sherry) 20 g per unit of beverage

» Liqueurs, anisette, patxaran	20 g per unit of drink
» Whisky, cognac, mixed drinks	20 g per unit of drink
» Local drinks (cider, carajillo)	10 g per unit of drink

#### 7.4.6.- Social support

This section aims to measure social support. For this purpose, *The Oslo Social Support Scale (OSS-3)* is used, which investigates through three questions:

- \* Number of people they can count on if they have a serious personal problem.
  - None
  - 1 or 2 persons
  - From 3 to 5 people
  - More than 5 people
- \* To what extent other people are interested in what is happening to you
  - Very much
  - Somewhat
  - Neither too much nor too little
  - Little
  - Nothing
- \* To what extent is it easy to get help from the neighbours in case of need?
  - Very easy
  - Easy
  - It is possible
  - Difficult
  - Very difficult

#### 7.4.6.- Caring for others with health problems

It is investigated if the person interviewed is in charge of caring for people with a health problem, if it is a relative or not and how many hours a week he or she dedicates to caring for these people. It is excluded if the care is part of the job.

Variables investigated:

- \* Care of elderly persons or persons with some chronic condition
- \* Number of hours per week dedicated to the care of these persons

#### 8 Processing of information

As the information is collected via CAPI, the data is first cleaned using errors implemented in the portable device that allows inconsistencies to be detected and provides strange value warnings when responses are being entered. In this way, the correction/confirmation of the information is carried out in the household at the same time as the interview.

Once the information on the dwellings corresponding to each census tract has been collected, we proceed to download the information collected in the tablets either in the municipal seat of the company in charge of the collection, or in the Provincial Councils. In the Central Services, we proceed to download the information by theoretical collection period for centralised processing. This processing consists of the following phases:

- Coverage Phase: It detects duplicates, compares the number of questionnaires theoretically collected (according to the computer application for monitoring fieldwork) and effectively received for each household.
- *Quality Control Phase*: It is verified that the information collected does not contain inconsistencies or serious errors detected in the questionnaire.
- Cleaning and imputation phase: It consists of detecting inconsistencies that have not been included in the electronic questionnaire, as well as obtaining marginal tables, variable analysis tables, etc. The correction of possible mismatched or lost values is carried out automatically and, exceptionally, manually.

Once all the information from the sample has been collected and cleaned, it is aggregated and the results are obtained according to the previously designed tabulation plan. For this purpose, the following tasks are carried out:

- Calculation of raising factors and estimators: In order to estimate the characteristics of the sample, ratio estimators have been used to which reweighting techniques have been applied. The auxiliary information used depends on the characteristic under study.
- Tabulation of the results: On the basis of the theoretical tabulation plan initially designed according to the survey objectives, we obtain the raised tables with the calculated factors. These tables are cleaned in such a way that in those that do not have sufficient sample information to provide estimates with a minimum of statistical reliability, we add categories, delete cells or delete them from the final tabulation.
- Calculation of sampling errors: Variation coefficients have been calculated for the main study variables and breakdowns. These tables are published, together with the methodology to replicate their calculation and be able to apply it to any other variable.
- Analysis of non-response: In order to analyse ESHS's non-response, a non-response assessment questionnaire is designed in order to obtain information on the basic characteristics of the units that do not collaborate in the survey. A non-response analysis report is prepared with the results.

#### 9 Dissemination of results

The results of the Survey are published on the website of the National Statistics Institute (<u>www.ine.es</u>).

The results are published in October 2015 and sent to Eurostat in compliance with the provisions of Regulation (EU) 141/2013.

The following products are provided in addition to this methodological report:

(i) Statistical tables covering the variables researched classified by sociodemographic characteristics at national and Autonomous Community level. The tables are presented grouped according to the modules of the Survey, both for the estimates in absolute values and the estimates in relative values.

The data used in the tables have been weighted as described in section 4 of this document.

In the estimates in relative values, the "Not Available" category is ignored, so the percentages are calculated on those that have indicated some of the categories of the tabulated question. This corresponds to a distribution of those who have not answered the question (Does not know or Does not answer) in the same proportion of those who did indicate any of them.

- (ii) Tables of sampling errors for the main variables
- (iii) Non-response analysis report
- (iv) Standardised methodological report
- (v) Household Questionnaire and Individual Questionnaire
- (vi) Survey anonymous microdata and corresponding registration designs

Once Eurostat has received the micro-data files from all the countries of the European Union, it will analyse the information and publish it on its website together with the corresponding quality reports.

#### **ANNEX I SOCIAL CLASS**

# LIST OF OCCUPATIONS AT THE THIRD DIGIT LEVEL OF THE NATIONAL CLASSIFICATION OF OCCUPATIONS 2011 (CNO-11) INCLUDED IN EACH SOCIAL CLASS CATEGORY.<sup>3</sup>

The social class categories have been extracted from the proposal made by the Determinants Working Group of the Spanish Society of Epidemiology - SEE<sup>4</sup>, where the social class is assigned according to occupation<sup>5</sup>. The following details the different classes and codes according to the National Classification of Occupations 2011 (CNO2011) considered in the survey according to the proposal of the SEE:

# CLASS I - Directors and managers of establishments with 10 or more employees and professionals traditionally associated with university degrees

# 1. Directors and managers of establishments with 10 or more employees and professionals traditionally associated with university degrees.

Members of the executive branch and legislative bodies; directors of the Public Administration and organisations of social interest  112. Chief Executive Officers and Chairmen  121. Directors of administrative departments  122. Commercial, advertising, public relations and research and development directors  131. Directors of production of agricultural, forestry and fishing undertakings and manufacturing, mining, construction and distribution industries  132. Directors of information and communication technologies (ICT) services and professional services companies  133. Veterinarians  144. Pharmaceuticals  155. Other health professionals  167. Professors of universities and other higher education (except for vocational training)  178. Teachers in secondary education (except for specific vocational training subjects)  179. Physicists, chemists, mathematicians and the like  179. Professionals working in natural sciences  179. Architects, urban planners and geography engineers  179. Architects, urban planners and geography engineers  170. Other legal professionals  171. Specialists in finances  172. Specialists in finances  173. Analysts and designers of software and multimedia  174. Analysts and designers of software and multimedia  175. Archivists, librarians, curators and the like  176. Writers, journalists and linguists		Marshare of the executive house had beginned and legislative beginned discording to the Dublic	
112. Chief Executive Officers and Chairmen  121. Directors of administrative departments  122. Commercial, advertising, public relations and research and development directors  131. Directors of production of agricultural, forestry and fishing undertakings and manufacturing, mining, construction and distribution industries  132. Directors of information and communication technologies (ICT) services and professional services companies  133. Veterinarians  144. Pharmaceuticals  155. Other health professionals  167. Professors of universities and other higher education (except for vocational training)  178. Teachers in secondary education (except for specific vocational training)  179. Teachers in secondary education (except for specific vocational training)  189. Professionals working in natural sciences  189. Professionals working in natural sciences  189. Architects, urban planners and geography engineers  189. Architects, urban planners and geography engineers  189. Other legal professionals  189. Specialists in finances  189. Other legal professionals  180. Specialists in organisation and administration  180. Other sales, marketing, advertising and public relation professionals  180. Analysts and designers of software and multimedia  180. Archivists, historians, psychologists and other professionals in social sciences  180. Archivists, librarians, curators and the like	111		
<ul> <li>121. Directors of administrative departments</li> <li>122. Commercial, advertising, public relations and research and development directors</li> <li>131. Directors of production of agricultural, forestry and fishing undertakings and manufacturing, mining, construction and distribution industries</li> <li>132. Directors of information and communication technologies (ICT) services and professional services companies</li> <li>211. Doctors</li> <li>213. Veterinarians</li> <li>214. Pharmaceuticals</li> <li>215. Other health professionals</li> <li>221. Professors of universities and other higher education (except for vocational training)</li> <li>223. Teachers in secondary education (except for specific vocational training subjects)</li> <li>241. Physicists, chemists, mathematicians and the like</li> <li>242. Professionals working in natural sciences</li> <li>243. Engineers (except for agricultural, forest, electric, electronic and ICT engineers)</li> <li>244. Electric, electronics and telecommunication engineers</li> <li>245. Architects, urban planners and geography engineers</li> <li>245. Judges, magistrates, lawyers and prosecutors</li> <li>259. Other legal professionals</li> <li>261. Specialists in finances</li> <li>262. Specialists in organisation and administration</li> <li>265. Other sales, marketing, advertising and public relation professionals</li> <li>271. Analysts and designers of software and multimedia</li> <li>281. Economists</li> <li>282. Sociologists, historians, psychologists and other professionals in social sciences</li> <li>291. Archivists, librarians, curators and the like</li> </ul>	110		
122. Commercial, advertising, public relations and research and development directors 131. Directors of production of agricultural, forestry and fishing undertakings and manufacturing, mining, construction and distribution industries 132. Directors of information and communication technologies (ICT) services and professional services companies 211. Doctors 213. Veterinarians 214. Pharmaceuticals 215. Other health professionals 221. Professors of universities and other higher education (except for vocational training) 223. Teachers in secondary education (except for specific vocational training subjects) 241. Physicists, chemists, mathematicians and the like 242. Professionals working in natural sciences 243. Engineers (except for agricultural, forest, electric, electronic and ICT engineers) 244. Electric, electronics and telecommunication engineers 245. Architects, urban planners and geography engineers 246. Architects, urban planners and geography engineers 251. Judges, magistrates, lawyers and prosecutors 259. Other legal professionals 261. Specialists in finances 262. Specialists in organisation and administration 265. Other sales, marketing, advertising and public relation professionals 271. Analysts and designers of software and multimedia 281. Economists 282. Sociologists, historians, psychologists and other professionals in social sciences 291. Archivists, librarians, curators and the like			
131. Directors of production of agricultural, forestry and fishing undertakings and manufacturing, mining, construction and distribution industries  132. Directors of information and communication technologies (ICT) services and professional services companies  211. Doctors  213. Veterinarians  214. Pharmaceuticals  215. Other health professionals  221. Professors of universities and other higher education (except for vocational training)  223. Teachers in secondary education (except for specific vocational training subjects)  241. Physicists, chemists, mathematicians and the like  242. Professionals working in natural sciences  243. Engineers (except for agricultural, forest, electric, electronic and ICT engineers)  244. Electric, electronics and telecommunication engineers  245. Architects, urban planners and geography engineers  246. Architects, urban planners and prosecutors  259. Other legal professionals  261. Specialists in finances  262. Specialists in organisation and administration  265. Other sales, marketing, advertising and public relation professionals  271. Analysts and designers of software and multimedia  281. Economists  282. Sociologists, historians, psychologists and other professionals in social sciences  291. Archivists, librarians, curators and the like			
manufacturing, mining, construction and distribution industries  132. Directors of information and communication technologies (ICT) services and professional services companies  211. Doctors  213. Veterinarians  214. Pharmaceuticals  215. Other health professionals  221. Professors of universities and other higher education (except for vocational training)  223. Teachers in secondary education (except for specific vocational training subjects)  241. Physicists, chemists, mathematicians and the like  242. Professionals working in natural sciences  243. Engineers (except for agricultural, forest, electric, electronic and ICT engineers)  244. Electric, electronics and telecommunication engineers  245. Architects, urban planners and geography engineers  251. Judges, magistrates, lawyers and prosecutors  259. Other legal professionals  261. Specialists in finances  262. Specialists in organisation and administration  265. Other sales, marketing, advertising and public relation professionals  271. Analysts and designers of software and multimedia  281. Economists  282. Sociologists, historians, psychologists and other professionals in social sciences  291. Archivists, librarians, curators and the like			
132. Directors of information and communication technologies (ICT) services and professional services companies  211. Doctors  213. Veterinarians  214. Pharmaceuticals  215. Other health professionals  221. Professors of universities and other higher education (except for vocational training)  223. Teachers in secondary education (except for specific vocational training subjects)  241. Physicists, chemists, mathematicians and the like  242. Professionals working in natural sciences  243. Engineers (except for agricultural, forest, electric, electronic and ICT engineers)  244. Electric, electronics and telecommunication engineers  245. Architects, urban planners and geography engineers  246. Architects, urban planners and prosecutors  259. Other legal professionals  261. Specialists in finances  262. Specialists in organisation and administration  265. Other sales, marketing, advertising and public relation professionals  271. Analysts and designers of software and multimedia  281. Economists  282. Sociologists, historians, psychologists and other professionals in social sciences  291. Archivists, librarians, curators and the like	131.		
professional services companies  211. Doctors  213. Veterinarians  214. Pharmaceuticals  215. Other health professionals  221. Professors of universities and other higher education (except for vocational training)  223. Teachers in secondary education (except for specific vocational training subjects)  241. Physicists, chemists, mathematicians and the like  242. Professionals working in natural sciences  243. Engineers (except for agricultural, forest, electric, electronic and ICT engineers)  244. Electric, electronics and telecommunication engineers  245. Architects, urban planners and geography engineers  246. Judges, magistrates, lawyers and prosecutors  259. Other legal professionals  261. Specialists in finances  262. Specialists in organisation and administration  265. Other sales, marketing, advertising and public relation professionals  271. Analysts and designers of software and multimedia  281. Economists  282. Sociologists, historians, psychologists and other professionals in social sciences  291. Archivists, librarians, curators and the like			
<ul> <li>Doctors</li> <li>Veterinarians</li> <li>Pharmaceuticals</li> <li>Other health professionals</li> <li>Professors of universities and other higher education (except for vocational training)</li> <li>Teachers in secondary education (except for specific vocational training subjects)</li> <li>Physicists, chemists, mathematicians and the like</li> <li>Professionals working in natural sciences</li> <li>Engineers (except for agricultural, forest, electric, electronic and ICT engineers)</li> <li>Electric, electronics and telecommunication engineers</li> <li>Architects, urban planners and geography engineers</li> <li>Judges, magistrates, lawyers and prosecutors</li> <li>Other legal professionals</li> <li>Specialists in finances</li> <li>Specialists in organisation and administration</li> <li>Other sales, marketing, advertising and public relation professionals</li> <li>Analysts and designers of software and multimedia</li> <li>Economists</li> <li>Sociologists, historians, psychologists and other professionals in social sciences</li> <li>Archivists, librarians, curators and the like</li> </ul>	132.		
<ul> <li>Veterinarians</li> <li>Pharmaceuticals</li> <li>Other health professionals</li> <li>Professors of universities and other higher education (except for vocational training)</li> <li>Teachers in secondary education (except for specific vocational training subjects)</li> <li>Physicists, chemists, mathematicians and the like</li> <li>Professionals working in natural sciences</li> <li>Engineers (except for agricultural, forest, electric, electronic and ICT engineers)</li> <li>Electric, electronics and telecommunication engineers</li> <li>Architects, urban planners and geography engineers</li> <li>Judges, magistrates, lawyers and prosecutors</li> <li>Other legal professionals</li> <li>Specialists in finances</li> <li>Specialists in organisation and administration</li> <li>Other sales, marketing, advertising and public relation professionals</li> <li>Analysts and designers of software and multimedia</li> <li>Economists</li> <li>Sociologists, historians, psychologists and other professionals in social sciences</li> <li>Archivists, librarians, curators and the like</li> </ul>		professional services companies	
<ul> <li>214. Pharmaceuticals</li> <li>215. Other health professionals</li> <li>221. Professors of universities and other higher education (except for vocational training)</li> <li>223. Teachers in secondary education (except for specific vocational training subjects)</li> <li>241. Physicists, chemists, mathematicians and the like</li> <li>242. Professionals working in natural sciences</li> <li>243. Engineers (except for agricultural, forest, electric, electronic and ICT engineers)</li> <li>244. Electric, electronics and telecommunication engineers</li> <li>245. Architects, urban planners and geography engineers</li> <li>251. Judges, magistrates, lawyers and prosecutors</li> <li>259. Other legal professionals</li> <li>261. Specialists in finances</li> <li>262. Specialists in organisation and administration</li> <li>265. Other sales, marketing, advertising and public relation professionals</li> <li>271. Analysts and designers of software and multimedia</li> <li>281. Economists</li> <li>282. Sociologists, historians, psychologists and other professionals in social sciences</li> <li>291. Archivists, librarians, curators and the like</li> </ul>	211.	Doctors	
<ul> <li>215. Other health professionals</li> <li>221. Professors of universities and other higher education (except for vocational training)</li> <li>223. Teachers in secondary education (except for specific vocational training subjects)</li> <li>241. Physicists, chemists, mathematicians and the like</li> <li>242. Professionals working in natural sciences</li> <li>243. Engineers (except for agricultural, forest, electric, electronic and ICT engineers)</li> <li>244. Electric, electronics and telecommunication engineers</li> <li>245. Architects, urban planners and geography engineers</li> <li>251. Judges, magistrates, lawyers and prosecutors</li> <li>259. Other legal professionals</li> <li>261. Specialists in finances</li> <li>262. Specialists in organisation and administration</li> <li>265. Other sales, marketing, advertising and public relation professionals</li> <li>271. Analysts and designers of software and multimedia</li> <li>281. Economists</li> <li>282. Sociologists, historians, psychologists and other professionals in social sciences</li> <li>291. Archivists, librarians, curators and the like</li> </ul>	213.	Veterinarians	
<ul> <li>Professors of universities and other higher education (except for vocational training)</li> <li>Teachers in secondary education (except for specific vocational training subjects)</li> <li>Physicists, chemists, mathematicians and the like</li> <li>Professionals working in natural sciences</li> <li>Engineers (except for agricultural, forest, electric, electronic and ICT engineers)</li> <li>Electric, electronics and telecommunication engineers</li> <li>Architects, urban planners and geography engineers</li> <li>Judges, magistrates, lawyers and prosecutors</li> <li>Other legal professionals</li> <li>Specialists in finances</li> <li>Specialists in organisation and administration</li> <li>Other sales, marketing, advertising and public relation professionals</li> <li>Analysts and designers of software and multimedia</li> <li>Economists</li> <li>Sociologists, historians, psychologists and other professionals in social sciences</li> <li>Archivists, librarians, curators and the like</li> </ul>	214.	Pharmaceuticals	
223. Teachers in secondary education (except for specific vocational training subjects)  241. Physicists, chemists, mathematicians and the like  242. Professionals working in natural sciences  243. Engineers (except for agricultural, forest, electric, electronic and ICT engineers)  244. Electric, electronics and telecommunication engineers  245. Architects, urban planners and geography engineers  251. Judges, magistrates, lawyers and prosecutors  259. Other legal professionals  261. Specialists in finances  262. Specialists in organisation and administration  265. Other sales, marketing, advertising and public relation professionals  271. Analysts and designers of software and multimedia  281. Economists  282. Sociologists, historians, psychologists and other professionals in social sciences  291. Archivists, librarians, curators and the like	215.	Other health professionals	
<ul> <li>241. Physicists, chemists, mathematicians and the like</li> <li>242. Professionals working in natural sciences</li> <li>243. Engineers (except for agricultural, forest, electric, electronic and ICT engineers)</li> <li>244. Electric, electronics and telecommunication engineers</li> <li>245. Architects, urban planners and geography engineers</li> <li>251. Judges, magistrates, lawyers and prosecutors</li> <li>259. Other legal professionals</li> <li>261. Specialists in finances</li> <li>262. Specialists in organisation and administration</li> <li>265. Other sales, marketing, advertising and public relation professionals</li> <li>271. Analysts and designers of software and multimedia</li> <li>281. Economists</li> <li>282. Sociologists, historians, psychologists and other professionals in social sciences</li> <li>291. Archivists, librarians, curators and the like</li> </ul>	221.	Professors of universities and other higher education (except for vocational training)	
<ul> <li>Professionals working in natural sciences</li> <li>Engineers (except for agricultural, forest, electric, electronic and ICT engineers)</li> <li>Electric, electronics and telecommunication engineers</li> <li>Architects, urban planners and geography engineers</li> <li>Judges, magistrates, lawyers and prosecutors</li> <li>Other legal professionals</li> <li>Specialists in finances</li> <li>Specialists in organisation and administration</li> <li>Other sales, marketing, advertising and public relation professionals</li> <li>Analysts and designers of software and multimedia</li> <li>Economists</li> <li>Sociologists, historians, psychologists and other professionals in social sciences</li> <li>Archivists, librarians, curators and the like</li> </ul>	223.	Teachers in secondary education (except for specific vocational training subjects)	
Engineers (except for agricultural, forest, electric, electronic and ICT engineers)  244. Electric, electronics and telecommunication engineers  245. Architects, urban planners and geography engineers  251. Judges, magistrates, lawyers and prosecutors  259. Other legal professionals  261. Specialists in finances  262. Specialists in organisation and administration  265. Other sales, marketing, advertising and public relation professionals  271. Analysts and designers of software and multimedia  281. Economists  282. Sociologists, historians, psychologists and other professionals in social sciences  291. Archivists, librarians, curators and the like	241.	Physicists, chemists, mathematicians and the like	
<ul> <li>244. Electric, electronics and telecommunication engineers</li> <li>245. Architects, urban planners and geography engineers</li> <li>251. Judges, magistrates, lawyers and prosecutors</li> <li>259. Other legal professionals</li> <li>261. Specialists in finances</li> <li>262. Specialists in organisation and administration</li> <li>265. Other sales, marketing, advertising and public relation professionals</li> <li>271. Analysts and designers of software and multimedia</li> <li>281. Economists</li> <li>282. Sociologists, historians, psychologists and other professionals in social sciences</li> <li>291. Archivists, librarians, curators and the like</li> </ul>	242.	Professionals working in natural sciences	
<ul> <li>245. Architects, urban planners and geography engineers</li> <li>251. Judges, magistrates, lawyers and prosecutors</li> <li>259. Other legal professionals</li> <li>261. Specialists in finances</li> <li>262. Specialists in organisation and administration</li> <li>265. Other sales, marketing, advertising and public relation professionals</li> <li>271. Analysts and designers of software and multimedia</li> <li>281. Economists</li> <li>282. Sociologists, historians, psychologists and other professionals in social sciences</li> <li>291. Archivists, librarians, curators and the like</li> </ul>	243.	Engineers (except for agricultural, forest, electric, electronic and ICT engineers)	
<ul> <li>Judges, magistrates, lawyers and prosecutors</li> <li>Other legal professionals</li> <li>Specialists in finances</li> <li>Specialists in organisation and administration</li> <li>Other sales, marketing, advertising and public relation professionals</li> <li>Analysts and designers of software and multimedia</li> <li>Economists</li> <li>Sociologists, historians, psychologists and other professionals in social sciences</li> <li>Archivists, librarians, curators and the like</li> </ul>	244.	Electric, electronics and telecommunication engineers	
<ul> <li>Other legal professionals</li> <li>Specialists in finances</li> <li>Specialists in organisation and administration</li> <li>Other sales, marketing, advertising and public relation professionals</li> <li>Analysts and designers of software and multimedia</li> <li>Economists</li> <li>Sociologists, historians, psychologists and other professionals in social sciences</li> <li>Archivists, librarians, curators and the like</li> </ul>	245.	Architects, urban planners and geography engineers	
261. Specialists in finances 262. Specialists in organisation and administration 265. Other sales, marketing, advertising and public relation professionals 271. Analysts and designers of software and multimedia 281. Economists 282. Sociologists, historians, psychologists and other professionals in social sciences 291. Archivists, librarians, curators and the like	251.	Judges, magistrates, lawyers and prosecutors	
262. Specialists in organisation and administration 265. Other sales, marketing, advertising and public relation professionals 271. Analysts and designers of software and multimedia 281. Economists 282. Sociologists, historians, psychologists and other professionals in social sciences 291. Archivists, librarians, curators and the like	259.	Other legal professionals	
<ul> <li>Other sales, marketing, advertising and public relation professionals</li> <li>Analysts and designers of software and multimedia</li> <li>Economists</li> <li>Sociologists, historians, psychologists and other professionals in social sciences</li> <li>Archivists, librarians, curators and the like</li> </ul>	261.	* ·	
<ul> <li>271. Analysts and designers of software and multimedia</li> <li>281. Economists</li> <li>282. Sociologists, historians, psychologists and other professionals in social sciences</li> <li>291. Archivists, librarians, curators and the like</li> </ul>	262.	Specialists in organisation and administration	
<ul> <li>281. Economists</li> <li>282. Sociologists, historians, psychologists and other professionals in social sciences</li> <li>291. Archivists, librarians, curators and the like</li> </ul>	265.	Other sales, marketing, advertising and public relation professionals	
<ul><li>282. Sociologists, historians, psychologists and other professionals in social sciences</li><li>291. Archivists, librarians, curators and the like</li></ul>	271.	Analysts and designers of software and multimedia	
291. Archivists, librarians, curators and the like	281.	Economists	
	282.		
292. Writers, journalists and linguists	291.	Archivists, librarians, curators and the like	
	292.	Writers, journalists and linguists	

<sup>&</sup>lt;sup>3</sup> The 8 categories of the proposed comprehensive classification CSO2012 of the Spanish Society of Epidemiology (SEE) have been grouped into 6 classes in order to allow comparability of the data with the previous classification of the SEE (CSO1995), used in the previous ENSEs.

<sup>&</sup>lt;sup>4</sup> The group of "non-classifiable" occupations (codes 001, 002 and 283), have been assigned to the class categories in the same way as in previous editions of the ENSE to allow comparison of the series.

<sup>&</sup>lt;sup>5</sup> For codes 111, 112, 121, 122, 131, 132, 141, 142, 143 and 150 the SEE proposal assigns the social class according to the number of employees in the workplace. However, the same proposal mentions that if this information is not available (as is the case with ENSE), the following considerations apply:

<sup>-</sup> If there is no information on the number of employees, occupations 111 to 132 are assigned to social class I and occupations 141 to 150 to social class II.

<sup>-</sup> If information is available on the number of employees, occupations 111 to 150 are assigned to social class I when the establishments have 10 or more employees and to social class II when the establishments have fewer than 10 employees.

283.	Priests of different religions

CLASS II - Directors and managers of establishments with fewer than 10 employees, professionals traditionally associated with diploma university degrees and other technical support professionals.@

Athletes and artists

# 2. Directors and managers of establishments with fewer than 10 employees, professionals traditionally associated with diploma university degrees and other technical support professionals. Athletes and artists.

profes	sionals. Athletes and artists.	
141.	Directors and managers of accommodation businesses	
142.	Directors and managers of catering businesses	
143.	Directors and managers of wholesale and retail trade companies	
150.	Directors and managers of other service companies not classified under other headings	
212.	Nursing and midwifery professionals	
222.	Vocational training teachers (specific subjects)	
224.	Teachers in primary education	
225.	Child education teachers and educators	
231.	Special education teachers and technicians	
232.	Other education teachers and professionals	
246.	Technical engineers (except for farming, forest, electrical, electronics and ICT)	
247.	Technical engineers specialising in electricity, electronics and telecommunications	
263.	Tourist companies and activities technicians	
264.	Professionals of technical and medical sales (except for ICT)	
248.	Technical architects, topographers and designers	
272.	Specialists in databases and computer networks	
293.	Creative and interpretative artists	
311.	Draughtsmen and technical draftsmen	
315.	Professionals in sea and aeronautics navigation	
316.	Technicians of quality control of physical, chemical and engineering sciences	
333.	Professionals of alternative therapies	
362.	Customs and tax officers and the like, working in tasks of the Public Administration	
372.	Sportsmen, trainers, sports activities instructors; monitors of recreational activities	
373.	Technicians and professionals supporting cultural, artistic and culinary activities	
001.	Armed forces officers and non-commissioned officers	

### **CLASS III - Intermediate occupations and self-employed workers**

# 3. Intermediate occupations: administrative employees and support professionals for@ administrative management and other services.

admin	istrative management and other services.
331.	Health technicians of laboratory, diagnostic tests and prostheses
332.	Other health technicians
340.	Support professionals in finances and mathematics
351.	Trade representatives and agents
352.	Other commercial agents
353.	Real estate and other agents
361.	Administrative and specialised assistants
363.	Security force technicians
371.	Support professionals to social and legal services
381.	Technicians in information technology operations and user support
382.	Computer programmers
383.	Technicians in audiovisual recording, radio broadcasting and telecommunication
411.	Accounting and financial employees
412.	Employees dedicated to recording goods, production and transport support services
421.	Library and archive employees
422.	Postal service employees, encoders, proofreaders and personnel services
430.	Other non-customer service administrative employees
441.	Information clerks and receptionists (except for hotels)
442.	Travel agency employees, hotel receptionists and telephone operators
443.	Survey agents
444.	Window clerks and related employees (except box-office clerks)
450.	Customer service administrative employees not included elsewhere
582.	Employees who assist travellers, tourist guides and similar
591.	Civil Guards
592.	Police officers
593.	Firemen
002.	Troops and mariners of the armed forces
4. Self	employed workers
500.	Waiters and chefs that own the establishment
530.	Shop owners
584.	Owner-workers of small accommodation

## CLASS IV - Supervisors and workers in skilled technical occupations

#### 5. Supervisors and workers in skilled technical occupations.

312.	Technicians in physical sciences, chemistry, environment and engineering
313.	Process control and installation technicians
314.	Natural sciences technicians and similar assistant professionals
320.	Manufacturing industry, construction and mining engineering supervisors
521.	Department heads of stores and warehouses
581.	Hairdressers and beauty, well-being and similar specialists
713.	Carpenters (except cabinetmakers and assemblers of metal structures)
719.	Other structural construction workers
721.	Plasterers and applicators of paste and mortar coatings
722.	Plumbers and pipe fitters
723.	Painters, paperhangers and similar
725.	Mechanics-installers of cooling and air conditioning
731.	Moulders, welders, sheet metal workers, metallic structure fitters and similar workers
732.	Blacksmiths and workers in the manufacture of tools and similar
740.	Machinery mechanics and fitters
751.	12 Construction electricians and similar
752.	Other electrical equipment installers and repairers
753.	Electrical and telecommunications equipment installers and repairers
761.	Metal precision mechanics, ceramists, glass makers and artisans
782.	Cabinetmakers and related workers
783.	Textile, clothing, leather, hide and footwear workers
789.	Blasters, scuba divers, product testers and other various operators and artisans
831.	Train drivers and similar

#### CLASS V - Skilled workers in the primary sector and other semi-skilled workers

#### 6. Skilled workers in the primary sector and other semi-skilled workers

511.	Salaried chefs
512.	Salaried waiters
522.	Shop and warehouse sellers
541.	Kiosk or street market sellers
543.	Petrol station vendors
549.	Other sellers
550.	Cashiers and clerks (except banks)
561.	Nursing assistants
562.	Auxiliary technicians of pharmacy, health emergencies and other workers in health care
	services
571.	Home personal care workers (except for childcare providers)
572.	Childcare providers
589.	Other personal service workers
594.	Private security staff
599.	Other protection and security workers
611.	Skilled workers in agricultural activities (except in orchards, greenhouses, nurseries and gardens)
612.	Skilled workers in orchards, greenhouses, nurseries and gardens
620.	Skilled workers in livestock activities (including poultry, bee-keeping and similar)
630.	Skilled mixed livestock and farming workers
641.	Skilled workers in forestry and environmental activities
642.	Skilled workers in fisheries and aquaculture

643.	Skilled workers in hunting activities
711.	Concrete workers, formworkers, ironworkers and the like
712.	Bricklayers, stonemasons, stone cutters, splitters and carvers
724.	Floors, parquet layers and similar
729.	Other construction, finishing, installation (except electricians) and related workers
762.	Graphic arts officers and operators
770.	Food, drink and tobacco industry workers
781.	Workers who treat wood and similar
811.	Ore extraction and exploitation facility operators
812.	Metal processing facility operators
813.	Chemical, pharmaceutical and photosensitive material facility and machine operators
814.	Operations in facilities for the treatment and transformation of wood, manufacture of paper, paper products and rubber or plastic materials
815.	Textile, leather and hide article production machine operators
816.	Food, drink and tobacco production machine operators
817.	Laundry and dry cleaning machine operators
819.	Other facility and fixed machine operators
820.	Installers and assemblers in factories
832.	Mobile agricultural and forestry machine operators
833.	Other mobile machine operators
841.	Car, taxi and van drivers
842.	Bus and tram drivers
843.	Lorry drivers

#### **CLASS VI**

#### 7. Unskilled workers

542.	Telemarketing operators	
583.	Supervisors of maintenance and cleaning of buildings, janitors and domestic butlers	
834.	Deck cadets, engineer sailors and similar	
844.	Motorcycle and moped drivers	
910.	Domestic workers	
921.	Cleaning staff in offices, hotels and other similar establishments	
922.	Vehicles and windows cleaners and cleaning personnel by hand	
931.	Kitchen assistants	
932.	Fast food chefs	
941.	Street sellers	
942.	Advertising distributors, shoe-shine boys and other street workers	
943.	Office boy, baggage handlers, delivery men on foot and similar	
944.	Waste collectors, waste sorters, sweepers and the like	
949.	Other elementary occupations	C+a+ic+ic
951.	Agricultural labourers	Ü
952.	Livestock labourers	+
953.	Farming labourers	J-C
954.	Fishing, aquaculture, forestry and hunting labourers	
960.	Construction and mining labourers	-
970.	Manufacturing labourers	100
981.	Transport labourers, unloaders and similar	it i
982.	Shelf-stackers	, C
		) † c

The correspondence between the occupational social classes of the shortened CSO-1995 and those of the grouped CSO-2012 is as follows:

	CSO-1994		CSO-2012
I	Managers of Public Administration and companies with 10 or more employees. Professions associated with 2nd and 3rd cycle university degrees	CLASS	Directors and managers of establishments with 10 or more employees and professionals traditionally associated with university degrees
II	Managers of Public Administration and companies with less than 10 employees. Professions associated with a 1st cycle university degree. Higher Technicians. Artists and athletes	CLASS II	Directors and managers of establishments with fewer than 10 employees, professionals traditionally associated with diploma university degrees and other technical support professionals. Athletes and artists
III	Administrative employees and support@ professionals for administrative and@ financial management. Personal service and security workers. Self-employed workers. Supervisors of manual workers	CLASS	Intermediate occupations and self-employed workers
IVa	Skilled manual workers	CLASS IV	Supervisors and workers in skilled technical occupations
IVb	Semi-skilled manual workers	CLASS V	Skilled workers in the primary sector and other semi-skilled workers
V	Unskilled workers	CLASS VI	Unskilled workers