Health and Sexual Behaviour Survey

1 Background and justification of the project

The Health and Sexual Behaviour Survey aims to obtain information required to assess the impact of preventive policies carried out to date in Spain to thwart the extension of the human immunodeficiency virus (HIV), which causes AIDS, and to pave the way for the planning of said preventive policies in forthcoming years.

When HIV appeared in the early 80s, the need for information on the sexual behaviour of the population that could transmit the disease became essential.

Spain was not as aware of the need for information as other European countries when the AIDS epidemic appeared in the 80s, since –although in many countries unprotected sex was the main mechanism of transmission– in Spain 80% of the AIDS cases were transmitted by injecting drugs with syringes that had been used by other persons. In view of this epidemic pattern, in Spain research focused more on persons who injected drugs than on the sexual behaviour of the general population. Nevertheless, in the late eighties and during the nineties, many European countries carried out surveys on the sexual behaviour of the vulnerable population, similar to the survey that will now be carried out in Spain.

Currently, this situation has changed radically. In Spain, the epidemic has become *sexualised*. For example, in 2001, in Madrid's metropolitan suburbs, transmission via unprotected sex amounted to 69% of the new HIV diagnosis, of which 45% appeared in heterosexual relationships and 24% in homosexual relationships between males.

There is proof that the number of new HIV infections has dropped significantly in recent years. Furthermore, antiretroviral treatments are contributing decisively to prolong the life of the patients. These situations could even be leading to a reduction of the perception of the risk of infection among the population and, as a consequence, to a reduction of the need to use preventive measures to avoid infection. This phenomenon has been observed in some countries among the population with homosexual practices and could also be occurring among infected persons who are receiving treatment.

The factors that determine the use of preventive measures during sexual relationships show that having suitable information on HIV and methods of transmission and prevention is vital, but not enough. Therefore, it is necessary to pinpoint the main sources of information to date on these issues, identify the main existing gaps of information, and opinions and preferences on the same. It is essential to consider determining factors as decisive as risk perception, opinion and behaviour of the partner, ability to have effective communication about sexual issues, ability to ask partner to use a condom, friends' opinion, perception of others, etc. Moreover, the importance of these determining factors varies in terms of age, gender, educational level and other social variables and lifestyles (alcohol intake or consumption of psychoactive substances, leisure habits, ...) since differences are noticeable as regards social expectations and the consideration of sexuality. Sexual behaviour is influenced by numerous pressures related to the environment, especially during adolescence.

In these circumstances, it is necessary to have quality quantitative data, which has been available in other European countries for years, so as to understand the epidemiology of sexually transmitted diseases, including HIV infection, and to analyse and plan sexual education in different spheres: educational (school, middle and higher education), at work, leisure environment, ... The future of the epidemic in Spain depends on whether youths adopt healthy sexual behaviours.

Despite this fact, until now Spain did not have enough information on the percentage of the population vulnerable to infection by HIV given their sexual behaviour and the distribution of these persons considering the aforementioned main variables. The data available is scarce and heterogeneous, stemming from small surveys carried out among specific groups, with different goals and methodologies, which limits comparability with other countries and, most importantly, hampers the collection of information on how the situation has changed in terms of the actions performed recently. For example, the only national data available on the use of condoms among the general population have been taken from the a National Survey carried out in 1996 by the Spanish Drug Plan Department, aiming to estimate the frequency of drug use among the Spanish population.

The data contained in this survey are essential to an effective preventive policy. It is necessary to describe the socio-demographic characteristics of the subpopulations with different lifestyles and sexual relationships, identify what the population considers safe sexual practices, so that educational actions have the greatest success probability. It is essential to fully understand the patterns of sexual behaviour before moving on to design preventive actions. In all, this research aims to collect the data needed to define the populations that will be the object of specific actions, identify the risk-reduction messages that will be most-accepted by the population and related cultural rules, locate informative gaps and preferred sources of information, and finally, provide initial data to monitor and assess the impact of the preventive actions.

A great part of the questions and variables included in this survey have been obtained from other surveys performed over the last two decades in different European countries, so as to work with information that can be compared easily to the information obtained in other countries in our environment. Most have been taken from a survey carried out in different European Union countries (collective European action on Sexual Behaviour Related to HIV Infection).

Consequently, this survey aims to obtain data that is essential for the Spanish society to implement a preventive policy adapted to its current needs, that is to say, that is effective in the short and medium term.

2 General aspects of project

• Sexuality or sexual relationships can be researched from multiple, intense and complementary approaches. This project reduces the range of schemes

significantly, aiming **only to collect the epidemiological information most relevant for the established goal.**

• *This is not a survey on Spaniards' sexuality*, *but a survey on the sexual practices that entail a risk of contracting HIV,* as well as the variation of said practices according to specific socio-demographic variables and lifestyles. It also includes certain questions on knowledge on and attitudes towards some of the most-used contraceptive measures, placing special focus on the male condom.

• The *delicate and intimate nature of the information* on sexual behaviour and habits require interviewers and respondents to be genuinely convinced of the usefulness of the survey before taking part in it. Furthermore, *it requires an interview technique that guarantees privacy to the greatest extent*. Consequently, a special interview model has been used, combining -on the one hand- the presence of the interviewer who can explain the reasons and interests that steer this survey, transmit the need for the survey and provide the appropriate guarantees regarding the confidentiality of the information supplied. On the other, the possibility that some sections can be *self-completed* by the respondent, which increases privacy and confidentiality, since not even the interviewer can see the answers.

• A priori it could seem logical to think that respondents may not answer sincerely about their sexual experience. Nevertheless, the results from previous surveys on this issue were not less valid or reliable than data from surveys on other delicate topics (hygienic habits, work absenteeism, sources of income or legal or illegal drug use); in fact, quite the opposite occurred. Nevertheless, it is essential to pay great attention to this issue. Consequently *it is of utmost importance to ensure the potential respondent perceives his/her answers will be confidential* to as to guarantee a maximum veracity in his/her answers.

• Although the target population should, in principle, consider the whole of the Spanish population, finally only persons in the 18 to 49 years old age group have been interviewed. This is not because the sexual behaviour of persons in other age groups is unimportant, but because, as in all other countries, different reasons have led to a restriction of the age group of the target population so as to use the data available in the most efficient and rational manner. Some of these reasons are:

– Interviewing persons under 18 years old would require parental permission, could be offensive and would possibly make it quite difficult to obtain true answers from youths.

– Considering older age groups would make it quite difficult to complete a questionnaire that is partially self-administered, especially if it requires using a computer.

– Analysing AIDS cases to date show that the percentage of infections produced outside this age group are relatively low.

– The low number of AIDS cases that appear outside the selected age group leads to the supposition that vulnerable practices are also less prevalent outside said

age group. Thus, in order to undertake an in-depth analysis of the differential characteristics of these persons compared to other age groups it would be necessary to increase the sample size of persons over 49 years old and, consequently, reduce the number of interviews among other age groups, which are the most interesting.

3 General structure of the questionnaire and administration procedure

GENERAL STRUCTURE OF THE QUESTIONNAIRE

The order of the questions (socio-demographic – lifestyles – sexual experience - sexual health – HIV test – attitudes and opinions) is based on the joint consideration of different reasons that allow respondents to complete the questionnaire as easily as possible and to obtain the highest number of answers:

Establish a good relationship between the interviewer and the respondent, avoiding questions that are too personal at the beginning, before having established a certain degree of understanding.

Start by asking questions based on socio-demographic issues that pinpoint people who may decide to abandon the questionnaire.

Referring to sexual experience in a chronological order makes it easier to recall facts and allows the interviewer to, gradually, move on to more intimate aspects.

The key aspects appear in the middle of the survey, before respondents get tired of the questionnaire or state they haven't got enough time to continue or refuse to go on.

Opinions appear at the end, so that respondents can answer questions on sexual practices before passing judgment or making opinions on them.

The questionnaire includes six sections:

A. Socio-demographic characteristics

B. Lifestyles

C. Information and sexual experience: With one common section and three subsections:

C1: For men with heterosexual practices

C2: For men with homosexual practices

C3: *For women*

Men will complete subsections C1 and C2 if they have ever practiced both types of sexual relationships.

D. Sexual health

E. HIV test

F. Attitudes

FORMAT OF THE QUESTIONNAIRE

An electronic questionnaire is used to collect the information requested in the survey. This means:

Respondents perceive the confidentiality of the results.

The respondent can complete the whole of the interview without having to read questions that are unrelated to his/her case.

PROCESS FOR THE ADMINISTRATION OF THE QUESTIONNAIRE

The section dedicated to *socio-demographic characteristics* is carried out by the interviewer and the respondent, to ensure the respondent becomes acquainted with all tools to ensure s/he will be able to move on to the self-administered part.

As from the lifestyles section, the interviewer gives the respondent the laptop computer for him/her to complete the rest of the questionnaire by his/herself. Nevertheless, the lifestyles section is less conflictive than the following sections, thus there is still the possibility of interaction between the interviewer and the respondent.

When moving on to questions about *sexual practices* themselves, the interviewer does not participate in the questionnaire at all.

4 Analysis of the answering processes and Model Survey

The delicate and intimate nature of the information on sexual practices and behaviours made it **essential** to carry out a model survey aiming above all to check the level of acceptability and ensure the questionnaire worked as expected. Furthermore, it allowed the analysis of the time required to complete it, type of incidents (refusals, absences, ignorance of the language,...) and frequency.

Before undertaking the model survey, a research was carried out in collaboration with the University of Granada aiming to implement research techniques in the analysis of respondents' response processes in view of possible question formats and their effect on the quality of the information obtained. The techniques used comprised debate groups and in-depth interviews.

Taking into consideration the outcome of this study, the Model Survey tried out two alternative questionnaires whose differences lay in the wording of some of the most delicate questions. The survey was based on an incremental strategy and emotional discharge.

The *incremental method* consists in inserting questions related to the issue that are hardly or not at all compromising, which allows the interviewer to take the respondent gradually towards the target question. This should make the respondent supply more truthful answers and find it more difficult to ignore the delicate question.

Emotional discharge consists in starting the question using an expression that lets the respondent know s/he is not the only person in the situation the question describes.

Questions pertaining to alcohol, the *risk of contracting AIDS by injecting drugs, contracting AIDS by having intercourse with persons whom s/he paid for sex and having sex with several persons over the same period*, were included in the ***Emotional discharge*** strategy.

The Model Survey was performed using a sample of 320 persons, between 18 and 49 years old, distributed in 40 sections from 10 provinces. A team of 10 interviewers carried out the corresponding tasks between the June 5th and 25th 2003.

The selection for the model sample was not chosen at random, since it was not necessary to achieve the aforementioned goals. The following provinces were selected: Avila, Burgos, Cáceres, Jaén, Madrid, Murcia, Sevilla, Toledo, Valencia and Vizcaya.

5 Main Survey

5.1 SCOPE OF THE SURVEY

Population scope

The research focuses on persons between 18 and 49 years old living in main family dwellings.

Geographical scope

The Survey is carried out in the whole country.

Temporal scope

The information was collected between October 13th and December 19th 2003.

5.2 DESIGN OF THE SURVEY

Type of sampling

The type of sample used is a two-stage sample with stratification of the first stage units.

The first stage units are the census sections. The second stage units are persons between 18 and 49 years old.

The framework used for the sample selection is an area framework formed by the relation of existing census sections on January 1st 2003. In order to select second stage units, the list of persons between 18 and 49 years old registered in the census has been used for each of the sections selected for the sample.

The stratification criterion used was the size of the municipality each section belongs to.

The following strata have been established in line with this criterion:

Strata 0: Municipalities with more than 500.000 inhabitants.

Strata 1: Province capital municipality (except the previous ones)

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

Strata 3: Municipalities from 50,000 to 100,000 inhabitants (except the previous ones)

Strata 4: Municipalities from 20,000 to 50,000 inhabitants (except the previous ones)

Strata 5: Municipalities with 10,000 to 20,000 inhabitants

Strata 6: Municipalities with less than 10,000 inhabitants

An independent sample is designed for each autonomous community since one of the goals of the survey is to facilitate data with this breakdown level.

Size of the sample. Allocation

So as to cover the goals of the survey aiming to facilitate estimates with a specific level of reliability (at a national and autonomous community level), the sample has been allocated for 13,600 persons distributed in 1,700 census sections.

In order to guarantee a minimum sample size in each autonomous community, the sample has been distributed among the same assigning one part uniformly and another proportionally in terms of the size of the community, taking the number of inhabitants aged between 18 and 49 years old as the size of the community,

since these persons are the target population in this survey. The minimum sample size in each community has been set at 300 persons.

The strata distribution of the sample is performed proportionally to the size, but the sample is more important in the larger municipalities, since the inhabitants in these areas are expected to present greater variability in terms of their behaviour and a greater number of incidents.

Eight interviews were performed in each census section. Given the special characteristics of the survey, as well as the 8 incumbent persons selected, there were also 16 substitutes ready to take part if incidents appeared during fieldwork.

The distribution of the theoretical sample of persons by autonomous communities is as follows:

Sample of persons

Autonomous Community	Total
Andalucia	1,800
Aragón	544
Asturias (Principado de)	488
Balears (Illes)	472
Canarias	672
Cantabria	392
Castilla y León	768
Castilla–La Mancha	624
Cataluña	1,552
Comunidad Valenciana	1,136
Extremadura	488
Galicia	784
Madrid (Comunidad de)	1,520
Murcia (Región de)	544
Navarra (Com. Foral de)	400
Pais Vasco	736
La Rioja	352
Ceuta and Melilla	328
TOTAL	13,600

Sample selection

The selection of sections in each stratum has been carried out with probability proportional to the size of each section, considering size as the number of inhabitants aged between 18 and 49 years old. The persons in each section have been selected by means of a systematic sample with random start. This procedure leads to self-weighted samples in each stratum.

Estimators

All characteristics in the sample have been estimated using ratio estimators, implementing re-weighting techniques, considering age groups and sex of the population of the autonomous community as auxiliary variables.

For this the following steps have been followed:

1. Attainment of the **estimator based on the design**.

$$\hat{Y}_d = \sum_h \sum_{i,j \in h} \frac{1}{K_h \cdot \frac{8}{P_h^{(03)}}} \cdot y_{hij} = \sum_h \sum_{i,j \in h} \frac{P_h^{(03)}}{p_h^t} \cdot y_{hij}$$

In which:

h: Stratum

i: Section

j: Person

K_h : Number of sections of the sample in stratum h

$P_h^{(03)}$: Number of persons from stratum h according to 2003 framework

Y: Target variable

p_h^t : Theoretical sample population from stratum h.

2. **Correction of non-response**. This aspect is corrected by multiplying the aforementioned raising factor $\frac{P_h^{(03)}}{p_h^t}$ by the opposite of the probability of response in the stratum, that is to say:

$$\hat{Y}_2 = \sum_h \sum_{i,j \in h} \frac{P_h^{(03)}}{p_h^t} \cdot \frac{p_h^t}{p_h^e} y_{hij} = \sum_h \sum_{i,j \in h} \frac{P_h^{(03)}}{p_h^e} \cdot y_{hij}$$

where p_h^e is the effective sample of persons in stratum h.

3. **Ratio estimator**, using the preview of the population at the time of the survey as the auxiliary variable. Aims to improve the estimator obtained after following the previous steps, updating the population employed when selecting the sample to the moment when the survey is performed. It is expressed as:

$$\hat{Y}_3 = \sum_h \frac{\sum_{i,j\in h} \frac{P_h^{(03)}}{p_h^e} \cdot y_{hij}}{\sum_{i,j\in h} \frac{P_h^{(03)}}{p_h^e} \cdot p_{hij}} \cdot P_h = \sum_h \sum_{i,j\in h} \frac{P_h}{p_h^e} \cdot y_{hij}$$

where P_h is the population projection halfway through the survey period for stratum h.

4. Finally, the previous factor is re-weighted to adjust the estimated distribution to the population distribution by autonomous community and age groups and sex provided by the demographic projections unit. This calibration has been carried out by means of the CALMAR framework of the French National Statistics and Economic Studies Institute (INSEE). The following twelve groups have been considered: Women and Men between 18 and 24, 25 and 29, 30 and 34, 35 and 39, 40 and 44 and 45 and 49 years old.

Following the previous steps supplies a final raising factor F_i for each of the persons in the effective sample.

Thus, the estimator for the total $\hat{Y}$ of a characteristic Y takes the following form:

$$\hat{Y} = \sum F_i \; y_i$$

where the sum is extended to all sample persons, y_i is the value of characteristic Y observed in individual i, and F_i is the final raising factor for said individual.

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

Sampling errors

The Jackknife method has been used to calculate sample errors, since it facilitates an estimate of the variance coefficient by means of the expression:

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

where $\hat{Y}_{(lh)}$ is the estimator obtained removing the group of sections l from stratum h.

To obtain the estimator, and for simplicity, instead of recalculating the raising factors the stratum factors where the sections have been removed are multiplied by the factor: $\frac{n_h}{n_h - \#(lh)}$.

Consequently, in accordance with the aforementioned terms:

$$\hat{Y}_{(lh)} = \sum_{i \notin h} F_i y_i + \sum_{\substack{i \in h \\ i \notin lh}} F_i \frac{n_h}{n_h - \#(lh)} y_i$$

where:

lh is a group of sections from stratum h

n_h is the total of sections from stratum h

A_h are the groups of sections from stratum h

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

6 Collection of the information

COLLECTION SYSTEM

The persons selected were visited by interviewers from each of the 52 Provincial Delegations.

Interviews are collected using a laptop computer that allows the preservation of the respondent's privacy. This can also control the most important errors, especially the so-called flow errors.

The respondent carries out the section of the questionnaire that does not include delicate questions (*socio-demographic characteristics)* together with the interviewer to help him/her get acquainted with the laptop so that s/he will be able to carry out the self-completed part without encountering any problems.

As from the lifestyles section, the interviewer gives the respondent the laptop computer for him/her to complete the rest of the questionnaire by his/herself. Nevertheless, the lifestyles section is less conflictive than the following sections, thus there may still be interaction between the interviewer and the respondent. When moving on to questions on *sexual practices* themselves, the interviewer does not participate in the questionnaire at all.

The information collected is totally anonymous and preserves statistical secrecy.

Information was collected from October 13th to December 19th 2003.

INCIDENTS

Incidents are the different situations an interviewer may encounter when working in a section. Since the survey focuses on persons, two types of incidents were established: Incidents concerning persons and possible incidents concerning the dwellings they inhabit.

Incidents concerning dwellings

A dwelling, depending the situation it is in when the interview is carried out, is included in one of the following classifications:

Surveyable dwelling

Dwelling used as a habitual residence. Considering a dwelling as surveyable is the first step towards performing the interview.

Empty dwelling

The dwelling located at the selected person's postal address is uninhabited.

Unreachable dwelling

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

Dwelling used for other purposes

The dwelling where the selected person supposedly lives is not a family dwelling, but is dedicated totally to other purposes.

Inaccessible dwelling

The interviewer cannot access the house due to climatological (snow, flood, etc.) or geographical reasons (when there are no roads leading to the dwelling).

Person beyond the scope of study

The person selected is really older than 49 years old or younger than 18 years old, that is to say, there is an error in the sample's selection framework.

Unreachable person

The person selected does not live at the address stated in the list of persons used for the sample.

Nevertheless, a selected person is not considered unreachable if located at a different postal address due to an error produced when transcribing data.

Incidents concerning persons

These incidents appear once the interviewer has contacted the selected person.

Surveyable person

The selected person agrees to provide the information requested.

Refusal of the resident group

This incident appears when the group in the dwelling inhabited by the selected person initially refuses to take part in the survey, with no possibility of informing on the same.

Absence of the resident group

There is no one present when the interview is scheduled and everyone will be absent during the whole time fieldwork will be undertaken in the section.

Inability to respond of the resident group

The resident group is unable to respond to the interview, either due to disability, illness, ignorance of the language or any other circumstance.

Refusal of the selected person

The selected person refuses to provide the information required.

Absent person

The selected person is away and will be away during the whole time fieldwork will be performed in the section.

Inability to respond of the selected person

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

Situations in which the gender of the selected person is incorrect (for example a person called Juan is actually Juana, given an error in the sample framework) or when the selected person is older or younger than stated in the directory (but aged between the 18-49 interval) are not recorded as incidents.

Refusal to use the computer

The selected person refuses to use the computer.

Partial refusal

The previous incidents can be detected easily by the interviewer, yet a partial refusal is hard to notice, since it refers to a situation in which the respondent completes a scarce number of questions.

PROCESSING OF INCIDENTS IN THE MODEL SURVEY

Incidents concerning dwellings

a) When encountering dwellings that are empty, unreachable, used for other purposes, persons who refuse to answer the questionnaire or are unable to, the selected person is replaced by a substitute. Substitutes are selected according to the list of substitute persons.

b) When encountering inaccessible or absent dwellings, the selected person is only replaced if the cause that makes him/her inaccessible does not disappear or if the situation lasts during the whole time the fieldwork is carried out in the section.

Replacements, if needed, are performed following the same criteria stated in the previous section.

Incidents concerning persons

a) Persons beyond the scope of study, refusals (resident group, selected person, to use the computer or partial refusals), unreachable persons or persons unable to answer are always replaced by substitute persons from the same age group.

b) Absences are only replaced when the absence will last during the whole time the fieldwork is carried out in the section.

There is list of substitute persons for each census section to be used on encountering incidents concerning selected persons. This list includes four persons in each age group.

Substitutes for each age group are used to replace selected persons from the same group. The list of substitutes cannot be extended.

7 Explanatory notes regarding the questionnaire

Section A. Socio-demographic characteristics

Variables	Why are they needed?
Sex, age, educational level, marital status, economic activity, professional situation, occupation.	They are required to determine the socio-demographical profile of persons whose sexual behaviour is vulnerable to contracting HIV/AIDS

Section B. Lifestyles

Variable	Why are they needed?
Have you lived alone or with others persons for most of the time?	To identify risk factors. To analyse the relationship between lifestyles and behaviours vulnerable to HIV infection. To define the populations that should be targeted with specific interventions. Comparison with other European surveys.
With which of these persons have you lived during most of the 12 months?	Idem
How often have you been out at night?	Idem
How often have you slept away from home for work or study reasons?	Idem Information on potential interaction of HIV in socio-sexual networks (mixing).
Alcohol intake	To analyse the relationship between lifestyles and behaviours vulnerable to HIV infection. To define a person's behaviour when facing environmental factors that influence the population's health.
Have you ever injected drugs?	To analyse the relationship between lifestyles and behaviours vulnerable to HIV infection. Injecting drugs has been the main risk factor for HIV dissemination in Spain.

Section C. Information and sexual experience

Variable	Why are they needed?
Have you ever had sex?	If not, there is no risk of sexually transmitted HIV. Go to questions on attitudes and opinions.

Subsection C. Sexual experience (only for heterosexual men, women and for homosexual men)

Variable	Why are they needed?
Please state if you had sex throughout your life....	Prevalence and distribution of sexual orientation patterns. Required as a filter to send the respondent on towards specific questions.

First sexual relationship

Variable	Why are they needed?
How old were you approximately the FIRST time you had sex?	Major health implications, since it marks the initiation of sexual relationships which, if performed unprotected, could lead to sexually transmitted diseases. Age of first sexual relationship. Generational changes as regards the age of first sexual relationship.
Approximately how old was the *person* you first had sex with?	Measures the age difference between both partners. Estimates potential HIV dissemination between different generations (mixing). It is also important to analyse the balance of power in the couple and the possibilities of using contraception (the youngest member usually has less sexual experience and therefore less ability to impose contraceptives).
Did you use a condom the first time you had sex?	Using a condom is the main measure to prevent HIV infection.
Did you take precautions to avoid pregnancy the first time you had sex?	To know the risk of unwanted pregnancies.
Which of the following methods did you or your partner use to prevent pregnancy?	To know the frequency of use of the different contraceptive methods and the prevalence of other ineffective contraceptive methods.

Sexual relationships throughout life

Variable	Why are they needed?
During YOUR WHOLE LIFE, approximately how many *persons* have you had sex with, even if just once?	Number of partners (intervals) Sexual history of the respondent, needed to proceed to enquire about sex with new partners. The probability of infection increases with the number of different partners that person has had unprotected sex with.
Have you ever used a condom?	Prevalence of the use of condoms
Did you use a condom the last time you had sex?	Prevalence of the use of condoms
Have you ever paid to have sex?	Prevalence of HIV infection is greater among prostitutes than among the general population.
When was the last time you paid to have sex?	Idem
Did you use a condom the last time you paid to have sex?	Unprotected sex with prostitutes is a risk factor for HIV.

Sexual relationships in the last 12 months

Variable	Why are they needed?
Have you had sex, even just once, IN THE LAST 12 MONTHS?	Number of partners The probability of infection increases with the number of different partners that person has had unprotected sex with.
Over the last 12 months, did you use a condom any of the times you had sex?	Related to the previous question, probability of risk of infection estimator.
Over the last 12 months, have you had casual sex or sex with persons who were not your stable partner?	Can be compared with the previous survey by the Spanish Drug Plan (1996)
How often have you used a condom with these casual partners?	Can be compared with the previous survey by the Spanish Drug Plan (1996)

Sexual intercourse over the last 30 days

Variable	Why are they needed?
Have you had sex in the last 30 days?	Frequency of vulnerable situations
How often have you had sex OVER THE LAST 30 DAYS?	The frequency of sexual intercourse is important to design epidemic dissemination models. The probability of infection increases with the frequency of unprotected sex (and changing partners).

Sexual relationships with new partners

Variable	Why are they needed?
Over the last 12 months, have you had sex for the first time with someone you had never had sex with before*?*	To answer the main goal of the survey: to analyse the frequency persons change their sexual partners, to identify characteristics of new relationships, response to risk of HIV infection when having sex with a new sexual partner and to determine the factors linked to the differences.
How many *persons*, even if you knew them before, have you had sex with for the first time in the last 12 months?	Number of new partners To answer the main goal of the survey. The probability of infection increases with the frequency of unprotected sex and by changing partners. Therefore, it is essential to know the number of partners and, especially, the number of new partners per time unit. The more often a person

Variable	Why are they needed?
	changes partners and has unprotected sex with these partners, the higher the risk of HIV dissemination among a certain group or circle.
Which of the following sentences best describes your relationship with <PARTNER> the first time you had sex?	Indicator of the importance the relationship has for the respondent. The different persons in the couple should act differently and respond differently to the risk of HIV infection in terms of the type of relationship they are in. Furthermore, the type of relationship can change over time and this can also have a bearing on responses to HIV infection (couples do not take the same precautions at the beginning and throughout the relationship)
Do you think you were drunk, even just slightly, when you had sex with (<PARTNER) for the first time?	To determine self-efficiency. Can influence the manner of responding to risk of HIV infection.
Did you use a condom the first time you had sex with (PARTNER)?	To answer the main goal of the survey. The use of condoms determines the incidence of HIV (as does how often a person changes partners and the date a virus appears in a specific circle or social group).
Who brought the condom?	Gender analysis.
Could you state the two main reasons for not using a condom the first time you had sex with (<PARTNER>)?	Social image of the condom. To find out motives for NOT using a condom.
Did you take precautions to avoid pregnancy during that first sexual relationship?	Interesting to analyse the prevention of unwanted pregnancies.
Which of the following methods did you or your partner use to prevent pregnancy?	Idem
When you had sex with (<PARTNER>) for the first time, do you think s/he was having sex with other people at the same time?	Concurrence of sexual partners. To know if partner was having sex with another person as well as the respondent. Information required to study HIV dissemination in a specific social group. It is also important to know whether the perception of the partner's sexual behaviour influences the response to HIV infection in the relationship. It can also influence the power/love balance and expectations.
When you had sex with (<PARTNER>) for the first time, were you having sex with another person?	Information required to study HIV dissemination in a specific social group. Also important to know if having sex with other persons influences the way a person responds to HIV infection in a new relationship. It can also influence the power/love balance and expectations.
After the first time you had sex with <PARTNER>, did you have	Analyse if sexual behaviour, in terms of HIV prevention, varies throughout a relationship with the

Variable	Why are they needed?
sex with <PARTNER> again?	same sexual partner.
Did you use a condom the last time you had sex with (PARTNER>)?	Idem
After the first time or times you had sex with (<PARTNER>), which sentence best describes your situation and (<PARTNER>)'s opinion with regard to condoms?	People have behave differently according to the type and stage of a relationship. The characteristics of a new relationship allow the preparation of relationship typologies and the analysis of responses to the risk of HIV infection when starting a new sexual relationship. This question is extremely important in order to compare data with other countries.

Section D. Sexual health

Variable	Why are they needed?
Has a doctor ever diagnosed any of the following STDs throughout your life?	Authentication of declared sexual behaviour. Must have been diagnosed. Indicator of vulnerable sexual behaviour or unprotected sex.
How long ago did you have the sexually transmitted disease?	Indirect indicator of former or recent vulnerable sexual behaviour.
Which STD did you suffer from last?	The probability varies for the different STDs.

Section E. HIV test

Variable	Why are they needed?
Have you given blood after 1986?	All donations are analysed for HIV infection.
Regardless of whether you have given blood, have you ever had an AIDS test?	Prevalence of HIV detection among the population Access of the population to infection diagnosis.
When was the last time you had an AIDS test?	Since the HIV test is indicated for vulnerable behaviours, this can help to estimate the frequency of said behaviours and/or if they are past or recent.
Why did you have this last AIDS test?	To find behaviours that lead the respondent to take the test and analyse if they are coherent with transmission mechanisms. Indirect indicator of knowledge on transmission mechanisms.
Where did they carry out that last AIDS test?	Access to HIV tests.
Have you received the results for that last AIDS test?	Quite often people who have an HIV test thinking they might have contracted the infection forget that

	risk and are not interested in obtaining the results.

Section F. Attitudes

Variable	Why are they needed?
In your opinion, could any of the following become infected with the AIDS virus by having sex:1-5	Knowledge of how HIV infection can be transmitted
In your opinion, what risk of AIDS infection do people who inject drugs have.	Knowledge of how HIV can be transmitted
Given your current sexual behaviour, do you think you are at risk of contracting AIDS?	Valuation of the risk of HIV infection. Determines whether person uses protection in first sexual relationships with a new partner.
Have you ever thought you may have been in a position where you could have got AIDS?	Perception of one's risk of HIV infection
Would you work in the same place as someone who has AIDS?	Discrimination indicator. Knowledge of how HIV can be transmitted.
Different opinions on the use of condoms. Please state the degree to which you agree with the following statements on the use of condoms: 1-7	Social image of the condom. Reasons to use or not to use condoms. Knowledge of contraceptive methods.
Finally, with regard to religious beliefs, to which group do you belong?	Social behaviour predictor.
How often have you been to a temple (church, mosque, ...) in the last 12 months for a religious event? (Do not count special occasions like christenings, communions, weddings or funerals)	Better sexual behaviour predictor than previous question.

8 Main definitions

INFORMATION AND SEXUAL EXPERIENCE

Favourite source of sexual information.

Refers to the person or resource the selected person would have preferred to receive most sexual information from, that is to say the person/resource the respondent would have selected if s/he could have.

Most important source

Most important means the source the respondent considers the most important, either because it provided most information or because it was the most relevant for him/her. There is no objective criterion to assess it.

Sexual relationship

The term *sexual relationship* can refer to different concepts. For this research, when this survey refers to *sex* or *sexual relationships* it only means relationships comprising vaginal, anal or oral penetration of the male organ, with or without orgasm.

This definition of sex or sexual relationship has been considered since the main goal of this study is to analyse how aware people having these relationships are of the risk of the transmission of AIDS. Consequently, only relationships involving at least one man have been considered, i.e. relationships between man/woman or two men.

Methods to prevent pregnancy or contraceptives:

– *Pill*: pill or tablet women take daily to prevent pregnancy.

– *Morning after pill (emergency contraception)*: pill or tablet women take the day or days after having had unprotected sex to prevent pregnancy.

– *Rhythm method:* method that allows women to know when they are ovulating so as to know when they can have sex with a low probability of getting pregnant.

– *Other methods*: this includes vasectomy, female sterilisation, intrauterine device (IUD), diaphragm, spermicides and those that do not appear among the other responses to this question.

– *Safe period*: this only includes persons who really stated they took precautions to prevent pregnancy thinking that having sex whilst menstruating is a contraceptive method.

Partner

In this survey, the term *partner* does not involve an emotional relationship. ***Partner***, that is to say *sexual partner*, means a person one has had sex with at least one.

This person may be:

– husband or wife

– a stable or occasional partner of the same or of a different sex (in homosexual relationships)

– someone who has been paid (or who has charged) for sex with the respondent.

Occasional or non-stable partner

A person one has had sex with sporadically, one or more times, without commitment and not continuous or regularly.

New partner

A new partner is a person who the respondent had sex with for the first time in the last twelve months.

The following examples have been included to clarify this term:

– A person the respondent had sex with one or more times five years ago and then had sex with again in the last 12 months after not having had sex with that person for a long time → would NOT be a new partner.

– A person the respondent met 10 years ago but had not had sex with until 10 months ago and is now wife or partner→ WOULD be a new partner.

When dealing with men who have had sex with men and women, this question will refer to both types of NEW PARTNERS, last man in section C2 and last woman in SECTION C1.

Last new partner

If over the last 12 months the respondent has had several new partners, s/he must choose the most recent, that is to say the person s/he had sex with **most recently for the first time**.

This does not always mean the last person the respondent had sex with, although it may be the case. The significant information is the date of that last sexual relationship since this date will determine whom one is referring to.

Example 1: If during the last 12 months PEPE had sex **for the first time** with:

PEPA, 11 months ago and PEPA was also the last woman he had sex with (even on the day of the interview).

JUANA 10 months ago, and the last time 6 months ago → the new partner is JUANA.

Example 2: If during the last 12 months PEPE had sex **for the first time** with:

ANA, almost 12 months ago for the first time and is practically the only woman he has had sex with to date.

ANOTHER WOMAN he had sex with 8 or 9 months ago and does not even remember her name →, the last new woman is ANOTHER WOMAN.

SEXUAL HEALTH

Sexually transmitted disease

Disease contracted by having sex with another person.