2 Data Collection

2.1 QUESTIONNAIRE DESIGN

The analyses in this report are based on the data collected in the third section of the individual DHS-II questionnaire.[2] The section begins with a series of questions on contraceptive knowledge and use. DHS respondents were first asked an open-ended question about which methods of family planning they knew: "Now I would like to talk about family planning—the various ways or methods that a couple can use to delay or avoid pregnancy. Which ways or methods have you heard about?" All of the methods the woman mentioned in response to this question were marked as *spontaneously* reported. The interviewer then described all the methods listed in the questionnaire that the woman had not mentioned and asked if she recognized each one. All the methods she recognized after hearing the description were marked as *known with probing*. If the respondent did not know a method after hearing it described, the interviewer recorded that the respondent had not heard of that particular method.

The respondent was then asked two questions about each method that she had heard about, regardless of whether she reported the method spontaneously or after probing. The two questions were: "Have you ever used (METHOD)?" and "Do you know where a person could go to get (METHOD)?" The second question was asked only for modern methods (see Section 2.2) and for periodic abstinence. In the case of periodic abstinence, the question was rephrased as "Do you know where a person can obtain advice on how to use periodic abstinence?"

The questions on current use of contraception were asked in a different way. Respondents who reported that they had ever used at least one method of contraception and who were not pregnant or sterilized at the time of the survey were asked, "Are you currently doing something or using any method to delay or avoid getting pregnant?" Respondents who gave a positive answer were then asked, "Which method are you using?" Respondents who had reported previously that they were sterilized were not asked this question, but the interviewer recorded them as using female sterilization. Respondents who were recorded as using a modern method were also asked about the source of the method they were using. Users of modern methods other than male or female sterilization were asked, "Where did you obtain (METHOD) the last time?" Respondents who were sterilized for contraceptive reasons were asked, "Where did the sterilization take place?" Respondents who had to travel to obtain their contraceptive supplies (including a sterilization operation) were then asked, "How long does it take to travel from your home to this place?" and "Is it easy or difficult to get there?"[3]

2.2 CONTRACEPTIVE METHODS

The model DHS questionnaire includes a list of nine contraceptive methods[4] plus an "other method" category. The standard list includes the methods likely to be known and used in most countries, but the organizations implementing each survey were encouraged to add any other methods that are commonly known or used in their country. Thirteen of the 22 DHS-II surveys added at least one country-specific method to the standard list. Table 2.1 shows, for each country, the year of fieldwork, the weighted and unweighted number of currently married women interviewed, and which contraceptive methods, if any, were added to the standard list.

Five countries (Rwanda, Senegal, Egypt, Indonesia, and Dominican Republic) added Norplant to the list. Indonesia

[2] All DHS surveys are based on one of two standard questionnaires—the model "A" questionnaire for countries with high contraceptive prevalence or the model "B" questionnaire for countries with low contraceptive prevalence. The principal difference between the two questionnaires is the amount of detail collected on contraceptive use. The core questionnaire is modified to fit the individual situation in each country and is translated into the principal local languages.

[3] Yemen used the core questionnaire developed by the Pan Arab Project for Child Development. The questionnaire deviates from the standard DHS questionnaire in many respects. In particular, the question on knowledge of a source for the method was asked only for reversible modern methods, i.e., it was not asked for periodic abstinence or for male and female sterilization. The questions on source of current method were also asked in a way slightly different from other DHS surveys and did not refer explicitly to the last occasion the method was obtained, except for pill and IUD. The question on whether or not it is easy to get to the place where the method was obtained was not asked.

[4] The methods are: pill; IUD; injectables; diaphragm, foams, and jellies (vaginal methods); condom; female sterilization; male sterilization; periodic abstinence; and withdrawal.

Table 2.1 Survey characteristics

Year of fieldwork, number of currently married women, and contraceptive methods added to questionnaire, Demographic and Health Surveys, 1990-1993

Country	Year of fieldwork	Number of currently married women		Contraceptive methods added to questionnaire
		Weighted	Unweighted	
Sub-Saharan Africa				
Burkina Faso	1993	5,326	5,091	Prolonged abstinence, gris-gris[a]
Cameroon	1991	2,868	2,737	Abstinence
Madagascar	1992	3,736	3,630	None
Malawi	1992	3,492	3,489	None
Namibia	1992	2,259	2,297	None
Niger	1992	5,561	5,232	Gris-gris
Nigeria	1990	6,880	6,696	Foaming tablets
Rwanda	1992	3,785	3,698	Norplant
Senegal	1992/93	4,505	4,505	Norplant
Tanzania	1991/92	6,038	6,091	Mucus method
Zambia	1992	4,457	4,467	None
Asia/Near East/North Africa				
Egypt	1992	9,153	9,148	Norplant, prolonged breastfeeding
Indonesia	1991	21,109	21,187	Norplant, intravag,[b] abortion
Jordan	1990	6,168	6,181	Prolonged breastfeeding
Morocco	1992	5,118	5,118	None
Pakistan	1990/91	6,364	6,393	None
Yemen	1991/92	5,355	5,336	Breastfeeding
Latin America/Caribbean				
Brazil (NE)	1991	3,541	3,427	None
Colombia	1990	4,449[c]	4,542	None
Dominican Republic	1991	4,083	4,226	Norplant
Paraguay	1990	3,574	3,634	Billings, yuyos[d]
Peru	1991/92	8,741	9,141	None

Notes:
[a] Gris-gris are amulets, charms, and spells intended to ward off pregnancy.
[b] Intravag is a spermicidal tissue placed inside the vagina during intercourse.
[c] Number of women in thousands. The sample weights in Colombia include a factor to inflate the sample size to the total population size.
[d] Yuyos are herbs and other traditional methods used to prevent pregnancy.

replaced diaphragm, foams, and jellies with intravag, and added abortion to the list. Nigeria added foaming tablets in addition to the standard group of diaphragm, foams and jellies. Other countries added traditional or natural methods such as Billings (or mucus) method of periodic abstinence, prolonged abstinence, prolonged breastfeeding, herbal methods, or gris-gris (amulets, charms, or spells intended to ward off pregnancy).

While adding country-specific methods to the questionnaire helps to achieve comprehensive knowledge of contraception in each country, the process complicates the task of making international comparisons. Specifically, information about the added methods is probed in some countries and not in others. Increased reported knowledge of a method due to probing increases the reporting of ever-use and current use of the method. For methods that are truly country-specific, this does not cause a serious problem because knowledge of the method is likely to be low in other countries in which it is not specifically described. Therefore, probing for knowledge of that method is unlikely to precipitate many more positive responses for either knowledge or use. However, methods such as prolonged abstinence and prolonged breastfeeding do present a problem when they are added as country-specific methods because these practices are frequently used also for purposes other than contraception.

Many women who did not report spontaneous knowledge of these methods because they did not perceive their primary purpose as contraceptive may report after probing that they are using them.

International comparisons are affected because similar women in other countries, where prolonged abstinence and prolonged breastfeeding were not added, did not have the opportunity to report their use. The data for Burkina Faso illustrate this problem. Only 4 percent of currently married women spontaneously reported knowledge of prolonged abstinence, but 70 percent did so after probing. The prevalence rate for Burkina Faso is 8 percent of currently married women without prolonged abstinence, but 25 percent if it is included. However, much of the reported use of prolonged abstinence is by women who did not report knowledge of the method until it was described to them. If probing for knowledge of prolonged abstinence had been done in other surveys, particularly in sub-Saharan Africa, similar increases in knowledge and use may well have been observed.

One solution is to exclude prolonged abstinence and prolonged breastfeeding from the analysis of contraceptive knowledge and use. This was the approach taken in the Burkina Faso report. However, in some situations, prolonged breastfeeding or prolonged abstinence are important methods of contraception and excluding them from the analysis could be misleading. In Jordan, for example, prolonged breastfeeding has been promoted heavily as a method of contraception, and 93 percent of currently married women spontaneously report knowledge of it. Consequently, ignoring the method in the Jordan analysis would exclude an important method in the family planning program. Further, from the perspective of comparability across DHS-II surveys, high levels of knowledge and use of prolonged breastfeeding would have been reported in the "other method" category even if prolonged breastfeeding had not been included as a country-specific method.

The approach taken in this report in dealing with these two methods differs from that typically taken in other studies. An attempt to achieve comparability across DHS-II surveys is fulfilled while still providing complete information for countries where prolonged abstinence or prolonged breastfeeding are important as contraceptive methods. In surveys that do not add them as country-specific methods, knowledge and use of these methods are recorded if the respondent spontaneously mentions them when asked which methods she knows of. In this situation, knowledge and use of prolonged abstinence and prolonged breastfeeding are included in the "other method" category but are indistinguishable from other methods reported in that category. Hence, in this approach, both prolonged abstinence and prolonged breastfeeding are included in the "other method" category in countries that included them as country-specific methods, but only knowledge and use by respondents who reported the method spontaneously is considered.

Other country-specific methods are handled in different ways. Billings or mucus methods of periodic abstinence are grouped with periodic abstinence, while foaming tablets and intravag are classified as vaginal methods along with diaphragm, foams, and jellies. Gris-gris and yuyos are placed in the "other method" category, while Norplant is considered a separate method if it was added as a country-specific method.[5] For the purposes of this report, abortion is not considered a contraceptive method and is not included in any of the analyses. For some analyses, contraceptive methods are grouped into two broad categories: modern methods and traditional methods. Modern methods are the pill, IUD, injectables, vaginal methods, condom, female sterilization, male sterilization, and Norplant. Traditional methods are periodic abstinence, withdrawal, and "other methods." The analysis of the source of current method is restricted to modern methods and further classifies them as clinical (IUD, Norplant, female sterilization, male sterilization) or supply (pill, injection, vaginal methods, condom) methods.

Some surveys expanded the list of contraceptive methods in the question on current method used. In Senegal and Colombia, the list was expanded to include use of more than one method: condom and spermicides in the case of Senegal; and condom and IUD, vaginal methods and IUD, periodic abstinence and condom, and periodic abstinence and withdrawal in the case of Colombia. For the purposes of this report, any reported use of multiple methods is assigned to

[5] Rutenberg et al. (1991) included Norplant in the "other method" category in their analysis of contraceptive knowledge and use based on DHS-I data. That approach groups Norplant with traditional methods such as herbs and gris-gris. Given the increasing importance of Norplant in some populations, it is considered a separate method in this analysis. In some surveys that did not ask specifically about Norplant, it was possible to identify when Norplant was reported spontaneously in the "other method" category. In these surveys, any knowledge or use of Norplant is coded separately. In the other surveys that did not ask about Norplant, any knowledge and use that is reported spontaneously is classified in the "other method" category. However, Norplant is likely to be largely unknown in populations that did not include it as a country-specific method.

the theoretically more effective method, as follows (in descending order of efficacy): IUD, condom/vaginal methods, spermicides, periodic abstinence, withdrawal. The ordering of periodic abstinence and withdrawal is somewhat arbitrary, but few respondents in Colombia reported using both periodic abstinence and withdrawal so this decision has little impact on the results. In Peru, distinction was made between calendar, temperature, and mucus methods of periodic abstinence in the question on current use. For the purposes of this analysis, these methods are combined under periodic abstinence.

2.3 KNOWLEDGE

The analysis of knowledge of contraceptive methods is based on responses to the first question about contraceptive knowledge and use described in Section 2.1. A distinction can be made between spontaneous and probed knowledge, as shown in Table 3.1. However, in the other tables in this report, a woman is classified as knowing about a method irrespective of whether she mentioned it spontaneously or recognized it only after it was described to her. Knowledge of a contraceptive method is defined simply as having heard of a method to avoid or delay pregnancy; it does not imply that a woman knows how to use it or where to obtain it.

The analysis of knowledge of a source for a modern contraceptive method is based on the responses to the final question regarding contraceptive knowledge and use as described in Section 2.1. Knowledge of a source for a modern method is based solely on the respondents' statements; no attempt was made to determine the type of source (except in Indonesia) or to determine whether the source actually does provide the method. Hence, reported knowledge of a source for a modern method does not imply that the knowledge is accurate.

2.4 EVER-USE AND CURRENT USE

Ever-use of contraception is defined as ever having used contraception at any time and is based on responses to the second question about contraceptive knowledge and use described in Section 2.1. Current use of contraception is defined as use around the time of the survey. Interviewers were given guidelines to help them determine whether a reported method was actually being used at the time of the survey. This determination is not always easy, especially for methods such as condom, vaginal methods, and withdrawal, which are used only when intercourse occurs. Interviewers were instructed that current use of a coitus-dependent method meant that the woman had used it at the most recent occurrences of sexual intercourse. As there was no mechanism to convey this information to the respondent herself, use of such methods may have been overreported. Current use of pill meant that the woman was taking pills daily, while current use of injections meant that she had received an injection within the last three or six months, depending on the type of injection offered in the country. If the respondent reported current use of more than one method, the more effective method was recorded (except in cases where the reporting of use of multiple methods was explicitly coded in the questionnaire, as in Senegal and Colombia).

2.5 SOURCE OF CURRENT METHOD

The source of the current method is defined as the place where the woman obtained the method the last time. Coding categories for the question on the source of the current method were country-specific and were designed to include all sources available in the country. For the purposes of this analysis, the individual country-specific sources are classified into five categories:

(1) *Government stationary:* any government-run facility at a fixed location
(2) *Government mobile:* government outreach workers or mobile units
(3) *Pharmacy:* privately owned pharmacy or drug store
(4) *Other private:* private organizations run by nongovernmental organizations (NGOs) as well as private doctors, clinics, or other medical providers
(5) *Other sources:* family, friends, church, general shops, and don't know.

Ayad et al. (1994) note that in some DHS-I surveys, a lack of detail in the source categories on the questionnaire sometimes caused difficulties in classifying individual sources. To alleviate this problem, the question on contraceptive sources was modified for DHS-II surveys. The standard response categories were grouped under three major headings to distinguish between the public sector, medical private sector, and other private sector. Hence, all known sources should have been classified into one of these categories prior to fieldwork. However, this was not done in some of the earlier DHS-II surveys for which the questionnaire was finalized prior to the implementation of this change, and it was more difficult to classify sources accurately in

those cases. The final classification used for individual sources in each DHS-II survey is given in Appendix A.

DHS-II data on the source of the current method have some limitations, noted by Ayad, Wilkinson, and McNiff (1994). First, DHS-II data on source of current method are not always comparable with data collected from other survey programs because the question may be asked in different ways. In particular, CPS surveys asked women using modern methods where they *usually* obtained the method, whereas DHS surveys asked where they obtained the method the last time. This difference in wording may affect trends in the source of supply methods such as pills. However, direct comparison is possible between DHS-I and DHS-II surveys in countries that participated in both rounds of the DHS program.

A second problem is that the DHS surveys record only the final source of methods, which may understate the importance of some sources. For example, individual users may obtain contraceptive supplies from private pharmacies, but the pharmacies may obtain them from the public sector at a subsidized price.

The time taken to reach the current source also refers to the source that was used to obtain the method the last time. The questions on time to source were asked of different subgroups of women in different surveys. In most DHS-II surveys, women who obtained their method from a mobile source or from the church, friends or relatives, or other sources were not asked the questions on time to source. However, in some surveys, the skip pattern used in the questionnaire deviated from the standard approach. In particular, in the Dominican Republic, women who obtained their contraceptive supplies from a private doctor, consultant, or clinic were asked for the name and address of that provider but were not asked how long it took to get there or whether it was easy or difficult to get there. Because of variations in the skip pattern, the populations on which estimates of time to source are based are not exactly the same in all surveys; but in most cases the differences have little effect on the results.

2.6 BASE POPULATION

The base population for all the analyses of contraceptive knowledge, ever-use, and current use in this report is currently married women age 15-49. Currently married women include all women in a stable sexual union regardless of the legal status of that union. This definition is consistent with that used in the study of DHS-I data by Rutenberg et al. (1991) and was chosen because it is the base population which is referred to most often.[6] The base population for the analyses of the source of current method is currently married women age 15-49 who were using a modern method of contraception at the time of the survey. The analyses of time to source are based on currently married women age 15-49 who were using a modern method of contraception at the time of the survey and who were asked the questions on time to source. As noted above, the exact population asked the questions on time to source depends on what source was reported and varies to some extent across surveys. In general, the analyses are based on users who obtained their method from a fixed facility. The specific sources to which the questions on time to source refer in each country are indicated in Appendix A.

The following background characteristics of respondents are used in the analyses: respondents' age (15-24, 25-34, 35-49), number of living children (0, 1-2, 3-4, 5+), area of residence (urban, rural), and education (none, primary, secondary or higher).

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[6] Earlier studies based on WFS data have also used "ever-married" women, "fecund" women, and "exposed" women as the base population (Carrasco, 1981; Lightbourne, 1980; Vaessen, 1980).