METHODOLOGY

World Contraceptive Use by Marital Status and Age 2017 provides a comprehensive and up-to-date data set of family planning indicators for all women of reproductive age (from 15 to 49 years) and, where available, disaggregated by marital status and age. World Contraceptive Use by Marital Status and Age 2017 complements the publication series World Contraceptive Use 2017 (United Nations, 2017) which contains family planning indicators for women of reproductive age who are married or in a union. The data set pertains to 916 surveys from 186 countries or areas of the world for the period from 1950 to 2016 and contains data available as of July 2017.

The data set contains time-specific estimates calculated from nationally-representative household surveys for the following indicators: contraceptive prevalence (total, modern and traditional), the unmet need for family planning (total) and the demand for family planning that was satisfied by the use of modern methods of contraception. These indicators are useful for tracking progress in achieving universal access to sexual and reproductive health-care services, including family planning, as part of target 3.7 of the Sustainable Development Goals. The data set presents the indicators by marital status and age, which are both relevant dimensions of the disaggregation of SDG indicator 3.7.1. Demand for family planning satisfied by modern methods.

Family planning indicators are compiled for several categories of marital status and by five-year age groups. The All women category pertains to all women of reproductive age. The Married/In-union category pertain to women who are married (defined in relation to the marriage laws or customs of a country) and to women in a union, which refers to women living with their partner in the same household (also referred to as cohabiting unions, consensual unions, unmarried unions, or “living together”). The Unmarried/Not-in-union category pertain to women who are not married and not in a union and is a complement to the Married/In-union category. This category is, in some surveys, divided into never married women and formerly married women. Notes on the population included in the data set indicate when estimates refer to the previously defined categories. Data availability varies across the different marital status categories. Table 1 summarises the number of observations available for each indicator by marital status and age.

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Contraceptive use any method</th>
<th>Contraceptive use modern/traditional</th>
<th>Unmet need for family planning</th>
<th>Demand satisfied by modern methods</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total By age</td>
<td>Total By age</td>
<td>Total By age</td>
<td>Total By age</td>
</tr>
<tr>
<td>All women</td>
<td>520 By age 463</td>
<td>495 By age 430</td>
<td>235 By age 226</td>
<td>235 By age 226</td>
</tr>
<tr>
<td>Married/In-union</td>
<td>849 By age 793</td>
<td>755 By age 704</td>
<td>367 By age 352</td>
<td>362 By age 347</td>
</tr>
<tr>
<td>Unmarried/Not-in-union</td>
<td>497 By age 404</td>
<td>477 By age 396</td>
<td>241 By age 226</td>
<td>241 By age 221</td>
</tr>
<tr>
<td>Formerly married</td>
<td>390 By age 320</td>
<td>377 By age 317</td>
<td>234 By age 221</td>
<td>233 By age 218</td>
</tr>
<tr>
<td>Never married</td>
<td>347 By age 290</td>
<td>335 By age 288</td>
<td>225 By age 220</td>
<td>223 By age 198</td>
</tr>
</tbody>
</table>

Table 1: Number of surveys that provide family planning indicators disaggregated by marital status and age.
INDICATOR DEFINITIONS

Contraceptive prevalence

Contraceptive prevalence is the proportion of women who are currently using, or whose sexual partner is currently using, at least one method of contraception, regardless of the method being used. It is reported as a percentage with reference to women of respective marital status and age group.

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\text{Contraceptive prevalence} = \frac{\text{Number of women of respective marital status and age group who are currently using a method of contraception}}{\text{Number of women of respective marital status and age group}}
\]

For analytical purposes, contraceptive methods are often classified as either modern or traditional. Modern methods of contraception include female and male sterilization, the intra-uterine device (IUD), the implant, injectables, oral contraceptive pills, male and female condoms, vaginal barrier methods (including the diaphragm, cervical cap and spermicidal foam, jelly, cream and sponge), the lactational amenorrhea method (LAM), emergency contraception and other modern methods not reported separately (e.g., the contraceptive patch or vaginal ring). Traditional methods of contraception include rhythm (e.g., fertility awareness-based methods, periodic abstinence), withdrawal, and other traditional methods not reported separately.

This data set presents levels of contraceptive prevalence for any modern method, any traditional method, and any method (modern or traditional). In some cases, data for specific methods were not available; for instance, sterilisation is frequently not reported as a current method of contraception. In these cases, there is a note in the data set and the level of contraceptive prevalence for any method should be interpreted as a lower-bound value.

Unmet need for family planning

The unmet need for family planning illustrates the gap between women’s reproductive intentions and their contraceptive behaviour. It is defined as the proportion of women who want to stop or delay childbearing but are not using any method of contraception. In this dataset, it is reported as a percentage with reference to women of respective marital status and age group.

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\text{Unmet need for family planning} = \frac{\text{Number of women of respective marital status and age group who have an unmet need for family planning}}{\text{Total number of women of respective marital status and age group}}
\]
The standard definition of unmet need for family planning includes women who are fecund and sexually active in the numerator, and who report not wanting any (more) children, or who report wanting to delay the birth of their next child for at least two years or are undecided about the timing of the next birth, but who are not using any method of contraception. The numerator also includes:

- Pregnant women whose pregnancies were unwanted or mistimed at the time of conception; and
- Postpartum amenorrheic women who are not using family planning and whose last birth was unwanted or mistimed.

Infecund women are excluded from the numerator. Women are assumed to be infecund if:

- They were first married more than five years ago, have not had a birth in the past five years, are not currently pregnant, and have never used any kind of contraceptive method; or
- They report being infecund or menopausal, having had a hysterectomy, never having menstruated, or being postpartum amenorrheic for five years or longer; or
- For women who are not pregnant or in postpartum amenorrhea, they report that their last menstrual period occurred six months or more prior to the survey.

Postpartum amenorrheic women are women who have not had a menstrual period since the birth of their last child, if the birth occurred in the period 0-23 months prior to the survey interview. If their period has not returned 24 months or more after the previous birth, women are considered fecund, unless they fall into one of the infecund categories above.

Women who are married or in a union are assumed to be sexually active. For unmarried women, it is necessary to determine the timing of their most recent sexual activity. Unmarried women who are not pregnant or postpartum amenorrheic are considered currently at risk for pregnancy (and thus could be included potentially in the numerator as having unmet need) if they have had intercourse in the four weeks prior to the survey interview. The unmet need for unmarried women who are pregnant or postpartum amenorrheic is determined in the same way as for married women and regardless of their most recent sexual activity. Unmarried pregnant women whose pregnancies were unwanted or mistimed at the time of conception; and unmarried postpartum amenorrheic women who are not using family planning and whose last birth was unwanted or mistimed are assumed to have an unmet need.

The diagram below indicates the procedure set out by the Demographic and Health Survey (DHS) program (See figure 1) for computing the number of women of reproductive age who have an unmet need for family planning (referred to as the 2012 DHS definition). These data are available for DHS from Round 2 and for MICS surveys from Round 4 (for married/in-union women and from Round 5 also for unmarried/not-in-union women of reproductive age). Further information on the operational definition of the unmet need for family planning, as well as survey questions and statistical programs needed to derive the indicator, can be found at the following website: http://measuredhs.com/Topics/Unmet-Need.cfm.
Figure 1: DHS 2012 revised definition of the unmet need for family planning indicator


When the unmet need for family planning is measured in a comparable way at different dates, the trend indicates whether there has been progress towards meeting women’s needs for family planning. Nevertheless, even when contraceptive prevalence is rising, the unmet need for family planning may not decline, and it may even increase. This happens because in many populations the need for family planning increases with a decline in the number of children desired. Changes in the desired spacing of births or in the percentage of women who are at risk of pregnancy also influence the trend in the need for family planning, independently of trends in contraceptive prevalence.

**Demand satisfied by modern methods**

The demand for family planning that is satisfied by using modern methods of contraception is defined as the number of women who are currently using, or whose sexual partner is currently using, at least one modern contraceptive method as a proportion of the number of women of reproductive age who have a demand for family planning, either are using any method of contraception or are having an unmet need for family planning as defined above.
Demand satisfied by modern methods = \frac{\text{Number of women of respective marital status and age group who are currently using a modern method of contraception}}{\text{Total number of women of respective marital status and age group who are using any method of contraception or are having an unmet need for family planning}}

The indicator is calculated using measures of contraceptive prevalence and the unmet need for family planning, the numerator being the prevalence of contraceptive use for any modern method, and the denominator being the total demand for family planning, which equals the sum of contraceptive prevalence for any method and the unmet need for family planning.

Levels of demand satisfied by modern methods exceeding 75 per cent are generally considered high, while values of 50 per cent or less are generally considered very low.

**DATA SOURCES**

The indicators presented in *World Contraceptive Use by Marital Status and Age 2017* have been estimated using data from nationally-representative household surveys. A large proportion of the data was obtained from multi-country survey programmes that routinely collect the necessary data, including the Contraceptive Prevalence Surveys (CPS), the Demographic and Health Surveys (DHS), the Fertility and Family Surveys (FFS), the Reproductive Health Surveys (RHS), the Multiple Indicator Cluster Surveys (MICS), the Performance Monitoring and Accountability 2020 surveys (PMA), the World Fertility Surveys (WFS) and the Gender and Generations Survey (GGS). Additional information was provided by other international survey programmes and national surveys.

Generally, there is no discrepancy between the estimates presented in *World Contraceptive Use by Marital Status and Age 2017* and those published in national survey reports. However, in some cases the estimates published by the United Nations have been adjusted to improve comparability. Notes included in the data set indicate when adjustments were made, and where the survey data differed from standard definitions.

Where available, micro data for the DHS, MICS, and GGS surveys and some national surveys were used to calculate family planning indicators. Survey variables related to family planning indicators for DHS and MICS surveys were harmonised over time and across countries. Several estimates produced from micro data were excluded from the data set to address issues with small numbers of events and small sample population size of specific age and marital status combinations. First, family planning indicators are not published for any combination of marital status and age group that has fewer than 50 cases. Second, the estimates of demand for family planning satisfied by modern methods are published only for the combination of age group and marital status for which the total demand for family planning (contraceptive prevalence of any method plus unmet need for family planning) is greater than 5 per cent. Third, in cases where the total number of contraceptive users of any marital status category is less than 10, the estimates of family planning indicators are not published.
Additionally, for 25 DHS and 1 MICS, where the women questionnaire was limited to ever-married women, the estimates were adjusted to produce family planning indicators for all women and for unmarried women. In these cases, where considered reasonable, the assumption was made that contraceptive use among never married women of reproductive age is close to zero and population-weighted estimates for all and unmarried women were produced. Notes in the data set indicate when this adjustment was made.

Where no micro data were available, family planning indicators were obtained from survey reports, secondary sources or externally provided custom tabulations. Family planning indicators are often not reported for unmarried women separately. In these cases, estimates were calculated indirectly based on the published tabulations of the contraceptive prevalence among all women and married/in-union women or among never married and formerly women, weighted by the numbers of women of respective marital status and age. Notes included in the data set indicate when estimates were produced by this approach.

**DATA LIMITATIONS**

Differences in survey design and implementation, and in the representativeness of the sample, can affect the comparability of survey-based estimates over time and between countries. The estimates of family planning indicators can also be affected by rounding and small sample population size of the surveys.

The time frame used to assess contraceptive prevalence may also vary. Often it is left to the respondent to determine what is meant by “currently using” a method of contraception. Some surveys ask specifically about use within the past month. Occasionally, when information on current use is not collected, data on the use of contraceptive methods at last sexual intercourse or during the previous year are utilized for estimating the prevalence of use at the time of the survey.

Differences in questions asked may also affect estimates of the unmet need for family planning and make comparability difficult over time or across countries. For example, some surveys do not gather all the information required to estimate infecundity in the same way. Differences in questions about contraceptive prevalence, fertility desires, and assessment of postpartum amenorrhea may also affect the estimated level of unmet need for family planning and, as a consequence, of the demand satisfied by modern methods. In the *World Contraceptive Use by Marital Status and Age 2017* data set, notes have been included to indicate any deviations from the 2012 DHS definition.

The specification of some of the characteristics of the study population (age groups or definitions of marital or union status categories) can also affect the comparability of estimates for these indicators. Alternative reference populations that are sometimes used include women with a partner (cohabiting or not) and ever-married women. In the *World Contraceptive Use by Marital Status and Age 2017* data set, notes have been included to indicate deviations with respect to the *Married/In-union* and *Unmarried/Not-in-union* referred to above.