



## Technical Brief: Estimating Impacts of Contraceptive Use

### What impacts do we measure?

Three of FP2020's Core Indicators measure the impact of modern contraceptive use, and the consequences of non-use:

Core Indicator 6: Unintended pregnancies averted due to modern contraceptive use

Core Indicator 7: Unsafe abortions averted due to modern contraceptive use

Core Indicator 8: Maternal deaths averted due to modern contraceptive use

These three indicators estimate how many of each negative outcome (unintended pregnancy, unsafe abortion, maternal death) are avoided because women are protected by modern contraceptives.

### What are we measuring?

These impact indicators measure the impact among all women using modern contraception, not just additional users. They represent an estimate of what might have happened if none of these women were using modern contraception.



For example, the 119 million unintended pregnancies averted that were reported in the 2019 Progress Report is the total number of unintended pregnancies avoided among the 314 million women using contraception that year. This number says: If these 314 million women were not using any contraception, there would have been 119 million more unintended pregnancies in 2019.

These numbers cannot be compared to actual unintended pregnancies, unsafe abortions, and maternal deaths that take place. In some cases, the numbers will look very large; this is because they include the impacts that were already averted since many women in the 69 countries were already using contraception, thus already lowering the national burdens.

### How are impacts averted calculated?

The impacts averted numbers are estimated using models, not by measuring real-life changes in the countries. The estimates are made using the best available data. In some cases, the models use country-specific data, however for some indicators only regional or global estimates are available.

Unintended Pregnancies Averted	Unsafe Abortions Averted	Maternal Deaths Averted
<p>This estimate is derived by first calculating the number of pregnancies that would occur if women were not using any contraception (estimated to be 31%).<sup>11</sup> However, some women using modern contraception will get pregnant due to method failure, so this number must be subtracted, as these pregnancies will not be averted. The number of pregnancies due to method failure among the same group of women is calculated based on the method mix. It is assumed that pregnancies that occur because of method failure would have been unintended.</p>	<p>It is estimated that worldwide, around 50% of unintended pregnancies are terminated by abortion. This number ranges from 20% in some parts of sub-Saharan Africa, to as high as 80% in East Asia.<sup>2</sup> The number of unsafe abortions averted is calculated by applying these sub-regional estimates to the number of unintended pregnancies averted. Next, the unsafe abortions averted are calculated by estimating the percentage of abortions that are unsafe.<sup>3</sup></p>	<p>The risk of a women dying from an unintended pregnancy is calculated by applying mortality rates to each pregnancy outcome: live birth, miscarriage or stillbirth, safe abortion, or unsafe abortion. This is done using the national MMR,<sup>4</sup> a safe abortion mortality rate of 2 per 100,000 safe abortions, and sub-regional unsafe abortion mortality rates.<sup>5</sup> Using this data, maternal deaths per unintended pregnancy are calculated for each country. This is then multiplied by the number of unintended pregnancies averted to estimate maternal deaths averted.</p>

To calculate impacts averted yourself, download the [Core Indicator 1-9 Calculator](#).

<sup>1</sup> Askew I, et al. Harmonizing methods for estimating the impact of contraceptive use on unintended pregnancy, unsafe abortion, and maternal health. *Glob Health Sci Pract.* 2017;5(4):658-667. <https://doi.org/10.9745/GHSP-D-17-00121>

<sup>2</sup> Sedgh et al, *Intended and Unintended Pregnancies Worldwide in 2012 and Recent Trends, Studies in Family Planning* 2014; 45 [3]: 301-314.

<sup>3</sup> Sedgh et al, *Induced abortion: incidence and trends worldwide from 1995 to 2008, Lancet*, 2012; 379: 625-632.

<sup>4</sup> WHO, *Trends in Maternal Mortality: 1990 to 2015. Estimates by WHO, UNICEF, UNFPA, The World Bank, and UNPD.* Geneva: WHO, 2015.

<sup>5</sup> WHO, *Unsafe abortion: Global and regional estimates of the incidence of unsafe abortion and associated mortality in 2008. 6th Edition.* WHO 2008.