

# The Benefits of Family Planning to Avert Infant and Child Deaths in Ethiopia

**Authors:** Sintayehu Mulu, National Family Planning Focal Person, Urban Health Promotion and Disease Prevention Directorate, Federal Ministry of Health; Aragaw Lamesgin, Health and Population Program Advisor, Futures Group/Health Policy Project, Ethiopia

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## Background

The probability of dying in early childhood or infancy is much greater for children born to mothers who are young or old, born after a short birth interval, or born to women who have had more than three births (Central Statistical Agency and ICF International, 2011). According to the Ethiopia Demographic and Health Survey (EDHS), a woman is considered to be “too young” if she is under age 18 and “too old” if she is over age 34 at the time of delivery. A “short birth interval” characterizes births occurring within 24 months of previous birth. Women who are exposed to high-risk pregnancy are less likely to use family planning (FP) and significantly more likely to have unmet need for family planning, compared with women without fertility-related risk (UNFPA, 2012).

**Table 1: Infant & Child Mortality Progress in Ethiopia**

Year	Percentage of Births with Any Risk	Infant Mortality	Under-five Mortality
2000	63.4	97	166
2005	66.3	77	123
2011	62.4	59	88
2013/ UN estimate	-	-	67

## Hypothesis

Currently, 62.4 percent of all births in Ethiopia are considered “high-risk” (Central Statistical Agency and ICF International, 2011). Although there has been recent progress in infant and child mortality, increased use of effective family planning can lead to further improvement by reducing high-risk fertility (Central Statistical Agency and ICF International, 2011).

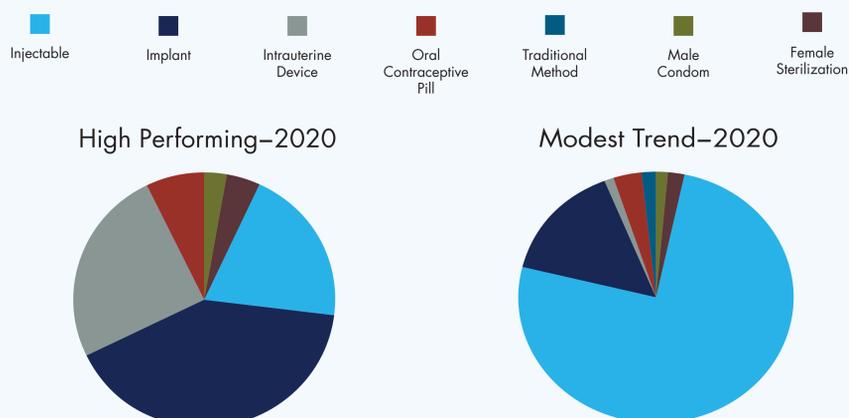
## Methodology

The Ethiopian Ministry of Health, in collaboration with the USAID-funded Health Policy Project (HPP), used the FamPlan model to measure the impact of increased use of family planning on averting infant and child deaths by decreasing the proportion of high-risk births. FamPlan is part of the Spectrum Policy Modeling System ([www.healthpolicyproject.com](http://www.healthpolicyproject.com)) that predicts the health outcomes of reaching national goals, such as increasing contraceptive use by addressing unmet need.

FamPlan was used to project the percentage of births that fall into high-risk categories and estimate the resulting infant and child deaths averted by 2020. Baseline data were taken from the most recent DHS findings, and two scenarios were projected. The High Performing scenario reflects the Ethiopian government’s Health Sector Development Plan (HSDP-IV), with a contraceptive prevalence rate (CPR) target of 66 percent by 2015 and 73 percent by 2020. The Modest Trend scenario is based on performance between 2005 and 2011, with CPR reaching 47 percent by 2020. Method mix changes occur in both scenarios, with the High Performing scenario favoring a shift to more effective long-term methods. For both scenarios, it is assumed that the proportion of women ages 15–49 who are married or in union will decline at the same rate over time as women delay marriage.

At baseline, the method mix heavily favors short-term injectable contraceptives. In the High Performing scenario, HSDP-IV predicts an improvement in method mix, representing a wider choice of methods for women.

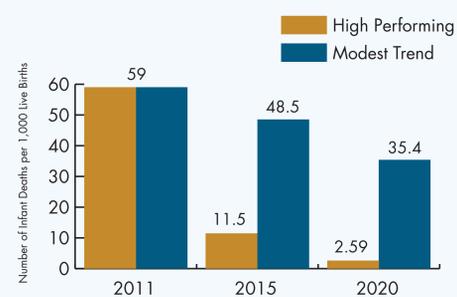
**Figure 1: Method Mix Scenarios**



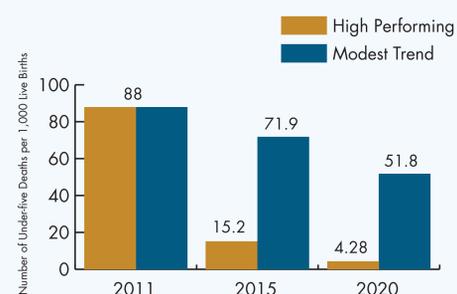
## Results

In both scenarios, family planning uptake is associated with decreases in high-risk births and infant and child mortality. However, the High Performing scenario demonstrates that faster gains in CPR lead to more dramatic health improvements.

**Figure 2. Improvements in Infant Mortality**



**Figure 3. Improvements in Under-five Mortality**



**Table 2: FamPlan Projected Indicators for 2020**

Scenario	CPR	Percentage of Births with Any Risk	Infant Mortality	Under-five Mortality
High Performing	73.0	38.0	2.59	4.28
Modest Trend	47.2	52.2	35.4	51.8

## Knowledge Contribution

With family planning, young women and adolescents under age 18 are able to delay childbearing and older women are able to limit their childbearing when they have achieved their ideal family size. Women in the prime of their reproductive years can space their births for optimal maternal and child health outcomes. Investments in family planning can result in a substantial decrease in the percentage of births that are high-risk, thereby reducing infant and child deaths in the coming decade. Furthermore, comprehensive family planning choices ensure that all women are able to use the methods that best suit their needs and fertility preferences. To maximize effectiveness, operational policies should serve communities and age groups where high-risk birth behaviors are common, particularly adolescents who have a disproportionately high level of unmet need (UNFPA, 2012).

## Works Cited

Central Statistical Agency (Ethiopia) and ICF International. 2011. Ethiopia Demographic and Health Survey. Addis Ababa, Ethiopia and Calverton, MD, USA: Central Statistical Agency and ICF International.

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### Contact Us

Health Policy Project  
One Thomas Circle NW, Suite 200  
Washington, DC 20005  
[www.healthpolicyproject.com](http://www.healthpolicyproject.com)  
[policyinfo@futuresgroup.com](mailto:policyinfo@futuresgroup.com)

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