LONDON SUMMIT ON FAMILY PLANNING, JULY 2012

Technical Note: Data sources and methodology for developing the 2012 baseline, 2020 objective, impacts and costings

The UK Government and the Bill & Melinda Gates Foundation, with the support of UNFPA and other partners, will host an international London Summit on Family Planning in July 2012. The Summit's goal is to enable an additional 120 million women in the world's poorest countries to use modern contraception by 2020.

This technical note summarizes the data sources and methods to: a) estimate modern contraceptive use and unmet need in 2012 in the developing world and in the poorest 69 countries (Appendix 1Table 1); b) review historical growth in modern contraceptive use among the poorest countries and formulate the Summit's goal; c) explain the estimated impacts resulting from achieving that goal; and d) provide cost estimates for reaching these women between 2012 and 2020.[1]

A. Estimation of contraceptive use and unmet need in 2012 in the developing world and in the poorest countries

Data sources and methodology

Estimates of contraceptive use and unmet need bring together information from a variety of types of data. This memo summarizes the data and methodology used to estimate contraceptive use in the developing world as a whole and in the poorest 69 countries in 2012. [2] We describe two approaches to estimating 2012 levels - one based on applying the most recent survey data to 2012 population estimates, and another on projecting the percentage of married women using modern contraceptive methods (MCPR) to 2012 based on the trend between the two most recent surveys.

Numbers of women 15-49 by marital status

The total number of women 15-49, by five-year age groups, in each country in 2012 was taken from the UN Population Division's *World Population Prospects: the 2010 Revision*.[3] For most countries, the proportions of women who were currently married/in union, formerly married or never married (for each five-year age group 15-49) were taken from a UN compilation of information from national censuses and surveys.[4] These proportions were assumed to apply to 2012, regardless of the year of the relevant census or survey. Age-specific proportions in each marital status group were applied to 2012 age-specific numbers of women and summed to estimate the total number of women 15-49 in 2012 in each developing country who were currently married, formerly married and never married. For countries with more recent survey information than that included in the UN database, marital status proportions of women 15-49 were updated; and, for the few countries with no available information on marital status, regional estimates or estimates from a similar nearby country were used.

Distributions of women 15-49 by contraceptive use and unmet need, based on the most recent available data

The Guttmacher Institute used sources and methodology consistent with similar work in the past, and in a forthcoming publication, to estimate the distributions of women aged 15-49 in each country according to whether (a) they were using contraception; (b) using no method but wanting to avoid pregnancy (married or unmarried and had sex in the last three months, fecund and wanting to stop childbearing or to wait at

least two years before having a child, or another child), as well as women currently pregnant or postpartum amenorrheic from an unintended pregnancy; or (c) not in need (unmarried and not sexually active in the last three months, infecund, wanting to have a child in the next two years or currently pregnant or postpartum amenorrheic from intended pregnancy).[5,6,7] Method use among women wanting to avoid pregnancy was estimated separately for currently married, formerly married and never married women wanting to delay vs. stop childbearing and summed to estimate marital-status-specific distributions.

These distributions were obtained from a number of sources: tabulations of all available Demographic and Health Survey (DHS) country datasets, provided by Macro International;[8] Guttmacher Institute tabulations of other national surveys including Multiple Indicator Cluster (MICS) and Reproductive Health Survey (RHS) datasets; published reports; and a database of contraceptive use information for married women compiled from all available sources by the UN.[9] All DHS tabulations used the recently revised specifications for calculating unmet need, i.e. women using no method but wanting to avoid pregnancy.[10] Guttmacher researchers used the most recent available source of information and made estimates for missing data items and for countries without data in a number of different ways: from nearby countries with information or from regional averages, from earlier survey data containing the missing items and from published reports of sub-national surveys for never married women in regions with little or no national survey information on this population group.

Modern contraceptives were defined to include all hormonal methods (i.e., the pill, injectables and implants), IUDs, male and female sterilization, condoms and modern vaginal methods (e.g., spermicides). Women with unmet need for modern contraceptives were defined as those who want to avoid a pregnancy but are not using a modern contraceptive method, i.e. are using no method or a traditional method, such as periodic abstinence or withdrawal. Other publications may not define women using traditional methods as having unmet need, but they are included in the current definition of unmet need for modern methods because they are much more likely to fail than are modern methods.[11]

Numbers of women using modern contraceptives and with unmet need for modern contraceptives, based on the most recent available data

The Guttmacher Institute estimated the number of women in each country using modern methods, with unmet need for modern contraceptives and not in current need of contraception, for each of the three marital status groups for 2012, assuming the marital-status-specific proportions using, with unmet need and not in need from the most recent data source or estimate applied in 2012. We multiplied these proportions by the numbers of women in each country in 2012, separately for currently, formerly and never married women, and summed them to obtain estimates for all women 15-49. The resulting 2012 estimated numbers of women assume that the country-specific *distributions* of women 15-49 by marital status and by desire to space or limit future births and the *proportions* in each group using modern contraceptives, with unmet need for modern methods and not in need of contraception, remained stable since the most recent available survey, but that the *numbers* of women in these three contraceptive need and use status groups changed since that last survey to keep up with change in the population of women 15-49.

Adjusting 2012 contraceptive use estimates for change since the most recent available survey

In a separate analysis, the Futures Institute used past survey data to project the proportions of currently married women using modern methods forward to estimate likely levels of use in 2012. For each country, the 2012 proportion of currently married women using modern methods (MCPR) was projected from the linear trend between the last two surveys, taken from the UN database.[9]

Guttmacher Institute combined its estimates with the MCPR projected by Futures Institute for 2012 to project the likely level of total modern contraceptive use in 2012. More specifically: the adjustment made use of the Futures Institute's projections of the proportion of currently married women using modern methods and the Guttmacher Institute's compilation and estimation of country population and marital status data, estimates for countries where data are missing or obviously incomplete, and consistent methodology across *Adding It Up* projects and countries.

For the few countries where data for projecting use trends for currently married women were missing, estimates were made from similar nearby countries or Guttmacher Institute estimates. To project the proportion of unmarried women using modern methods in 2012, we assumed that the relative difference (expressed as a ratio) for currently married women between the Futures Institute's projected 2012 level, and the Guttmacher Institute's 2012 estimated level from the most recent data source, applied to the Guttmacher Institute's 2012 estimated level for unmarried women. These country-specific projected proportions of currently married and unmarried women in 2012 using modern contraception were multiplied by the Guttmacher Institute estimates of the numbers of married and unmarried (formerly and never married) women aged 15-49 in each country to calculate the projected number of women in 2012 using modern methods.

The resulting projected number of women in the 69 poorest countries of the world (defined to be countries with 2010 gross national income per capita at or below US$2,500)[12] using modern contraceptives was 258 million women, 2% higher than the number based on the most recent survey data (252 million) an absolute difference of six million women (see reference 7 and Table 1, p11). Since the numbers of women aged 15-49 and their distribution into currently married and unmarried subgroups were the same for both sets of estimates, the difference reflects a slight overall trend toward increasing proportions of women using modern methods in these countries in recent years.

Adjusting 2012 estimates of unmet need for modern contraception and women who are not in current need for change since the most recent survey

To estimate numbers of women in 2012 who have unmet need for modern methods and who are not in need that are consistent with projected numbers of modern method users, we first calculated the proportions in these two need status groups among all women who were not using modern contraception, based on the Guttmacher Institute 2012 estimates. We then applied these two proportions to the number of women not using modern methods according to projected numbers for 2012, to obtain projected numbers of women with unmet need for modern contraception and not in need in 2012. Calculations were done specific to marital status (married and unmarried) and each country, and summed to obtain estimates for all women 15-49.

This is equivalent to assuming that the additional number of modern method users (in the projected 2012 estimates compared to the Guttmacher 2012 estimates based on the most recent survey) come proportionally from the unmet need and the not-in-need groups. In the case of the 69 poorest countries, the 162 million women with unmet in the Guttmacher Institute's 2012 estimates dropped to 160 million for projected estimates; and 419 million women not in need in the Guttmacher Institute's 2012 estimates dropped to 415 million for projected estimates (Table 1, p11).

B. Review of historical growth of MCPR and setting the 2020 objective

Data sources and methodology

National estimates of modern contraceptive use are available for the majority of the poorest countries in the form of national surveys. These surveys include the DHS, RHS surveys conducted by the U.S. Centers for Disease Control and Prevention, MICS surveys conducted by UNICEF, and others. These sources of survey estimates form a common database for the global family planning community and along with demographic projections from the United Nations Population Division comprised the major evidence base for the construction of a 2012 modern contraceptive use baseline by Guttmacher Institute and Futures Institute (see Section A of this Note).

Futures Institute and the Family Planning Summit Metrics Group used historical growth data on the proportion of women of reproductive age using any modern contraceptive to project future trends in contraceptive use under prevailing conditions. This was determined by looking at the linear growth between the two most recent surveys reporting the proportion of currently married women 15-49 using modern contraception (spanning the years 1995-2011). Survey data were also adjusted to be comparable for age across all countries (e.g., 15-49).

The unweighted average annual percentage point increase in MCPR for the world's poorest countries has been below one percentage point, at 0.7, in recent years. This is higher in sub-Saharan Africa but lower elsewhere. As a group, the 10 poorest countries with the largest populations of women 15-49 have experienced no growth in recent years, averaging to a very small decline (-0.1 percentage point per year) (Table 2).

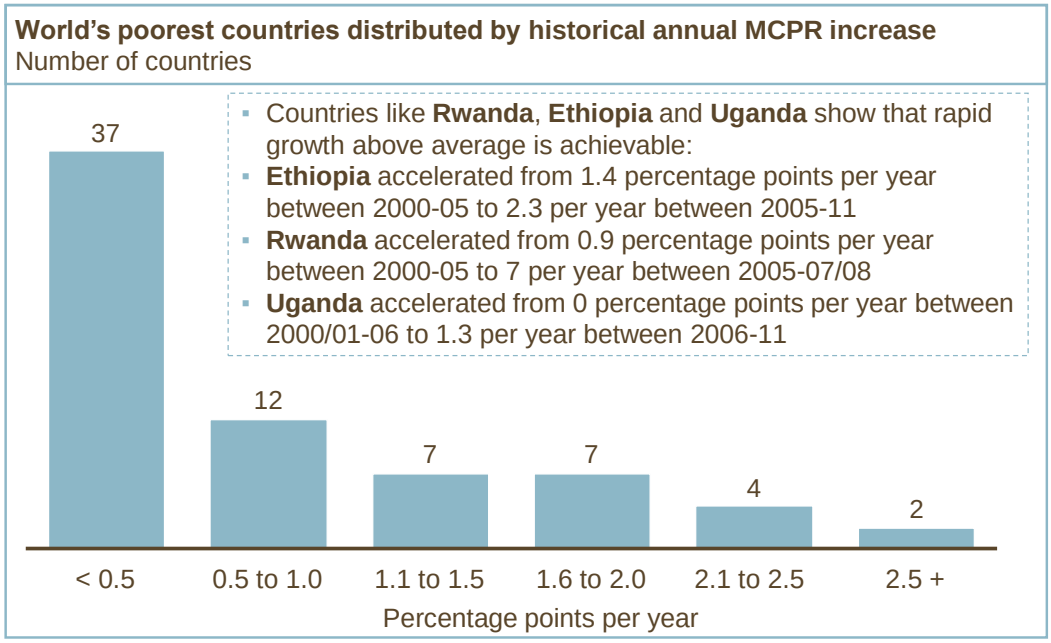
Table 2: Trend in the modern contraceptive prevalence rate (MCPR) among married women based on the two most recent surveys (1995-2011) and projected number of women 15-49 using modern methods in the world's 69 poorest countries in 2012[13]

Number of countries		**Average annual change in MCPR** (in percentage points)	**Women of reproductive age using modern contraceptive methods, 2012** Millions
69	Poorest countries (with GNI per capita ≤$2500	0.7	258
39	Sub-Saharan Africa (SSA)	0.9	30
30	All Non-SSA	0.5	228
10[14]	Top 10 most populous countries	-0.1	211

Countries have different potential for more rapid growth in MCPR given historical trends, current levels of usage and programmatic characteristics. Many of these factors will contribute to changes in MCPR. Despite slow growth on average, there also have been multiple examples of significant growth in this period. These recent success stories informed the considerations of potential future growth (e.g. Rwanda doubled its annual MCPR increase within eight years). These countries show the potential for other countries to make similar gains in MCPR (see Figure 1).

Figure 1

While modern contraceptive use in most of the poorest countries is growing at a low rate, some countries demonstrate that much faster growth is possible*



SOURCE: Futures Institute, FPS working team analysis; All estimates based on data from UN Population Division, DHS and other surveys and other sources

* From 0.5 to 1.0 includes Bhutan, Congo, Gambia, Malawi, Myanmar, Nicaragua, Palestine, Papua New Guinea, Sierra Leone, Solomon Islands, Vietnam, Zambia; 1.1-1.5 includes Honduras, Kenya, Iraq, Mongolia, Mozambique, Tanzania, Uganda; 1.6 – 2.0 includes Cambodia, Comoros, Ghana, Laos, Sao Tome and Principe, Timor-Leste, Yemen; 2.1 to 2.5 includes Burundi, Ethiopia, Lesotho, Madagascar, and 2.5+ includes Djibouti and Rwanda

Developing the 2020 objective

The Summit will lead to commitments by the global community toward enabling 120 million additional women to use contraception in the 69 poorest countries by 2020. "Additional women" is defined as women not using modern methods today (i.e., they are not included in the estimated 258 million women currently using modern methods in 2012). This will mean that, by achieving the objective, in 2020 there will be 378 million users of modern contraceptives in these poorest countries, compared to an estimated 258 million today.

To arrive at this objective, the Family Planning Summit Metrics Team looked at two different scenarios for the increase in modern contraceptive use across the world's poorest countries: (1) the averaged impact of historical growth; and (2) the levels of growth that could be realized if many of the countries were to achieve their own national objectives as set out their national plans.

- **Rate under prevailing conditions:** If the MCPR of the world's 69 poorest countries continues to grow at their historical annual increase (0.7 percentage points on average) from 2012-2020, ~48 million new modern method users would be added to the baseline of approximately 258 million

users as of 2012 in the world's poorest countries between 2012 and 2020. This includes the effects of both historical growth in MCPR and population growth.[15]

- **FP Summit accelerated rate:** Adding 120 million new modern method users in the world's poorest countries between now and 2020 *requires approximately doubling the average annual MCPR growth in those countries to 1.4 percentage points by 2020 in all 69 countries.*

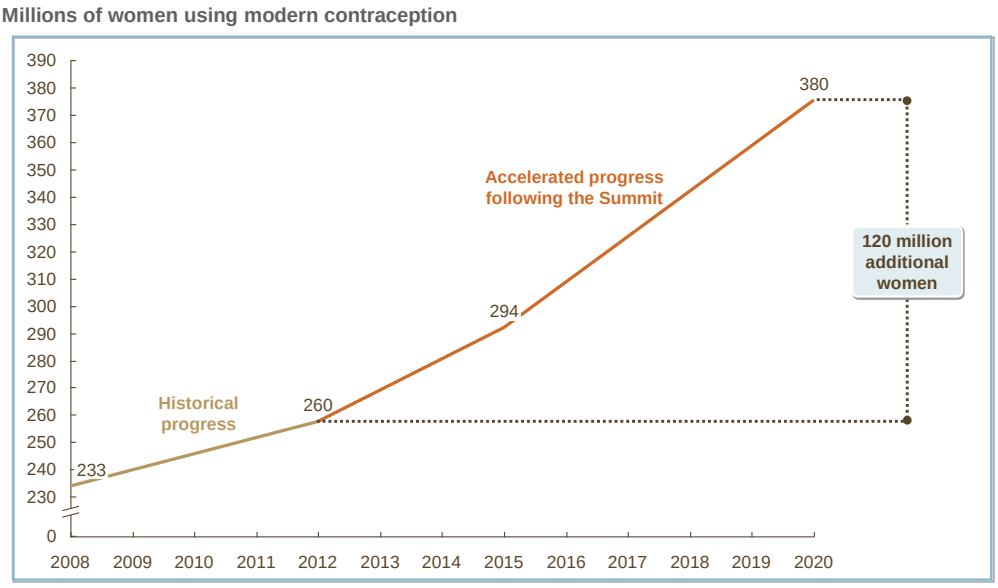
The increases in MCPR required to reach 120 million additional users by 2020 are not as ambitious as those increases needed to meet national objectives set by the governments of some of the most populous countries that have the highest levels of current unmet need. We estimate that ~25% of the 120 million (30 million) will come from maintaining coverage as population increases, ~15% from expected continued trends of growth in MCPR (18 million) and ~60% (72 million) from increased growth in MCPR resulting from additional activities deriving from the Family Planning Summit. This additional incremental amount will raise the total number of users of modern contraceptive methods from the approximately 306 million estimated to occur by 2020 at historical rates of growth in method use under current interventions to 378 million in the world's poorest countries by 2020.

Current estimates by Guttmacher Institute place the number of women with unmet need in the world's poorest countries at 160 million (see Section A of this document). Recent trends suggest that change in absolute numbers of women with unmet need has been slow over the past decade. As global demand for family planning increases, unmet need will likely remain high at prevailing rates under current interventions. The Family Planning Summit objective to add 120 million users is *equivalent to meeting 75% of current estimated unmet need in these 69 countries as of 2012*.

The figure below shows how the Family Planning Summit objective of reaching 120 million additional women will affect the trajectory of access to family planning in the poorest countries.

Figure 2

Estimated progress to 2012 and goals to 2015 and 2020 in the 69 poorest countries (US$2,500 GNI per capita or less)



SOURCE: Futures Institute, FPS working team analysis, Guttmacher Institute for base line 2012 estimates; All estimates based on data from UN Population Division, DHS and other surveys and other sources

C. Estimating the impact of reaching 120 million additional users in the poorest 69 countries

Data sources and methodology

Estimates of the impact of increasing modern contraceptive use were established by the Guttmacher Institute and have been updated since their 2008 *Adding It Up* report.[16] These estimate the number of unintended pregnancies likely to be averted by increases in contraceptive use, as well as the number of unplanned births, abortions, maternal deaths, and infant and newborn deaths that would be averted as unintended pregnancies decline. In 2012, an estimated 127 million women in the 69 poorest countries became pregnant, including 75 million women whose pregnancies were intended and 51 million who had not intended to become pregnant. Unintended pregnancies accounted for 22 million of the 85 million births in these countries in 2012, for 23 million induced abortions (16 million of which were in unsafe conditions) and for 7 million of the 19 million miscarriages. Unintended pregnancies accounted for 94 thousand of the 267 thousand maternal deaths and 1.2 million of the 4.8 million infant deaths (of which 0.7 and 2.6 million, respectively, were newborn deaths).

Calculation of events averted is based on the difference between the numbers of these events in 2012 and the numbers estimated to occur if women with unmet need for modern methods moved to use of modern contraceptives. The new method mix of women moving from current unmet need for modern methods is assumed to be similar to current women in their country using modern methods, by marital status and intention to space or to limit childbearing. Numbers of unintended pregnancies by method are estimated from the country-specific method mix of women in the current use and unmet needs met scenarios, method-specific use-failure rates, the pregnancy rate among nonusers in need of modern methods and external regional estimates of 2012 pregnancies by intention status and outcome. WHO estimates of maternal, newborn and infant mortality in 2010, and mortality from unsafe abortions in 2008 and estimated mortality from safe abortion, were applied to the relevant numbers of births and abortions averted to estimate the numbers of deaths that would be prevented by the total number of additional woman-years of use over the 2013-2020 period (eight years from the 2012 baseline).[17, 18, 19, 20]

The Guttmacher Institute provided impact estimates for the 69 poorest countries by geographic sub-regions. The Family Planning Summit Metrics Group utilized these Guttmacher Institute calculations to estimate the cumulative impact of increasing contraceptive use by adding 120 million users of modern methods in the 69 poorest countries. This was determined by multiplying the sum of additional users above the 2012 baseline through 2020, which results in an aggregate total of approximately 480 million user-years during the 2013-2020 period, by Guttmacher Institute's updated impact estimates. These calculations were done within sub-regions and then aggregated into an overall estimate.

Impact of achieving 120 million new users

Adding 120 million additional users of modern contraception would add the equivalent of 480 million woman-years of modern method use over the full eight-year period. These woman-years of use are estimated to help avert 116 million unintended pregnancies, 52 million abortions, 212 thousand maternal deaths and 2.8 million infant (<1 year) deaths. These include avoiding 37 million unsafe abortions and 1.5 million neonatal (<28 days) deaths.

The addition of 120 million more modern method users in 2020 than in 2012 would reduce total pregnancies in the 69 poorest countries by 22% from 2012 levels, births by 14%, maternal deaths by 20% and newborn and infant deaths by 14%. Unintended pregnancies and their outcomes (unplanned births, abortions, maternal, newborn and infant deaths) would drop by roughly 55%.

D. Estimating the cost of reaching 120 million additional users in the poorest 69 countries

This section explains the methodology used by the Family Planning Summit Metrics Group to estimate the cost to reach an additional 120 million women with family planning products and services by 2020. It is based on estimated increase in use over the eight year period (with costs incurred from 2013-2020 in order to realize the estimated impact over the same period, as described in Section C, with some small increases starting in 2012 due to ongoing programmatic efforts in countries). It covers the cost for approximately 480 million woman-years of contraceptive use.[21]

Data sources and methodology

Estimates of the US$ cost of increasing modern contraceptive use were made by the Guttmacher Institute and published in the 2009 *Adding it Up* report.[22] The team used the inputs behind this analysis as a base for the estimates, with some adjustments as noted below. On top of total costs, there is an assumption of ~3% inflation per year beginning in 2013.

The cost is calculated in four separate parts: commodity, supply, labor, and systems and program costs.

- *Commodity cost* includes the price of the commodity and associated shipping and testing fees. To adjust for changes in prices since publication of the 2008 *Adding it Up* report, commodity costs were updated using 2012 USAID pricing (see Appendix 2, Table 1). To this were added estimated freight and testing costs, based on the UNFPA Reproductive Health Costing Tool estimates for these costs as a percent of commodity price.[23]
- *Supply cost* includes the cost of any gloves, syringes, and other disposables required for each Couple Year of Protection (CYP), by method. Supply costs estimated in the 2009 *Adding it Up* report were used as a basis for these calculations.[24] For long-acting and permanent methods, supply costs were converted from CYP to total cash outlay based on converting the Guttmacher cost estimates into a cost for the full expected life of the product. To reflect a cash outlay, this "total use" cost is attributed in the actual year of product adoption or replacement (see Appendix 2, Table 2).
- *Labor cost*, which is an input from the 2009 *Adding it Up* report, estimated by region, includes the required health care personnel time by method for counseling, distribution of the contraception/ insertion/ operation, and follow-up (see Appendix 2, Table 3).[25] As more recent data were not available at the time of this costing effort, 2008 numbers were used for consistency with the *Adding it Up* publication.
- *Systems and program costs* are the indirect costs necessary to facilitate and enable the delivery of family planning products and services to women in developing countries.[26] Program and systems costs include the following wide range of activities that are necessary for providing contraceptive services: program management, supervision, training of personnel, health education, monitoring and evaluation, advocacy, building and maintaining information systems and commodity supply systems, and maintaining and expanding the physical capacity of health facilities. Some of these reflect ongoing activities to support services, such as program management and personnel supervision; others reflect one-time investments to increase system capacity to provide care, such as building information and commodity supply systems.

  These indirect costs include:

  - **Demand-side costs**, including health education, national-level advocacy, and monitoring and evaluation

- **Supply-side costs**, including human resource development, transport and telecommunication, infrastructure, commodity supply systems, and health management information system improvements. These costs are estimated as a percentage of total cost.

As the Family Planning Summit is addressing a relatively short period of time (eight years) it is assumed that more investments will be required early on to change the trajectory of MCPR growth in the 69 poorest countries, in order to scale-up and strengthen the systems to provide information, services, and supplies, and fill gaps where needed. System and program costs as a percentage of total cost are then decreased over the eight year period in a manner similar to that used in UNFPA's revised costing estimates for implementing the Program of Action for the International Conference on Population and Development (see Appendix 2, Table 4).[27]

The Family Planning Summit aims to focus additional dollars for program and system costs on proven best practices and innovative solutions (e.g., use of new technologies to support lower cost delivery or improved supply chain performance) and to accelerate increased efficiency of existing programs and systems. Based on discussions with family planning cost and country experts, there is an understanding that there is capacity in existing reproductive health services that can be better leveraged for family planning (e.g., maternal, neonatal and child health facilities and health care workers to provide family planning counselling). Therefore, those countries with higher MCPR at the start are assumed to have more ability to meet their MCPR goals by better leveraging existing systems (via more demand generation, better management). Countries that aspire to a significant increase in MCPR are more likely to require step-change program and system investments. This variation results in some countries with slightly lower or higher program and system costs than those used in the 2009 *Adding it Up* report (see Appendix 2, Tables 5 and 6).

In order to turn these inputs into the total cost to reach 120 million women, cost is calculated at a country level, bottom-up, using the unit costs. For each country, commodity needs per year are forecasted based on the number of incremental women reached in that year and that country's specific method mix. In the absence of current long-term mix forecasts from countries, to forecast a potential mix that would be associated with the desired transformational growth by 2020, countries were grouped by region and dominant modern contraceptive method. For countries with high MCPR (>30%), it is assumed that the dominant method remains dominant, though other methods may grow as MCPR grows. For countries with low MCPR (<30%), each method grows based on share of growth for that method (based on a country in the same region with high recent MCPR growth, for Sub-Saharan Africa and South Asia). Some countries (e.g., India) are estimated separately. Though this method has been used for purposes of the initial costing exercise, in practice, actual mix and forecasts will be generated by countries based on evolving national demand.

Based on the number of incremental women added each year, the total commodity, supply, labor, and program and system costs associated with that commodity forecast are calculated. For the purposes of identifying the additional financing necessary to reach the objectives of the Family Planning Summit, costs were calculated on a cash-outlay basis, whereby the full costs (direct and indirect) are incurred in the year that the commodity and/ or service is delivered to a woman (either as a new user of contraceptives, or when a women receives a replacement).

Cost of reaching 120 million additional users in the poorest 69 countries

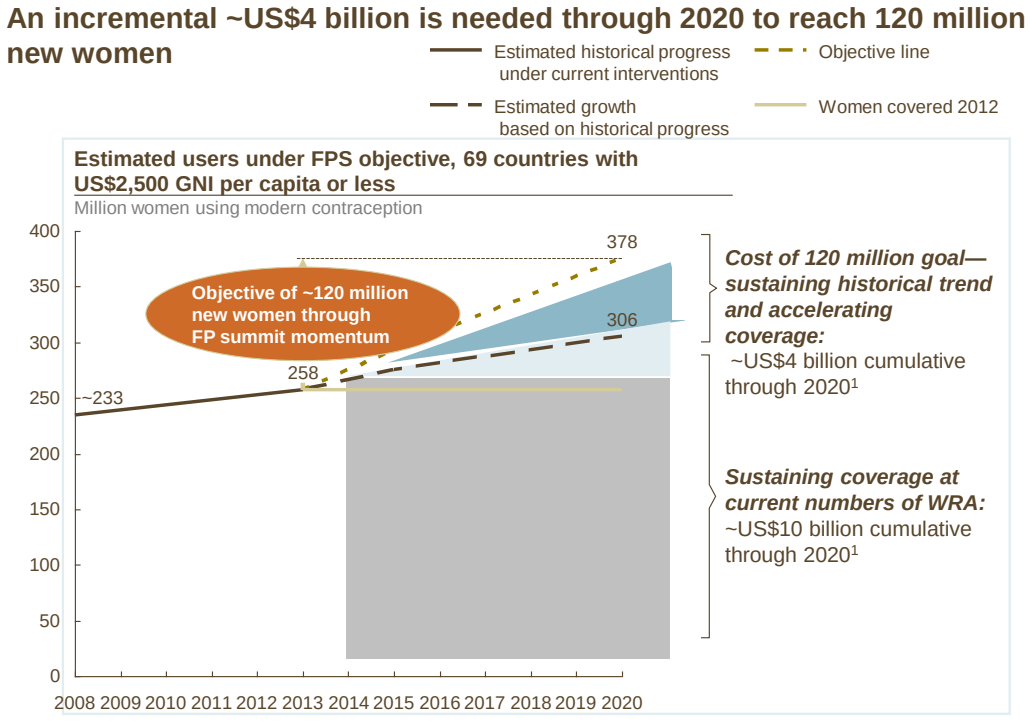
We estimate that the cumulative cost of reaching 120 million additional users in the poorest 69 countries by 2020 will be approximately US$4billion. The bulk of this cost will come from providing commodities

and associated direct costs (~US$2.5billion), with the remainder from indirect costs of demand side activities and supply-side program and systems support (~US$1.5billion).

This US$4billion will provide 480 million women years of contraceptive use, and translates to an estimated first-year of coverage cost of US$9-US$14 depending on method and region. Approximately 65% of total woman-coverage years will come from Asia, where costs per woman are significantly below those in Africa or the Caribbean (see reference 7).

This US$4 billion is *in addition* to the approximately US$10billion required to sustain the existing 258 million users of contraception in those countries in 2012 for the next eight years. This US$10billion estimate is calculated based on the estimated method mix in the 69 countries as of 2012. The cost per year calculated for the 258 million women in the baseline, takes into account women moving into and out of reproductive age during the eight year period, small shifts in mix over time, and 3% inflation per year, yielding a cost of ~US$4 per woman per year, rising to ~US$6 per woman per year in 2020. Approximately ~110 million of the current 258 million women have used sterilization and will not incur ongoing costs. Excluding these women, the estimated cost per woman per year for the remaining ~150 million women is ~US$8.30.

Figure 3



1 This includes both population growth and demographic shifts as well as MCPR growth and mix changes

SOURCE: Futures Institute, Gutmacher Institute, Family Planning Summit Working Group

Table 1. 2012 Baseline estimates of number of women using modern contraceptive and unmet need, for all developing countries and the 69 poorest countries

Country groupings	Number of countries	Women 15-49 (millions)				Percentage distribution of women 15-49 by contraceptive status			
		Total	Using modern contra-ception	Unmet need for modern contra-ception	Not in need	Total	Using modern contra-ception	Unmet need for modern contra-ception	Not in need
All developing countries	149	1,520	661	217	642	100%	44%	14%	42%
69 poorest countries (2010 GNI per capita at or ≤$2,500)	69	833	258	160	415	100%	31%	19%	50%

Notes:

a) The baseline estimates combine the Guttmacher Institute's compilation of the most updated and comprehensive data on contraceptive use for all developing countries (including data and estimates for unmarried women) and the Futures Institute's projections of the percent of currently married women using contraception based on the linear trend between the two most recent data points available for each country.

b) The numbers for women in all developing countries shown in this table are projected estimates for 2012; the Guttmacher Institute's 2012 estimates (reference 7), based on the most recent available survey data without projection, are slightly different: 645 million women using modern contraception; 222 million with unmet need for modern contraception; and, 653 million, not in need.

c) Countries that belong to each grouping are in Appendix 1 Table 1.

APPENDIX 1

TABLE 1. List of countries in the developing world by region and subregion and the 69 poorest countries (with 2010 gross national per capita annual income less than or equal to US$2,500)

All developing countries	2010 GNI per capita ≤US$2,500
AFRICA	
Eastern Africa	
Burundi	Burundi
Comoros	Comoros
Djibouti	Djibouti
Eritrea	Eritrea
Ethiopia	Ethiopia
Kenya	Kenya
Madagascar	Madagascar
Malawi	Malawi
Mauritius	
Mozambique	Mozambique
Réunion	
Rwanda	Rwanda
Somalia	Somalia
Uganda	Uganda
Tanzania, United Rep. of	Tanzania, United Rep. of
Zambia	Zambia
Zimbabwe	Zimbabwe
Middle Africa	
Angola	
Cameroon	Cameroon
Central African Republic	Central African Republic
Chad	Chad
Congo	Congo
Congo, Dem. Rep. of the	Congo, Dem. Rep. of the
Equatorial Guinea	
Gabon	
Sao Tome and Principe	Sao Tome and Principe
Southern Africa	
Botswana	
Lesotho	Lesotho
Namibia	
South Africa	
Swaziland	
Western Africa	
Benin	Benin

Burkina Faso	Burkina Faso
Cape Verde	
Côte d'Ivoire	Côte d'Ivoire
Gambia	Gambia
Ghana	Ghana
Guinea	Guinea
Guinea-Bissau	Guinea-Bissau
Liberia	Liberia
Mali	Mali
Mauritania	Mauritania
Niger	Niger
Nigeria	Nigeria
Senegal	Senegal
Sierra Leone	Sierra Leone
Togo	Togo
Northern Africa	
Algeria	
Egypt	Egypt
Libyan Arab Jamahiriya	
Morocco	
Sudan	Sudan
Sudan, South	Sudan, South
Tunisia	
Western Sahara	Western Sahara
ASIA	
Eastern Asia	
China	
China, Hong Kong Special Admin Reg.	
China, Macao Spec Admin Re.	
Korea, Dem. Rep. of	Korea, Dem. Rep. of
Mongolia	Mongolia
Korea, Rep. of	
Central Asia	
Kazakhstan	
Kyrgyzstan	Kyrgyzstan
Tajikistan	Tajikistan
Turkmenistan	
Uzbekistan	Uzbekistan
South Asia	
Afghanistan	Afghanistan
Bangladesh	Bangladesh
Bhutan	Bhutan
India	India
Iran (Islamic Rep. of)	
Maldives	

Nepal	Nepal
Pakistan	Pakistan
Sri Lanka	Sri Lanka
South-eastern Asia	
Brunei Darussalam	
Cambodia	Cambodia
Indonesia	Indonesia
Lao People's Dem. Rep.	Lao People's Dem. Rep.
Malaysia	
Myanmar	Myanmar
Philippines	Philippines
Singapore	
Thailand	
Timor-Leste	Timor-Leste
Viet Nam	Viet Nam
Western Asia	
Armenia	
Azerbaijan	
Bahrain	
Cyprus	
Georgia	
Iraq	Iraq
Israel	
Jordan	
Kuwait	
Lebanon	
Palestinian Territory, Occupied	Palestinian Territory, Occupied
Oman	
Qatar	
Saudi Arabia	
Syrian Arab Republic	
Turkey	
United Arab Emirates	
Yemen	Yemen
LATIN AMERICA AND THE CARIBBEAN	
Caribbean	
Bahamas	
Barbados	
Cuba	
Dominican Republic	
Guadeloupe	
Haiti	Haiti
Jamaica	
Martinique	
Netherlands Antilles	
Puerto Rico	

Saint Lucia	
Saint Vincent and the Grenadines	
Trinidad and Tobago	
US Virgin Islands	
Central America	
Belize	
Costa Rica	
El Salvador	
Guatemala	
Honduras	Honduras
Mexico	
Nicaragua	Nicaragua
Panama	
South America	
Argentina	
Bolivia	Bolivia
Brazil	
Chile	
Colombia	
Ecuador	
French Guiana	
Guyana	
Paraguay	
Peru	
Suriname	
Uruguay	
Venezuela	
OCEANIA	
Melanesia	
Fiji	
New Caledonia	
Papua New Guinea	Papua New Guinea
Solomon Islands	Solomon Islands
Vanuatu	
Micronesia	
Guam	
Micronesia, Fed. States of	
Polynesia	
French Polynesia	
Samoa	
Tonga	

APPENDIX 2. Inputs for the Family Planning Summit Costing Methodology

TABLE 1 – Commodity cost estimates[28], 2012

Method	Per unit commodity price	% adjustment for shipping/ testing	Per unit commodity cost	Unit assumption
Female sterilization	$ 0.00	0%	$ 0.00	Once (in perpetuity)
Male sterilization	$ 0.00	0%	$ 0.00	Once (in perpetuity)
Pill	$ 0.30	15%	$ 0.35	15/ year
Injectable	$ 0.78	8%	$ 0.84	4/ year
Implant	$ 18.00	8%	$ 19.44	Once every 4 years
IUD	$ 0.51	10%	$ 0.56	Once every 10 years
Male condom	$ 0.03	33%	$ 0.04	120/ year
Vaginal barrier	$ 0.57	33%	$ 0.76	120/ year

TABLE 2 – Supply costs by year for one year of use[29]
According to Method, 2008

Method	Supply Cost
Female sterilization	$ 0.81
Male sterilization	$ 0.31
Pill	$ 0.00
Injectable	$ 1.42
IUD	$ 0.25
Male condom	$ 0.00
Vaginal barrier	$ 1.50

TABLE 3 – Regional labor cost estimates[30]
For full term of method use for Sterilization, Implant and IUD and for 1 year of use for Pill, Injection, Condom and Vaginal, 2008

Method	Sub-Saharan Africa	North Africa and Western Asia	Rest of Asia	Latin America and the Caribbean
Female sterilization	$ 9.02	$ 12.78	$ 5.99	$ 10.42
Male sterilization	$ 6.11	$ 10.75	$ 4.06	$ 7.08
Pill	$ 1.76	$ 3.11	$ 1.18	$ 2.06
Injectable	$ 2.11	$ 3.74	$1.42	$2.49
Implant	$ 2.32	$ 3.33	$1.56	$2.73
IUD	$ 2.32	$ 3.33	$1.56	$2.73
Male condom	$ 1.50	$ 2.65	$1.00	$1.75
Vaginal barrier	$ 1.50	$ 2.65	$1.00	$1.75

Note: *Sub-Saharan Africa includes all countries in Eastern, Middle, Southern, and Western Africa, as well as Sudan (Northern Africa)*

TABLE 4 – Program- and systems-related costs as a percentage of total sexual and reproductive health and family planning costs, according to region, 2008–2015[31]

AIU numbers 2008	2008	2009	2010	2011	2012	2013	2014	2015
Sub-Saharan Africa	35%	79%	79%	78%	73%	69%	61%	50%
Asia and the Pacific	49%	53%	49%	46%	41%	34%	29%	25%
Latin America and the Caribbean	57%	60%	55%	50%	45%	37%	31%	26%
Western Asia and North Africa	56%	58%	53%	48%	43%	35%	29%	25%
Eastern and Southern Europe	56%	55%	51%	46%	41%	33%	28%	24%

Note: *Sub-Saharan Africa includes all countries in Eastern, Middle, Southern and Western Africa, as well as Sudan (Northern Africa). Sources: Friedman H, special tabulations of data used for UNFPA revised ICPD cost estimates, 2009; and UN Economic and Social Council, Flow of Financial Resources for Assisting in the Implementation of the Programme of Action of the International Conference on Population and Development, 2009, <http:// daccess dds ny.un.org/doc/UNDOC/GEN/N09/215/67/PDF/N0921567.pdf?OpenElement >, accessed Feb. 15, 2012*

TABLE 5 – Family Planning Summit estimated range of program and system cost as a percentage of total family planning costs according to region, 2013

Country	2013
Sub-Saharan Africa	50-70%
Asia and the Pacific	30-50%
Latin America and the Caribbean	30-50%
Western Asia	30-50%
North Africa	40-60%

TABLE 6 – Family Planning Summit system and program cost percentage estimates by year, adjusted based on MCPR change, 2012-2020

System costs for additional women in countries with:	2013	2014	2015	2016	2017	2018	2019	2020
0-10% MCPR change between 2012-2020	30%	29%	29%	38%	27%	26%	26%	25%
20-15% MCPR change between 2012-2020	40%	38%	36%	34%	31%	29%	27%	25%
25-50% MCPR change between 2012-2020	50%	46%	43%	39%	36%	32%	29%	25%
50-100% MCPR change between 2012-2020	60%	55%	50%	45%	40%	35%	30%	25%
100%+ MCPR change between 2012-2020	70%	64%	57%	51%	44%	38%	31%	25%

Notes and References

[1] Section A was developed by the Guttmacher Institute, and Futures Institute reviewed, contributed to and agreed with the methodologies; Sections B and D draw on analysis by the Futures Institute and the Family Planning Metrics Group; Section C draws on Guttmacher impact ratios developed for Adding it Up 2008 and subsequently updated.

[2] All countries in the world with GNI per capita less than or equal to 2500 US$ as of 2010. World Bank, GNI per capita, Atlas method (current US$), http://data.worldbank.org/indicator/NY.GNP.PCAP.CD, accessed February 14, 2012.

[3] United Nations, Department of Economic and Social Affairs, Population Division (2011). *World Population Prospects: The 2010 Revision, CD-ROM Edition, File 5B: Female population by single age, major area, region and country, annually for 1950-2010 (thousands), Medium-fertility variant, 2011-2100*.

[4] United Nations, Department of Economic and Social Affairs, Population Division. World Marriage Data 2008 (POP/DB/Marr/Rev2008).

[5] Singh S et al., *Adding It Up: The Costs and Benefits of Investing in Family Planning and Maternal and Newborn Health*, New York: Guttmacher Institute and United Nations Population Fund (UNFPA), 2009.

[6] Darroch JE and Singh S, *Adding It Up: The Costs and Benefits of Investing in Family Planning and Maternal and Newborn Health—Estimation Methodology*, New York: Guttmacher Institute, 2011.

[7] Singh S and Darroch JE, *Adding It Up: Costs and Benefits of Contraceptive Services—Estimates for 2012*, New York: Guttmacher Institute and United Nations Population Fund (UNFPA), Forthcoming, 2012.

[8] Special tabulations of unmet need using revised definition, for all DHS surveys, produced by Trevor N. Croft and Sarah E. K. Bradley, MEASURE DHS, ICF International, February, 2012.

[9] United Nations, Department of Economic and Social Affairs, Population Division, World Contraceptive Use 2010 (POP/DB/CP/Rev2010), 2011.

[10] Bradley SEK et al., Revising unmet need for family planning, *DHS Analytical Studies*, Calverton, MD, USA: ICF International, 2012, No. 25.

[11] Population Division, UN Department of Economic and Social Affairs, *Levels and Trends of Contraceptive Use as Assessed in 2002*, New York: UN, 2006, pp. 87–115; Trussell J and Guthrie, KA, *Choosing a Contraceptive: Efficacy, Safety and Personal Considerations*, in: Hatcher RA et al., eds., Contraceptive Technology, 20th ed., New York: Ardent Media, 2011.

[12] See Ref 2.

[13] Annual average growth is unweighted. Among the 69 poorest countries, for those without at least two survey estimates since 1995, the unweighted average annual growth rate in the proportion of married women using modern methods for all countries with data was used: 0.7 percentage points. Note that this unweighted average is higher than Guttmacher Institute's estimate of the average annual growth in modern method use among married women between 2008 and 2012 in the 69 poorest countries (0.25 percentage points), This is because the time periods over which change is calculated differ (between 2008 and 2012 for the Guttmacher estimate and between the two most recent surveys for the projected estimates); the Guttmacher Institute estimated contraceptive use for countries with missing data from nearby countries with such data while the Futures Institute used the unweighted annual growth rate for only those countries with data; and because the Guttmacher estimate is a weighted average (weights are country populations of married women 15-49).

[14] India, Indonesia, Pakistan, Bangladesh, Nigeria, Viet Nam, Philippines, Egypt, Ethiopia, Democratic Republic of the Congo.

[15] The effect of population growth is defined as the increase in modern method users if country MCPR is held constant and population increase alone accounts for new users.

[16] See Ref 7.

[17] WHO, *Trends in Maternal Mortality, 1990 to 2010: WHO, UNICEF, UNFPA and The World Bank Estimates*, Geneva, WHO, 2012.

[18] Chou D, Personal communication, WHO, May 25, 2012.

[19] WHO, *Unsafe Abortion: Global and Regional Estimates of the Incidence of Unsafe Abortion and Associated Mortality in 2008*, sixth ed., Geneva: WHO, 2011.

[20] Inter-agency Group for Child Mortality Estimation, Newborn and Infant Deaths per 1,000 Births, 2010, http://www.childinfo.org/mortality_tables.php, accessed May 25, 2012.

[21] The cost estimates presented here differ from those estimated by the Guttmacher Institute for 2008 and 2012 for a number of reasons. The most important reasons are: differences in direct cost data used; differences in assumptions regarding program and systems costs; cumulative or aggregated costs over the full 8-year period based on full cash outlays per new user vs. average annual cost per woman year of use; and the countries included in the costing estimates (69 focus countries vs the developing world as a whole). See Ref 5 and 7.

[22] See Ref 5.

[23] Freight and testing charges range from 0-33% of commodity costs, and vary by method.

[24] See Ref 6, Table 12, p. 55.

[25] See Ref 6, Table 12, p. 55.

[26] UNFPA Technical Division, *Revised Cost Estimates for the Implementation of the Programme of Action for the International Conference on Population and Development: Methodological Report*, New York: UNFPA, 2009.
[27] See Ref 26.
[28] Source: USAID 2012 commodity price list.
[29] See Ref 6, Table 11, p. 55.
[30] See Ref 6, Table 11, p. 55.
[31] See Ref 6, Table 14, p. 57.