Adding It Up:

The Costs and Benefits of Reproductive Health Interventions in Cameroon

Michael Vlassoff, Gervais Beninguisse, Floriane Kamgaing, Jenna Jerman and Firmin Zinvi[a]

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Access to effective, modern contraception is essential for women to plan the number of children they want and when they want to have them. However, in Cameroon, lack of access to quality reproductive health services contributes to large numbers of unwanted and mistimed pregnancies. Consequently, many Cameroonian women are exposed to the risks from childbirth without adequate obstetric care or to the perils of unsafe abortion, which threaten the lives, health, and economic well-being of women, their families, and society. The recent increase in the maternal mortality ration from 669 per 100,000 live births in 2004 to 782 per 100,000 live births in 2011 is an important pointer to the seriousness of the problem and the need for urgent actions to reverse this trend.[1]

Modern contraceptive[b] use promotes the health and well-being of women and their families, in part by reducing maternal and infant mortality and morbidity.[2,3] Family planning directly contributes to the attainment of three Millennium Development Goals (MDGs): reducing child mortality, improving maternal health and promoting women's empowerment and equality by enabling greater school, workforce, and political participation. Increasing access to family planning services is also making three other MDGs—universal primary education, environmental sustainability and combating HIV/AIDS—more attainable, by reducing the birth rate and consequently the size of the relevant population. The

[a] M. Vlassoff and J. Jerman: Guttmacher Institute, New York, USA; G. Beninguisse, F. Kamgaing and F. Zinvi: Institut de Formation et de Recherche Démographiques (IFORD), Yaounde, Cameroon.

[b] By modern contraceptives, we mean sterilization (male or female), pills, IUDs, injectables, implants, and male or female condoms.

United Nations has declared that "accelerated progress and bolder action are needed"—particularly in sub-Saharan Africa—in order to achieve these goals.[4]

This paper describes current patterns of contraceptive use in Cameroon and documents the high costs of persistent unmet need for modern contraceptives. Building on prior work[5-7] and using national data to project estimates for 2013 (see box, page 2), we quantify the net benefits to women and society of averting unintended pregnancies with current levels of use and under two hypothetical scenarios of increased investment in modern contraception. While family planning provides many health, social, and economic benefits to women and their families—such as increased productivity and greater accumulation of human capital,[8,9] we focus solely on the health and financial savings gained by averting the births of undesired children or the consequences of unsafe abortions.

The findings in this report provide evidence to help policy makers and international donors increase efforts to invest in reproductive health care—including modern contraceptives—to reduce maternal mortality and morbidity, as well as financial burdens on the health system. Unless otherwise specified, all data presented here are special calculations based on the sources listed in the methods box, using the methodology detailed in an Appendix available from the authors.

Data and Methods

The 2013 estimates in this report are projected from the most recent available data. Unless otherwise noted, the data were calculated using the following methods. An Appendix, containing sources and more methodological details, is available from the authors.

The number of women in each region, by marital status, desire to avoid pregnancy, and contraceptive use in 2013, were estimated using the 2011 Cameroon Demographic and Health Survey (CDHS)[1] and regional estimates of the number of women aged 15-49 from the 2012 Demographic Projection of Central Bureau of Census and Population Studies, projected forward to 2013.

The numbers of unintended pregnancies in 2013 under current contraceptive use patterns and alternative scenarios were based on contraceptive use-failure rates and pregnancy rates for nonusers from the CDHS and other sources, adjusted to the estimated number of unintended pregnancies in each region in 2013. Intention status of pregnancies and their outcomes for 2013 were estimated from

regional data on the planning status of recent births from the CDHS, regional estimates of induced abortion rates in 2008 and estimates of the number of miscarriages.

Pregnancy-related deaths were estimated using national-level maternal mortality estimates provided by the World Health Organization (WHO) for 2010.[29] Regional estimates of unsafe abortions for 2008 were provided by the Guttmacher Institute.[17] Regional infant death rates were estimated from the CDHS.

National-level estimates for 2013 of pregnancy-related disability-adjusted life years (DALYs) among women and of DALYs among newborns were obtained from the 2009 revision of DALYs estimated by the WHO, Department of Measurement and Health Information. This formed the basis for rates used to estimate pregnancy-related and newborn DALYs in 2013.

Costs of contraceptive services and maternal and newborn health care were estimated from basic cost elements. For each contraceptive method or health care intervention, we combined the costs of drugs, supplies, and materials; labor and hospitalization; and program and system costs to arrive at a cost per user per year of protection against unintended pregnancy per woman receiving pregnancy-related medical care (in 2013 US dollars). Program and system costs, which refer to indirect costs such as overhead and capital expenditure, were taken from the United Nations Economic and Social Council. Direct costs of drugs, supplies, materials and labor used for family planning and mother and newborn health care interventions were taken from the United Nations Population Fund's Reproductive Health Costing Tool and from costs studies conducted in Cameroon as well as from documents available in Cameroon.[30]

Results

Pregnancy and birth can be life-threatening for both woman and child, especially without sufficient prenatal and delivery care.[10,11] In Cameroon, only 61% of women make the recommended four or more prenatal care visits, and 66% of births are attended by a trained provider.[12] The use of modern contraceptives enhances maternal and infant health by preventing high-risk births, such as those that are too closely spaced, those that occur among women younger than 18 or older than 35, and those that occur after a woman has already had many children.[2,3,13]

The first year of life is risky in Cameroon: For every 1,000 live births, an estimated 69 infants die before their first birthday.[1] Because poor and rural women face greater cultural and infrastructural barriers to

receiving prenatal and delivery care, their infants are far more likely to die before reaching age one than are those born to other women. The mortality rate is higher among infants born to women in the poorest households (90 infant deaths per 1,000 live births) than for those born to the wealthiest (51 infant deaths).[1] Another way to quantify poor health outcomes is to use disability-adjusted life years (DALYs)—an internationally recognized measure that expresses the burden of disease in terms of the number of healthy years of life lost to death or illness. In 2013, perinatal complications contributed to a loss of 1 million healthy years of life among Cameroonian newborns (Table 2).

The elevated state of maternal mortality in Cameroon is similarly grave. An estimated 782 women died from pregnancy, delivery or in the immediate puerperal period per 100,000 live births in 2011.[1] Annually, this translates to the death of 5,940 Cameroonian women, many of whom had wished not to become pregnant (Table 2). Preventing unintended pregnancy has the potential to substantially lower maternal mortality;[14] expanding contraceptive use would limit women's exposure to the substantial risks inherent in pregnancy and childbearing in Cameroon and especially help women avoid high-risk births.[2]

While maternal deaths represent the worst-case scenario, research suggests that for every woman who dies from maternal causes, 20 others suffer a disability resulting from complications during pregnancy or childbirth.[15] Such maternal morbidity negatively impacts a mother's ability to care for her family or participate in the workforce. The DALYs lost to maternal conditions in Cameroon reached an estimated 153,000 in 2013; of these 61,700 DALYs were lost as a result of unintended pregnancies.[12]

A leading cause of maternal deaths and disability can be traced to the unsafe abortions many women resort to when pregnancies are unwanted. Although reliable country-level data are not available, induced abortions are responsible for an estimated 12% of maternal deaths in Middle Africa, where Cameroon is located.[16] Abortion is highly legally restricted in Cameroon—allowed only in cases where a woman's health or life is at risk or in cases of rape or incest—yet approximately 36 of every 1,000 Cameroonian women aged 15-49 have an abortion each year.[c 17] Since most abortions in Cameroon are performed in unauthorized locales by unlicensed practitioners, they carry a high risk of complications

[c] As no national-level study of the incidence of abortion in Cameroon exists, we use the regional average abortion rate for Central Africa (see Sedgh *et al*. 2012, reference no. 17).

that endanger women and exhaust scarce resources. We estimate that over 46,000 Cameroonian women need post-abortion care annually (not shown).

Current contraceptive use in Cameroon. In 2013, approximately 2.3 million Cameroonian women of reproductive age—43% of all women aged 15-49—were married, or were unmarried but sexually active, were able to become pregnant and wanted to delay having a child for at least two years or wanted no more children at all (Table 1). In short, these 2.3 million women were at risk of an unintended pregnancy; they form the basis for our analysis. Among currently married women, 47% (1.6 million women) wanted to avoid pregnancy. Another 700,000 sexually active unmarried women also wished to avoid pregnancy, although this number may be an underestimate, as non-marital sexual activity is stigmatized and hence underreported.[18-20]

Of all women who wished to avoid a pregnancy, 72% wanted to wait at least two years before having a(nother) child, and the other 28% desired to stop childbearing altogether.[12] Despite these stated desires, only 37% of women wishing to avoid pregnancy were using an effective, modern contraceptive method. Another 18% percent relied on traditional methods, mostly withdrawal and periodic abstinence, and 45% used no method of contraception at all (Table 1). We define these 63% of women—those desiring to avoid pregnancy but not using a modern method—as having an unmet need for modern, effective contraceptives. [d]

The proportion of women with unmet need varies by region and wealth status. Regionally, unmet need is highest among women in the North and Far North regions (85% and 87%, respectively), possibly because women in these regions face greater cultural or structural barriers to accessing contraception.[19,22] Although women in other regions, including Centre, Littoral, Northwest, West, South, and Southwest, experience lower levels of unmet need, between 55-58%, such levels still demonstrate a substantial inability of women in all regions of Cameroon to attain their desired fertility goals. In terms of the wealth status of households, unmet need is substantially higher among the poorest women (89%, in the lowest wealth quintile) compared to women living in the wealthiest households (50%). Poor

[d] This definition of unmet need differs from the standard definition used in DHS surveys. We include women using traditional methods in our definition of those with unmet need, because traditional methods have relatively high failure rates, leaving women vulnerable to unintended pregnancy and its negative consequences.[21] See Ali, Cleland and Shah (2012), reference no. 21.

women evidently face far greater barriers to accessing modern contraception than women with high wealth status.

Factors such as a large desired family size (women's average ideal family size is 5.5 children) lead more Cameroonian women to want to space births than to cease childbearing altogether.[1] As such, there is a greater need for reversible contraceptive methods than for permanent methods. Condoms are the most common modern method, used by 46% of women seeking to avoid a pregnancy, and accounting for 68% of all modern method use. The injectable and the pill are the next most common modern methods in Cameroon, used by 10% and 7% of women who want to avoid a pregnancy, respectively. Less than 2% of women rely on sterilization. Despite the higher efficacy of modern methods for preventing unintended pregnancies, more women (71%) seeking to space childbirths are using modern methods than women who wish to stop childbearing altogether (59%).[12]

A wide variety of factors explain the overall low use of modern methods in Cameroon. Some of the commonly cited reasons for nonuse of modern contraception in Cameroon include infrequent or no sex, concerns about side effects or health risks, postpartum amenorrhea or breastfeeding, and costs of family planning as well as other barriers to access.[23] Overcoming these obstacles will necessitate providing women with accurate and comprehensive information about contraceptive methods, improving access to a wide range of methods and promoting better inter-spousal communication about planning their future families.

Nonuse of contraceptives and unintended pregnancies. The likelihood of experiencing an unintended pregnancy depends directly on whether modern contraceptive methods are used and on how effectively women or couples use them. The risk is lowest with sterilization and long-acting reversible methods such as IUDs and injectables, and highest when no method is used. The pill is more effective than the condom, and both are more effective than traditional methods, such as periodic abstinence and withdrawal.[24]

In Cameroon, an estimated 493,000 unintended pregnancies occurred in 2013; method failure accounted for 21% of these unintended pregnancies (Table 2). Unsurprisingly, nonuse of any contraceptive method accounts for the majority of unintended pregnancies (79%). However, 55% of method failure is due to use of traditional methods, and among modern methods, 86% of failures are

caused by ineffective use of condoms. Modern methods, excluding condom use, account for only 1.3% of all unintended pregnancies in Cameroon (not shown).

Excess fertility. Low use of modern contraceptives in Cameroon, and greater use of less effective methods, has led to high levels of unplanned births—births that occur too soon after a previous birth or when a woman wants no more children at all. In 2013, 21% of all births were unplanned.[12] This proportion has remained roughly constant over four rounds of the Demographic and Health Survey from 1991 to 2011.[25] Cameroon's average family size has declined only marginally in recent years, from 5.2 children per woman in 1998 to 5.1 currently.[1] Yet the number of children women have is still substantially higher than the number they report wanting: 5.1 compared to 4.1 (Figure 1). This difference of one more child on average is a strong indicator of need for better access to quality family planning services.

Poorer women in Cameroon are especially disadvantaged in their ability to achieve their reproductive goals. While poorer Cameroonian women generally desire a larger family size than their wealthier counterparts, low-income women suffer the largest gap between their wanted and their actual fertility. Currently, the poorest women have on average 2.0 more children than they desire, whereas the wealthiest women, who likely have better access to contraception to prevent unplanned births, have only 0.7 more children than they want (Figure 1).

The divergence between desired family size and actual fertility also varies by region. The gap is largest in the North region (2.4 more children than desired)—which is one of the poorest—and smallest in the South region (a difference of just 0.4 children).[1] One reason that women in South come closer to achieving their desired fertility may be due to greater reliance on effective modern contraceptive methods: approximately 45% of women in South who want to avoid pregnancy use a modern method, compared with the national average of approximately 37%.[12]

Gaps between wanted and actual fertility are directly related to high levels of unintended pregnancies among Cameroonian women. Of the estimated 1.2 million pregnancies in 2013, 40% were unintended (Table 1). Of these, 39% were mistimed births, 12% were unwanted, 36% ended in abortion and 14% in miscarriage. Although the variation in the percent of unintended pregnancies among regions is slight, big differences are evident by economic status: 33% of pregnancies to the poorest women in Cameroon were unintended, but 44% were unintended to women in the highest wealth-status grouping. Even

though the wealthiest women have lowered their fertility most, their desire to adopt a modern, low-fertility pattern of family formation has apparently changed even more dramatically.

In 2013, 36% of all unintended pregnancies ended in abortion, totaling around 175,000 such procedures. Some variation is found among Cameroon's regions: 30% of unintended pregnancies being terminated in Far North (the lowest rate) and 42% in Littoral (the highest). More notably, among the poorest women, 33% of unintended pregnancies are aborted, while 45% of unintended pregnancies among women in the highest wealth-status end in abortion (Table 1).

Four contraceptive-use scenarios. Since unsafe abortions and other maternity-related risks can be drastically reduced by preventing unintended pregnancies, what are the quantifiable contributions of family planning on women's health and wellbeing? Using different scenarios allows us to explore how higher levels of contraceptive use improve women's health outcomes by decreasing the number of unintended pregnancies. Compared with a scenario in which there is no use of modern contraceptives, for example, the current level of modern contraceptive use—though low—has had a positive impact on maternal health: Cameroonian women now experience roughly 493,000 unintended pregnancies, of which approximately 318,000 end as unplanned births and miscarriages, and 175,000 in induced abortions (Table 2 and Figure 2). If there were no modern contraceptive use at all, however, the country would be faced with 742,000 unintended pregnancies, 473,000 of which would likely end in unplanned births and miscarriages, and 269,000 in abortions—almost all of which would be unsafe. Thus, the current level of modern family planning already averts around 249,000 unintended pregnancies and 94,000 abortions each year compared to a no-modern-use scenario.

Because childbirth in Cameroon carries elevated risks and unsafe abortions are particularly perilous, these averted pregnancies due to current levels of contraceptive use translate into the prevention of 900 maternal deaths annually and an increase of more than 29,000 healthy years of life for women each year from a corresponding reduction in maternal disabilities (Table 2). Overall, the current level of contraceptive use reduces these negative maternal outcomes by 11-17% compared to a scenario of complete absence of any modern use.

Increasing the use of effective contraceptives through increased family planning efforts will benefit Cameroonian women and their families. Ideally, all women who want to plan their families would use

modern methods of contraception. In that hypothetical scenario there would be only 120,000 unintended pregnancies (caused solely by method failure)—373,000 fewer than currently occur. In turn, unplanned births, abortions, and miscarriages would all be reduced by 75%, maternal deaths would drop by over one-fifth and approximately 46,000 healthy years of life would be restored to women. If unmet need were fully satisfied 1,300 fewer women would die in pregnancy and childbirth annually and the number of induced abortions would drop by 131,000. Additionally, 13,000 fewer infant deaths would occur. These are tangible outcomes that would greatly improve the physical and emotional wellbeing of women and their families.

Yet meeting the whole need for modern contraceptives may be a goal hard to reach in the immediate future. Building a quality family planning service in Cameroon will require large investments in infrastructure, personnel development and outreach services. A more realistic scenario may be to meet half of the current unmet need for modern contraceptives. In this case, 69% of women who want to avoid pregnancy would use a modern method. Even in this more modest scenario, the benefits over the current situation are striking. If just half of unmet need for modern contraception were met, there would be nearly 187,000 (or 38%) fewer unplanned pregnancies. This large reduction in pregnancies would mean 95,000 fewer unplanned births, 65,000 fewer induced abortions and 600 fewer maternal deaths each year than currently occur. Women would gain an extra 16,000 years of disability-free life (Table 2).

Cost-benefit analysis. Every dollar spent on family planning—in any scenario—saves money that would otherwise be spent on maternal, newborn, and post-abortion care resulting from unintended pregnancies. The full cost of providing modern contraceptive services includes many facets of quality service, only one of which is the provision of a wide choice of contraceptive methods. In Cameroon, total expenditure on family planning in 2013 is estimated to have cost $13.7 million (USD) (Figure 3; see Appendix for an explanation of how costs were calculated). It would cost $25.5 million to fulfill half of all unmet need for modern contraceptives and $37.2 million to supply all women in need with a modern method. These are total costs, which include the cost of contraceptive commodities, the cost of health personnel and the substantial overhead and capital costs needed to upgrade the country's health infrastructure to provide modern contraceptive services to the women who need them; these expenditures also include costs of counseling and information, education and communication activities.

While these costs may seem high at first, they are less than the savings that would be realized by avoiding medical care expenditures related to unintended pregnancies and unplanned childbearing. For example, in 2013 providing prenatal, delivery, and routine newborn care, covering all obstetric emergencies and treating post-abortion complications cost the health system an estimated $110 million. These costs would be substantially higher--$132 million—without any modern contraceptive use, because of higher numbers of unintended pregnancies and unplanned births. Since this saving of $22 million is greater than the cost of providing family planning ($13.7 million), the current level of contraceptive use already provides a net saving of $8.1 million (4.0 billion francs) annually to Cameroon (Figure 3). In making this comparison we consider only short-term savings in health; longer-term savings would also be experienced in other social sectors, such as education, water and sanitation, and immunization and malaria control.[9]

If increased modern contraceptive use were able to meet all unmet need, even more unintended pregnancies would be averted, and the reduction in health-care costs would be even more dramatic. The total cost of pregnancy-related medical care would fall by $14.5 million if half of unmet need for modern contraceptives were met and by $28.9 million if all women who wanted to delay or limit childbearing used modern methods.

Although reducing unmet need would incur higher contraceptive costs, considerable net savings would result. Compared with current expenditures for providing contraceptive services and maternal, newborn, and post-abortion care, meeting just half of the need for modern contraceptives would result in a net savings of $2.7 million (1.3 billion francs). Fulfilling all unmet need would generate a net savings of $5.4 million (2.7 billion francs), despite the great investments needed to fill meet women's need for family planning services (Figure 3). The bottom line is that every dollar spent on contraceptive services will save $1.23 on maternal and newborn care.

Equity considerations. Economically well-off women have better access to contraceptive services than poor women, and consequently, benefit more from the advantages that result from contraceptive use. Thus, poor women stand to gain more from increased access to family planning. For example, under the scenario of fully satisfied unmet need, poor women would avert almost four times as many pregnancies as would well-off women (respectively, 341 versus 89 pregnancies per 1,000 women who want to avoid pregnancy; Figure 2). Similarly, the reduction in maternal mortality would be most pronounced among

the poorest women. Fulfilling all unmet need for modern contraceptives would avert 138 maternal deaths per 100,000 poor women who wish to avoid pregnancy, compared with 23 per 100,000 among the wealthiest women (not shown). Investments toward meeting women's reproductive needs will dramatically decrease existing reproductive inequities.

Discussion

Investing in contraceptive services not only promotes health among women and families, it also saves money. Higher levels of contraceptive use strengthen women's ability to participate in the labor force and improve overall family well-being and the health of communities. Furthermore, the savings that result from averting unintended pregnancies can be redirected to public services, translating into faster economic development.

The Cameroon government has committed itself to the African Union Commission and UNFPA's Campaign for Accelerated Reduction of Maternal Mortality in Africa (CARMMA), which has identified family planning as a key component of this strategy in order to improve overall health indicators in the country.[26] Furthermore, the government has approved a strategic plan for reproductive health in which a key goal is to increase contraceptive prevalence (modern methods) from 19.3% to at least 30% in urban areas and from 5.9% to 15% in rural areas by 2015.[27] However, expenditures on reproductive health are inadequate: public expenditure on maternal health over the period 2007-2009 averaged around $960,000 (only $0.20 per woman of reproductive age).[28] Achieving significant reductions in maternal and infant mortality and their associated costs will require greater investments in the health care and service delivery infrastructure and the provision of quality family planning services. The total outlay for reproductive health ($0.96 million, or 473 million francs) translates to just 1.1% of the government's total health expenditure.[28] Much of the needed funding will likely need to come from international donors.

As this paper has shown, one of the most effective methods to reduce maternal and infant deaths and disability is to lower women's exposure to the risks of pregnancy and childbirth in the first place. There could be 76% fewer unintended pregnancies annually in Cameroon if all women with unmet need could access modern contraception. As women and couples increasingly adopt low-fertility paradigms the demand for family planning will only grow. The responsibility for fulfilling this demand will have to be

shared by various stakeholders, including the government, the private sector and the international community. Improving publicly funded family planning—by increased investment, by continuous quality improvement and by adopting client-based strategies—is especially important for the economically disadvantaged strata of the population.

Increased contraceptive use will enable the country to attain the MDGs—especially goals four and five which focus on children's and mothers' health—more quickly and affordably by helping to reduce maternal and infant deaths and disability by decreasing the burden of unintended pregnancies. Investment in contraceptive services not only promotes healthy mothers and babies, it also saves money. Overall, every extra franc spent on family planning will lower expenditure on mother and newborn care by 1.23 francs. Increased contraceptive use will also increase the productivity of labor by improving the health of working women and allowing women more opportunity to participate in the labor force. Furthermore, the savings generated from averting unintended pregnancies can be directed to other development enhancing investments. The benefits of improved quality of life and lives saved would be an incalculable gain to Cameroonian families.

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Table 1. Unmet need for modern contraception among Cameroon women aged 15-49 who want to avoid pregnancy, intendedness of pregnancies, and outcomes of unintended pregnancies, by region and wealth quintile, 2013

Region and wealth quintile	No. of women aged 15–49	Women who want to avoid pregnancy*				All pregnancies†					
		Total no. of women	% using no method	% using a traditional method‡	% with unmet need for modern method§	Total no. of pregnancies	% intended	% unintended	% ending in mistimed births**	% ending in unwanted births††	% ending in induced abortions
Total	***5,210,000***	***2,260,000***	***45%***	***18%***	***63%***	***1,220,000***	***60%***	***40%***	***16%***	***5%***	***14%***
Adamaoua	260,000	80,000	63%	6%	69%	60,000	60%	40%	16%	5%	14%
Centre	1,020,000	560,000	40%	16%	56%	210,000	58%	42%	15%	5%	16%
East	200,000	90,000	68%	7%	74%	50,000	61%	39%	16%	5%	13%
Far North	830,000	210,000	84%	3%	87%	250,000	62%	38%	16%	5%	11%
Littoral	900,000	470,000	31%	26%	57%	170,000	57%	43%	15%	5%	18%
North	540,000	160,000	85%	0%	85%	160,000	62%	38%	16%	5%	11%
Northwest	480,000	220,000	32%	24%	57%	100,000	58%	42%	15%	5%	16%
West	440,000	190,000	29%	28%	58%	110,000	61%	39%	16%	5%	13%
South	160,000	90,000	39%	17%	55%	40,000	59%	41%	15%	5%	15%
Southwest	390,000	190,000	29%	28%	57%	70,000	57%	43%	15%	5%	17%
1st quintile (poorest)	840,000	210,000	85%	4%	89%	260,000	67%	33%	12%	5%	11%
2nd quintile	930,000	330,000	59%	15%	74%	260,000	62%	38%	16%	5%	12%
3rd quintile	990,000	430,000	49%	18%	67%	250,000	59%	41%	16%	5%	13%
4th quintile	1,190,000	610,000	37%	20%	58%	240,000	53%	47%	19%	5%	17%
5th quintile (wealthiest)	1,270,000	680,000	28%	22%	50%	210,000	56%	44%	15%	4%	20%

Notes: Percentages may not add to totals because of rounding.

*Women who are married or are unmarried and sexually active (within past three months), are able to become pregnant (in the absence of contraceptive use), and do not want any more children or do not want a child in the next two years.

†Includes miscarriages, which are estimated at 16% of all known pregnancies. Because we don't present miscarriages separately, the final three columns that break down unintended pregnancies do not add up to the total of unintended pregnancies.

‡Rhythm, withdrawal and folk methods.

§By modern methods, we mean the pill, IUD, injectable, implant, male condom, and male and female sterilization.

**Mistimed births are those to women who did not want a child for at least two years when they became pregnant.

††Unwanted births are those to women who wanted no more children when they became pregnant.

Table 2. Impacts of contraceptive use in reducing the numbers of pregnancies and negative outcomes, by outcome, 2013

	Scenarios of use and extent of unmet need				Percentage reduction in outcomes by scenario		
Outcome	No contraceptive use	Current contraceptive use*	Half of need for modern methods met‡	All need for modern methods met†	Current use vs. no use	Half of need for modern methods met vs. current use	All modern need met use vs. current use
Unintended pregnancies	742,000	493,000	306,000	120,000	34%	38%	76%
Unintended births	372,000	250,000	155,000	59,000	33%	38%	76%
Induced abortions	269,000	175,000	110,000	44,000	35%	37%	75%
Miscarriages**	101,000	68,000	42,000	16,000	33%	38%	76%
Maternal deaths	6,800	5,900	5,300	4,600	13%	10%	22%
Infant deaths	66,000	58,600	51,900	45,200	11%	11%	23%
Maternal DALYs	184,000	153,000	137,000	107,000	17%	10%	30%
Perinatal DALYs	1,145,000	1,003,000	914,000	780,000	12%	9%	22%

Note: DALY=disability-adjusted life year. The differences calculated from these data may not exactly match the text because of rounding.

*Method mix among women wanting to avoid a pregnancy is 37.4% modern, 18.0% traditional, 44.5% none.

‡Method mix among women wanting to avoid a pregnancy is 68.7% modern, 09.0% traditional, 22.3% none.

†100% modern method use among women at risk of unintended pregnancies.

** Miscarriages from unintended pregnancies.

Source: See Appendix at <URL TO COME>

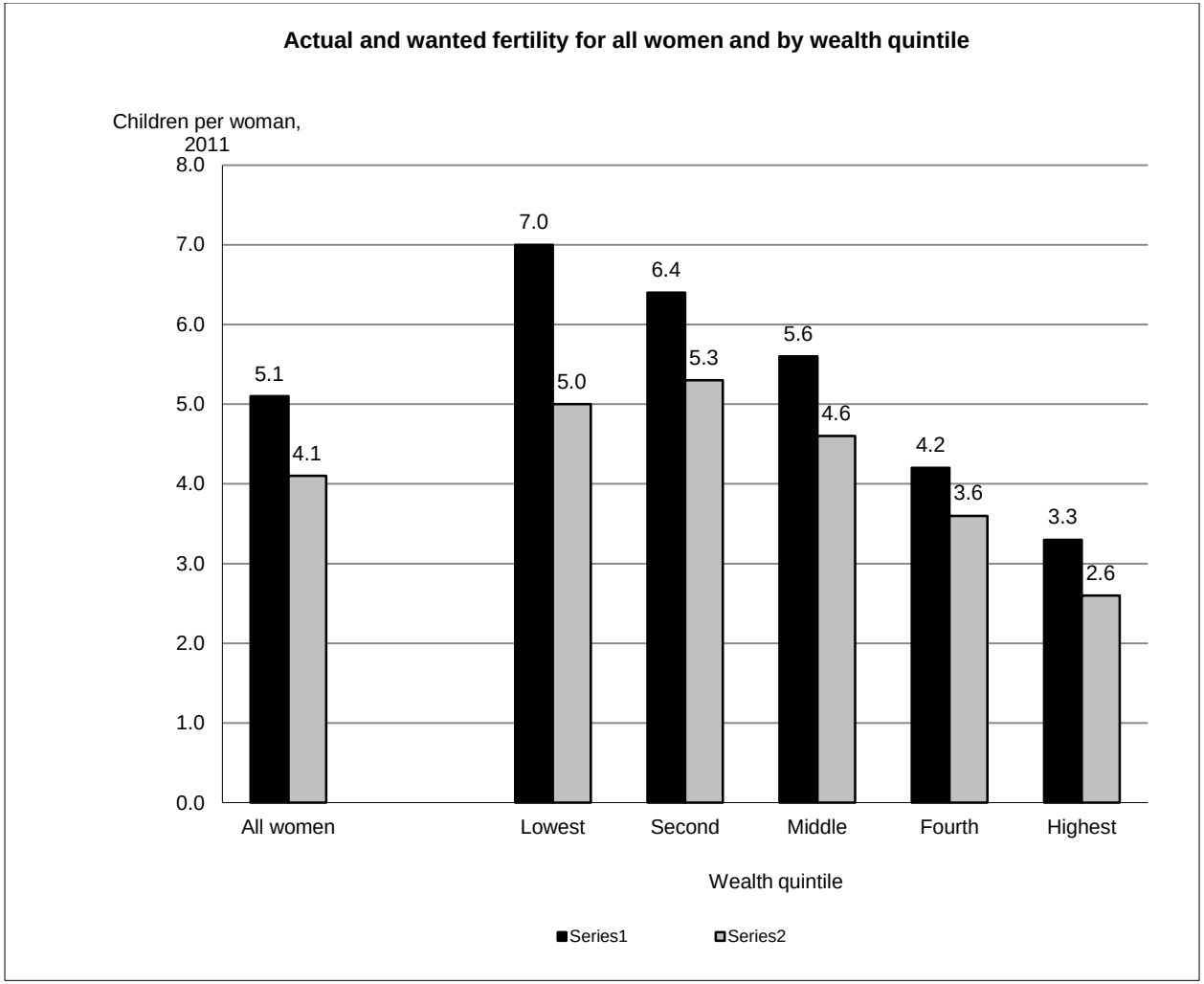

Figure 1. Cameroonian women are having more children than they want, especially if they are poor

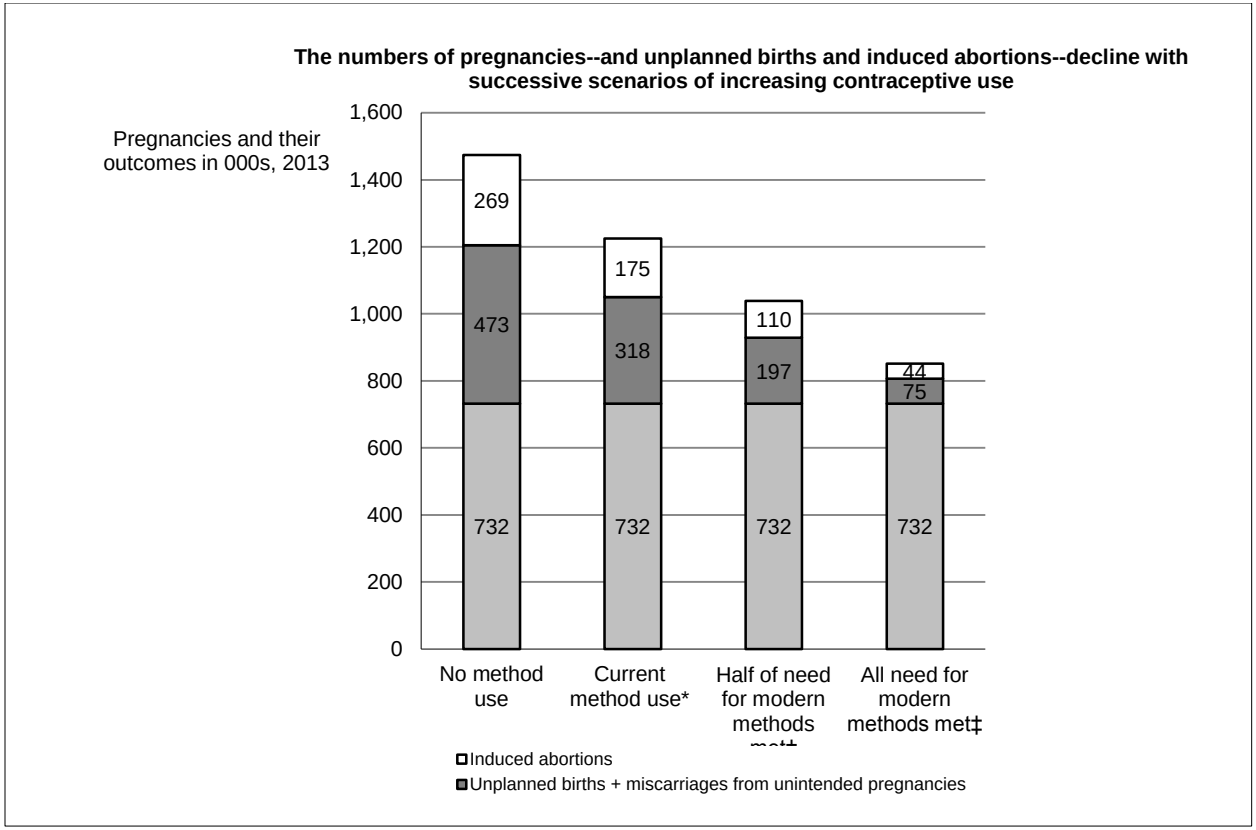

Figure 2. The use of modern contraceptive methods reduces abortions and unplanned births

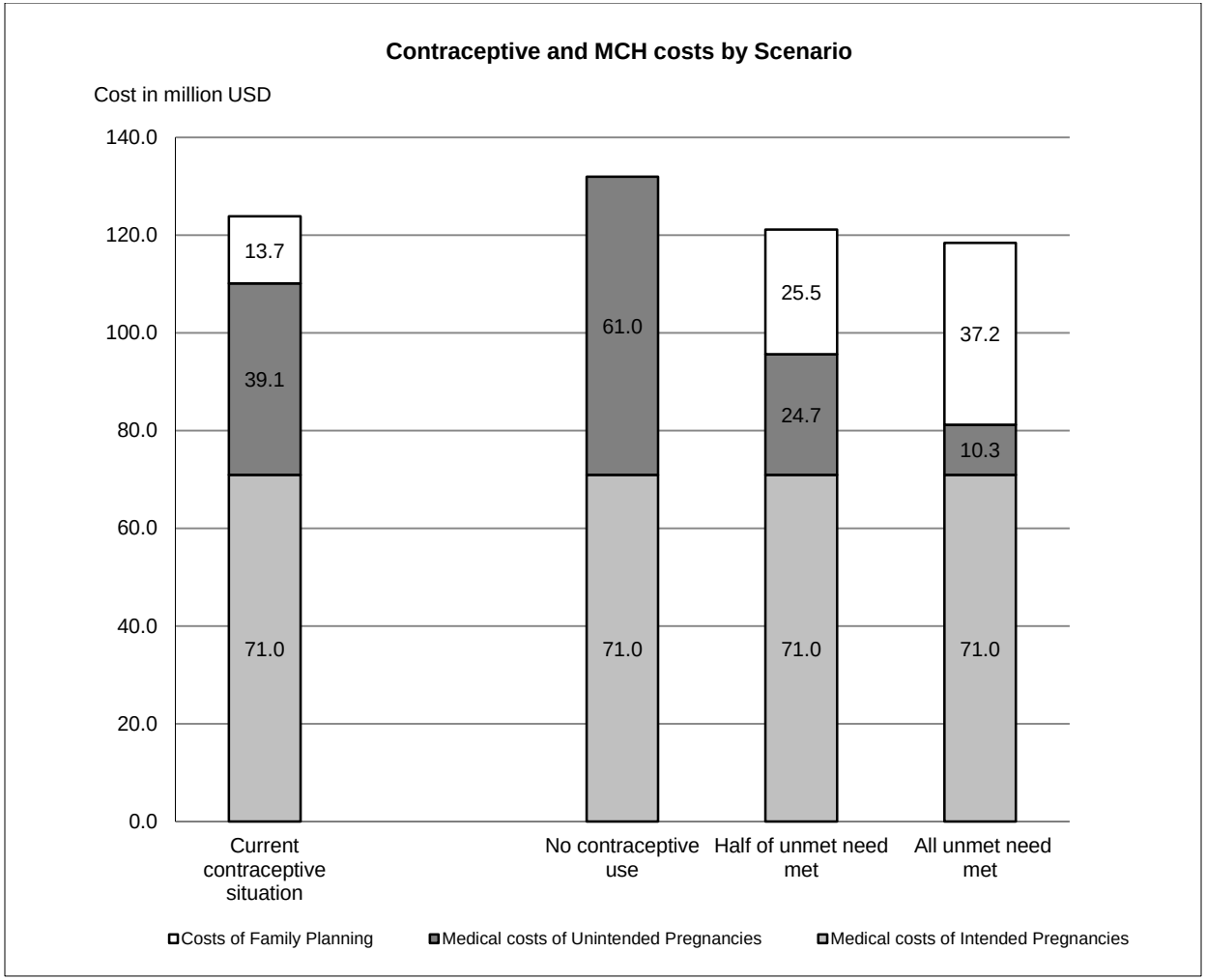

Figure 3. Investing in contraception could substantially reduce costs associated with unintended pregnancy