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PRECONGRESS WORKSHOP

Meeting the need for modern contraception: Effective solutions to a pressing global challenge

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ABSTRACT

Voluntary family planning is one of the most efficacious and cost-effective means of improving individual health, gender equity, family well-being, and national development. Increasing contraceptive use and reducing unmet need for family planning are central to improving maternal health (UN Millennium Development Goal 5). In less-developed regions of the world, especially Sub-Saharan Africa and South Asia, human and financial resources are limited, modern contraceptive use is relatively low, unmet need for modern contraception is high, and consequently maternal morbidity and mortality are high. However, the international community is showing renewed commitment to family planning, a number of high impact program practices have been identified, and a number of Sub-Saharan African countries (e.g. Ethiopia, Malawi, and Rwanda) have successfully made family planning much more widely and equitably available. The International Federation of Gynecology and Obstetrics (FIGO) has joined with other international and donor organizations in calling for increased funding and more effective programming to improve maternal health and family planning in low-resource countries. Continued engagement by FIGO, its member societies, and its individual members will be helpful in addressing the numerous barriers that impede universal access to modern contraception in low-resource countries.

1. Background

When made available and accessible, modern contraception is widely used, even in many of the world's least-developed countries. Increasing contraceptive use and reducing unmet need for family planning are central to the achievement of United Nations Millennium Development Goal 5 (MDG 5), improving maternal health [1], and can be seen as essential contributors to achievement of all 8 MDGs [2]. Great progress has been made during the past 4 decades in meeting the contraceptive needs of women and men. In low-resource countries, modern contraceptive use by women aged 15–49 years who are married or in a union (referred to here as MWRA) has risen from negligible levels in the early 1970s to plateau at 55%–57% during 2000–2012 [3,4]. Ninety-two percent of modern contraceptive use in low-resource countries is among MWRA [3]. Fertility has dropped accordingly, from an average total fertility rate (TFR) of 4.7 lifetime births per woman in the early 1970s to 2.6 births per woman in the late 2000s [4]. Increases in contraceptive use account for 75% of the fertility decline in low-resource countries and have substantially reduced high-risk pregnancy and thus maternal mortality [5]. Progress has lagged, however, in Sub-Saharan Africa and South Asia [3–8], where investment in family planning by national governments and donor agencies has been inadequate, failing to keep pace with demand [3]. In Sub-Saharan Africa, a woman's lifetime maternal mortality risk is 1 in 31, compared with 1 in 4300 in high-resource regions [1].

2. Benefits of family planning

The health benefits of family planning include sizable reductions in maternal morbidity, maternal mortality, infant and child mortality, and abortion [3–5]. In 2008, 342 000 women died of maternal causes, with 99% of maternal deaths occurring in low-resource countries [4]. However, without contraceptive use, maternal mortality would have been 1.8 times higher: contraceptive use averted more than 272 000 maternal deaths, a 44% reduction. In addition, for every instance of maternal mortality, 20 instances of serious morbidity (e.g. obstetric fistula) occur [9]. Use of modern contraception in low-resource countries in 2012 will avert 1.8 million neonatal and infant deaths and 138 million abortions, 40 million of which are unsafe [3]. Complications of abortion cause 13% of maternal deaths [10].

Family planning also confers many social and economic benefits. The ability to realize one's reproductive intentions via access to a wide range of contraceptive methods is a cornerstone of modern life, fundamental to ensuring that women enjoy their full rights and opportunities. At the household level, improved access to family planning services leads to substantial improvements in women's earnings and children's schooling [11]. At the national level, higher modern contraceptive use

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correlates with lower fertility [12], which enhances economic growth [11]. Conversely, high unwanted fertility (actual fertility in excess of desired fertility) correlates with poverty and represents an inequity [13]. High fertility and poverty correlate with high levels of youth dependency, unemployment, political instability, gender inequality, poor health indicators, and other markers of low socioeconomic development and human misery. Thus, the world's governments have long affirmed the rights of individuals and couples to sexual and reproductive health (SRH), including the right to freely and responsibly choose the number, spacing, and timing of their children, free of discrimination, coercion, and violence [14–16].

3. Use of modern contraception

Worldwide, 56% of MWRA—661 million women—use modern contraception [17]. Asia accounts for over two-thirds of modern contraceptive use, with China and India alone accounting for half of worldwide use. Female sterilization is the most widely used method in the world, and the intrauterine device (IUD) is the most widely used reversible method. Nineteen percent of MWRA (223 million) rely on female sterilization, accounting for one-third (34%) of total modern method use worldwide, and 14% of MWRA (169 million) rely on the IUD, which accounts for 26% of total modern method use. Thus, among women who are married or in union, use of the IUD and female sterilization account together for 60% of the world's use of modern contraception. The share of other modern methods' use includes: the pill, 9% (104 million); the male condom, 8% (90 million); the injectable, 4% (41 million); and male sterilization (vasectomy), 2% (28 million). Use of contraceptive implants has been below 1% worldwide, but is increasing in low-resource countries, with prospects of even greater usage in the next few years because of markedly reduced commodity prices [18].

There are marked differences among regions in modern method use, as well as in the proportion of demand—the sum of modern contraceptive use plus unmet need for modern contraception—being met [8,17]. For example, 73% of MWRA in North America and 67% in Latin America use modern contraception, but only 16% in Sub-Saharan Africa do so [17]. Whereas 80% of demand for modern contraception is met worldwide, including 86% in North America, 81% in Latin America, and 80% in Asia (67% in Southern Asia), only 34% of demand for modern contraception is met in Sub-Saharan Africa.

Variations are also found *within* Africa. The modern method contraceptive prevalence rate (CPR) is 58% in Southern Africa, 54% in Northern Africa (excluding Sudan), and 23% in Eastern Africa, but is less than 9% in Western Africa and less than 7% in Middle Africa [17]. West and Middle African countries with a modern method CPR of 8% or less include Chad (2%, 2004); Guinea (6%, 2005); Democratic Republic of Congo (6%, 2007); Mali (7%, 2006); and Nigeria (8%, 2008) [19]. Southern and Eastern African countries with a modern method CPR of 39% or higher include Kenya (39%, 2008–09); Malawi (42%, 2010); Rwanda (45%, 2010); Swaziland (48%, 2006–07); Namibia (53%, 2006–07); Zimbabwe (57%, 2010–11); and South Africa (60%, 2003–04). Whereas total demand for modern contraception has increased in most countries of Southern and Eastern Africa-for example, from 35% to 60% in Tanzania over 14 years and from 49% to 72% in Rwanda over the past decade-there has been little to no increase in West and Middle African countries [8]. In West and Middle Africa, 45% of married women have never used modern contraception and do not intend to use it, in contrast to 19% of married women in East and Southern Africa.

4. Effectiveness of modern contraception

Effectiveness is a key consideration for contraceptive users (who are using contraception to avoid pregnancy). Effectiveness of a method is measured in terms of the number of unintended pregnancies per 1000 women during the first year of typical use (as opposed to "perfect" use) [20]. With no method use, there would be 850 unintended pregnancies per 1000 women during 1 year. Effectiveness rates of methods commonly used in low-resource countries are: withdrawal, 220 unintended pregnancies per 1000 women; (male) condom, 180 per 1000; pill, 90 per 1000; injectable (Depo-Provera), 60 per 1000; copper-T IUD, 8 per 1000; female sterilization, 5 per 1000; male sterilization (vasectomy), 1.5 per 1000; and implants, 0.5 per 1000 (i.e. 1 unintended pregnancy per 2000 women). In terms of contraceptive failure, withdrawal is a substantial improvement over no method use, but it is inferior to the "resupply" methods commonly used in family planning programs (pills, condoms, and injectables). IUDs, hormonal implants, female sterilization, and vasectomy—collectively referred to as long-acting and permanent methods, or LAPMs—are far more effective still, because they require fewer—often many fewer—correct and consistent human actions. Thus, for example, the copper-T IUD is 11 times more effective than the pill, and the implant is 120 times more effective than the injectable. A recent modeling study concluded that if (only) 20% of African women currently using pills and injectables were to switch to using the more effective contraceptive implant, 1.8 million unintended pregnancies, 576 000 abortions (many of them unsafe), and 10 000 maternal deaths would be averted over 5 years [21].

5. Unmet need for modern contraception

More than 1 in every 4 women (26%) in low-resource countries—222 million overall—have an unmet need for modern contraception [3]. (Withdrawal and periodic abstinence are classified as nonuse of modern contraception and users of these methods are considered to have unmet need for modern contraceptive methods [8,21]). Unmet need in the world's 69 poorest countries increased from 153 million women in 2008 to 162 million women in 2012. Unmet need varies by region, and is generally higher where modern method use is lower and among less educated and more rural populations [3,8,17]. Asia has the greatest *number* of women with an unmet need for modern contraception, 119 million [17]. India alone has 45 million women with an unmet need for modern contraception and Sub-Saharan Africa has 39 million women with an unmet need. However, Sub-Saharan Africa has the highest *proportion* of married women with an unmet need, at 31%, compared with 12% in North America, 15% in Asia, and 16% in Latin America. Unmet need for modern contraception exceeds use of modern contraception in Western Africa, Middle Africa, Eastern Africa, and Western Asia. In Middle Africa, unmet need for modern contraception (37%) is 5 times greater than modern method use (7%), namely 84% of total demand for modern contraception is *not* being met. Similarly, in Western Africa, unmet need for modern contraception (30%) is more than triple the level of modern method use (9%), with 77% of total demand being unmet. Young, sexually active, never-married women often face even greater difficulties than married women in accessing contraception [3]. Forty-four percent of unmarried women who need contraception in low-resource countries are not using a modern method. Unmet need among unmarried women aged 15–49 years in West and Middle Africa is 51% [8]. Seventy-nine percent of unintended pregnancies in low-resource countries occur among women with an unmet need for modern contraception [3]. Half of the estimated 80 million annual unintended pregnancies in low-resource countries end in abortion. If all unmet need for contraception were met, 104 000 maternal deaths would be prevented each year, mainly in Sub-Saharan Africa and South Asia [4].

6. Unmet need and reproductive intentions

Unmet need can be further subdivided according to a woman's or couple's reproductive intentions either to postpone a first or subsequent birth for at least 2 years (unmet need for spacing) or to cease