

Global trends in unmet need for family planning and prospects for the future

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Abstract

With the looming problem of overpopulation, family planning has been identified as a cost-effective intervention proven to result in long term positive impacts. Though the share of women of reproductive age (15-49 years) using contraceptives has increased over time, there are an estimated 270 million women with unmet need for contraception worldwide. The issue of unmet need for family planning is one that has far-reaching consequences with numerous factors contributing to the persistence of this phenomenon. Despite global progress over the past few decades, significant gaps exist in family planning services in many countries, particularly those in developing regions. The challenges faced range from inadequate funding, lack of political will, socio-economic factors to cultural and religious beliefs that limit access to and use of family planning services. Addressing unmet need for family planning is critical for achieving the Sustainable Development Goals, improving health outcomes, advancing reproductive rights and economic development worldwide.

Keywords: family planning, contraceptive use, reproductive health, unmet need, trends.

INTRODUCTION

Overpopulation has long been identified as an issue that has critically impaired global health indices. In recent years with the looming problem of overpopulation, there have been renewed efforts globally to deliver family planning (FP) information and services to millions of women who are in need ⁽¹⁾. According to global statistics from the United Nations Population Fund (UNPFA), an estimated 218 million women in developing countries who desire to avoid pregnancy are not using a modern method of contraception ⁽²⁾. However, FP has been identified as an important strategy in reducing birth rates in countries with rapid population growth ⁽³⁾. If an effective FP method is used, it protects women from unintended pregnancies, pregnancy complications and reduces unsafe abortions. Moreover it plays a crucial role in reducing newborn, child and maternal morbidity and mortality ^(2, 4). Despite all these benefits, the problem of unmet need for FP is one which still persists and poses a major threat worldwide ^(1, 2).

According to the World Health Organization (WHO), unmet need for FP is the proportion of women of reproductive age who want to avoid pregnancy but are not using any contraceptive methods, or are using a method that is ineffective ⁽⁴⁾. Though

contraceptive use is increasing at a fast pace, an approximated 49% of all pregnancies worldwide are unintended with estimates from 2015 to 2019 of 121 million unintended pregnancies annually ⁽⁵⁾. With majority of these being in less developed countries particularly those in Sub-Saharan Africa where contraceptive use and FP remain less prevalent ⁽⁶⁾. Evidently the level of unmet need for FP is still alarming particularly so in certain regions of the world. It is imperative that FP is repositioned as not only an issue of choice but one of health and development. Addressing the unmet need for FP is critical for achieving Sustainable Development Goals (SDGs) related to maternal and child health, gender equality and poverty reduction ^(7, 8).

GLOBAL TRENDS IN CONTRACEPTIVE USE

The use of contraception is a critical element in FP programmes globally. It is an effective means of reducing unintended pregnancies, promoting maternal and child health and improving the overall well-being of individuals and communities ⁽⁸⁾. The global trend in contraceptive use has increased over the past few decades. According to the United Nations Population Division (UNPD), the prevalence of contraceptive use among married or in-union women of reproductive age (15-49 years) increased from 54% in 1990 to 63% in 2020 ⁽⁹⁾. As of 2021, approximately 1.6 billion women worldwide were using some form of modern contraception, representing an increase of 47% from 1990 ^(2, 9). In many countries, there has been a shift towards the use of modern contraceptive methods such as intrauterine devices (IUDs), hormonal pills and sterilization, with the most commonly used methods being female sterilization, oral contraceptives and IUDs ^(8, 10). However, the use of modern contraceptives vary significantly across regions and countries. Developed regions including Europe and North America have higher contraceptive prevalence rates (CPR) compared to developing regions such as Africa and Asia. Global CPR increased from 54% in 1990 to 63% in 2020, with developed regions having a CPR of 75% compared to developing regions with a CPR of 58% ⁽⁹⁾. Approximately 65% of women use a modern method of contraception in Latin America and the Caribbean. This percentage is lower than in North America and Europe but still relatively high compared to other parts of the world. Contraceptive use is moderate in Oceania, with an overall rate of around 55% ⁽⁸⁾. Countries like Australia and New Zealand have high rates of use compared to other countries in the region that have reported lower rates ^(9, 11).

Within developing regions there are significant disparities between countries. For instance, the CPR in South Asia increased from 33% in 1990 to 51% in 2020, and from 14% to 31% during the same period in Sub-Saharan Africa ⁽⁹⁾. Contraceptive use varies widely across Asia, with some countries like South Korea and Thailand having high rates of use and others such as Afghanistan and Pakistan having very low rates. The overall rate of contraceptive use in this region stands at an estimated 57% ^(10, 11). Contraceptive use is generally low in Sub-Saharan Africa, with an overall rate of approximately 33%. Some countries such as South Africa and Egypt have higher rates of use compared to many other countries that have rates below 20% ^(10, 11). Significant regional and country-level variations exist in the use of modern contraceptive methods within this region, particularly in rural areas and among disadvantaged populations. In some low-income countries, access to modern contraceptives remains limited and cultural or religious beliefs may discourage their use ^(2, 12). Sub-Saharan Africa has the lowest recorded use of modern contraceptives (24%) and as low as 2% in countries like South Sudan ⁽¹⁰⁾. It is also the only region in which short-acting contraceptive methods

are most commonly used. Injectables have been identified as the dominant method in Sub-Saharan countries with a prevalence of 9.6% among women of reproductive age (9, 10).

While the overall trend is positive, progress has been slower in some parts of the world where the use of modern contraceptives has not increased. Several challenges hinder the achievement of universal access to FP services. One of the primary challenges is inadequate funding for FP programmes which limits the availability and accessibility of contraceptive services (3, 8, 9). A report by the Guttmacher Institute estimated the annual cost of meeting the contraceptive needs of all women in developing countries to be approximately \$9.4 billion, of which only \$5.1 billion is currently being met (2). In order to curb this, governments and international organisations must increase funding for FP programmes, including provision of training and education for health care providers and the establishment of robust supply chains for contraceptive commodities (7, 12).

Another challenge is the lack of awareness and knowledge about contraceptive methods particularly among young people and marginalized populations. This has resulted in misconceptions, myths and cultural barriers that limit the uptake of modern contraceptive methods. Furthermore, the limited availability of contraceptive methods, particularly long-acting and reversible methods, limits women's choices and affects their ability to maintain consistent use (2, 13). A prime example is Nigeria which is the most populous country in Africa. Despite its high total fertility rate of 5.2 live births per woman, ranking it the 1st in the world and the 5th in Africa, just one fifth of women of reproductive age have been reported to use contraception (14). Most women rely heavily on short-acting contraceptive methods and are also more inclined to using traditional methods. According to the 2018 Nigeria Demographic Health Survey, the most commonly used modern method of contraception among currently married women was injectables and implants (3% each) while 5% used a traditional method. Among sexually active unmarried women the most common modern method used was the male condom (19%) and 9% used a traditional method (15). This in turn compromises global efforts as seen in Nigeria's failure to meet the global pledge to achieve a modern contraceptive prevalence rate (mCPR) of 27% among all women by 2020. At the end of the deadline, the FP 2020 indicators showed that there was a mCPR of only 13.9% (15, 16). In comparison, a stark difference exists in a country like Türkiye where about half of married women use a modern contraceptive method with the most common being IUDs (14%) and female sterilization (10%). However, though the prevalence rate in Türkiye is higher, it has stagnated since the 2000s and a sizeable portion of women in the country continue to rely on traditional methods such as withdrawal (17).

While significant progress has been made in increasing contraceptive use globally, major challenges still prevail. There is a need for increased advocacy and awareness campaigns that address the myths, misconceptions and cultural barriers. This includes working with communities and religious leaders to promote positive attitudes towards contraception and reproductive health (1, 12). Also improving access to affordable and reliable contraception, as well as addressing social barriers to their use, can help to increase the prevalence of contraceptive use (2, 10, 12).

CONCEPT OF UNMET NEED FOR FAMILY PLANNING AND GLOBAL TRENDS

Unmet need for FP shows the gap between women's reproductive intentions and their contraceptive behaviour ⁽¹⁸⁾. The concept of unmet need for FP was brought to fore by three major surveys, the World Fertility Survey, the Contraceptive Prevalence Survey and the Demographic and Health Survey (DHS) ⁽¹⁹⁾. Currently, the method used to compute the unmet need for FP comes from DHS ⁽²⁰⁾. Overtime calculations for the unmet need for FP have become increasingly complex as it changed to account for new data collected from DHS's ever-expanding surveys in order to provide a more accurate representation. Recent improvements have sought to reduce this complexity and ensure that all DHS use a standardized measure for surveys ⁽²⁰⁾. After numerous revisions, the standardized algorithm to determine unmet need for FP was concluded on. According to this, women are first classified according to their contraceptive use status. Pregnant or postpartum amenorrhoeic women who do not use contraceptives are categorized as having an unmet need if the previous pregnancy or birth they had was unintended. However, women who are neither pregnant nor postpartum amenorrhoeic are further classified based on their fertility ^(20, 21). Fecund women who want to stop (birth limiting) or delay (birth spacing) child birth by at least two years are categorized as those with an unmet need for FP. Women with unmet needs are then classified based on whether they have an unmet need for birth limiting or spacing ⁽²¹⁾. In line with the algorithm, married women who are infecund, pregnant with an intended pregnancy or want to get pregnant within two years at the time of the survey are considered to have no need for FP. In contrast, if fecund women are using contraceptives either for birth spacing or limiting at the time of survey, the need is considered to be met ^(20, 21).

Unmet need for FP is an important indicator of the availability and accessibility of FP services, as well as the cultural and social barriers that prevent individuals from accessing these services. Globally, there are an estimated 270 million women of reproductive age with an unmet need for FP ^(8, 22). This translates to around 1 in 4 women who want to avoid pregnancy but do not have access to effective contraceptive methods ⁽²³⁾. The unmet need for FP is particularly high in developing countries, where approximately 70% of unintended pregnancies occur ⁽¹⁰⁾. The regions with the highest unmet need for FP are Sub-Saharan Africa and Southern Asia, with unmet need rates of 24% and 12% respectively ^(10, 23). Additionally, unmet need tends to be higher among women who are younger, poorer, less educated and living in rural areas. Sub-Saharan countries like Chad (38%) and Niger (33%) have a much higher percentage compared to others ⁽²⁴⁾.

In comparison, women of reproductive age in Europe have an average unmet need for FP of just 7%. However, the percentage varies widely between countries. For instance, in Azerbaijan the unmet need is 18% while in Georgia it is 7% ^(23, 24). It is important to note that unmet need for FP is not just a problem in developing countries. Even in high-income countries, some women have an unmet need for FP due to factors such as lack of access, cost and personal or religious beliefs ⁽¹⁸⁾. The unmet need for FP in South Asia is estimated at 12% and varies widely between countries. In Bangladesh for example, the unmet need is 11% while in Afghanistan it is 25%. Latin America and the Caribbean have an unmet need for FP which is estimated at 17%. Though much higher in countries like Haiti where it is around 30% and 22% in Bolivia ⁽²⁴⁾. The Middle East and North Africa have been reported to have similar levels of unmet need for FP

estimated at 19% in this region. Though in countries like Yemen and Egypt the percentage is much higher with 27% and 20% respectively ⁽²⁴⁾.

Understanding and interpreting estimates of unmet need for FP in terms of contraceptive utilization and other fertility related parameters is noteworthy ^(20, 25). In order to prevent the misconception of levels of unmet need for FP, it is imperative to study country specific profiles. Using countries mentioned earlier, as in the case of Niger, the high level of unmet need is largely due to a traditional norm of a large family size being ideal. In this regard, contraceptive utilization is lower. Whereas in a country like Bolivia, smaller family sizes are preferred but high unmet need for FP reflects the culmination of FP programmes ⁽²⁵⁾. It is important to note that lower levels of unmet need does not necessarily translate to the effectiveness of FP programmes in that community as this may be by virtue of cultural norms such as a woman's desire to have a large family ⁽²⁵⁾.

Generally, there are several factors that contribute to the unmet need for FP. These include lack of access to contraceptive methods, limited knowledge about FP, education, cultural and social norms that discourage contraceptive use and gender inequality. In many countries, FP services are underfunded or not widely available, making it difficult for individuals to obtain contraceptives. Additionally, there may be social and cultural barriers to contraceptive use, such as stigma or negative attitudes towards FP ^(18, 22). The unmet need for FP has significant implications for individuals and societies as a whole. Women who are unable to access FP services may experience unintended pregnancies, which can lead to a variety of negative health outcomes, including maternal and infant mortality, unsafe abortions and complications during childbirth ^(18, 23). Unintended pregnancies can also limit women's educational and economic opportunities, as they may be forced to leave school or work to care for a child ⁽⁸⁾. The unmet need for FP also has broader social and economic implications. Countries with high rates of unintended pregnancies may face challenges in achieving SDGs, including reducing poverty and improving health outcomes. High fertility rates can strain already limited resources, making it difficult for governments to provide essential services and infrastructure ⁽²³⁾. Efforts to address the unmet need for FP have been ongoing for many years. While progress has been made, events such as the COVID-19 pandemic have had a significant impact on FP services, with disruptions in supply chains and limited access to health care services making it even more challenging for individuals to obtain contraceptives ^(11, 22). Addressing these factors will require a comprehensive and multisectoral approach that addresses the root causes of unmet need for FP ⁽²²⁾.

IMPLEMENTATION OF FAMILY PLANNING PROGRAMMES AND FRAMEWORKS

The history of FP policies worldwide can be traced back to the 1960s. They commenced owing to the globally perceived population problem in developing countries with a goal to halt rapid population growth ⁽²⁶⁾. International FP programmes, from then to present day, have undergone constant changes and a process of harmonization ⁽²⁷⁾. From the 1960s to now many governments have adopted population policies that support FP. India was the first country to adopt it and other Asian countries followed suit in the early 1960s. Countries like Türkiye adopted the anti-natalist population policy since 1965; Nigeria established the Federal Ministry of Health which was responsible for implementing policies related to reproductive health and FP in 1963; and China

adopted the “one child policy” in 1979 ^(14, 27, 28). Global FP policies vary across countries and regions, as well as among international organisations. However, there are key agreements and initiatives that have shaped global FP policies.

In 1974, the United Nations arranged the first intergovernmental conference in Bucharest called the International Conference on Population. This conference predominantly focused on the relationship between human development and population growth. The action plan adopted here recommended governments to promote couples right to decide their own family size. It also urged governments to make FP services accessible to all individuals by integrating it with other health related services such as primary health care ⁽²⁹⁾. The Second International Conference on Population was held after a decade in Mexico City. The conference’s action plan recommended governments seeking a decline in fertility to adopt policies known to decrease fertility such as education, social equity and the integration of women in decision making ^(27, 29). In 1994, the first International Conference on Population and Development (ICPD) was held in Cairo. Here, the FP agenda was transformed into a broader and holistic approach to include the concept of sexual and reproductive knowledge and rights. In the ICPD programme, the main justification for population programmes was specified as unmet need for FP ⁽²⁹⁾. Thus women’s interest was emphasized as a fundamental role in population matters and the concept of reproductive health and rights were introduced. This is widely considered a landmark in the development of global FP policies ⁽²⁹⁾.

At the start of a new millennium in 2000, world leaders convened at the United Nations Millennium Summit to create a global partnership. At the closure of the summit, 8 Millennium Development Goals (MDGs) were endorsed ⁽³⁰⁾. By 2006, though the deadline for the MDGs 2015 was fast approaching, developing countries were not on track to achieve the goals. The goals were revisited and the link between FP and human development was realized since it can reduce maternal mortality by reducing the number of pregnancies, high risk births and abortions ⁽⁷⁾. Therefore, Target 5.B: the achievement of universal access to reproductive health was included. With this, contraceptive prevalence and unmet need for FP were proposed as indicators (5.5 and 5.6) of universal access. As years passed, FP which was once seen as a solution for rapid population growth gradually became obsolete because it was assumed that the issue had been solved and no further action was required ⁽³⁰⁾. Following this realization, the United Nations General assembly ratified a new development agenda which reflected many linkages between health and other goals in 2015. With the new SDGs, the scope of the health goal was revisited and broadened. The SDG Target 3.7 which focuses on sexual and reproductive health advocates for a complete framework for the implementation of reproductive health agenda in all member states ⁽⁷⁾.

In addition, there are FP implementation frameworks which guide the design and delivery of FP services and interventions to individuals and communities. These typically provide a comprehensive approach to delivering FP services, including advocacy, demand generation, service delivery and monitoring and evaluation. The Family Planning 2020 (FP2020) initiative was launched in 2012 at the London Summit on Family Planning with the goal of enabling 120 million more women and girls to use modern contraceptives by 2020. FP2020 is a partnership of governments, donors, civil society organisations and the private sector and operates in more than 60 countries. The initiative uses a data-driven approach to track progress towards its goals and to support countries in improving their FP programmes ⁽³¹⁾. WHO also provides guidelines and technical support for FP programmes, including recommendations on the use of various contraceptive methods and strategies for improving access and quality of care.

The WHO's "Ensuring Human Rights in the Provision of Contraceptive Information and Services" framework is worth mentioning. This framework is designed to help countries ensure that FP services are provided in a way that respects the human rights of individuals and promotes equity and social justice ⁽³²⁾.

The United Nations Population Fund (UNFPA) supports FP programmes in more than 150 countries, with a focus on ensuring access for marginalized and underserved populations. UNFPA also works to promote gender equality, human rights and youth empowerment as integral parts of FP programmes. One of which is the UNFPA's "Family Planning 2020: Information and Innovation for a Transformative Post-2015 Agenda" framework. This framework provides a roadmap for advancing FP programmes and policies to support the post-2015 sustainable development agenda ⁽⁷⁾. In addition, USAID's "FP2020: Catalyzing Collaboration to Advance Family Planning" framework aims to increase access to FP services and commodities in developing countries by mobilizing political commitment, building partnerships and promoting evidence-based approaches ⁽³²⁾. Apart from intergovernmental organisations, non-profit organisations such as the Bill & Melinda Gates Foundation have also played a role in FP implementation frameworks. The Gates Foundation's "Family Planning Strategy" framework focuses on expanding access to FP services and commodities through advocacy, innovation and partnerships with governments, donors and civil society organisations ⁽³³⁾.

Despite the implementation of numerous FP frameworks and programmes, they have not always worked as expected to solve the issue of unmet need for FP as many countries have lacked at adequately implementing them or fell short of achieving set goals ^(12, 15). Policy makers and other stakeholders do not prioritize FP programmes resulting in limited attention and resources for FP programmes. This leads to inadequate funding and limiting the range and quality of services that can be provided. Funding for FP programmes are usually unstable and subject to political fluctuations especially in developing countries. Countries like Nigeria rely heavily on contraceptive donations to meet the contraceptive needs of women ⁽¹⁵⁾. Hence not offering a variety of contraceptive methods, limiting the choices available to women and men. This can lead to dissatisfaction with available methods and result in low uptake and discontinuation rates. Already existing weak health systems as in the case of many developing nations, limit the availability and quality of FP services, as well as reduce the trust and confidence of women in need in the system ⁽³⁾. The COVID-19 pandemic has also exacerbated the challenges faced by the healthcare system. The pandemic caused unprecedented impact on all health services and FP services were no exception. Three rounds of survey on continuity of essential health services conducted by WHO revealed that FP services had been significantly impacted in approximately one third of all countries⁽²³⁾. In many regions of developing countries, there is also limited implementation of FP programmes due to factors such as geographic remoteness, lack of transportation or lack of trained healthcare providers. This lack of access can lead to lower utilization of FP services, despite efforts to increase their availability ⁽⁵⁾. Additionally, FP decisions are often influenced by social and cultural factors such as religious beliefs, gender norms and traditional practices. These factors create barriers to the adoption of FP methods and limit the effectiveness of programmes designed to promote their use. FP frameworks and programmes have not worked as expected to solve the issue of unmet need for FP due to a complex interplay of factors related to access, funding, method mix, socio-cultural barriers, health systems and political prioritization ^(3, 7).

RECOMMENDATIONS

Family planning is an important aspect of sexual and reproductive health and has been widely recognised as a key tool for reducing maternal and child mortality, empowering women and promoting sustainable development. However, despite significant progress made in recent years, there is still a large unmet need for FP globally, particularly in low and middle income countries. This unmet need for FP is a major public health concern. To address this issue, strategies aimed to improve access to FP information and services, increase the availability and affordability of modern contraceptives and promote positive attitudes towards FP among individuals and communities need to be re-evaluated and re-implemented. One of the most promising strategies to reduce unmet need for FP is to strengthen health systems and integrate FP services into existing health care delivery systems. This approach has been shown to be effective in increasing access to FP services, improving the quality of care and reducing unintended pregnancies in various settings^(3, 34). Efforts to expand access to FP services should be prioritized, particularly in areas with high unmet need. This could include improving the availability and quality of FP services in health facilities and community-based settings, as well as increasing access to information and education about contraceptive options. A study conducted in Ethiopia found that integrating FP services into primary health care facilities led to a significant increase in contraceptive use and a reduction in unmet need for FP among women⁽³⁵⁾. Similarly, a systematic review of FP integration programmes in Sub-Saharan Africa found that these programmes were associated with increased use of modern contraceptives and improved health outcomes, particularly among marginalized and underserved populations⁽³⁶⁾.

Another strategy that has shown promise in reducing unmet need for FP is to increase the availability and affordability of modern contraceptives, particularly long-acting and reversible methods^(37, 40). This can be achieved through various means including increasing funding for FP programmes, improving supply chain management systems and reducing regulatory barriers to access⁽³⁷⁾. Investing in FP services and supplies is critical to reducing unmet need. Governments and donors should allocate more resources to FP programmes to ensure that women have access to a full range of contraceptive options. Additionally, innovative solutions such as telemedicine and mobile health applications can help overcome barriers to access and improve the reach and quality of FP services. According to a study conducted in Bangladesh, increasing funding for FP by \$4.1 billion per year could reduce unmet need for modern contraception by 70%⁽³⁷⁾. Ensuring a reliable supply of high-quality contraceptives is essential to reducing unmet need. Governments and donors should work to strengthen supply chain systems and address stockouts of contraceptives. A study conducted in Nigeria found that providing free or subsidized long-acting and reversible contraceptives through mobile outreach teams led to a notable increase in contraceptive uptake and a reduction in unmet need for FP among women⁽³⁸⁾.

In addition to these strategies, there is also a growing recognition of the significance of addressing social and cultural factors that contribute to unmet need for FP, particularly gender inequality, stigma and misinformation^(39, 40). This can be achieved through various means including community mobilization and engagement, mass media campaigns and behaviour change communication interventions. Social and cultural factors can be significant barriers to the use of FP particularly for marginalized and vulnerable populations. Efforts to reduce unmet need should prioritize addressing these barriers through community-based education and outreach programmes. A study

conducted in Nepal found that a community mobilization intervention that involved peer-led discussions and activities to promote FP and gender equality led to a significant increase in contraceptive use and a reduction in unmet need for FP among women ⁽³⁹⁾. Similarly, a study conducted in Mali found that a mass media campaign that promoted FP and addressed myths and misconceptions about contraception led to a significant increase in contraceptive use and a reduction in unmet need for FP among women ⁽⁴⁰⁾. By continuing to prioritize FP as a critical component of global health and development efforts, we can help ensure that every woman and couple has the information, tools and support they need to achieve their reproductive goals and build a healthier, more equitable world for all.

CONCLUSION

The unmet need for FP remains a significant challenge in many parts of the world. It not only affects the health and well-being of individuals but also has far-reaching implications for societies. However, there are reasons for optimism. The global community has made significant progress in increasing access to FP services and the trend is expected to continue in the future. Governments, policymakers and healthcare providers must continue to prioritize FP as an essential component of reproductive health care. Ultimately, meeting the unmet need for FP requires a comprehensive approach that addresses the root causes of the problem, including social, cultural and economic factors. With sustained effort and investment, it is possible to achieve universal access to FP services and empower individuals to make informed decisions about their reproductive health, leading to improved health outcomes, reduced poverty and greater gender equality.¹

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¹ **Conflict of interest**

No conflicts of interest to disclose.

Authors contributions and consent

All authors certify that they have participated sufficiently in the work including participation in the concept, review of literature, writing, or revision and give consent to take public responsibility for the manuscript.

Declaration of interest

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