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2nd Edition

Contraception

Past, Present and Future



Federation of Obstetric & Gynaecological Societies of India

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3

Benefits and Impact of Family Planning

Ameet Shah

Key Messages

Family planning

- Saves the lives of women, teenage girls, newborns, children, and improves their health status.
- Lowers the number of unplanned pregnancies and abortions.
- Benefits families and communities and empowers women improving their lives.
- Benefits nations by enabling increased public spending in all sectors and reducing the burden on natural resources and environment.

INTRODUCTION

Family planning (FP) is a fundamental human right as it reinforces people's rights to anticipate and attain their desired number of children and the timing and spacing of their births. It is achieved through use of contraceptive methods and the treatment of involuntary infertility.[1]

BENEFITS AND IMPACT OF FAMILY PLANNING

Family planning is important because it is more than public health[2]. Voluntary FP improves the lives of its specific clients enabling them to make informed decisions about whether and when to have children. FP reduces unintended pregnancies as well as maternal and newborn deaths. On a broader application to any society, FP also contributes to its social, economic and educational progress.[2-4] Family planning saves the lives of women, teenage girls, newborns, children, and improves their health status.

The age at which a woman has her first pregnancy, and the spacing between two consecutive pregnancies affects the health and life of a mother and her baby[5]. Healthy timing and spacing of pregnancies (HTSP) has the potential to drastically reduce maternal and child deaths[6] and improves the chances that the mother and her baby will be healthy **(Box 1)**.[3,7]

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Box 1 Healthy timing and spacing of pregnancy[8]

Healthy timing and spacing of pregnancy (HTSP) is an intervention to help women and families delay or space their pregnancies to achieve the healthiest outcomes for women, newborns, infants, and children, within the context of free and informed choice, taking into account fertility intentions and desired family size.

HTSP evidence-based recommendations:

- Women should delay their first pregnancy until at least age 18
- After a live birth, women should wait at least 24 months before attempting another pregnancy in order to reduce the risk of adverse maternal, perinatal and infant outcomes
- After a miscarriage or induced abortion, women should wait at least 6 months before attempting another pregnancy to reduce risks of adverse maternal and perinatal outcome.

HTSP encompasses a broader concept of the reproductive cycle—starting from healthiest age for the first pregnancy in adolescents, to spacing subsequent pregnancies following a live birth, still birth, miscarriage or abortion—capturing all pregnancy-related intervals in a woman's reproductive life.

The following subsections explain how FP saves the lives and improve health of women and teenage girls, newborns, infants and children.

Women and Teenage Girls

Health risks associated with childbirth are higher to the mother when she is less than 18 or more than 34 years age, in case of higher order births and with short interpregnancy intervals.[8,9] FP has an important role in reducing the health risks in all these scenarios.

Girls under 18 years of age are more likely to give birth to premature babies and experience complications during labor, because they are not physically ready for childbirth. They are at an increased risk for severe anemia, postpartum hemorrhage, infection and pregnancy-induced hypertension, which may lead to life-threatening eclampsia seizures. Also, because a girl's pelvis has not yet grown large enough for the baby to pass through the birth canal, she often faces prolonged obstructed labor. The pressure resulting from labor that lasts for more than 12 hours can cause an obstetric fistula. All these complications may be fatal or cause long-term health problems.[7] Rates of anemia and underweight are higher in adolescent girls than in boys of the same age. This is a particular concern given high rates of early pregnancy, as underweight and anemic mothers have a higher risk of mortality and morbidity. Child marriage impacts the age at which girls become sexually active and, without contraception, married adolescent girls are more likely to have early and frequent pregnancies before their bodies are sufficiently physically mature to cope with childbirth. About 16 million women 15–19 years old give birth each year, which translates to 11% of all births worldwide. Greater access to FP could save the lives of up to 50,000 teenage girls a year.[6]

Pregnancies associated with advanced maternal age are at an increased risk of stillbirth, miscarriage, multiple pregnancies, pregnancy induced hypertension, gestational diabetes mellitus, and chromosomal abnormalities.[8] Women with five or more children are up to 3 times more likely to die from complications of pregnancy and childbirth than women with two or three children.[7] The health

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risks are particularly high for women who become pregnant very soon after a previous pregnancy, miscarriage, or abortion **(Table 1)**.[10]

It is estimated that universal access to FP could save the lives of about 175,000 women each year.[11] In addition to reducing maternal mortality, contraceptive use helps to prevent maternal morbidity, which is "frequent, under-reported, often devastating to the woman and a serious economic drain on families and society[2]." For every woman that dies of pregnancy and childbirth complications, at least 20 more women suffer long-term illness and disabilities related to unwanted pregnancy or recent childbirth.[2]

Newborns, Infants and Children

Babies born to young mothers are also at greater risk of developing complications. If a mother is under 18, her baby's chance of dying in the first year of life is 60% higher than that of a baby born to a mother older than 19. Babies born to women younger than 18 years old are more likely to be premature and low birth weight, and encounter complications during labor such as birth asphyxia that could be fatal.[4] When they do survive, these children may have life-long health problems.[6]

The risks associated with short interpregnancy interval, continue to affect children through infancy and early childhood. About one-third of all infant deaths occur because mothers were too young or had births too close together. With spacing between children for more than three years, they are more than twice as likely to survive infancy and are healthier.[7]

In many developing countries, children born less than two years after a sibling are two times more likely to die within the first year of life than those born three or more years later.[9] Children conceived after an interpregnancy interval

Table 1 Risk of adverse health outcomes after very short interval pregnancy and abortion or miscarriage[10]

Increased risks when pregnancy occurs 6 months after a live birth		
Adverse outcome	Increased risk	
Induced abortion	650%	
Miscarriage	230%	
Newborn deaths (<9 months)	170%	
Maternal death	150%	
Preterm birth	70%	
Stillborn	60%	
Low birth weight	60%	
Increased risk when pregnancy occurs <6 months after an abortion or miscarriage		
Increased risk with 1–2 months interval		With 3–5 months interval
Low birth weight	170%	140%
Maternal anemia	160%	120%
Preterm birth	80%	40%

Sources: Conde-Agudelo, et al. 2000, 2005, 2006; Da Vanzo, et al. 2004; Razzaque, et al. 2005; Rutstein, 2005

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of 12–17 months were also found to be 23% more likely to be stunted and 19% more likely to be underweight than children conceived after an interval of 36–47 months. These children are more likely to be malnourished, putting them at greater risk of dying from childhood illnesses like pneumonia and diarrhea. For an older sibling, the risk of being chronically malnourished (stunted and/or underweight) decreases as the time between their birth and the birth of the next child increases.[6] HTSP significantly reduces these health risks to newborns, infants and children **(Table 1)**.[10]

The ability to time first pregnancy beyond 18 years of age and also wait longer to conceive again after a pregnancy means a mother can give her new baby the best start in life. She will have more time to care for her baby and for breastfeeding.[6] This contributes to the child's physical health and mental and emotional development.[7] It also gives parents time to prepare for the next pregnancy, including ensuring there are enough household resources to cover the costs of food, clothing, housing and education.

If mothers were able to delay conceiving again for 24 months after giving birth, deaths of children under five would fall by 13%—nearly 900,000 deaths averted globally. If mothers delayed conceiving until 36 months after giving birth, 25% of deaths of under-fives—1.8 million children's deaths a year—could be averted, just through healthier spacing.[6]

Family planning lowers the number of unplanned pregnancies and abortions. High unmet need for FP is not only associated with high maternal death rates, but it is also linked to high numbers of unintended pregnancies and induced abortions, which take an extraordinary toll on women's lives, physical and mental health, well-being, and productivity.[3,12]

An estimated 222 million women in developing countries would like to delay or stop childbearing but are not using any method of contraception.[13] The biggest unmet need for FP is in countries with large populations, particularly in south Asia—64 million women in India, 15 million in Pakistan and 10 million in Bangladesh.[6] Many married women report having mistimed or unintended pregnancies or a desire to space or limit future pregnancies, but are not using modern contraceptive methods.[4,6] The reasons are numerous and complex, including misconceptions, access to quality affordable mix of contraceptive methods that would meet their choice and requirements.[13] Satisfying existing unmet FP need would reduce mortality and morbidity, and help families achieve their desired family size, reduce total fertility, and, ultimately, slow population growth.[4,9,13,14]

Each year there are an estimated 80 million unintended pregnancies, and 42 million of these pregnancies end in abortion. The primary reason for abortion is to end an unplanned pregnancy.[15] For every identified hospital case, there are many other women who have had an unsafe abortion but who do not seek medical care because they fear abuse, ill treatment, social stigma or legal punishment. Approximately 1 in 4 woman having an unsafe abortion is likely to face severe complications, including hemorrhage, infection, sepsis, and genital trauma.[15] The World Health Organization estimates that unsafe abortion accounts for 13% of maternal deaths worldwide.[7] To reduce the number of unintended pregnancies and thus the number of abortions, women must have access to contraceptive information and services.[9,16] Studies around the world have found that, where

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women received high-quality contraceptive services, the number of abortions decreased. These studies demonstrate the essential role of contraceptive services in reducing abortions.[7] Satisfying existing unmet FP need would reduce mortality and morbidity, and help families achieve their desired family size, reduce total fertility, and, ultimately, slow population growth.[13]

As per estimates, if women's contraceptive needs were fully addressed in the developing world (and assuming no changes in abortion laws), the reduction in unintended pregnancies would result in very large declines in abortions and related health complications.[6]

Family planning also reduces the risk of unintended pregnancies among women living with HIV, resulting in fewer infected babies and orphans. In addition, male and female condoms provide dual protection against unintended pregnancies and against STIs including HIV.[13]

FAMILIES AND COMMUNITIES

Family planning benefits families and communities and empowers women and improves their lives.

Children in large families are usually less well nourished and educated than in smaller families, and the penalties fall chiefly on daughters.[11] Enabling individuals to plan the number and spacing of their children empowers parents to provide adequate care, nutrition, housing, and education for all of their children, creating positive health impacts for the entire family.[2] Having fewer, healthier children can reduce the economic burden on poor families and allow them to invest more in each child's care and schooling, helping to break the cycle of poverty.[11] The health, education, and public services of communities are less burdened when populations are small.[7] Additionally, by preventing maternal mortality and morbidity, contraceptive use reduces the economic and psychosocial impact of maternal death or chronic illness on children and families and community.[2,17]

Family planning is one of the most cost-effective and powerful strategies to empower women and improve their lives.[7] FP use can affect numerous aspects of women's lives, including their health, their work inside and outside the home, their roles within the family, and their psychological well-being.[18]

Studies show that the use of contraceptives to avoid unintended pregnancies can boost women's status and increase their decision-making power within their households. Moreover, FP has been shown to increase women's and girls' self-esteem and quality of life, access to education, and opportunities for employment and income-generation.[2,17]

Contraceptive use improves women and girls' access to education as unintended or unwanted pregnancies often force or compel them to abandon their studies. Access to FP can enable them to have fewer and healthier children and complete their education. Education can also have multigenerational effects: Women that are educated are more likely to have educated children, particularly daughters. In addition to improved access to education, studies have found that women who use contraceptives are often more active in the workforce and have increased earning power, thus improving their own economic security and the well being of their families.[2,18]

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Family planning benefits nations by enabling increased public spending in all sectors and reducing the burden on natural resources and environment.

Family planning is an important and cost-effective investment for governments and contributes to multiple economic and health priorities, including reducing poverty. When countries invest in FP and help girls stay in school, they benefit from a more educated work force and decreased pressure on the education system.[17,18] With current fertility rates, governments of countries with rapidly growing populations will have to double the number of teachers, equipment, and classrooms every 20–25 years.[2,18]

Helping couples achieve their desired family size by promoting contraceptive use helps to reduce total fertility and, ultimately, slows rapid population growth.[14] Slower population growth cuts the cost of social services and demand eases for water, food, education, health care, housing, transportation and jobs.[11]

Rapid population growth makes it difficult for poor countries many already dealing with water scarcity and hunger to cope with the challenges of climate change including drought, crop failures, storms, etc.[9] Population growth is also associated with a proportionate increase in Carbon monoxide (CO^2) emissions.[18,19] Increasing access to FP can help slow population growth, reduce greenhouse gas emissions and build resilience to the changing climate. In fact, just meeting unmet need for contraception can provide 16–19% of the emissions reductions needed by 2050 to avoid dangerous climate change.[18,19] Smaller families help to protect natural resources and keep them from being overused and destroyed.[7] Investing in FP means less strain on the environment and ensuring that current and future generations will have the natural resources they need to be healthy and thrive.

By making access to voluntary FP services widespread and implementing the right policies for educating and employing workers, countries can harness the potential of the demographic dividend and accelerate economic development.[18,20] The demographic dividend occurs during a window of opportunity when countries experience a falling birth rate yet maintain a large share of working-age adults in the population due to previous generations of high fertility.

During this window, there are more income-generating adults relative to the number of children and young people who depend on them for support. This relative increase in the size of the labor force leads to a potentially more productive economy and greater resources for governments to invest in education, health care and social services.[18]

Worldwide, the benefits of FP extend well beyond the health sector and beyond a single generation. Researchers have estimated, for example, that one-third of the economic growth in the final decades of the last century in a number of Eastern and Southeast Asian countries can be attributed to the "demographic dividend" provided by rapid fertility declines. In these countries, savings and investment increased as the working-age population began to have fewer dependents to support.[13]

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Cost-benefit analysis:

A global cost-benefit analysis found that spending US$3.9 billion on contraceptives for women in the most needy of developing countries could prevent 52 million unintended pregnancies.[11]

- If all women wanting to avoid a pregnancy used modern contraceptives, the resulting decline in unintended pregnancies would reduce the cost of providing all of these women with the recommended standard of maternal and newborn care by $5.1 billion—from $6.9 billion to $1.8 billion.[13]
- The cost of providing post-abortion care for the approximately 5.5 million women in the developing world who currently receive it is $370 million. If all women at risk of unintended pregnancy used modern contraceptive methods, the resulting declines in unintended pregnancy and unsafe abortion would reduce the cost of post-abortion care to about $230 million a year (and to $9 million if all abortions were safe).[13]
- For each additional dollar spent to provide modern contraceptives, $1.40 would be saved in costs of medical care because fewer women would have unintended pregnancies.[13]
- Depending on the services offered each dollar spent on voluntary FP could save governments up to $31USD in health care, water, education, housing and sanitation.[18]

FP fast facts for India:

- Unmet need for FP is 13%, i.e. 64 million women who need contraception do not use it.
- 22.1% girls are married before the age of 18.[21]
- Teenage pregnancy is 16%.[22]
- 13% births (3.4 million) are fourth and above birth order.[21]
- 57.6% (15 million) of births have birth interval of less than 36 months.[21]
- By meeting the unmet need for FP, India can avert 2.1 million maternal and child deaths.[5]
- By investing $630 million in FP between 2010 and 2015, it was estimated that India could save $4.6 billion to invest for water, maternal health, immunizations, and education. The total savings projected was seven times the FP investment.[5]

CONCLUSION

Family planning can delay the onset of first pregnancy, prevent unintended pregnancies, and promote birth spacing, thereby reducing abortions, giving women time to recover between pregnancies, and limiting women's lifetime risk of maternal death. Further, FP can reduce the number of newborn, infant and child deaths by reducing the proportion of high-risk births. Healthier mothers are also better able to provide for the nutrition and care of their babies after delivery. Some FP methods like condoms help prevent the transmission of HIV and other sexually transmitted infections. FP also results in poverty reduction and elevated development prospects, including contributions to the demographic dividend. FP helps countries to achieve their developmental goals.[14,18,20]

Globally, FP has saved the lives of millions of mothers and their children and has improved the well being of families and communities.[5] Few other public health measures have demonstrated so great a life saving, health, and economic impact for such a low cost. FP is a smart, sensible, and vital component of global health and development.

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