Estimating the Health Impacts and Economic Returns of Increased Family Planning Provision in PAKISTAN

A Cost-Benefit Analysis

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The promotion of voluntary family planning services can have powerful impacts on the development of a country, kick-starting the shifts and changes needed to reap the benefits of the demographic dividend and improving considerably the health of women and their children.

In 2018, the Islamic Republic of Pakistan agreed on a major population policy, following a ground-breaking Supreme Court Human Rights case that highlighted the high rate of population growth in the country. Coupled with evidence that Pakistan, already water stressed, could face severe water shortages in the near future, national authorities have set the ambitious goal of decreasing the population growth rate from 2.4 per cent per annum to 1.5 per cent per annum by 2024, and to 1.1 per cent per annum by 2030. This should be achieved in part by raising the contraceptive prevalence rate to 50 per cent by 2025 and to 60 per cent by 2030, leading to a lowering of the total fertility rate to 2.8 by 2025 and 2.2 by 2030.

By reducing the number of unintended and unplanned pregnancies, voluntary family planning not only decreases the number of ante-natal, peri-natal and post-natal health services required for each pregnancy, but also lowers the risks of maternal and neonatal morbidities which require specialised healthcare treatments. This reduces greatly the healthcare costs associated with the provision of such services for the public health sector. In addition, a reduction in unintended pregnancies also translates into a decrease in maternal and child mortality, and can potentially save thousands of lives.

In order to achieve the increases in modern contraceptive prevalence which are at the basis of these processes, it is essential that enough financial resources are committed to the provision of family planning services and commodities. Adequate financial resources must be in place to ensure that family planning programmes can be not only sustained to meet current demand, but also gradually expanded to satisfy the increased need for family planning services and commodities and thus promote an increase in modern contraceptive prevalence rates (mCPR) across the country.

In the case of Pakistan, how much would the Government need to invest in family planning services and commodities to achieve their CPR goal of 50% by 2025? And what would the returns of such investments be in terms of reducing healthcare costs for the Government of Pakistan?

In this policy brief, we provide estimates to guide the Government of Pakistan on the investments in family planning needed to achieve higher rates of contraceptive prevalence, and we estimate the health and economic returns that such investments would yield for the period 2019-2025 in terms of averted healthcare costs and net savings for the national authorities in the country.

Costs and benefits of investing in family planning services and commodities

Investing in voluntary family planning services and commodities is a well-recognised cost-effective intervention. Family planning is the second-best "buy" for global development after liberalizing trade, a conclusion endorsed by Nobel laureates and other leading economists after their assessment of development priorities related to the Sustainable Development Goals. Achieving universal access to contraception could result in long-term health and economic benefits worth $120 for each dollar spent on family planning.[1]

While beneficial in itself, investing in voluntary family planning services also provides governments with economic benefits: the investments in contraceptive services and products will in fact return savings for the public health sector – by reducing the need for certain health services over time.

In Pakistan, the current contraceptive prevalence rate is estimated at 34.2% of married women of reproductive age (15-49 year old). Out of these, only 25% use modern methods of contraception*. The low use of modern family planning methods has an impact on the Total Fertility Rate (TFR) of the country, estimated at 3.6 children per woman on average at national level [2]. The high number of pregnancies and births has considerable effects on the health of women and children, as well as on the health sector expenditures needed to pay for the required healthcare services.

By improving the provision of family planning services and commodities over time, Pakistan has the potential to achieve its CPR goal of 50% by 2025. In this analysis, we have kept the share of traditional methods of family planning constant at 2017-2018 levels (9.2% out of total current CPR of 34.2) and we assumed that ***all*** increases in prevalence needed to reach 50% by 2025 would be covered through modern methods of contraception: that is, we estimated an increase of 15.8 percentage points in modern contraceptive prevalence rate (mCPR) between 2019 and 2025.

These increases in family planning provision could generate very positive results: since the cost of providing modern contraceptive care is cheaper than necessary care for unintended pregnancies, gradual yearly investments in family planning services and commodities would be offset by the direct healthcare costs saved through the lower number of health services required.

**Modern methods include female and male sterilisation, implants, IUCDs, injectables, pills and condoms.*

This would mean that in the period 2019-2025 **almost US $1.1 billion** in direct healthcare costs could be averted. Thanks to the increased investments in contraceptive services, **the Government of Pakistan could save as much as US $885 million over the next seven years.**

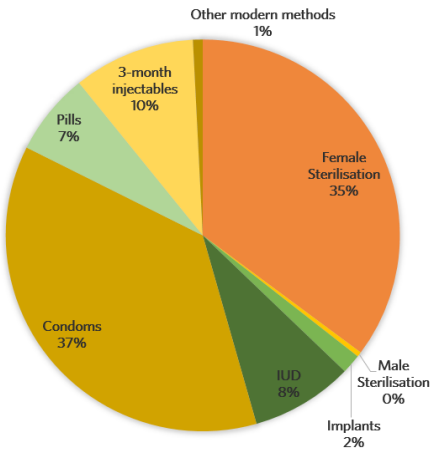
For each US $1 dollar invested in family planning services, US $4 could be saved in net direct healthcare costs. In addition, the effects on the health of women and children would be impressive, with a great reduction in unintended pregnancies, live births, and maternal and child deaths over 2019-2025.

It should be noted here that for the purposes of this policy paper we only looked at the cost of contraceptive commodities and staff time to provide family planning services (e.g. time to conduct counselling, screen, insert/distribute the method). We did not include related supplies/equipment costs, other human resource costs (training, supervision, administration), logistics (costs for storage and transportation), infrastructure/facility operating costs, the cost of communication campaigns on family planning uptake or the cost of operating health management and information systems.

We also kept the contraceptive method mix (Figure 1) unchanged for the whole period under analysis, but it is important to know that changes in the method mix (for example, increased use of long-acting methods like IUCD and implants) and task sharing (for example increased provision of services by mid-level and community-based providers) would have an effect on the costs of service provision, and therefore on the return on investment.

In addition, in this analysis we have attributed the total 15.8 percentage point increase in modern methods to the public health sector, although we recognise that the role of the private sector in providing family planning services is significant, and would have an effect on the costs of service provision. As such, further analysis to explore the potential contribution of the private sector to achieve the national contraceptive target would be beneficial.

Figure 1: Estimated method mix in 2017-18



Family planning users projections

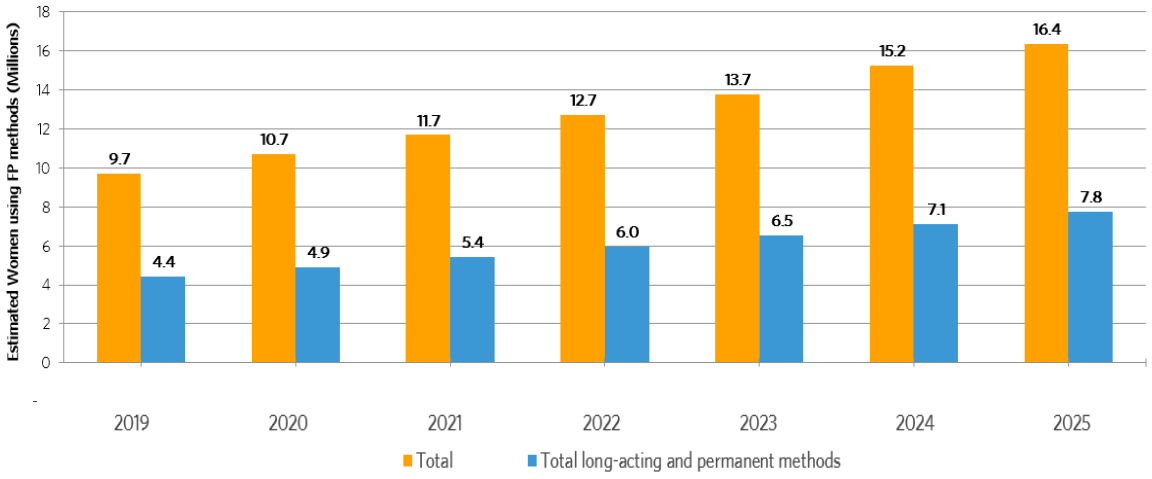
BASELINE IN 2017-18

- In 2017-18, there were an estimated 8.5 million users of modern family planning methods (total users of all modern methods) in Pakistan;
- This number represents the baseline of modern family planning users which will need to be sustained over time.

IF CPR INCREASED TO **50%** BY 2025...

- By increasing mCPR by 15.8% points to reach a total CPR of 50%, by 2025 there would be an estimated 16.4 million users of modern family planning methods in the country (total users of all modern methods) (Figure 2)
- This means that by 2025 there would be an additional 7.9 million users of modern family planning methods, in addition to the baseline of existing modern family planning users.

Figure 2: Modelled FP users (millions) by 2025, with CPR at 50%



In order to sustain the baseline of family planning users and increase their numbers to around 16.4 million users by 2025, gradual but increasing financial investments in contraceptive commodities and services will be required each year. Details of the investments required, cost-benefits and return on investment are illustrated below.

IF CPR INCREASED TO **50%** BY 2025.....

Starting with an investment of US $23.6 million in 2019 and increasing gradually to an investment of US $38.4 million by 2025, the Government of Pakistan could avert almost US $1.1 billion in direct health care costs over 2019-2025.

1.1 BILLION SAVED

A total investment of around US $214 million in contraceptive commodities and services over the period of 2019-2025 would therefore return a total net saving of around US $885 million by 2025 for the Government of Pakistan.

214 MILLION INVESTMENT

For every US $1 dollar invested in contraceptive commodities and services, the Government would save US $4 dollars on average over 2019-2025 in direct healthcare costs.

$1 SAVES $4

Effects of family planning services on maternal and child health

In addition to these impressive economic returns, the increase in family planning provision would have a remarkable effect on the health of women and children. Contraceptives are to maternal mortality what vaccinations are to infant mortality. When women are in control of their reproductive health, unintended pregnancies and unsafe abortions will decrease.

The ability of mothers to take care of their reproductive health will also result in decreasing neonatal and infant mortality and morbidity. Children will grow into healthy, productive adults, contributing to national development.

RESULTS AT A GLANCE - 2019 to 2025

$4 : $1 Return on Investment

~ 19,000 maternal deaths averted

~ 190,000 child deaths averted

16.9 million abortions averted

27.7 million unintended pregnancies averted

Conclusion

The Government of Pakistan has made a financial commitment of PKR 50 billion over five years (approximately US $365 million) to finance a special Fund aimed at addressing the issues of high population growth and promoting family planning services, with an aim to increase contraceptive prevalence to 50% by 2025. In this analysis, we estimated that the financial resources required to finance modern contraceptive commodities and services between 2019-2025 would amount to US $214 million. These resources, however, would only cover the cost of commodities and services: hence, the Government of Pakistan is showing good commitment to finance the additional components of the national family planning programme (e.g. demand generation activities, training of practitioners, logistics, etc.) which were not included in this costing analysis.

Investments to Reach the Goal:
50% CPR by 2025

Direct Healthcare Costs averted:
less need for antenatal, delivery and post abortion care.

INVEST IN FAMILY PLANNING — SAVE LIVES, SAVE MONEY — EMPOWER SOCIETY

Invest more productively
Savings can be invested in education and health. Women will be able to continue their education, enter the labour market and contribute more to society.

The demographic dividend
Changing age structures and focused investments on young people will increase the number of healthier, better educated adults in society, boosting economic growth.

METHODOLOGY TEXTBOX

We have conducted this costing analysis using the Impact 2 Model (version 5, March 2019) developed by Marie Stopes International[3]. Results are approximations based on modelling and need to be intended as estimates. The baseline year chosen for the analysis was 2018, and we used data from the Pakistan DHS 2017-18 for current contraceptive prevalence in the country and for estimated contraceptive method mix. For the costing section, data on health services costs and costs of FP commodities was provided by the UNFPA country office for Pakistan.

References and Acknowledgements

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