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Estimating the Health Impacts and Economic Returns of Increased Family Planning Provision in Khyber-Pakhtunkhwa

A Cost-Benefit Analysis
July 2019



The Government of Pakistan has set a national goal of reaching 50 percent contraceptive prevalence by 2025. Achieving this goal could avert almost US \$1.1 billion in direct health care costs and potentially save the lives of over 200,000 mothers and children. In this brief we illustrate how meeting the unmet need for family planning in Khyber-Pakhtunkhwa province can contribute towards the national goal.

Family planning saves lives and is a development “best buy”*. Promoting 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.

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. This reduces greatly the healthcare costs associated with the provision of such services. 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).

In the case of Khyber-Pakhtunkhwa, how much would the Government need to invest in family planning services and commodities to meet the current demand for family planning of 51.4% by 2025? And what would the returns of such investments be in terms of reducing healthcare costs for the Government of Khyber-Pakhtunkhwa?

In this policy brief, we provide estimates to guide the Provincial Government of Khyber-Pakhtunkhwa on the investments in family planning commodities and services needed to eliminate unmet need for family planning, 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 authorities in the province.

* 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 planning¹.

Costs and benefits of investing in family planning services and commodities

Voluntary family planning brings transformational benefits to women, families, communities, and the nation. Investing in voluntary family planning services and commodities is a well-recognised cost-effective intervention: increased access to contraceptives has positive consequences on women's health and on their ability to pursue their education and employment opportunities. This, in turn, will have positive effects for society as a whole – improving the economy of a country, as well as the health of children and families in general. 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 Khyber-Pakhtunkhwa, around half (51.4%) the married women of reproductive age (15-49 year old) want to space or limit the number of children they have, yet less than a third (30.7%) are currently using a contraceptive method. Out of these, only around 23% use modern methods of contraception*.

The low use of modern family planning methods has an impact on the Total Fertility Rate (TFR) of the province, estimated at 4 children per woman on average². 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, Khyber-Pakhtunkhwa has the potential to meet the current demand for family planning of 51.4% by 2025.

In this analysis, we kept the share of traditional methods of family planning constant at 2017-2018 levels (7.7% out of total current CPR of 30.7%) and we assumed that *all* increases in prevalence needed to reach 51.4% by 2025 would be covered through modern methods of contraception: that is, we estimated an increase of 20.5 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.

This means that in the period 2019-2025 **almost US \$130 million** in direct healthcare costs could be averted. Thanks to the increased investments in contraceptive services, **the Government of Khyber-Pakhtunkhwa could save US \$97 million (net) over the next seven years.**

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

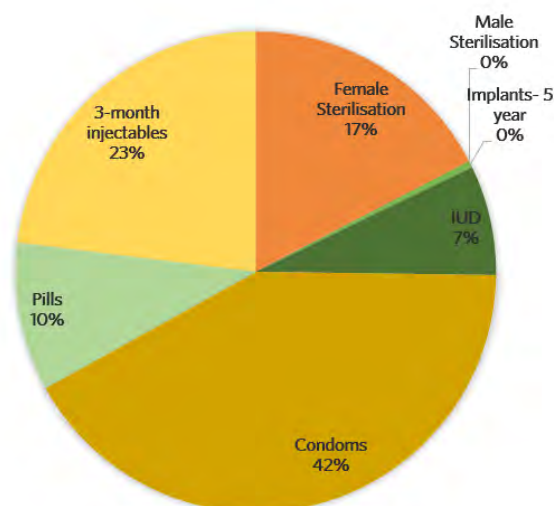
For each US \$1 dollar invested in family planning services, around US \$3 could be saved in net direct healthcare costs. In addition, the effects on the health of women and children would be impressive, with a great reduction in unintended pregnancies, live births, and maternal and child deaths over 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 also attributed the total 20.5 percentage point increase to the public sector. The cost estimates presented represent what it would cost if the public sector provided these services to all women. However, given that 35 percent of women in the province currently obtain these contraceptive services in the private sector, and a large proportion of women obtain antenatal, delivery and postnatal services privately as well, costs for these services in the private sector would probably be higher than what estimated in this paper. These higher costs of services would most likely have an effect on the estimated return on investment.

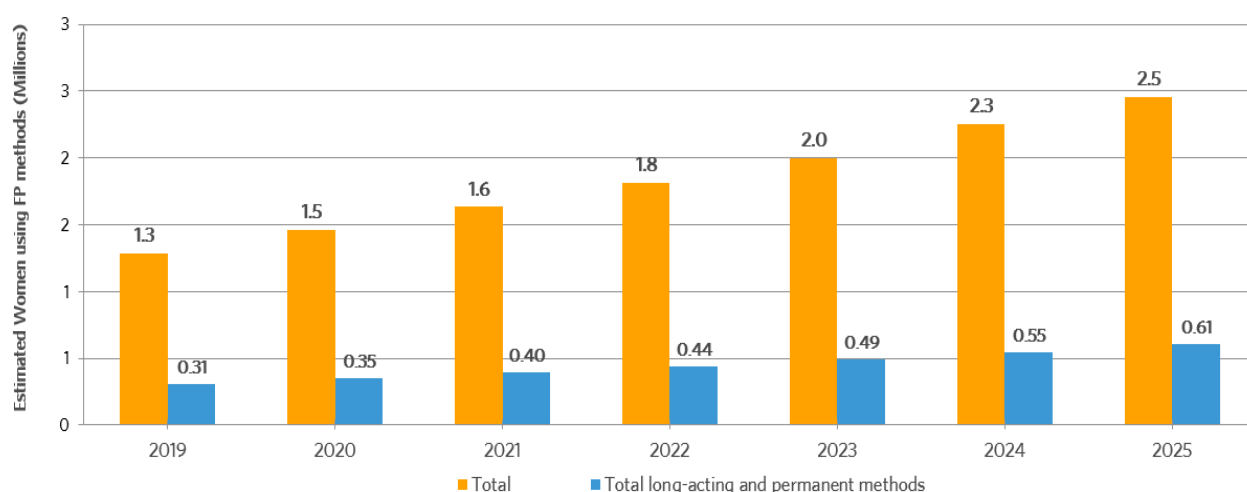
Figure 1: Estimated method mix in 2017-18



Family planning users projections

BASELINE IN 2017-18	IF CPR INCREASED TO 51.4% BY 2025...
<ul style="list-style-type: none"> ◆ In 2017-18, there were an estimated 1 million users of modern family planning methods in the province (total users of all modern methods) ◆ This number represents the baseline of modern family planning users which will need to be sustained over time. 	<ul style="list-style-type: none"> ◆ By increasing mCPR by 20.5% points to reach a total CPR of 51.4%, by 2025 there would be an estimated 2.5 million users of modern family planning methods in the province (total users of all modern methods) (Figure 2); ◆ This means that by 2025 there would be an additional 1.5 million users of modern family planning methods, in addition to the baseline of modern family planning users.

Figure 2: Modelled FP users (millions) by 2025, with CPR at 51.4%



In order to sustain the baseline of family planning users and increase their numbers to around 2.5 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 51.4% BY 2025.....

Starting with an investment of US \$3.3 million in 2019 and increasing gradually to an investment of around US \$6 million by 2025, the Provincial Government of Khyber-Pakhtunkhwa could avert almost US \$130 million in direct health care costs over 2019-2025.

130 MILLION
SAVED

A total investment of around US \$32.5 million in contraceptive commodities and services over the period of 2019-2025 would therefore return a total net saving of around US \$97 million by 2025 for the Provincial Government of Khyber-Pakhtunkhwa.

32.5 MILLION
INVESTMENT

For every US \$1 dollar invested in contraceptive commodities and services, the Government would save US \$3 dollars on average over 2019-2025 in direct healthcare costs.

\$1 SAVES **\$3**

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.

This analysis estimates that the unintended pregnancies which could be averted in the province of Khyber-Pakhtunkhwa would increase from around 390,000 in 2019 to almost 745,000 in 2025, with similar reductions in abortions averted (from 240,000 in 2019 to nearly 450,000 in 2025).

The ability of mothers to take care of their reproductive health will result in decreasing neonatal and infant mortality and morbidity. Children will grow into healthy, productive adults, contributing to national development. All told, maternal and child mortality would also decrease: **around 2,900 maternal deaths and 28,000 child deaths could be avoided between 2019 and 2025.**

Overall, addressing unmet need and meeting the demand for family planning in Khyber-Pakhtunkhwa by 2025 will significantly contribute to Pakistan achieving its national goal of 50% contraceptive prevalence in 2025.

RESULTS AT A GLANCE - 2019 to 2025



\$3 : \$1 Return on Investment



~ 2,900 maternal deaths averted



~ 28,000 child deaths averted

Total 2.3 million abortions averted



Total 3.9 million unintended pregnancies averted

Conclusion

Investments to Reach the Goal:
51.4% 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 International³. 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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