

# PAKISTAN FAMILY PLANNING INSIGHT




**Ten Years Plus One:  
Performance, Governance, and  
Accountability. 2011-2021**

**2022**



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# Acronyms

<b>cLMIS</b>	Contraceptive Logistics Management Information System
<b>CYP</b>	Couple-years of Protection
<b>CPR</b>	Contraceptive Prevalence Rate
<b>DHIS</b>	District Health Information System
<b>DOH</b>	Department of Health
<b>FP</b>	Family Planning
<b>GHSC-PSM</b>	Global Health Supply Chain Program-Procurement and Supply Management
<b>GS</b>	Green Star Social Marketing
<b>HDI</b>	Human Development Index
<b>LHW</b>	Lady Health Worker
<b>MICS</b>	Multiple Indicator Cluster Survey
<b>MMR</b>	Maternal Mortality Ratio
<b>MSS</b>	Marie Stopes Society
<b>MWRA</b>	Married Women of Reproductive Age
<b>NGO</b>	Nongovernmental Organization
<b>NIDI</b>	Netherlands Interdisciplinary Demographic Institute
<b>PDHS</b>	Pakistan Demographic and Health Survey
<b>PMMS</b>	Pakistan Maternal Mortality Survey
<b>PSLM</b>	Pakistan Social and Living Standards Measurement
<b>PWD</b>	Population Welfare Department
<b>RMNCAH&amp;N</b>	Reproductive Maternal, Newborn, Child, Adolescent Health and Nutrition
<b>R-FPAP</b>	Rahnuma Family Planning Association of Pakistan
<b>USAID</b>	United States Agency for International Development



## Acknowledgments

With the aim to strengthen contraceptive supply chain data and commodity security, Pakistan, with USAID support, launched its first digital contraceptive logistics management information system (cLMIS) in 2011. This government-owned digital solution has enabled supply-chain data visibility of the health facility at the federal and provincial levels. The built-in modules on forecasting, procurement, supply planning, inventory management, consumption reporting, and business intelligence tools enable planners and managers to determine needs and procure contraceptives accordingly.

The cLMIS built a database that over the past eleven years has addressed access to contraceptive services and supplies. Patterns of contraceptive use, misuse, and nonuse led to two results: no change in birth spacing and increase in unintended pregnancies. These patterns are puzzling, as there are many different contraceptive devices in existence, some widely available, even in drugstores. Questions remain on the reasons for inadequate contraceptive vigilance.

Recognizing that family planning interventions are not implemented in isolation and that documentation of high-impact practices is critical to successful family planning programs, funding for technical support for knowledge management is crucial to ensure that organizations can commit time and resources to share their experiences. Too often, lessons learned are not shared in other geographical settings, which is a missed opportunity as these real-time experiences can help others to capitalize on designing and strengthening their own programs.

“Pakistan Family Planning Insights: Ten Years Plus One” is an eleven-year (2011–2021) health systems analysis of performance, governance, and accountability of family planning at the federal and provincial levels. The USAID-funded Global Health Supply Chain Program-Procurement and Supply Management (GHSC-PSM) project, managed by Chemonics International Inc., took the initiative to analyze the cLMIS data, along with other national data sets including district health information system (DHIS), lady health worker (LHW) management information system, 2017 census data, Pakistan Demographic and Health Survey (PDHS 2012 and 2017), Pakistan Maternal Mortality Survey 2019 (PMMS), and Induced Abortions and Unintended Pregnancies in Pakistan, 2012.

GHSC-PSM would like to take this opportunity to acknowledge the Ministry of National Health Services, Regulation, and Coordination as well as the provincial Departments of Health, provincial Population Welfare Departments, and private-sector partners in owning and utilizing the cLMIS. This analysis will help in reviewing contraceptive utilization, trends and accomplishments of the contraceptive supply chain system, financial resource commitments and expenditures, the financial benefits of the interventions, as well as the cost of inactivity. In the end, this paper presents a future landscape based on performance, accountability, and use of technology that will serve as the starting point to reflect, redesign, and synthesize the future family planning program in Pakistan.

I owe special thanks to Dr. Enilda Martin, Mr. Xerses Sidhwa, Directors, Health Office; and Mr. Khalid Mahmood, Project Management Specialist at USAID Pakistan, for their invaluable leadership. I would also like to acknowledge my technical team members, Dr. Mohsin Saeed Khan, FP Advisor; Ms. Ambreen Khan, Director, Basic Health Services; Mr. Nabeel Ahmed Maqbool, Director, Vaccine Preventable Infectious Diseases; Mr. Masood Anwar, Director, MNCH; Mr. Ajmal Hussain, Director, MIS; and Ms. Hina Tillat, M&E Specialist, for their understanding of study design, data analysis, policy interpretation and revisions in the formulation of this document.



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## Context

Pakistan is the world's fifth most populous country, with an estimated population of 226 million in 2021, along with approximately 1.7 million Afghan refugees residing in Pakistan.<sup>1</sup> Geographically, Pakistan is ranked as the 33<sup>rd</sup> largest country in the world, spreading over 881,913 square kilometers.

The administrative units of Pakistan consist of four provinces (Balochistan, Khyber Pakhtunkhwa, Punjab, and Sindh), along with federated areas of Azad Jammu and Kashmir, Gilgit Baltistan, and Islamabad Capital Territory. About two-thirds (64 percent) of the population resides in rural areas, but due to rapid urbanization the demographic change is manifesting in social and cultural transformations. The overall life expectancy at birth is 66 years (65 for males, and 67 for females).<sup>2</sup> The literacy rate for men is 71 percent and 49 percent for women.<sup>3</sup> The Human Development Index (HDI) of Pakistan is 0.557, and therefore the country ranks 15<sup>th</sup> among all countries in the world. Out-of-pocket spending for health constitutes

about 56 percent of current total health expenditure.

From 1998 to 2017, the population of Pakistan increased from 132 million to 207 million at an inter-census growth rate of 2.4 percent.<sup>2</sup> The total fertility rate is 3.6 children per woman. The median birth interval in Pakistan is 28.2 months. Thirty-seven percent of births take place within 24 months of the preceding birth, with a median age of first birth of 22.8 months among women aged 25–49 years. Teenage pregnancy occurs in 8 percent of females aged 15–19 years. One in four (25 percent) married women of reproductive age are using modern methods of family planning (FP). The

most popular methods of contraception include female sterilization and male condoms (9 percent each). Three out of ten users of FP methods discontinued within 12 months, citing the desire to become pregnant (44 percent) and method-related concerns or side effects (19 percent). Among currently married women, the unmet FP need is 17 percent. Among non-users, 33 percent intend to use an FP method in the near future, and 46 percent do not have any intention of initiating the use of any FP method.<sup>5</sup>

Neonatal mortality is 42 deaths per 1,000 live births, infant mortality is estimated to be 62 deaths per 1,000 live births, and under-five mortality is recorded at 74

<sup>1</sup> Planning Commission estimates using HIES/PSLM data (Ministry of Planning, Development & Reform, 2016)

<sup>2</sup> National Institute of Population Studies – available at <https://dashboard.nipsportal.com/#> accessed on 23 August 2022

<sup>3</sup> Pakistan Social & Living Standards Measurement Survey (PSLM) 2018–19

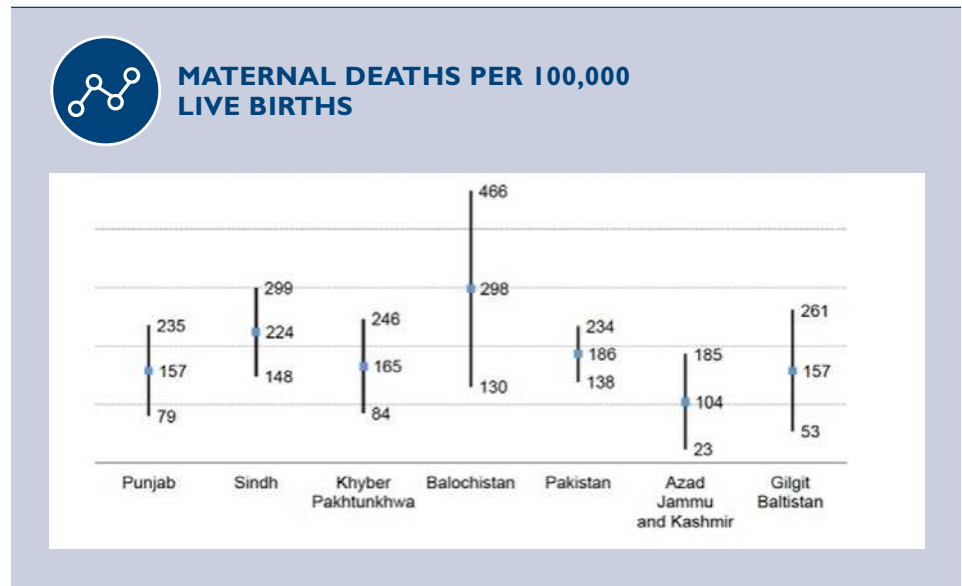
<sup>4</sup> Human Development Report 2020; available at <https://hdr.undp.org/content/human-development-report-2020> accessed on 23 August 2022

<sup>5</sup> Pakistan Demographic and Health Survey 2017–18; available at <https://dhsprogram.com/pubs/pdf/FR354/FR354.pdf> accessed on December 1, 2021

deaths per 1,000 live births. The under-five mortality is 122 deaths per 1,000 live births for children born within two years of the previous birth. On the contrary, the same is three times less, i.e., 44 deaths per 1,000 live births among children born with a birth space of four years.<sup>2</sup>

Pakistan ranks 138 out of 186 countries with the highest maternal mortality ratio (MMR). The estimated MMR is 186 deaths per 100,000 live births, with a variance between provinces and regions.<sup>6</sup> Ninety-one percent of pregnant women recorded receiving antenatal care, 71 percent of the deliveries were facility-based, and 74 percent were assisted by skilled birth attendants.<sup>2</sup>

Family planning services are offered in Pakistan through a network of public- and private-sector health care delivery systems. Though the public-sector provision of health and population are available and accessible through 92,000 community-based lady health workers and 13,000 health facilities, the private sector in Pakistan has strategically placed itself in the provision of curative and FP services. Whereas more than 70 percent of health care needs in urban areas are met through formal and informal private-sector health providers,<sup>7</sup> it is imperative to note that the private sector primarily provides curative services to the urban population, which is 36.44 percent of the total population.<sup>8</sup> Furthermore, a major



part of the private-sector contribution in family planning service delivery in Pakistan is informal, which actively manages independent procurement and supply of FP commodities through stores and pharmacies.

The decade 2011–2020 in Pakistan witnessed a major shift in the policy paradigm due to the 18<sup>th</sup> Constitutional Amendment, leading to structural amendments, programmatic adjustments, and service delivery. Among the federally financed vertical health programs, the population program and its service delivery was also tasked as a provincial subject. Pakistan is committed to Sustainable Development Goal 3, through

universal health coverage and FP 2030 commitments that enable policy reforms to achieve the FP goals for 2025 and 2030 of a contraceptive prevalence rate of 60 percent at the national level.

A review of the policy intents, strategic approaches, and program design will help to ensure universal availability of and accessibility to health and FP services in Pakistan as well as in the provinces and regions. The aim of these family planning insights is to provide evidence for a redesign of the current strategic and programmatic plans and enable Pakistan to achieve its national and international commitments.<sup>9</sup>

<sup>6</sup> Pakistan Maternal Mortality Survey – 2019; available at <https://dhsprogram.com/pubs/pdf/PR128/PR128.pdf> accessed on December 1, 2021

<sup>7</sup> Harnessing the Private Sector Support for Strengthening Family Planning Services in Pakistan | Journal of Gynecological Oncology; available at <http://www.remedypublications.com/open-access/harnessing-the-private-sector-support-for-strengthening-family-planning-services-7490.pdf> accessed on 26 April 2022

<sup>8</sup> Salient Features of Final Results 2017 Census | Pakistan Bureau of Statistics; available at [https://www.pbs.gov.pk/sites/default/files/population/2017/salient\\_feature\\_census\\_2017.pdf](https://www.pbs.gov.pk/sites/default/files/population/2017/salient_feature_census_2017.pdf) accessed on 26 March 2022

<sup>9</sup> Pakistan's FP 2030 Commitments; available at <https://phkh.nhsrsrc.pk/knowledge-article/fp-2030-national-commitments-pakistan-2022.pdf> accessed on June 1, 2022



PHOTO CREDIT: USAID GHSC-PSM

## National

**Background:** The decade 2011–2020 in Pakistan witnessed a major shift in the policy paradigm due to the 18<sup>th</sup> Constitutional Amendment, leading to structural amendments, programmatic adjustments, and service delivery.

Among the federally financed vertical health programs, the population program was also devolved as a provincial subject. This paper is an eleven-year (2011–2021) health systems analysis of performance, governance, and accountability in the family planning (FP) domain. The sources of this analysis include the contraceptive logistics management information system (cLMIS),<sup>10</sup> district health information system (DHIS), lady health worker (LHW) management information system, 2017 census data, Pakistan Demographic and Health Survey (PDHS 2012 and 2017), Pakistan Maternal Mortality Survey 2019 (PMMS), and Induced Abortions and Unintended Pregnancies in Pakistan, 2012.<sup>11</sup>

### Population

During this period, the population of Pakistan increased from 207 million to 226 million.<sup>12</sup> Punjab has 54 percent of the share, which resides in 25 percent of the total land area. The total fertility rate is 3.6 percent, with an ideal family size of four children. The family planning limitation is initiated after completing the family at the age of 30 years and above.<sup>13</sup> Every year, there is a net addition of 2.8 million females of reproductive age,<sup>14</sup> thus challenging the linear planning approach and requiring alternatives to current reproductive and FP services through innovative approaches.

### Population and development

The absolute numbers in population growth have a direct effect on the social, environmental, industrial, and economic sectors. In addition to Pakistan being the second country in the world with the worst air quality index,<sup>15</sup> every fifth Pakistani does not have access to potable water, which has been demonstrated as a direct link to increased population size.<sup>16</sup> According to the Pakistan Social and Living Standards Measurement (PSLM) District Level Survey, 2019–20, from the Pakistan Bureau of Statistics, increased population and decreased investment in the education sector have led to a stagnant 60 percent adult literacy rate since 2014–2015. There is also a gender disparity in the adult literacy rate of males and females, which is 81.3 percent and 67.5 percent, respectively.<sup>17</sup>

### Financial investments

From 2010 to 2014, USAID spearheaded the procurement of FP commodities.

<sup>10</sup> The FP supply-chain data from cLMIS is also reported in global portals like The Global Family Planning Visibility and Analytics Network (GFPVAN) and DevResults

<sup>11</sup> Induced Abortions and Unintended Pregnancies in Pakistan 2012; Population Council available at [https://www.popcouncil.org/uploads/pdfs/2014RH\\_PostabortionCare\\_Pakistan.pdf](https://www.popcouncil.org/uploads/pdfs/2014RH_PostabortionCare_Pakistan.pdf)

<sup>12</sup> National Census Report; Pakistan Bureau of Statistics: available at <https://www.pbs.gov.pk/sites/default/files/population/2017/national.pdf> accessed on 01 January 2022

<sup>13</sup> Pakistan Demographic and Health Survey 2017–18; available at <https://dhsprogram.com/pubs/pdf/FR354/FR354.pdf> accessed on 01 December 2021

<sup>14</sup> National Census Report; Pakistan Bureau of Statistics: available at <https://www.pbs.gov.pk/sites/default/files/population/2017/tables/pakistan/Table04n.pdf> accessed on 01 May 2022

<sup>15</sup> Air Quality Index of Pakistan available at <https://www.iqair.com/pakistan> accessed on 02 February 2022

<sup>16</sup> Water Scarcity in Pakistan. Available at <http://pcrwr.gov.pk/wp-content/uploads/2021/07/Water-Scarcity-in-Pakistan-Issues-and-Options-May-18.pdf> accessed on 25 January 2022

<sup>17</sup> Economic Survey of Pakistan 2020–21 available at [https://www.finance.gov.pk/survey/chapters\\_21/10-Education.pdf](https://www.finance.gov.pk/survey/chapters_21/10-Education.pdf) accessed on 5 February 2022

Between fiscal year 2010 and FY2015, USAID worked with the Government of Pakistan and donated contraceptive commodities worth \$108 million through supply-chain programs to relevant public- and private-sector stakeholders across the country. Between FY2014 and FY2021, the respective provincial governments entirely financed the same. Though the total allocation was \$120.97 million, only \$46.92 million (39 percent) was spent on the procurement of FP commodities. This difference may be attributed to a focus on health infrastructure development, response to disease outbreaks like dengue fever and the COVID-19 pandemic, and management of the polio eradication program.

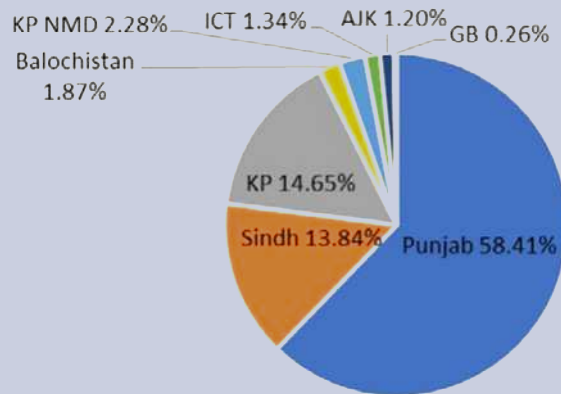
## Outputs

Over the eleven years, through the public sector, Pakistan produced 73,910,386 couple-years of protection (CYP),<sup>18</sup> an average of 6.7 million CYP per year, with Punjab contributing 58 percent of the total share, followed by Khyber Pakhtunkhwa (KP) at 14.65 percent and Sindh at 13.84 percent (Figure 1).<sup>19</sup>

Among public-sector partners, including provincial Departments of Health (DOH) through static health facilities and lady health workers (LHWs), and the Population Welfare Departments (PWD), the latter (PWD) took 67 percent of the share. The unit cost per CYP produced was \$0.63,<sup>20</sup> against the nationally recommended \$0.81.<sup>21</sup>

**FIGURE 1.**

Percentage Distribution of CYP by Provinces & Regions 2011-21



## Outcomes

Based on the national CYP contribution by public sector, the maximum contraceptive prevalence rate (CPR)<sup>22</sup> attained was 27.57 percent in 2015.

## COVID-19 and family planning

Comparing the CYP produced by the public sector in 2019 to 2021, there was a 55 percent decrease in CYP produced. However, the Ministry of National Health Services, Regulations and Coordination, in its report on COVID-19 Epidemic and Impact on Reproductive Maternal Newborn, Child, Adolescent Health & Nutrition Services in Pakistan – December 30, 2021,<sup>23</sup> presented an increase in hormonal contraceptives during 2021 after a 5 percent decline in 2020. The overall decrease in CYP can be attributed to limited investment in the FP

program by the public sector, resulting in limited availability of FP products.

## Economic benefit of investment in FP

An economic benefit worth \$5.15 billion was measured using the Impact Assessment Tool,<sup>24</sup> which was adjusted for national population data, maternal mortality ratio and infant mortality rate, and using the universal health coverage benefit package (unit cost for each indicator attached as Annex 1). The return on investment<sup>25</sup> on a \$46.92 million expenditure was \$5.15 billion, resulting in averting 16.70 million unintended pregnancies, obviating 14.53 million abortions, and avoiding 6.68 million unintended births.

<sup>18</sup> The CYP were derived from cLMIS for Pakistan, the four provinces and the three regions

<sup>19</sup> Derived from cLMIS [https://c.lmis.gov.pk/application/reports/provincial\\_warehouse\\_report.php](https://c.lmis.gov.pk/application/reports/provincial_warehouse_report.php) for Pakistan, provinces, and regions

<sup>20</sup> Dividing total CYP by total investment

<sup>21</sup> Best Bets for Accelerating Family Planning in Pakistan: Including men, sharing responsibility | Population Council – 2020: available at [https://knowledgecommons.popcouncil.org/cgi/viewcontent.cgi?article=2319&context=departments\\_sbsr-rh](https://knowledgecommons.popcouncil.org/cgi/viewcontent.cgi?article=2319&context=departments_sbsr-rh) accessed on 25 December 2021

<sup>22</sup> CPR was calculated by dividing CYP calculated through cLMIS with the estimated population for the particular year

<sup>23</sup> COVID-19 Epidemic and Impact on Reproductive Maternal Newborn, Child, Adolescent Health & Nutrition (RMNCAH&N) Services in Pakistan – December 30, 2021.pdf. Ministry of National Health Services, Regulation and Coordination, Pakistan

<sup>24</sup> Pakistan Logistics Management Information System available at [https://c.lmis.gov.pk/application/impact\\_calculator/index.php](https://c.lmis.gov.pk/application/impact_calculator/index.php) accessed on 05 January 2022

<sup>25</sup> Return on investment was calculated by multiplying the values of number of pregnancies, abortions, and unwanted births (calculated using the impact tool) with the unit costs calculated from the Universal Health Package

## Private-sector contribution

Analysis of the Netherlands Interdisciplinary Demographic Institute (NIDI) and United Nations Population Fund's survey reports of 2018, 2019, and 2020 revealed that the cumulative expenditure on family planning services for the three years was \$131.5 million. The expenditure on family planning commodities was \$16.2 million. Against this expenditure, the total number of CYP produced was 16.67 million.<sup>26</sup> This data has been validated by three NGOs: Greet Star, Marie Stopes Society, and Rahnuma Family Planning Association of Pakistan (R-FPAP).

## Missed opportunities for FP

The provincial Department of Health provides health services through 13,000 static health facilities and 92,000 LHWs. The 33 percent<sup>27</sup> contribution to FP by the DOH is a missed opportunity. According to Pakistan DHS 2012–13<sup>28</sup> and 2017–18, the discontinuation rate of FP users is 30 percent. During the reporting period, about 22.5 million users were lost to discontinuation. This is primarily attributed to the strategy driving the behavior change that focused on creating demand with a minimal focus on retention. Furthermore, the LHW performance to contribute to CPR did not exceed 7 percent.<sup>29</sup>

If the provincial department had reflected to strategize its approach towards retention by 90 percent and maintain the CPR from LHWs at 30 percent, the national CPR would have touched 50

percent in 2012 and increased to 56 percent by 2015.

## Cost of inactivity for FP

Based on the missed opportunities, the total cost of inactivity was calculated at \$15.29 billion.<sup>30</sup>

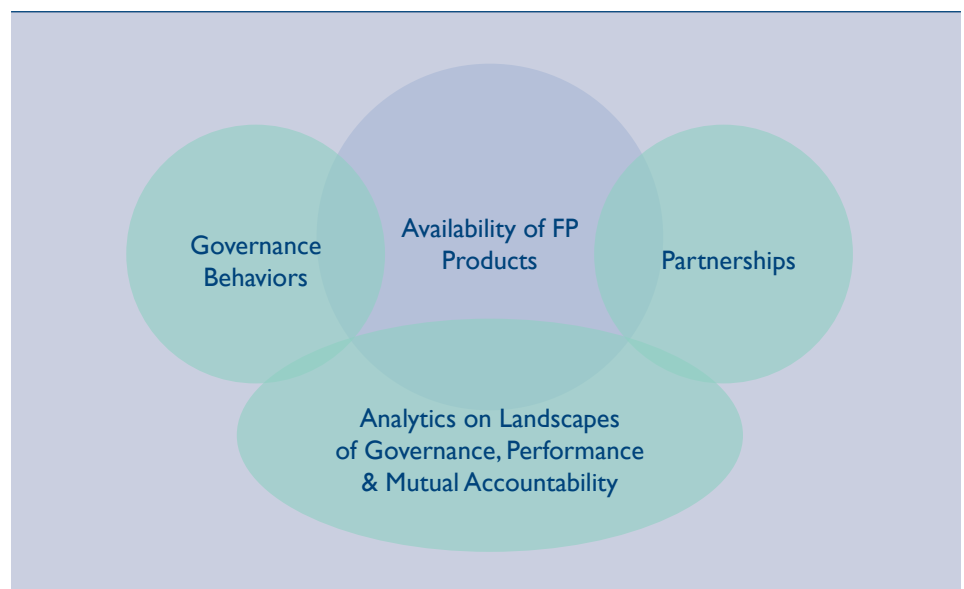
## Way forward | recommendations | future landscape

Cognizant of the value of political expediency, strategic thinking, and programmatic competence, the following are suggested for reflections and future redesign of the FP program:

### I. STRATEGIC DIRECTIONS

The strategic directions are drawn from four major domains. The foremost is the availability of contraceptives to ensure the

availability of access to FP commodities. Governance behaviors continue to evolve due to changing political and geographic priorities, which need to be guided by bringing the population into the mainstream of development planning. The scope and spectrum of partnerships need to be determined through market segmentation research. This research should evolve by understanding the elements of demographics, programmatic coverage, and geographical spread. Lastly, the analytics around the landscapes, performance, and mutual accountability need to be further strengthened to make robust, time sensitive, and people-centric decisions. They include addressing social inequality, disparities in the supply chain, community-level clients, and service provider relationships. These have been demonstrated to play pivotal roles, not only in the uptake but also in the continuity of FP method use. Certain segments of the proposed



<sup>26</sup> Sum of all CYP calculated through cLMIS for the years 2014–2021 which are the years of domestic financing

<sup>27</sup> Proportion of contribution by DOH from the net CYP produced over 11 years of analysis

<sup>28</sup> Pakistan Demographic and Health Survey 2012–13; available at <https://dhsprogram.com/pubs/pdf/fr290/fr290.pdf> accessed on 01 December 2021

<sup>29</sup> Performance of LHWs calculated at Pakistan Logistics Management Information System available at [https://c.lmis.gov.pk/application/impact\\_calculator/index.php](https://c.lmis.gov.pk/application/impact_calculator/index.php)

<sup>30</sup> Cost of inactivity was calculated on two performance indicators of retention of dropouts by 90 percent and LHWs FP outcome at 30 percent. If 90 percent of the dropouts were retained and LHWs had performed ensuring that 30 percent of all potential clients were using modern methods of family planning, users were calculated along with CYP. Values of number of pregnancies, abortions, and unwanted births (calculated using the impact tool) with the unit costs calculated from the Universal Health Package, the cost of inactivity was calculated.

future landscapes were implemented in Bangladesh, which has been recognized as a global best practice.<sup>31</sup>

## 2. DESIGNING THE INVESTMENT PLAN

Designing the investment plan for FP should not only take \$0.81 per CYP as a baseline for financing but should also segment locally manufactured versus imported FP commodities. Whereas provincial governments may consider financing locally manufactured FP commodities, development partners may align to support the procurement of FP products which are to be procured internationally.

## 3. ORGANIZATIONAL REFORMS

Governance practices in the public-sector reform process are evolving. Whereas Sindh has integrated all public-sector health and population programs, Punjab is planning to follow suit. KP is investing in public-private partnerships in the health care delivery system. The Population Welfare Department (PWD), which has 67 percent of the public-sector CYP share, remains the frontline partner. The merger of PWD with DOH is likely to stagnate this progress because of administrative and management reform processes. The reform process to integrate PWD with the DOH needs more critical analysis through the domains of governance, performance, and client outreach.

## 4. PROVINCIAL DEPARTMENTS OF HEALTH

Provincial departments of health have not taken the opportunity to capitalize on their extensive coverage through allied curative and health promotive

programs in static and outreach health services. While focusing on the expansion of curative services and responding to epidemics, disease eradication initiatives, and pandemics, focus on the FP program has remained limited. DOH should review, discuss, and synthesize a performance-oriented, outcome-based service delivery model. There is an opportunity to capitalize on the potential of LHWs, which remain a low-hanging target with vast returns on investment. The model needs to shift to technology-based solutions for optimal and effective monitoring, decision making, and results.

## 5. PRIVATE SECTOR

The private-sector focus is on urban settings, where it caters to 57 to 80 percent of curative care services. However, urban settings constitute only 36 percent of the total population. The remaining 64 percent of the population in rural areas seeks its health services from the public sector. Private-sector information systems are inconsistent. Claimed and actual private-sector market share should be evaluated along with other partners through a market segmentation study.

<sup>31</sup> Bangladesh Family Planning Success Story available at <https://www.gutmacher.org/sites/default/files/pdfs/pubs/journals/2113295.pdf> accessed on 01 February 2022

# SAVING LIVES - MILLIONS AT A TIME

Growth Rate: 2.4%

132 Million  
(1998)

226 Million  
(2021)

Total Fertility  
Rate: 3.6%

## Population Increased by 94 Million

which is more  
than the population of  
Canada & Spain combined



## Economic Benefit



**BY  
INVESTING  
US\$ 46.92  
MILLION**



**US\$ 5.15  
BILLION  
SAVED**



Averted 16.73 million  
unintended pregnancies



Obviated  
14.53 million abortions



Avoided 6.68 million  
unintended births

Suboptimal performance  
Inconsistent governance behaviours  
Minimal accountability

### Cost of Inactivity US\$ 15.29 Billion



PHOTO CREDIT: USAID GHSC-PSM

## Punjab

**Background:** The decade 2011–2020 in Pakistan witnessed a major shift in the policy paradigm due to the 18<sup>th</sup> Constitutional Amendment, leading to structural amendments, programmatic adjustments, and service delivery.

Among the federally financed vertical health programs, the population program was also devolved as a provincial subject.

This paper is an eleven-year (2011–2021) health systems analysis of performance, governance, and accountability in the family planning (FP) domain. The sources of this analysis include the contraceptive logistics management information system (cLMIS),<sup>32</sup> district health information system (DHIS), lady health worker (LHW) management information system, 2017 census data, Pakistan Demographic and Health Survey (PDHS 2012 and 2017), Pakistan Maternal Mortality Survey 2019 (PMMS), and Induced

Abortions and Unintended Pregnancies in Pakistan, 2012.<sup>33</sup>

### Population

Punjab covers 25 percent of the land area of Pakistan and hosts 109,989,655 persons (54 percent of the total population), with a population density of 535.63 per square kilometers (2017 census). The average household size is 6.3 persons. Punjab's population increased with a 2.13 percent growth rate during 1998–2017, with a rural population increase of almost half (1.68 percent) of the urban increase (3.02 percent).<sup>34</sup> Every year, there is a net addition of 1,409,719 females of reproductive age,<sup>35</sup> thus challenging the linear planning approach and requiring consideration of reproductive

and FP services through innovative approaches.

### Health systems

In Punjab, family planning services are currently provided by two public-sector departments—the Department of Health (DOH)/Integrated Reproductive Maternal Neonatal and Child Health (IRMNCH) and Population Welfare Department (PWD)—as well as by the private sector. The DOH provides its services through 3,000 static health facilities and 42,784 community-based lady health workers (LHWs). The PWD provides services through 128 family health centers, 2,100 family welfare centers, 117 family health mobile units, and 1,300 social mobilizers.

### Burden of disease

The maternal mortality ratio in Punjab is estimated to be 180 maternal deaths per 100,000 live births.<sup>36</sup> The infant mortality rate and the under-five mortality rate are

<sup>32</sup> The FP supply-chain data from cLMIS is also reported in global portals like The Global Family Planning Visibility and Analytics Network (GFPVAN) and DevResults

<sup>33</sup> Induced Abortions and Unintended Pregnancies in Pakistan 2012; Population Council available at [https://www.popcouncil.org/uploads/pdfs/2014RH\\_PostabortionCare\\_Pakistan.pdf](https://www.popcouncil.org/uploads/pdfs/2014RH_PostabortionCare_Pakistan.pdf)

<sup>34</sup> Punjab Census Report; Pakistan Bureau of Statistics; available at [https://pwd.punjab.gov.pk/system/files/split\\_percent20and\\_percent20merged.pdf](https://pwd.punjab.gov.pk/system/files/split_percent20and_percent20merged.pdf) accessed on 01 February 2022

<sup>35</sup> National Census Report; Pakistan Bureau of Statistics; available at <https://www.pbs.gov.pk/sites/default/files/population/2017/tables/pakistan/Table04n.pdf> accessed on 01 February 2022

<sup>36</sup> Pakistan Maternal Mortality Survey – 2019; available at <https://dhsprogram.com/pubs/pdf/PR128/PR128.pdf> accessed on 01 December 2021

estimated at 73 and 85 deaths per 1,000 live births, respectively.<sup>37</sup>

### Financial investments

From 2010 to 2014, USAID invested in procurement of family planning products worth \$53.22 million. Public-sector financing started in 2014, with an annual allocation of \$15 million for 2014–2015. The expenditure for the same period was \$10.37 million (71.5 percent). Following 2014–2015, the allocation for family planning by both DOH and PWD did not exceed \$10 million and continued to decline over the decade.

### Outputs

Measured through the contraceptive logistics management information system (cLMIS) outputs from 2011 to 2021, Punjab has been able to generate 45,485,537 couple-years of protection (CYP) in the public sector.<sup>38</sup> PWD took two-thirds (67 percent) of the share, while the remaining three partners from the DOH contributed 33 percent. District-level performance varied over the last decade. There were no significant differences between the north, central and southern districts of Punjab. The six districts that took a four percent or greater share of CYP were Faisalabad, Lahore, Muzaffargarh, Bahawalnagar, Sargodha, and Multan.

### Outcomes

The contraceptive prevalence rate (CPR) for Punjab over eleven years ranged from 14 to 30 percent.<sup>39</sup> The CPR at the end of those eleven years was even lower than it was a decade earlier. Comparing 2011 and 2021, CYP and CPR increased and decreased

inconsistently. This is attributed to the dilution effect of the increase in population, low levels of investment and expenditure, and an annual estimated 30 percent attrition of FP users. In the multiple indicator cluster survey (MICS) 2017–2018,<sup>40</sup> the CPR was estimated at 29.9 percent. Other factors like birth spacing and birth limiting played a vital role in establishing CPR. The ideal family size expressed in Punjab was four children. Spacing for family planning was reported by 9.9 percent of current users, and 28 percent of married women over age 30 used modern methods of family planning to limit family size. The median age of female sterilization is estimated to be 31 years.<sup>41</sup>

Using the Impact Assessment Tool,<sup>42</sup> which was adjusted for provincial population data, maternal mortality ratio, and infant mortality rate, over the last eleven years and using the universal health coverage benefit package, Punjab has been able to avert 13 million

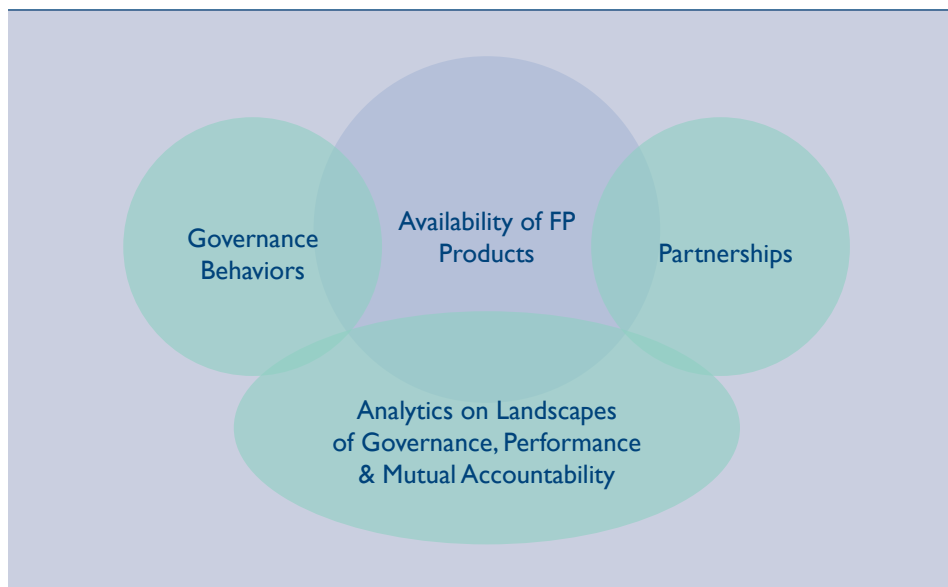
unintended pregnancies, 11 million abortions, 5 million unintended births, 389,441 infant deaths, and 8,227 maternal deaths.

### Economic benefit of investment in FP

Return on investment and economic benefits for unintended pregnancies, abortions, and unintended births were calculated using Punjab's universal health coverage benefit package (unit cost for each indicator attached as Annex 1). The return on the last eight years of public-sector investment of \$27.11 million was \$4 billion,<sup>43</sup> which is 1.8 times higher than the health sector allocation of Punjab in 2021–22.

### Missed opportunities for FP

Over the last years, Punjab missed the opportunity to capitalize on FP gains in two different streams.



<sup>37</sup> Pakistan Demographic and Health Survey 2017–18; available at <https://dhsprogram.com/pubs/pdf/FR354/FR354.pdf> accessed on 01 December 2021

<sup>38</sup> Pakistan Logistics Management Information System available at [https://c.lmis.gov.pk/application/impact\\_calculator/index.php](https://c.lmis.gov.pk/application/impact_calculator/index.php) accessed on 05 January 2022

<sup>39</sup> CPR was calculated by dividing CYP calculated through cLMIS with the estimated population for the particular year

<sup>40</sup> Multiple Indicator Cluster Survey – 2017–18, available at [https://www.unicef.org/pakistan/media/3121/file/Multiple\\_percent20Indicator\\_percent20Cluster\\_percent20Survey\\_percent202017-18\\_percent20-percent20Punjab.pdf](https://www.unicef.org/pakistan/media/3121/file/Multiple_percent20Indicator_percent20Cluster_percent20Survey_percent202017-18_percent20-percent20Punjab.pdf) accessed on 01 December 2021

<sup>41</sup> Pakistan Demographic and Health Survey 2017–18; available at <https://dhsprogram.com/pubs/pdf/FR354/FR354.pdf> accessed on 01 December 2021

<sup>42</sup> Pakistan Logistics Management Information System available at [https://c.lmis.gov.pk/application/impact\\_calculator/index.php](https://c.lmis.gov.pk/application/impact_calculator/index.php) accessed on 05 January 2022

<sup>43</sup> Return on investment was calculated by multiplying the values of number of pregnancies, abortions, and unwanted births (calculated using the impact tool) with the unit costs calculated from the Universal Health Package

- According to PDHS 2012–2013<sup>44</sup> and PHDS 2017–2018,<sup>45</sup> three out of 10 women practicing FP discontinue every year. The reasons for stopping family planning are recorded as the desire to become pregnant (44 percent) and method-related concerns or side effects (14 percent). The unmet need of family planning is 15.8 percent in Punjab, and the demand for family planning is 54 percent.
  - o Assuming a 30 percent dropout rate, Punjab loses on average 1.24 million family planning clients per year;
  - o The gap is covered by new clients; and
  - o From a programmatic and behavior change communication perspective, the emphasis has been on demand creation and not on client retention.
- Assuming a program efficiency of 90 percent retention and addressing clients who fall under the unmet need for family planning, Punjab could have achieved and maintained 50 percent or higher CPR during the last eleven years.

### Cost of inactivity for FP

Punjab could have benefited by \$5.08 billion<sup>46</sup> as a cost-benefit if the DOH had ensured program efficiency of 90 percent FP client retention, and LHWs had increased and maintained their CPR at 30 percent.

### Way forward | recommendations | future landscape

Cognizant of the value of political expediency, strategic thinking, and programmatic competence, the following are suggested for reflections and future redesign of the FP program:

#### 1. STRATEGIC DIRECTION

The strategic directions are drawn from four major domains. The foremost is the availability of contraceptives to ensure the availability of access to FP commodities. Governance behaviors continue to evolve due to changing political and geographic priorities, which need to be guided by bringing the population into the mainstream of development planning. The scope and spectrum of partnerships need to be determined through market segmentation research. This research should evolve by understanding the elements of demographics, programmatic coverage, and geographical spread. Lastly, the analytics around the landscapes, performance, and mutual accountability need to be further strengthened to make robust, time-sensitive, and people-centric decisions. Certain segments of the proposed future landscape were implemented in Bangladesh, which has been recognized as a global best practice.<sup>47</sup>

#### 2. DESIGNING THE INVESTMENT PLAN

Designing the investment plan for FP should not only take \$0.81 per CYP as a baseline for financing, but should also segment the locally manufactured versus imported FP commodities. Whereas the provincial government may consider financing locally manufactured FP commodities, development partners may align to support the procurement of remaining FP products, which are to be procured internationally.

#### 3. ORGANIZATIONAL REFORMS

Governance practices in the public-sector reform process are evolving. Whereas Sindh has integrated all public-sector health and population programs, Punjab is planning to follow suit. KP is investing in public-private partnerships in the health care delivery system. The PWD, which has 66 percent

of the public sector CYP share, remains the frontline partner. The merger of PWD with DOH is likely to stagnate the progress, which is attributed to administrative and management reform processes. The reform process to integrate PWD with the DOH needs more critical analysis through the domains of governance, performance, and client outreach.

#### 4. PROVINCIAL DEPARTMENTS OF HEALTH

Provincial departments of health have not taken the opportunity to capitalize on their extensive coverage through allied curative and health promotive programs in static and outreach health services. While focusing on the expansion of curative services, and responding to epidemics, disease eradication initiatives, and pandemics, focus on the FP program has been limited. DOH should review, discuss, and synthesize a performance-oriented, outcome-based service delivery model. The model needs to shift to technology-based solutions for optimal and effective monitoring, decision making, and results on an ad-hoc basis.

#### 5. PRIVATE SECTOR ROLE

The private-sector focus is on urban settings, where it caters to 57 to 80 percent of curative care services. However, urban settings constitute only 37 percent of the total population. The remaining 63 percent of the population in rural areas primarily seeks health services from the public sector. Private-sector information systems remain inconsistent. Claimed and actual private-sector market share should be evaluated through a market segmentation study.

<sup>44</sup> Pakistan Demographic and Health Survey 2012–13; available at <https://dhsprogram.com/pubs/pdf/fr290/fr290.pdf> accessed on 01 December 2021

<sup>45</sup> Pakistan Demographic and Health Survey 2017–18; available at <https://dhsprogram.com/pubs/pdf/FR354/FR354.pdf> accessed on 01 December 2021

<sup>46</sup> Cost of inactivity was calculated on two performance indicators of retention of dropouts by 90 percent and LHWs FP outcome at 30 percent. Assuming 90 percent of the dropouts were retained and LHWs had performed at ensuring that 30 percent of all potential clients were using modern methods of family planning, users were calculated along with CYP. Values of number of pregnancies, abortions, and unwanted births (calculated using the impact tool) with the unit costs calculated from the Universal Health Package and the cost of inactivity were calculated.

<sup>47</sup> Bangladesh Family Planning Success Story available at <https://www.gutmacher.org/sites/default/files/pdfs/pubs/journals/2113295.pdf> accessed on 01 February 2022

# Punjab – The Land of Five Rivers

## Striving to achieve population equilibrium

Growth Rate: 2.13%

74 million  
(1998)

119 million  
(2021)

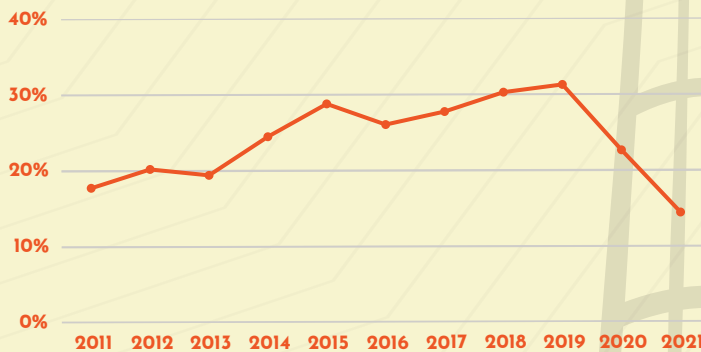
Total Fertility Rate: 3.4%

### Population Increased by 45 million

1998 - 2021

which is double the population of Sweden, Norway, Denmark & Iceland combined

### Contraceptive Prevalence Rate – 2011-2021



One in three women drops out

1.24 million FP users dropout every year



### Economic Benefit

By investing  
**US\$ 27million**

Return on Investment  
**US\$ 4 billion**

### Cost of Inactivity

**US\$ 5 billion**



Averted – 13 million unwanted pregnancies



Obviated – 11 million abortions



Avoided – 5 million unintended births



PHOTO CREDIT: USAID GHSC-PSM

## Sindh

**Background:** The decade 2011–2020 in Pakistan witnessed a major shift in the policy paradigm due to the 18<sup>th</sup> Constitutional Amendment, leading to structural amendments, programmatic adjustments, and service delivery.

The population program was also tasked as a provincial subject among the federally financed vertical health programs.

This paper is an eleven-year (2011–2021) health systems analysis of performance, governance, and accountability in the family planning (FP) domain. The sources of this analysis include the contraceptive logistics management information system (cLMIS),<sup>48</sup> district health information system (DHIS), lady health worker (LHW) management information system, 2017 census data, Pakistan Demographic and Health Survey (PDHS 2012 and 2017), Pakistan Maternal Mortality Survey

2019 (PMMS), and Induced Abortions and Unintended Pregnancies in Pakistan, 2012.<sup>49</sup>

### Population

Sindh covers 18 percent of the land area of Pakistan and hosts 47,854,510 persons (23 percent) of the total population, with a population density of 340 per square kilometers, an increase from 43 per square kilometers in 1951.<sup>50</sup> The average household size is estimated at 6.2 persons. Sindh's population increased with a 2.41 percent growth rate between 1998 and 2017. Sindh is the only province in Pakistan with a recorded 52 percent urban population.<sup>51</sup> Every year, there is a

net addition of 612,692 million females of reproductive age,<sup>52</sup> thus challenging the linear planning approach and requiring alternatives to current reproductive and FP services through innovative approaches.

### Health systems

In Sindh, family planning services are currently carried out by two public sector departments—the Department of Health (DOH) and the Population Welfare Department (PWD)—as well as by the private sector. The DOH provides its services through 1,880 static health facilities and 20,240 community-based lady health workers.<sup>53</sup>

### Burden of disease

The maternal mortality ratio of Sindh is estimated at 224 maternal deaths per 100,000 live births.<sup>54</sup> The infant mortality rate and the under-five mortality rate are estimated to be 62 and 74 deaths per 1,000 live births, respectively.<sup>55</sup>

<sup>48</sup> The FP supply-chain data from cLMIS is also reported in global portals like The Global Family Planning Visibility and Analytics Network (GFPVAN) and DevResults

<sup>49</sup> Induced Abortions and Unintended Pregnancies in Pakistan 2012; Population Council available at [https://www.popcouncil.org/uploads/pdfs/2014RH\\_PostabortionCare\\_Pakistan.pdf](https://www.popcouncil.org/uploads/pdfs/2014RH_PostabortionCare_Pakistan.pdf)

<sup>50</sup> National Census Report; Pakistan Bureau of Statistics: available at <https://www.pbs.gov.pk/sites/default/files/population/2017/tables/pakistan/Table04n.pdf> accessed on 01 May 2022

<sup>51</sup> Sindh Census Report. Pakistan Bureau of Statistics 2017; available at [https://www.pbs.gov.pk/sites/default/files/population/2017/sindh\\_district\\_wise.pdf](https://www.pbs.gov.pk/sites/default/files/population/2017/sindh_district_wise.pdf) accessed on 08 April 2022

<sup>52</sup> National Census Report; Pakistan Bureau of Statistics: available at <https://www.pbs.gov.pk/sites/default/files/population/2017/tables/pakistan/Table04n.pdf> accessed on 01 May 2022

<sup>53</sup> Health Department, Government of Sindh. Available at <https://sindhhealth.gov.pk/> accessed on 01 April 2022

<sup>54</sup> Pakistan Maternal Mortality Survey – 2019; available at <https://dhsprogram.com/pubs/pdf/PR128/PR128.pdf> accessed on 01 December 2021

<sup>55</sup> Pakistan Demographic and Health Survey 2012–13; available at <https://dhsprogram.com/pubs/pdf/fr290/fr290.pdf> accessed on 01 December 2021

## Financial Investments

From 2010 to 2014, USAID invested in procurement of family planning products worth \$25.39 million. Public-sector financing started in 2014 with a net total allocation of \$44.59 million over the last eight years. However, the expenditure for the same period was \$23.63 million (53 percent).

## Outputs

Measured through contraceptive logistics management information system (cLMIS) outputs from 2011 to 2021, Sindh has been able to generate 14,231,875 couple-years of protection (CYP) in the public sector.<sup>56</sup> Among these, DOH took 54 percent of the share (DOH static, PPHI, and LHW combined), while PWD had 46 percent of the share.

## Outcomes

The contraceptive prevalence rate (CPR) for Sindh over eleven years ranged from 11 percent to 24.6 percent.<sup>57</sup> This can be attributed to the interrupted availability of FP products, expressed ideal family size of four children, spacing for family planning by 7.9 percent of current users, and the use of modern methods of family planning by 23 percent of married women for limitation in family size after the age of 30 years. The median age of

female sterilization is estimated to be 31 years.<sup>58</sup>

Using the Impact Assessment Tool,<sup>59</sup> which was adjusted for provincial population data, maternal mortality ratio, and infant mortality rate, and using the universal health coverage benefit package over the last 11 years Sindh has been able to avert 4 million unintended pregnancies, 3.5 million abortions, 1.6 million unintended births, 98,371 infant deaths, and 3,673 maternal deaths.

## Economic benefit of investment on FP

Return on investment and economic benefits of unintended pregnancies, abortions, and unintended births were calculated by using the Sindh's universal health coverage benefit package (unit cost for each indicator attached as Annex 1). The return on the last eight years of public sector investment of \$23.63 million was \$1.03 billion,<sup>60</sup> which is 1.2 times higher than the health sector allocation of Sindh in 2021–22.<sup>61</sup>

## Missed opportunities for FP

Over the last eleven years, Sindh missed the opportunity to capitalize on the gains of family planning in two different streams.

- According to PDHS 2012–13<sup>62</sup> and PHDS 2017–18,<sup>63</sup> 3 out of 10 women

practicing family planning discontinued every year. The reasons for stopping family planning were recorded as the desire to become pregnant (44 percent) and method-related concerns or side effects (14 percent). The unmet need for family planning is 17.7 percent in Sindh. However, the demand for family planning is 48.6 percent.

- o Assuming a 30 percent dropout rate, Sindh loses an average of 388,142 family planning clients per year;
- o The gap is covered by new clients; and
- o From a programmatic and behavior change communication perspective, the emphasis has been on demand creation and not on client retention.

- Assuming a program efficiency of 90 percent to retain clients who fall under the unmet need for family planning, Sindh could have increased CPR by 25 percent during the last eleven years.

## Cost of inactivity for FP

Sindh could have benefited by \$2.2 billion<sup>64</sup> as a cost-benefit if the DOH had ensured program efficiency of retention of family planning clients by 90 percent, and LHWs had increased and maintained their CPR at 30 percent.

<sup>56</sup> Pakistan Logistics Management Information System available at [https://c.lmis.gov.pk/application/impact\\_calculator/index.php](https://c.lmis.gov.pk/application/impact_calculator/index.php) accessed on 05 January 2022

<sup>57</sup> CPR was calculated by dividing CYP calculated through cLMIS with the estimated population for the particular year.

<sup>58</sup> Pakistan Demographic and Health Survey 2012–13; available at <https://dhsprogram.com/pubs/pdf/fr290/fr290.pdf> accessed on 01 December 2021

<sup>59</sup> Pakistan Logistics Management Information System available at [https://c.lmis.gov.pk/application/impact\\_calculator/index.php](https://c.lmis.gov.pk/application/impact_calculator/index.php) accessed on 05 January 2022

<sup>60</sup> Return on investment was calculated by multiplying the values of number of pregnancies, abortions, and unwanted births (calculated using the impact tool) with the unit costs calculated from the Universal Health Package

<sup>61</sup> Sindh Health Services Budget 2021–2022. Available at [https://finance.gos.pk/Home/Download?path=Budget\\_percent5CBudgetBooks\\_percent5CFY-21-22\\_percent5CVOLUME-IIIIDetail\\_percent5C41.SC21144\\_percent20HEALTH\\_percent20SERVICES.pdf](https://finance.gos.pk/Home/Download?path=Budget_percent5CBudgetBooks_percent5CFY-21-22_percent5CVOLUME-IIIIDetail_percent5C41.SC21144_percent20HEALTH_percent20SERVICES.pdf) accessed on 01 April 2022

<sup>62</sup> Pakistan Demographic and Health Survey 2012–13; available at <https://dhsprogram.com/pubs/pdf/fr290/fr290.pdf> accessed on 01 December 2021

<sup>63</sup> Pakistan Demographic and Health Survey 2017–18; available at <https://dhsprogram.com/pubs/pdf/FR354/FR354.pdf> accessed on 01 December 2021

<sup>64</sup> Cost of inactivity was calculated on two performance indicators of retention of dropouts by 90 percent and LHWs FP outcome at 30 percent. Assuming 90 percent of the dropouts were retained and LHWs had ensured that 30 percent of all potential clients were using modern methods of family planning, users were calculated along with CYP. Values of number of pregnancies, abortions, and unwanted births (calculated using the impact tool) with the unit costs calculated from the Universal Health Package and the cost of inactivity were calculated.

## Way forward | recommendations | future landscapes

Cognizant of the value of political expediency, strategic thinking, and programmatic competence, the following are suggested for reflections and future redesign of the FP program:

### I. STRATEGIC DIRECTION

The strategic direction is drawn on four major domains. The foremost is the availability of contraceptives to ensure the availability of access to FP commodities. Governance behaviors continue to evolve due to changing political and geographic priorities, which need to be guided by bringing the population into the mainstream of development planning. The scope and spectrum of partnerships need to be determined through market segmentation research. This research should evolve by understanding the elements of demographics, programmatic coverage, and geographical spread. Lastly, the analytics around the landscapes, performance, and mutual accountability need to be further strengthened to make robust, time-sensitive, and people-centric decisions. Certain segments of the proposed future landscapes were implemented in Bangladesh, which has been recognized as a global best practice.<sup>65</sup>

### 2. DESIGNING THE INVESTMENT PLAN

Designing the investment plan for FP should not only take \$0.81 per CYP as a baseline for financing, but should also segment locally manufactured versus imported FP commodities. Whereas the provincial government may consider financing locally manufactured FP commodities, the development partners

may align to support the procurement of remaining FP products, which are to be procured internationally.

### 3. ORGANIZATIONAL REFORMS

Governance practices in the public-sector reform process are evolving. Whereas Sindh has integrated all public-sector health and population programs, it is imperative to redesign the current modalities of service delivery to match the demand of the 52 percent urban population. This requires more critical analysis through the domains of governance, performance, and client outreach.

### 4. PROVINCIAL HEALTH DEPARTMENT

DOH has not taken the opportunity to capitalize on its extensive coverage through its allied curative and health promotive programs operational through static and outreach health services. While focusing on the expansion of curative services and responding to epidemics, disease eradication initiatives, and pandemics, the focus on the FP program has been limited. DOH should review, discuss, and synthesize a performance-oriented, outcome-based service delivery model. The model needs to shift to technology-based solutions for optimal and effective monitoring, decision making, and results on an ad-hoc basis.

### 5. PRIVATE SECTOR ROLE

The private-sector focus is on urban settings, with evidence that it caters to 57 to 80 percent of curative care services. However, urban settings constitute 52 percent of the total population. The remaining 48 percent of the population in rural areas primarily seeks health services

from the public sector. Private-sector information systems remain inconsistent. The claimed private-sector share and actual market share should be evaluated through a market segmentation study.

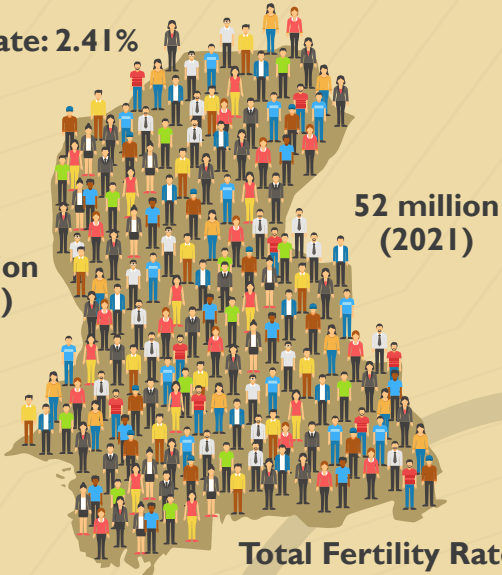
<sup>65</sup> Bangladesh Family Planning Success Story available at <https://www.gutmacher.org/sites/default/files/pdfs/pubs/journals/2113295.pdf> accessed on 01 February 2022

# Sindh – The Gateway to Indus Valley Civilization

## Striving to achieve population equilibrium

Growth Rate: 2.41%

30 million  
(1998)

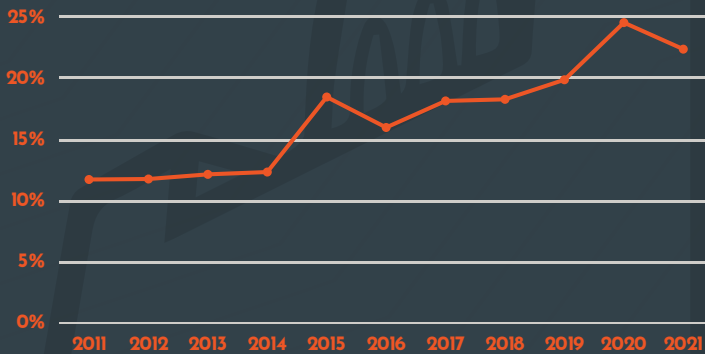


Total Fertility Rate: 3.6%

Population Increased by **22 million**  
1998 - 2021

which is the total population of Sri Lanka

### Contraceptive Prevalence Rate – 2011-2021



One in three women drops out

Annual Dropout of **338,000 FP Users**



### Economic Benefit

By investing **US\$ 24 million**

Return on Investment **US\$ 1 billion**

Obviated – **3.5 million** abortions

Averted – **4 million** unwanted pregnancies

Avoided – **1.6 million** unintended births

### Cost of Inactivity

**US\$ 2.21 billion**



PHOTO CREDIT: USAID GHSC-PSM

## Khyber Pakhtunkhwa

**Background:** The decade 2011–2020 in Pakistan witnessed a major shift in the policy paradigm due to the 18<sup>th</sup> Constitutional Amendment, leading to structural amendments, programmatic adjustments, and service delivery.

Among the federally financed vertical health programs, the population program was also tasked as a provincial subject.

This paper is an eleven-year (2011–2021) health systems analysis of performance, governance, and accountability in the family planning (FP) domain. The sources of this analysis include the contraceptive logistics management information system (cLMIS),<sup>66</sup> district health information system (DHIS), lady health worker (LHW) management information system, 2017 census data, Pakistan Demographic and Health Survey (PDHS 2012 and 2017), Pakistan Maternal Mortality Survey 2019 (PMMS), and Induced Abortions

and Unintended Pregnancies in Pakistan, 2012.<sup>67</sup>

### Population

Khyber Pakhtunkhwa (KP) covers 9.3 percent of the land area of Pakistan and hosts 30,508,920 persons (14.6 percent) of the total population, with a population density of 409 per square kilometers according to the 2017 census. The average household size is estimated to be 8.6 persons. KP's population increased at a 2.89 percent growth rate during 1998–2017, with urban and rural growth rates recorded at 3.47 percent and 2.76 percent, respectively.<sup>68</sup> Every year, there is a net addition of 522,996 females in

reproductive age,<sup>69</sup> thus challenging the linear planning approach and requiring the examination of alternate and innovative approaches to providing reproductive and FP services.

### Burden of disease

The maternal mortality ratio of KP is estimated to be 165 maternal deaths per 100,000 live births.<sup>70</sup> The infant mortality rate and the under-five mortality rate were estimated to be 53 and 64 deaths per 1,000 live births, respectively.<sup>71</sup>

### Financial investments

From 2010 to 2014, USAID invested in the procurement of family planning products worth \$18.86 million. Public-sector financing started in 2014 with a net total allocation of \$20.56 million over the last eight years. However, the expenditure for the same period was \$7.30 million (36 percent expenditure versus allocation).

<sup>66</sup> The FP supply-chain data from cLMIS is also reported in the global portals like The Global Family Planning Visibility and Analytics Network (GFPVAN) and DevResults

<sup>67</sup> Induced Abortions and Unintended Pregnancies in Pakistan 2012; Population Council available at [https://www.popcouncil.org/uploads/pdfs/2014RH\\_PostabortionCare\\_Pakistan.pdf](https://www.popcouncil.org/uploads/pdfs/2014RH_PostabortionCare_Pakistan.pdf)

<sup>68</sup> KP Census Report. Pakistan Bureau of Statistics 2017; available at [https://www.pbs.gov.pk/sites/default/files/population/2017/kp\\_district\\_wise.pdf](https://www.pbs.gov.pk/sites/default/files/population/2017/kp_district_wise.pdf) accessed on 08 April 2022

<sup>69</sup> National Census Report; Pakistan Bureau of Statistics; available at <https://www.pbs.gov.pk/sites/default/files/population/2017/tables/pakistan/Table04n.pdf> accessed on 01 May 2022

<sup>70</sup> Pakistan Maternal Mortality Survey – 2019; available at <https://dhsprogram.com/pubs/pdf/PR128/PR128.pdf> accessed on 01 December 2021

<sup>71</sup> Pakistan Demographic and Health Survey 2012–13; available at <https://dhsprogram.com/pubs/pdf/fr290/fr290.pdf> accessed on 01 December 2021

## Outputs

Measured through contraceptive logistics management information system (cLMIS)<sup>72</sup> outputs from 2011 to 2021, KP has been able to generate 14,348,596 couple-years of protection (CYP) in the public sector. Among these, PWD took 72 percent, while DOH captured 28 percent of the CYP share.

## Outcomes

The contraceptive prevalence rate (CPR) for KP over eleven years ranged from 16 to 35 percent,<sup>73</sup> with the 2020–2021 CPR being half (8 percent) of what it eleven years ago. In the 2019 multiple indicator cluster survey (MICS), the CPR was estimated at 28.2 percent.<sup>74</sup> The ideal family size expressed in KP was 4.1 children. Spacing for family planning was used by 19 percent of the current users, and modern methods of family planning were reported by 34 percent of married women for limitation in family size after the age of 30 years. The median age of female sterilization is estimated to be 31 years.<sup>75</sup>

Using the Impact Assessment Tool,<sup>76</sup> which was adjusted for provincial population data, maternal mortality ratio, and infant mortality rate, and using the universal health coverage benefit package, over the last 11 years KP has been able to avert 4.1 million unintended pregnancies, 3.5 million

abortions, 1.6 million unintended births, 87,607 infant deaths, and 2,719 maternal deaths.

## Economic benefit of investment on FP

Return on investment and economic benefits of unintended pregnancies, abortions, and unintended births were calculated using the KP universal health coverage benefit package (unit cost for each indicator attached as Annex 1). The return on the last eight years of public-sector investment of \$7.3 million was \$888 million.<sup>77</sup>

## Missed opportunities for FP

Over the last years, KP missed the opportunity to capitalize on family planning gains in two different streams.

- According to PDHS 2012–13<sup>78</sup> and PHDS 2017–18,<sup>79</sup> 30 percent of women practicing family planning discontinued every year. The reasons for stopping family planning were recorded as the desire to become pregnant (44 percent) and method-related concerns or side effects (14 percent). The unmet need for family planning is 21 percent in KP. However, the demand for family planning is 51 percent.

- o Assuming a 30 percent dropout rate, KP loses on average 391,325 family planning clients per year;

- o The gap is covered by new clients; and
- o From a programmatic and behavior change communication perspective, the emphasis has been on demand creation and not on client retention.

- Assuming a program efficiency of 90 percent to retain, and addressing clients who fall under the unmet need for family planning, KP could have increased and sustained the CPR above 70 percent during the last eleven years.

## Cost of inactivity for FP

KP could have benefited by \$3.4 billion<sup>80</sup> as a cost-benefit if the DOH had ensured program efficiency of FP client retention by 90 percent, and LHWs had increased and maintained their CPR at 30 percent.

## Way forward | recommendations | future landscape

Cognizant of the value of political expediency, strategic thinking, and programmatic competence, the following are suggested for reflections and future redesign of the FP program:

### I. STRATEGIC DIRECTION

The strategic directions are drawn from four major domains. The foremost is the

<sup>72</sup> Pakistan Logistics Management Information System available at [https://c.lmis.gov.pk/application/impact\\_calculator/index.php](https://c.lmis.gov.pk/application/impact_calculator/index.php) accessed on 05 January 2022

<sup>73</sup> CPR was calculated by dividing CYP calculated through cLMIS with the estimated population for the particular year

<sup>74</sup> Multiple Indicator Cluster Survey – 2019. CPR Modern Methods [https://mics-surveysprod.s3.amazonaws.com/MICS6/South\\_percent20Asia/Pakistan\\_percent20\\_percent28Khyber\\_percent20Pakhtunkhwa\\_percent29/2019/Survey\\_percent20findings/Pakistan\\_percent202019\\_percent20MICS\\_percent20\\_percent28Khyber\\_percent20Pakhtunkhwa\\_percent29\\_percent20Survey\\_percent20Findings\\_percent20Report\\_English.pdf](https://mics-surveysprod.s3.amazonaws.com/MICS6/South_percent20Asia/Pakistan_percent20_percent28Khyber_percent20Pakhtunkhwa_percent29/2019/Survey_percent20findings/Pakistan_percent202019_percent20MICS_percent20_percent28Khyber_percent20Pakhtunkhwa_percent29_percent20Survey_percent20Findings_percent20Report_English.pdf) accessed on 01 December 2021

<sup>75</sup> Pakistan Demographic and Health Survey 2017–18; available at <https://dhsprogram.com/pubs/pdf/FR354/FR354.pdf> accessed on 01 December 2021

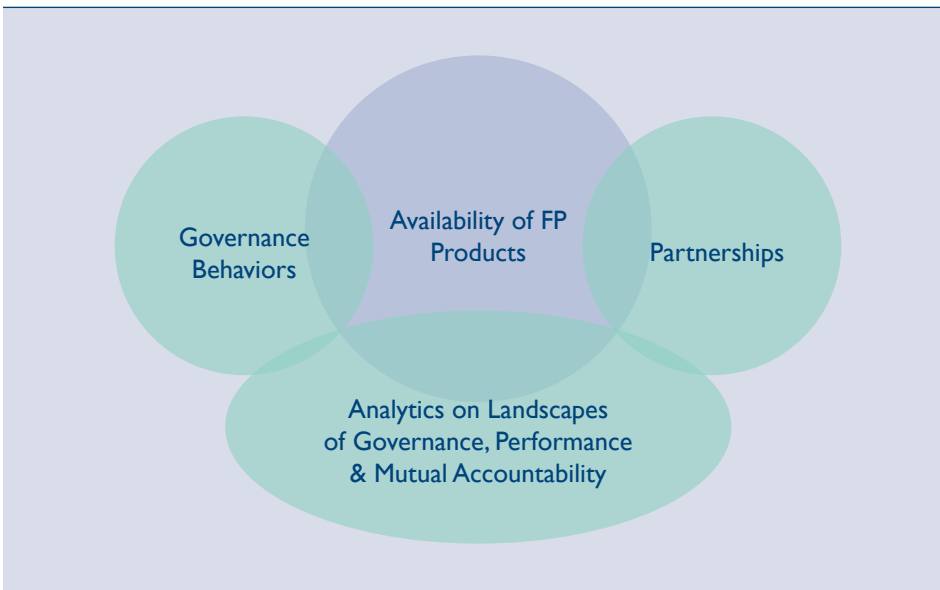
<sup>76</sup> Pakistan Logistics Management Information System available at [https://c.lmis.gov.pk/application/impact\\_calculator/index.php](https://c.lmis.gov.pk/application/impact_calculator/index.php) accessed on 05 January 2022

<sup>77</sup> Return on investment was calculated by multiplying the values of number of pregnancies, abortions, and unwanted births (calculated using the impact tool) with the unit costs calculated from the Universal Health Package

<sup>78</sup> Pakistan Demographic and Health Survey 2012–13; available at <https://dhsprogram.com/pubs/pdf/fr290/fr290.pdf> accessed on 01 December 2021

<sup>79</sup> Pakistan Demographic and Health Survey 2017–18; available at <https://dhsprogram.com/pubs/pdf/FR354/FR354.pdf> accessed on 01 December 2021

<sup>80</sup> Cost of inactivity was calculated on two performance indicators of retention of dropouts by 90 percent and LHWs FP outcome at 30 percent. Assuming 90 percent of the dropouts were retained and LHWs had ensured that 30 percent of all potential clients were using modern methods of family planning, users were calculated along with CYP. Values of number of pregnancies, abortions, and unwanted births (calculated by using the impact tool) with the unit costs calculated from the Universal Health Package and the cost of inactivity were calculated.



availability of contraceptives to ensure the availability of access to FP commodities. Governance behaviors continue to evolve due to changing political and geographic priorities, which need to be guided by bringing the population into the mainstream of development planning. The scope and spectrum of partnerships need to be determined through market segmentation research. This research should evolve by understanding the elements of demographics, programmatic coverage, and geographical spread. Lastly, the analytics around the landscapes, performance, and mutual accountability need to be further strengthened to make robust, time-sensitive, and people-centric decisions. Certain segments of the proposed future landscapes were implemented in Bangladesh, which has been recognized as a global best practice.<sup>81</sup>

## 2. DESIGNING THE INVESTMENT PLAN

Designing the investment plan for FP should not only take \$0.81 per CYP as a baseline for financing, but should also segment locally manufactured versus

imported FP commodities. Whereas the provincial government may consider financing locally manufactured FP commodities, the development partners may align to support the procurement of remaining FP products, which are to be procured locally.

## 3. ORGANIZATIONAL REFORMS

Governance practices in the public-sector reform process are evolving. It is imperative to redesign the current modalities of service delivery to match the demand of the population. This requires more critical analysis through the domains of governance, performance, and client outreach.

## 4. PROVINCIAL DEPARTMENTS OF HEALTH

DOH has not taken the opportunity to capitalize on its extensive coverage through its allied curative and health promotive programs operational through static and outreach health services. While focusing on the expansion of curative services and responding to epidemics, disease eradication initiatives, and

pandemics, the focus on the FP program has been limited. DOH should review, discuss, and synthesize a performance-oriented, outcome-based service delivery model. The model needs to shift to technology-based solutions for optimal and effective monitoring, decision making, and results on an ad-hoc basis.

## 5. PRIVATE SECTOR ROLE

The private-sector focus is on urban settings, with evidence that it caters to 57 to 80 percent of curative care services. However, urban settings constitute only 19 percent of the total population. The remaining 81 percent of the population in rural areas primarily seeks health services from the public sector. Private-sector information systems remain inconsistent. The claimed private-sector share and actual market should be evaluated through a market segmentation study.

<sup>81</sup> Bangladesh Family Planning Success Story available at <https://www.gutmacher.org/sites/default/files/pdfs/pubs/journals/2113295.pdf> accessed on 01 February 2022

# Khyber Pakhtunkhwa – The Gateway to History & Hospitality

## Striving to achieve population equilibrium

Growth Rate: 2.89%

14 million  
(1998)

44 million  
(2021)

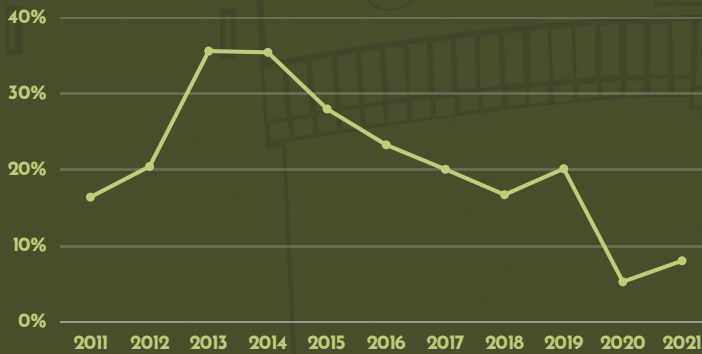
Total Fertility Rate: 4%

### Population Increased by 30 million

1998 - 2021

which is the total population of Nepal

### Contraceptive Prevalence Rate – 2011-2021



One in three women drops out

Annual Dropout of 391,000 FP Users



### Economic Benefit

By investing  
**US\$ 7.3 million**

Return on Investment  
**US\$ 888 million**

Averted – 4.1 million unwanted pregnancies

Obviated – 3.5 million abortions

Avoided – 1.6 million unintended births

### Cost of Inactivity

**US\$ 3.4 billion**



PHOTO CREDIT: USAID GHSC-PSM

## Balochistan

**Background:** The decade 2011–2020 in Pakistan witnessed a major shift in the policy paradigm due to the 18<sup>th</sup> Constitutional Amendment, leading to structural amendments, programmatic adjustments, and service delivery.

Among the federally financed vertical health programs, the population program was also tasked as a provincial subject.

This paper is an eleven-year (2011–2021) health systems analysis of performance, governance, and accountability in the family planning (FP) domain. The sources of this analysis include the contraceptive logistics management information system (cLMIS),<sup>82</sup> district health information system (DHIS), lady health worker (LHW) management information system, 2017 census data, Pakistan Demographic and Health Survey (PDHS 2012 and 2017), Pakistan Maternal Mortality Survey 2019 (PMMS), and Induced Abortions and

Unintended Pregnancies in Pakistan, 2012.<sup>83</sup>

### Population

Balochistan covers 44 percent of the land area of Pakistan and hosts 6 percent (12,335,129)<sup>84</sup> of the total population according to the 2017 census, with a population density of 35.53 per square kilometers. The average household size is estimated to be 8.5 persons. Balochistan's population increased with a 3.37 percent growth rate during 1998–2017, with the urban and rural growth rates recorded at 4.16 percent and 3.1 percent, respectively.<sup>85</sup> Every year, there is a net

addition of 214,279 females of reproductive age,<sup>86</sup> thus challenging the linear planning approach and necessitating a search for innovative approaches to providing reproductive and FP services.

### Health systems

In Balochistan, family planning services are currently carried out by two public-sector departments—the Department of Health (DOH) and the Population Welfare Department (PWD)—as well as by the private sector. The DOH provides its services through 1,634 static health facilities and 6,220 community-based lady health workers.<sup>87</sup> PWD offers FP services through 150 family welfare centers, 10 reproductive health centers, 55 mobile service units, and 550 outreach male mobilizers.<sup>88</sup>

### Burden of disease

The maternal mortality ratio of Balochistan is estimated to be 298

<sup>82</sup> The FP supply chain data from cLMIS is also reported in the global portals like The Global Family Planning Visibility and Analytics Network (GFPVAN) and DevResults

<sup>83</sup> Induced Abortions and Unintended Pregnancies in Pakistan 2012; Population Council available at [https://www.popcouncil.org/uploads/pdfs/2014RH\\_PostabortionCare\\_Pakistan.pdf](https://www.popcouncil.org/uploads/pdfs/2014RH_PostabortionCare_Pakistan.pdf)

<sup>84</sup> Explore Balochistan. Available at <https://balochistan.gov.pk/explore-balochistan/about-balochistan/> accessed on 03 April 2022

<sup>85</sup> Balochistan Census Report. Pakistan Bureau of Statistics 2017; available at [https://www.pbs.gov.pk/sites/default/files/population/2017/balochistan\\_district\\_wise.pdf](https://www.pbs.gov.pk/sites/default/files/population/2017/balochistan_district_wise.pdf) accessed on 08 April 2022

<sup>86</sup> National Census Report; Pakistan Bureau of Statistics: available at <https://www.pbs.gov.pk/sites/default/files/population/2017/tables/pakistan/Table04n.pdf> accessed on 01 May 2022

<sup>87</sup> Health Department, Government of Balochistan. Available at <http://www.dghs.gob.pk/> accessed on 01 April 2022

<sup>88</sup> Population Welfare Department, Balochistan. Available at <https://balochistan.gov.pk/departments/population-welfare/#1561722359996-06a06c1d-daf9> accessed on 01 April 2022

maternal deaths per 100,000 live births.<sup>89</sup> The infant mortality rate and the under-five mortality rate are estimated at 66 and 78 deaths per 1,000 live births, respectively.<sup>90</sup>

### Financial investments

From 2010 to 2014, USAID invested in the procurement of family planning products worth \$5.92 million. Public-sector financing started in 2014, with a net total allocation of \$8.5 million over the last eight years. However, the expenditure for the same period was \$1.36 million (16 percent expenditure versus allocation).

### Outputs

Measured through the contraceptive logistics management information system (cLMIS) outputs from 2011 to 2021, Balochistan has been able to generate 1,628,597 couple-years of protection (CYP) in the public sector. Among these, PWD took 60 percent, DOH static had 26 percent, and LHWs claimed 14 percent of the CYP share.<sup>91</sup>

### Outcomes

The contraceptive prevalence rate (CPR) for Balochistan over eleven years ranged from 6 percent to 22 percent.<sup>92</sup> The CPR for 2020–2022 was half (3 percent) of what it was eleven years ago. Other factors like birth spacing and limiting played a vital role in establishing CPR. The ideal family size expressed in Balochistan is 6.8. Spacing for family planning was reported by 31 percent of current users,

and the use of modern methods of family planning was initiated by 19.2 percent of married women for limitation in family size after the age of 30 years. The median age of female sterilization is estimated to be 31 years.<sup>93</sup>

Using the Impact Assessment Tool,<sup>94</sup> which was adjusted for provincial population data, maternal mortality ratio, and infant mortality rate, along with the over the last 11 years, Balochistan has been able to avert 469,056 unintended pregnancies, 408,061 abortions, 187,614 unintended births, 12,383 infant deaths, and 559 maternal deaths.

### Economic benefit of investment on FP

The return on investment and economic benefits of unintended pregnancy, abortion, and unintended birth were calculated using Balochistan's universal health coverage benefit package (unit cost for each indicator attached as Annex 1). The return on eight years of public-sector investment of \$1.36 million was \$109 million,<sup>95</sup> which is half that of the health-sector allocation of Balochistan in 2021–2022.<sup>96</sup>

### Missed opportunities for FP

Over the last few years, Balochistan missed the opportunity to capitalize on family planning gains in three different streams:

- The Department of Health has not offered any FP services since 2017. There has been no public-sector expenditure

on FP since 2017, despite a net allocation of \$2.42 million for the same period. This led to the non-availability of any FP commodity in the public-sector service delivery outlet of the health sector:

- According to PDHS 2012–2013<sup>97</sup> and PHDS 2017–2018,<sup>98</sup> 30 percent of women practicing family planning discontinue every year. The reasons for stopping family planning were recorded as the desire to become pregnant (44 percent) and method-related concerns or side effects (14 percent). The unmet need for family planning is 21.6 percent in Balochistan. However, the demand for family planning is 41 percent.
  - Assuming a 30 percent dropout rate, Balochistan loses on average 44,000 family planning clients per year;
  - The gap is covered by new clients; and
  - From a programmatic and behavior change communication perspective, the emphasis has been on demand creation and not on client retention.
- Assuming a program efficiency of 90 percent to retain, and addressing clients who fall under the unmet need for family planning, Balochistan could have increased and sustained the CPR at 45 percent during the last eleven years.

### Cost of inactivity for FP

Balochistan could have benefited by \$403 million<sup>99</sup> as a cost-benefit to the total

<sup>89</sup> Pakistan Maternal Mortality Survey – 2019; available at <https://dhsprogram.com/pubs/pdf/PR128/PR128.pdf> accessed on 01 December 2021

<sup>90</sup> Pakistan Demographic and Health Survey 2012–13; available at <https://dhsprogram.com/pubs/pdf/fr290/fr290.pdf> accessed on 01 December 2021

<sup>91</sup> cLMIS [https://c.lmis.gov.pk/application/reports/provincial\\_warehouse\\_report.php](https://c.lmis.gov.pk/application/reports/provincial_warehouse_report.php)

<sup>92</sup> CPR was calculated by dividing CYP calculated through cLMIS with the estimated population for the particular year

<sup>93</sup> Pakistan Demographic and Health Survey 2012–13; available at <https://dhsprogram.com/pubs/pdf/fr290/fr290.pdf> accessed on 01 December 2021

<sup>94</sup> Pakistan Logistics Management Information System available at [https://c.lmis.gov.pk/application/impact\\_calculator/index.php](https://c.lmis.gov.pk/application/impact_calculator/index.php) accessed on 05 January 2022

<sup>95</sup> Return on investment was calculated by multiplying the values of number of pregnancies, abortions, and unwanted births (calculated using the impact tool) with the unit costs calculated from the Universal Health Package (see above)

<sup>96</sup> Balochistan Health Services Budget 2021–2022. Available at <https://balochistan.gov.pk/wp-content/uploads/2021/06/ABS-2021-22-18.06.2021-Final.pdf> accessed on 01 April 2022

<sup>97</sup> Pakistan Demographic and Health Survey 2012–13; available at <https://dhsprogram.com/pubs/pdf/fr290/fr290.pdf> accessed on 01 December 2021

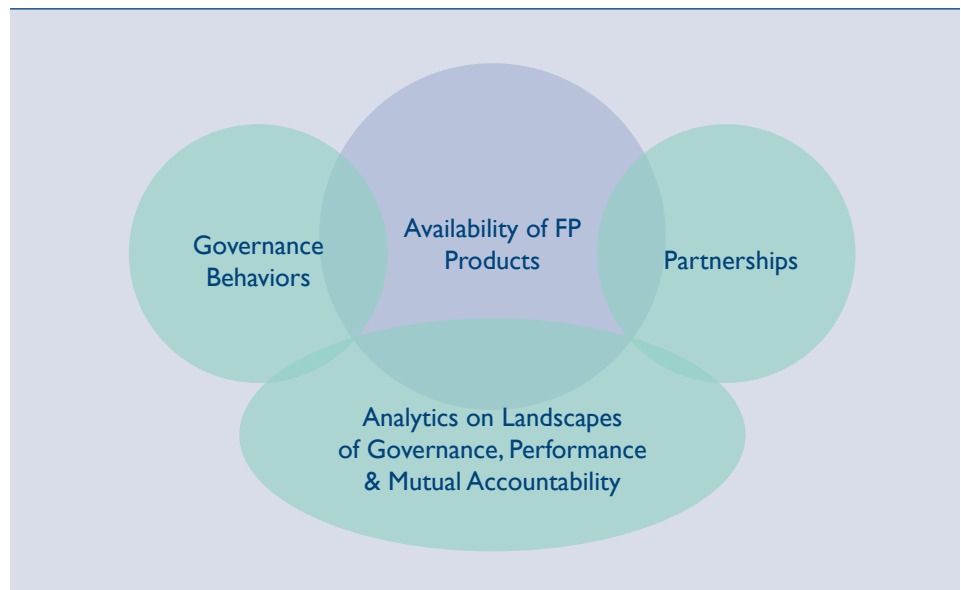
<sup>98</sup> Pakistan Demographic and Health Survey 2017–18; available at <https://dhsprogram.com/pubs/pdf/FR354/FR354.pdf> accessed on 01 December 2021

<sup>99</sup> Cost of inactivity was calculated on two performance indicators of retention of dropouts by 90 percent and LHWs FP outcome at 30 percent. Assuming 90 percent of the dropouts were retained and LHWs had ensured that 30 percent of all potential clients were using modern methods of family planning, users were calculated along with CYP. Values of number of pregnancies, abortions, and unwanted births (calculated by using the impact tool) with the unit costs calculated from the Universal Health Package and the cost of inactivity were calculated.

public-sector investment of \$1.36 million if the DOH had ensured program efficiency of retention of FP clients by 90 percent, and LHWs had increased and maintained their CPR at 30 percent over the last eleven years.

## Way forward | recommendations | future landscape

Cognizant of the value of political expediency, strategic thinking, and programmatic competence, the following are suggested for reflections and future redesign of the FP program:



### I. STRATEGIC DIRECTION

The strategic direction is drawn from four major domains. The foremost is the availability of contraceptives to ensure the availability of access to FP commodities. Governance behaviors continue to evolve due to changing political and geographic priorities, which need to be guided by bringing the population into the mainstream of development planning. The scope and spectrum of partnerships need to be determined through market segmentation research. This research should evolve by understanding the elements of demographics, programmatic coverage, and geographical spread. Lastly, the analytics around the landscapes, performance, and mutual accountability need to be further strengthened to make robust, time-sensitive, and people-centric decisions. Certain segments of the proposed future landscapes were implemented in Bangladesh, which has been recognized as a global best practice.<sup>100</sup>

### 2. DESIGNING THE INVESTMENT PLAN

An investment plan in Balochistan should be preceded by intensive advocacy to follow two sets of strategic streams: first, to foster a strategic understanding that population cuts

across all development and recurrent plans in each sector; and second, to ensure that financial allocations for FP services are based on the provision of universal services rather than on incremental apportionments. The financial disbursements should have only a 5 percent variance with at least 95 percent of the total allocations being expensed. Designing the investment plan for FP should not only take \$0.81 per CYP as a baseline for financing, but should also segment locally manufactured versus imported FP commodities. Whereas the provincial government may consider financing locally manufactured FP commodities, the development partners may align to support the procurement of remaining FP products, which can be procured internationally.

### 3. ORGANIZATIONAL REFORMS

Governance practices in the public-sector reform process are evolving. It is imperative to redesign the current modalities of service delivery to match the demand of the population. This requires more critical analysis through the domains of governance, performance, and client outreach.

### 4. PROVINCIAL DEPARTMENTS OF HEALTH

DOH has not taken the opportunity to

capitalize on its extensive scale of coverage through its allied curative and health promotive programs operational through static and outreach health services. While focusing on the expansion of curative services and responding to epidemics, disease eradication initiatives, and pandemics, the focus on FP program has been limited. DOH should review, discuss, and synthesize a performance-oriented, outcome-based service delivery model. The model needs to shift to technology-based solutions for optimal and effective monitoring, decision making, and results on an ad-hoc basis.

### 5. PRIVATE SECTOR ROLE

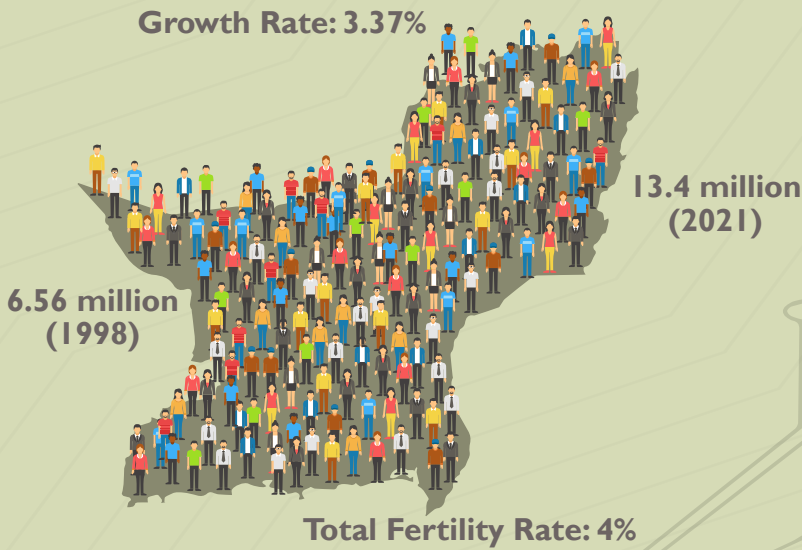
The private-sector focus is on urban settings, with evidence that it caters to 57 to 80 percent of curative care services. However, urban settings constitute 25 percent of the total population. The remaining 75 percent of the population in rural areas primarily seeks health services from the public sector. Private-sector information systems remain inconsistent. The claimed private-sector share and actual market share should be evaluated through a market segmentation study.

<sup>100</sup> Bangladesh Family Planning Success Story available at <https://www.gutmacher.org/sites/default/files/pdfs/pubs/journals/2113295.pdf> accessed on 01 February 2022.

# Balochistan

## The Gateway to cross road of South Asia & Arabian Peninsula

### Striving to achieve population equilibrium

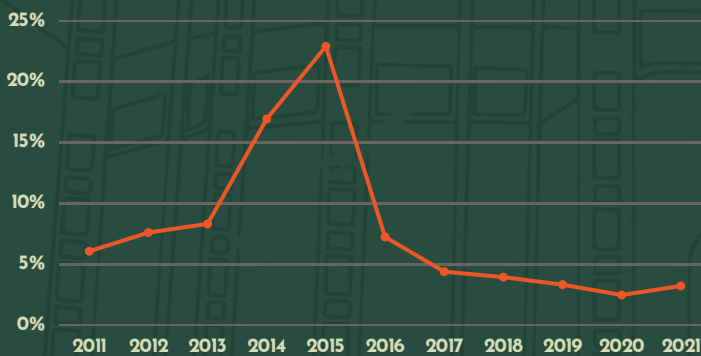


Population Increased by **7 million**

1998 - 2021

which is the total population of Hong Kong

### Contraceptive Prevalence Rate – 2011-2021



### One in three women drops out

44,000 FP users lost every year



### Economic Benefit

By investing **US\$ 1.36 million**

Return on Investment **US\$ 109 million**

### Cost of Inactivity

**US\$ 403 million**



Obviated – **408,061** abortions

Averted – **469,056** unwanted pregnancies

Avoided – **187,614** unintended births



## Private Sector (2018–2020)

**Background:** This paper is a three-year (2018–2020) health systems analysis of performance, governance, and accountability of the formal private sector engaged in family planning (FP) services delivery.

The FP data of the formal private sector, including Green Star Social Marketing (GS), Marie Stopes Society (MSS), and Rahnuma Family Planning Association of Pakistan (R-FPAP), was taken from the Contraceptive Performance Report 2017–18,<sup>101</sup> 2018–19,<sup>102</sup> and 2019–2020.<sup>103</sup> Other sources of data that were used for analysis include the 2017 census data, Pakistan Demographic and Health Survey (PDHS 2012 and 2017), Pakistan Maternal Mortality Survey 2019 (PMMS), and Induced Abortions and Unintended Pregnancies in Pakistan, 2012.<sup>104</sup>

The private sector in Pakistan has strategically placed itself in the provision of curative and FP services. Whereas more than 70 percent of health care needs in urban areas are met through formal and informal private sector health providers,<sup>105</sup> it is imperative to note that the private sector primarily provides curative services to the urban population, which comprises 36.44 percent of the total population.<sup>106</sup> Furthermore, a major part of the private-sector contribution to family planning service delivery in Pakistan is informal, which actively manages independent procurement and supply of FP commodities through stores and

pharmacies. In addition, partnership arrangements between public- and private-sector services are also being tested to ensure universal access to family planning, including voucher schemes, cross-referrals, and contracting-out mechanisms.

### Couple-years of protection (CYP) market share

Though a bulk of FP services (65 percent) is perceived to have transitioned from the public sector to the private sector,<sup>107</sup> the reported share of GS, MSS, and R-FPAP over the duration of analysis ranged from 38 percent to 49 percent. Over the reporting period, the private-sector contribution was 16.22 million CYP, as compared to 22.06 million shares of the public sector. Thus, the overall private-sector contribution over the three years was 42 percent. During 2018–2020, GS

<sup>101</sup> Contraceptive Performance Report 2017–18, Pakistan Bureau of Statistics; available at [https://www.pbs.gov.pk/sites/default/files/social\\_statistics/contraceptive\\_performance\\_reports/ACP\\_Report\\_2017-18.pdf](https://www.pbs.gov.pk/sites/default/files/social_statistics/contraceptive_performance_reports/ACP_Report_2017-18.pdf) accessed on 23 August 2022

<sup>102</sup> Contraceptive Performance Report 2018–19, Pakistan Bureau of Statistics; available at [https://www.pbs.gov.pk/sites/default/files/social\\_statistics/contraceptive\\_performance\\_reports/ACP\\_Report\\_2018-19.pdf](https://www.pbs.gov.pk/sites/default/files/social_statistics/contraceptive_performance_reports/ACP_Report_2018-19.pdf) accessed on 23 August 2022

<sup>103</sup> Contraceptive Performance Report 2019–20, Pakistan Bureau of Statistics; available at [https://www.pbs.gov.pk/sites/default/files/social\\_statistics/contraceptive\\_performance\\_reports/ACP\\_Report\\_2019-20.pdf](https://www.pbs.gov.pk/sites/default/files/social_statistics/contraceptive_performance_reports/ACP_Report_2019-20.pdf) accessed on 23 August 2022

<sup>104</sup> Induced Abortions and Unintended Pregnancies in Pakistan 2012; Population Council available at [https://www.popcouncil.org/uploads/pdfs/2014RH\\_PostabortionCare\\_Pakistan.pdf](https://www.popcouncil.org/uploads/pdfs/2014RH_PostabortionCare_Pakistan.pdf)

<sup>105</sup> Harnessing the Private Sector Support for Strengthening Family Planning Services in Pakistan, Journal of Gynecological Oncology; available at <http://www.remedypublications.com/open-access/harnessing-the-private-sector-support-for-strengthening-family-planning-services-7490.pdf> accessed on 26 April 2022

<sup>106</sup> Salient Features of Final Results 2017 Census | Pakistan Bureau of Statistics; available at [https://www.pbs.gov.pk/sites/default/files//population\\_census/salient\\_feature\\_percent20census\\_2017.pdf](https://www.pbs.gov.pk/sites/default/files//population_census/salient_feature_percent20census_2017.pdf) accessed on 26 March 2022

contributed 6.1 million CYP, MSS 3.5 million CYP, and R-FPAP 6.5 million CYP. During the same time, the public sector generated 22.06 million CYP, which is about four times that of the private sector. The net rate of increase in the private sector over the reporting period was 17 percent, whereas the public-sector contribution decreased by 28 percent in 2020 from the preceding year. Details of CYP contribution by private sector partners is given in Figure 2.



Fig 2: CYP distribution by private-sector partners 2018–2020

### Contraceptive prevalence rate

The private-sector contribution to CPR has remained below 20 percent, despite having access to the population base of 35 million married women of reproductive age (MWRA) in urban areas. The public-sector contribution of CPR remained over 25 percent but less than 30 percent. The net CPR contribution of both the public and private sector remained over 35 percent, yet less than 40 percent. Details are given in Figure 3.

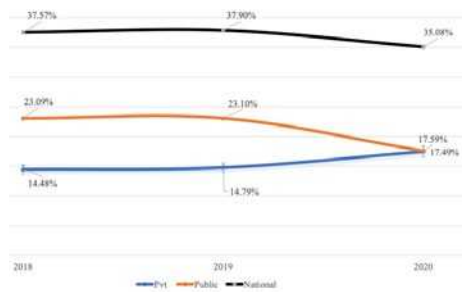


Fig 3: CPR distribution by private sector, public sector, and national, 2018–2020

### Missed opportunity

After adjusting for pregnant women and unwilling clients, if the private sector had programmatically managed the available resources to address unmet FP need and the annual 30 percent dropout rate, it would have catered to an additional 17 million (52 percent) MWRA, thus increasing the CPR to 30 percent, or double the current average of 15 percent CPR contribution by the private sector.

### Financial resource utilization

Analysis of the Netherlands Interdisciplinary Demographic Institute (NIDI) and United Nations Population Fund’s survey reports of 2018, 2019, and 2020 revealed that the cumulative expenditure on family services for the three years was \$131.5 million. The expenditure on family planning commodities was \$16.2 million (12.3 percent). The remaining 87.6 percent were used for programmatic and management costs. If the private sector had doubled the investment in the procurement of FP products, it would have ensured the availability of FP products and services to potential clients. Against this expenditure, the total number of CYP produced was 16.67 million. The unit cost of investment per CYP was \$0.1 as a ratio of total CYP against the total expenditure on FP. The validity of this data from three NGOs—Greet Star, Marie Stopes, and Rahnuma Family Planning Association of Pakistan—is currently being analyzed. The details of expenditures are given in Figure 4.

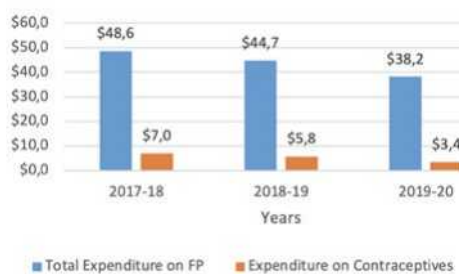


Fig 4: NGO spending for contraceptives (US\$ million)

### Economic benefits and return on investment

Using the Impact Assessment Tool,<sup>102</sup> which was adjusted for national population data, maternal mortality ratio and infant mortality rate, and using the universal health coverage benefit package, the return on investment was \$131 million, and the cost benefit was \$416 million for averting 4.6 million unintended pregnancies, \$937 million for averting 4 million abortions, and \$76 million for avoiding 1.8 million unintended births. Details of the distribution are given in Figures 5, 6, and 7.

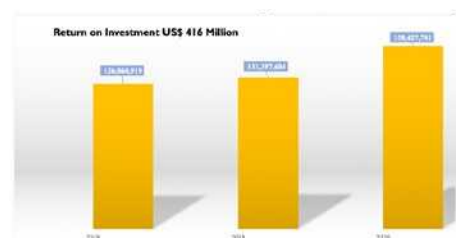


Fig 5: Return on Investments – Averting 4.6 million unintended pregnancies

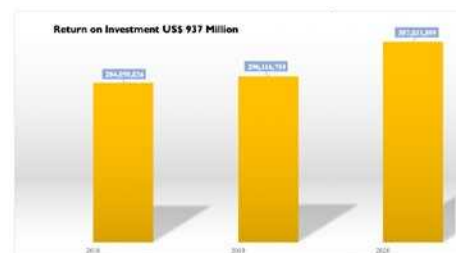


Fig 6: Return on Investments – Averting 4 million abortions

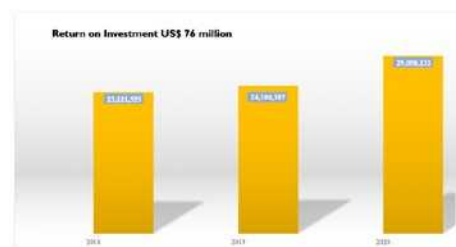
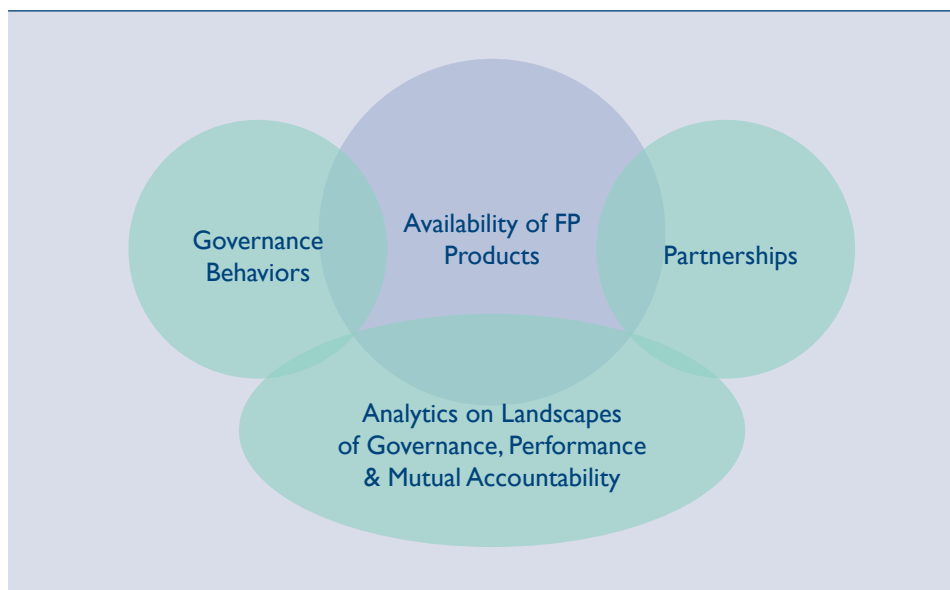


Fig 7: Return on Investments – Averting 1.8 million unintended births

<sup>102</sup> Family planning in Pakistan: applying what we have learned, Journal of Pakistan Medical Association; available at <https://pubmed.ncbi.nlm.nih.gov/24386723/>

According to Pakistan DHS 2012–2013<sup>103</sup> and 2017–2018, the discontinuation rate of FP users was 30 percent. During the reporting period, about 4.8 million users were lost to discontinuation. This is primarily attributed to strategies driving behavior change that focus on creating demand and a minimal focus on retention.

If the private sector had reflected to strategize its approach towards client retention and reached out to potential clients for FP in urban areas, their contribution to national CPR would have reached 37 percent, and the overall national CPR would have been 56 percent.



### Cost of inactivity

Based on the missed opportunities, the cost of inactivity was calculated at \$3.07 billion. Details are given in Table 1.

Indicators	Total Number	Cost US\$ Millions
Number of Unintended Pregnancies	10,040,272	893,584,310
Number of Abortions	8,735,037	2,013,775,607
Number of Unintended Births	4,016,109	163,897,443
<b>Total</b>		<b>3,071,257,360</b>

Table 1: Cost of inactivity, 2018–2020

### Future landscapes

The strategic directions are drawn from four major domains, the foremost being the availability of contraceptives to ensure the availability of access to FP commodities. Governance behaviors continue to evolve due to changing political and geographic priorities. The scope and spectrum of partnerships need to be determined through market segmentation research. This research should evolve by understanding the elements of demographics, programmatic coverage, and geographic spread of the

yields of services. Lastly, the analytics around the landscapes, performance, and mutual accountability need to be further strengthened to make robust, time-sensitive, and people-centric decisions.

up, ensure retention, and minimize duplication.

Furthermore, designing the investment plan for FP should not only take \$0.81 per CYP as a baseline for financing, but should also segment the locally manufactured versus imported FP commodities.

The private-sector focus is on urban settings, with evidence that it caters to 57 to 80 percent of curative care services. However, urban settings constitute only 36 percent of the total population. The remaining 64 percent of the population in rural areas seeks health services from the public sector. Private-sector information systems are inconsistent. The claimed private-sector share and actual market should be evaluated through a market segmentation study. Furthermore, the private sector may initiate using electronic medical records or other technology-based solutions to record FP clients, follow

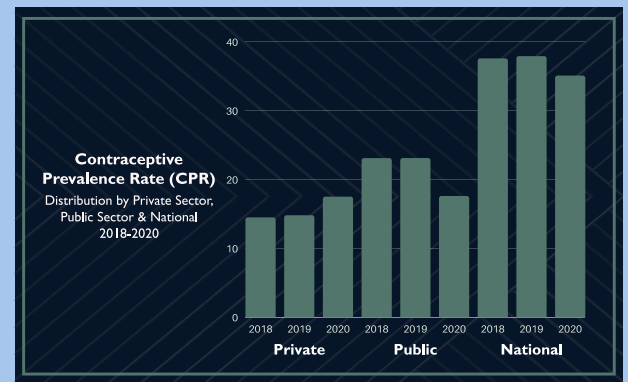
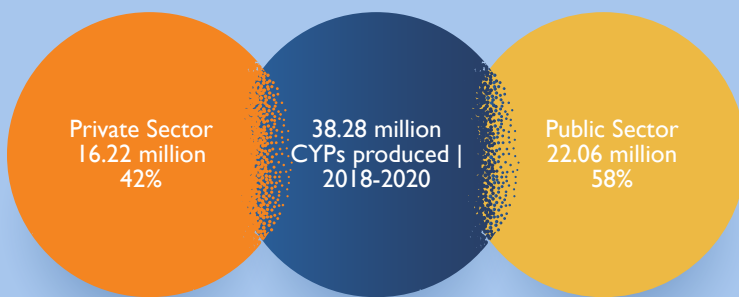
<sup>102</sup> Pakistan Logistics Management Information System available at [https://c.lmis.gov.pk/application/impact\\_calculator/index.php](https://c.lmis.gov.pk/application/impact_calculator/index.php) accessed at 05 January 2022

# FORMAL PRIVATE SECTOR PARTNERS IN PLANNED PARENTHOOD – 2018-2020

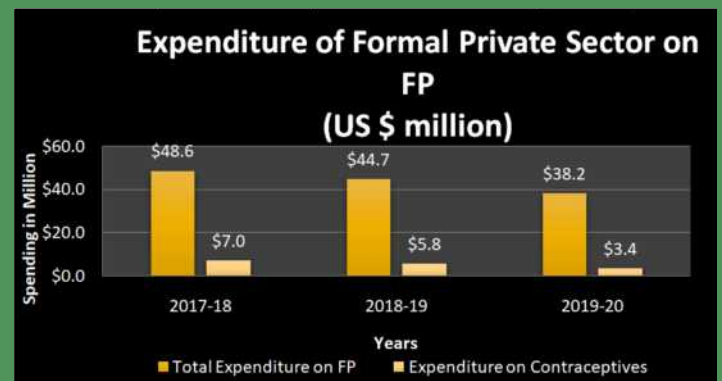
## SAVED

116,000 infant lives  
3,500 mothers lived to see their children grow

70% of healthcare needs in the urban areas are met through formal and informal private sector health providers.



12% expenditure on FP products limits availability to an expanded coverage



Missed 17 million married women in reproductive age and 5 million dropouts of FP users leading to a **US\$ 1.6 billion Cost of Inactivity**



# 08.

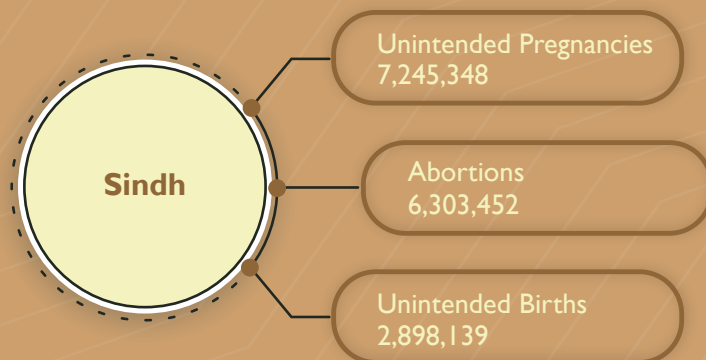
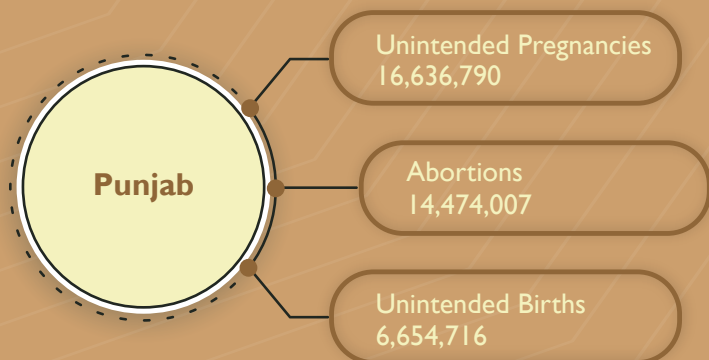
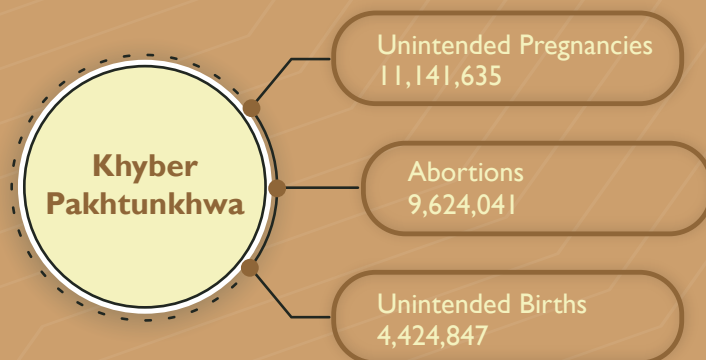
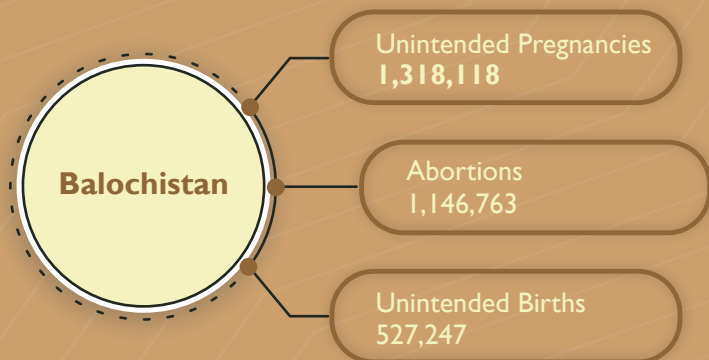
## Missed Opportunities



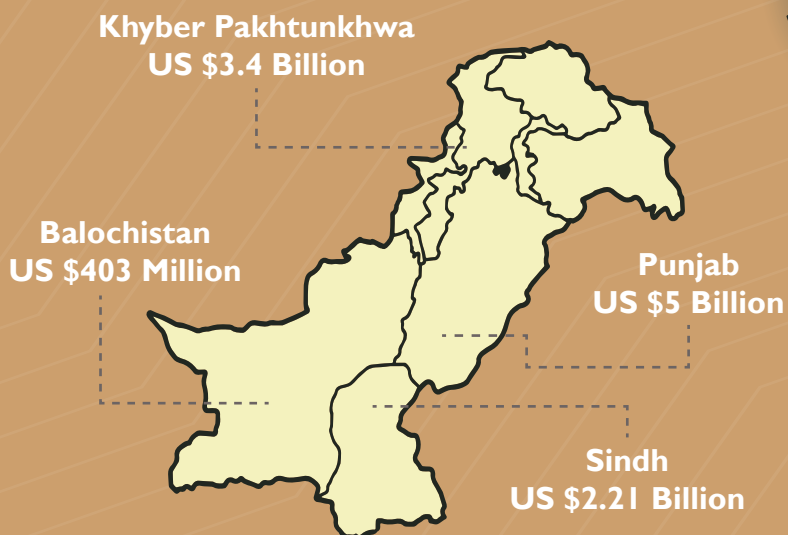
# Missed Opportunities – 10 plus one year

- 1 in 3 FP users stop using modern methods of family planning every year
- If 90% of the dropouts were retained & LHWs had performed consistently at 30% in family planning domain

*Then the provinces would have been able to avert*

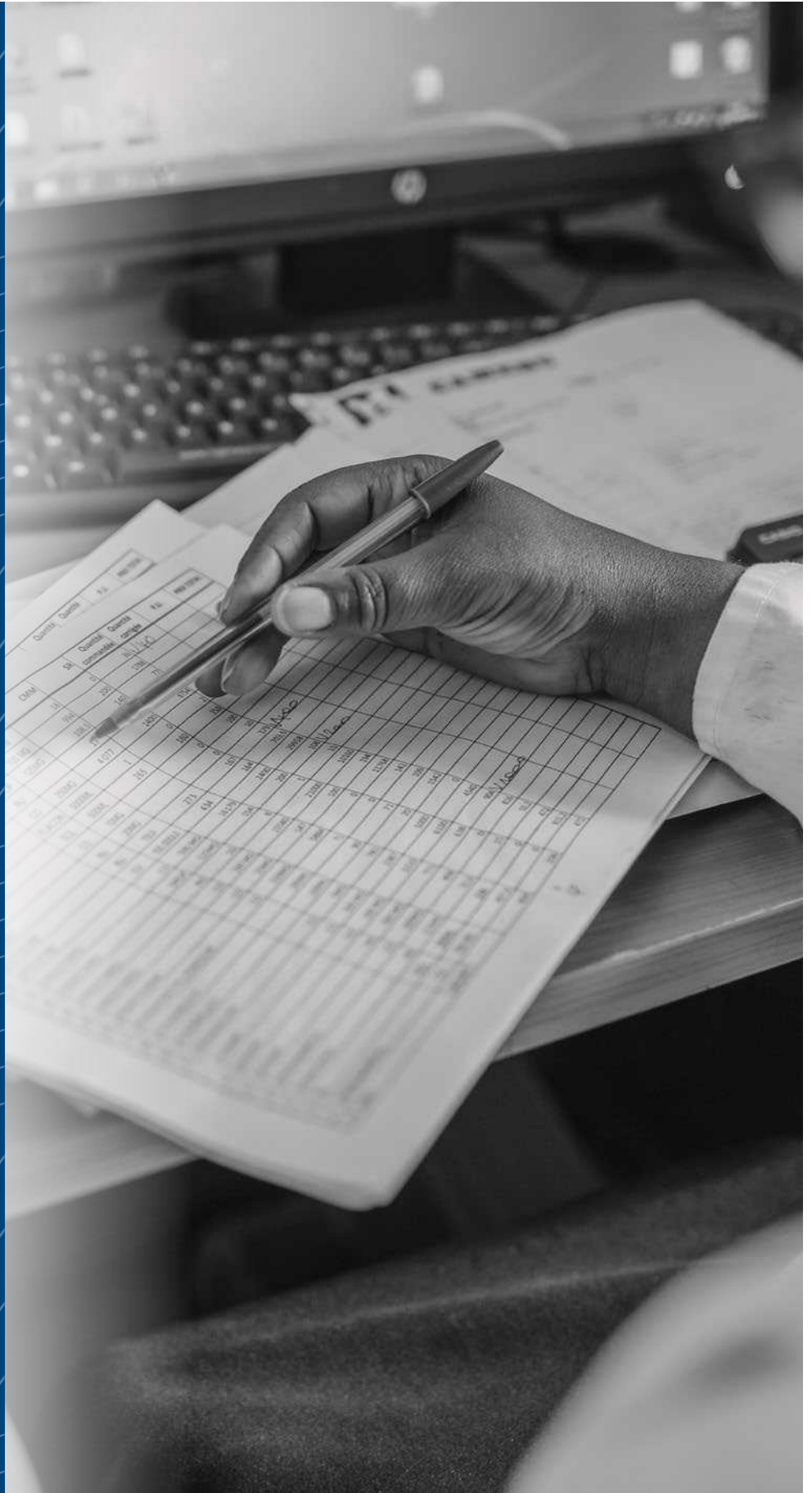


## Cost of Inactivity



# 09.

Saving Mothers of Pakistan



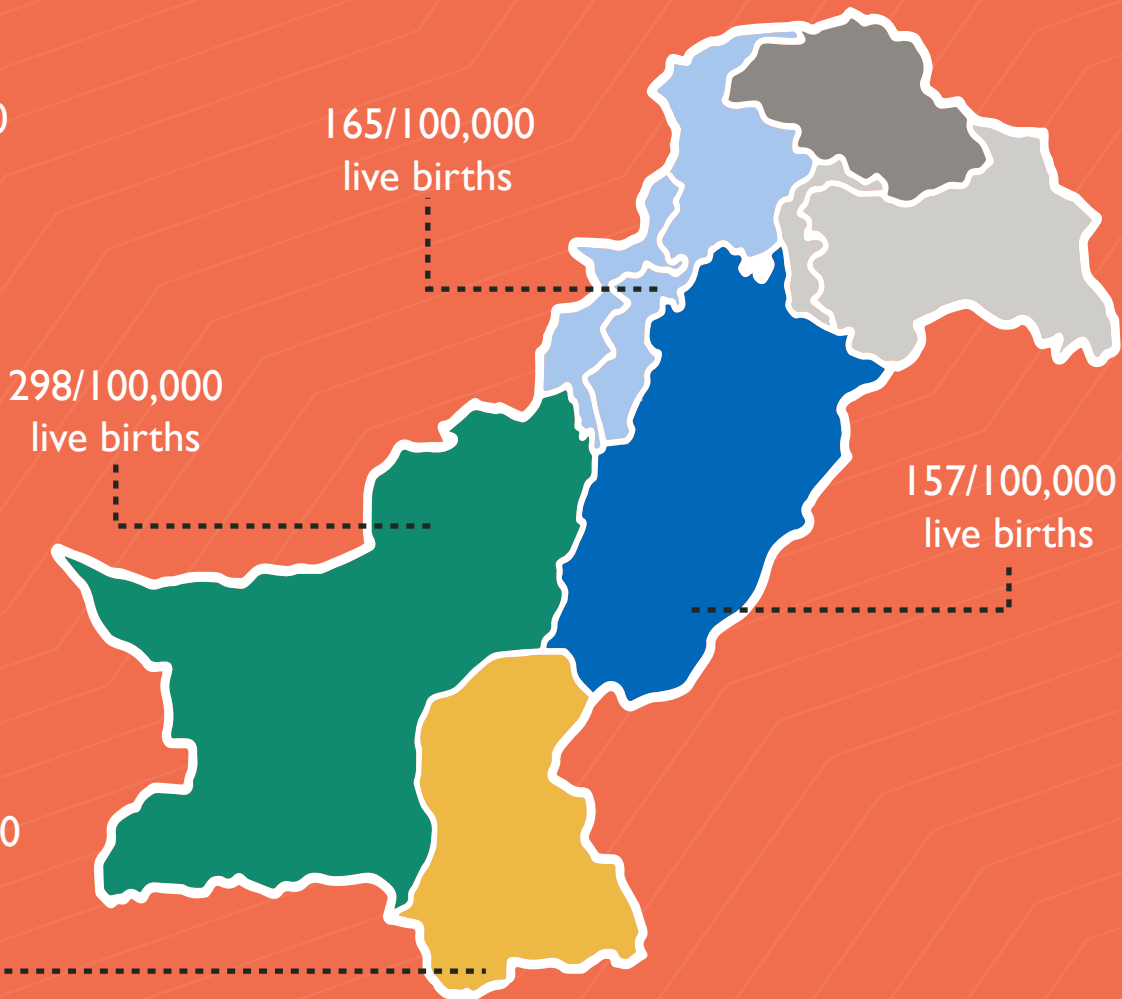
# Saving Mothers of Pakistan

- 91% Antenatal Care
- 71% Facility Based Deliveries
- 74% assisted by Skilled Birth Attendants



## Maternal Mortality Ratio

Pakistan  
186/100,000  
live births



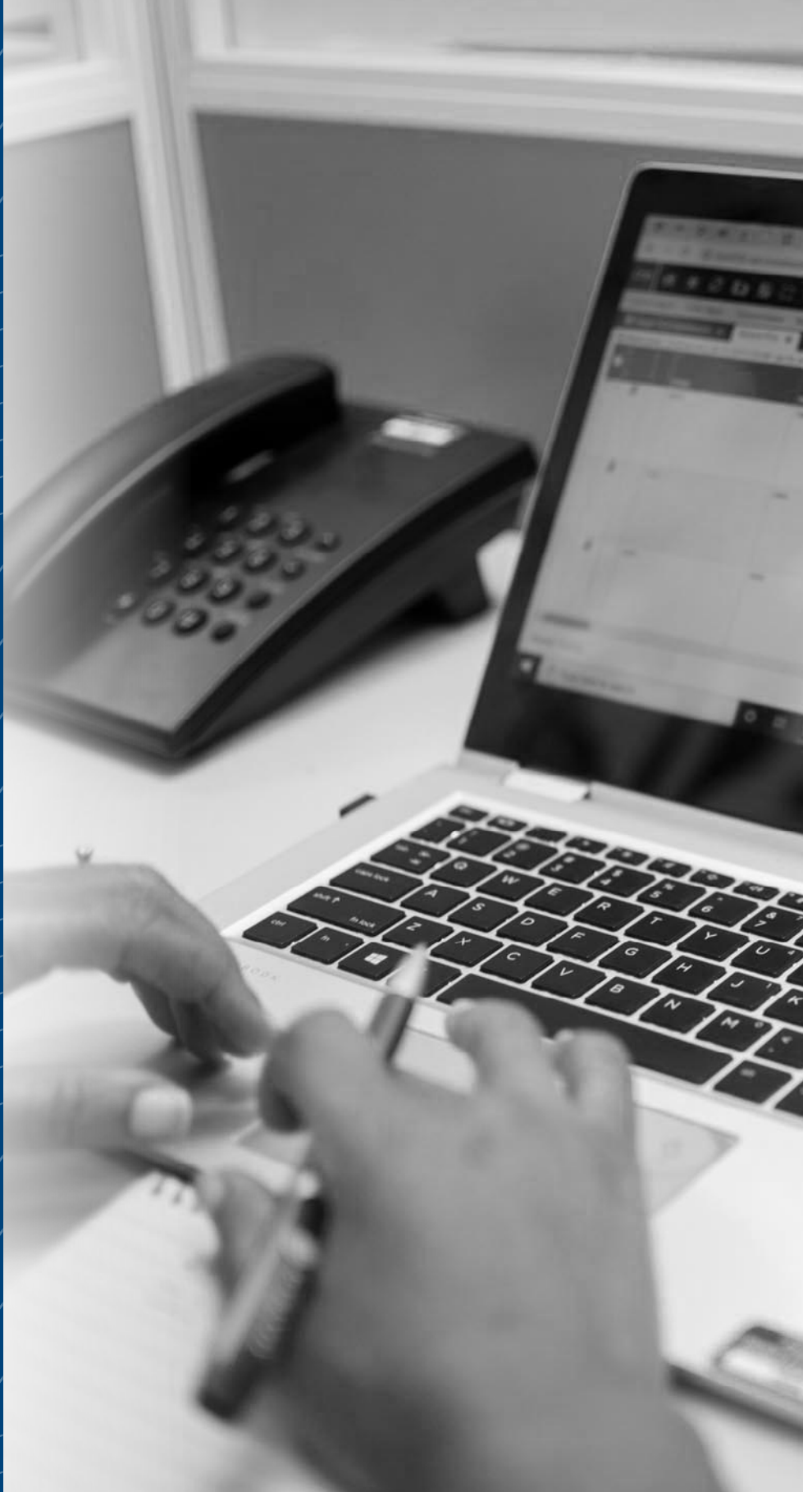
Biggest cause of maternal mortality is Pregnancy

- Early Pregnancies - 8% teenage pregnancies
- Too little time to space between pregnancies - 28 months as compared to recommended 33 months of minimum birth spacing
- Too many children - 4 living children
- Modern Use of FP method - One in ten married women in reproductive age using modern method of family planning in 2021

*Birth Spacing is a positive health behavior*

# 10.

Future Landscapes



# Future Landscapes Reflect, Design, Synthesize



Changing Contexts, Emerging Designs for the People of Pakistan



## ANNEX I

List of interventions and unit cost for averting unintended pregnancies

<b>INTERVENTION NUMBER</b>	<b>INTERVENTION</b>	<b>UNIT COST US\$</b>
C1-COM	Antenatal and postpartum education on family planning	0.55
C2-COM	Counselling of mothers on providing thermal care for preterm new-born (delayed bath and skin-to-skin contact)	0.75
C3a-COM	Management of labor and delivery in low-risk women by skilled attendant	23.14
C3b-COM	Basic neonatal resuscitation following delivery	1.62
C4-COM	Promotion of breastfeeding or complementary feeding by lady health workers	1.14
C5-PHC	Tetanus toxoid and diphtheria (TD), immunization among schoolchildren and among women attending antenatal care	1.07
HC11-PHC	Management of labor and delivery in low-risk women (BEmONC), including initial treatment of obstetric or delivery complications prior to transfer	31.88
HC2-PHC	Management of miscarriage or incomplete abortion and post abortion care	28.95
<b>TOTAL</b>		<b>89.1</b>

List of interventions and unit cost for obviating abortions

<b>INTERVENTION NUMBER</b>	<b>INTERVENTION</b>	<b>UNIT COST US\$</b>
FLH10- FLH	Surgical termination of pregnancy by manual vacuum aspiration and dilation and curettage	184.41
HC2-PHC	Management of miscarriage or incomplete abortion and post- abortion care	28.95
HC7-PHC	Pharmacological termination of pregnancy	17.17
<b>TOTAL</b>		<b>230.54</b>

List of interventions and unit cost for avoiding unintended births

<b>INTERVENTION NUMBER</b>	<b>INTERVENTION</b>	<b>UNIT COST US\$</b>
C14-COM	Provision of vitamin A and zinc supplementation to children according to WHO guidelines, and provision of food supplementation to women and children in food-insecure households	20.8
C16-COM	Childhood vaccination series (diphtheria, pertussis, tetanus, polio, BCG, measles, hepatitis B birth dose, hepatitis B, Hib, rubella, TCV, DTP booster)	18.67
C18-COM	Education of schoolchildren on oral health	1.34
<b>TOTAL</b>		<b>40.81</b>







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