

# Pakistan



## Maternal Mortality Survey 2019 Key Findings: Khyber Phaktunkhwa



# Preface

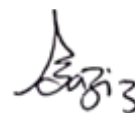
The 2019 Pakistan Maternal Mortality Survey (PMMS) is the result of the dedicated efforts of several individuals and organizations. The survey was conducted under the aegis of the Ministry of National Health Services, Regulations and Coordination (M/oNHSR&C) and implemented by the National Institute of Population Studies (NIPS). The United States Agency for International Development (USAID), the United Nations Population Fund (UNFPA), the Bill and Melinda Gates Foundation (BMGF) and Foreign, Commonwealth & development office (FCDO) provided financial support for the survey. The Pakistan Bureau of Statistics (PBS) assisted in the selection of the sample and the household listing for the sampled primary units.

The technical support provided by ICF was invaluable during all stages of the survey. The technical assistance and contributions of the National Committee for Maternal and Neonatal Health in reviewing verbal autopsies and coding causes of death using the ICD-10 to identify maternal deaths were commendable. NIPS is indebted to these organizations.

NIPS fully acknowledges the hard work put in by the survey field teams, who collected data under tough and hazardous circumstances, and the quality control interviewers for their efficient follow-up and monitoring of the overall fieldwork.

The efforts of Mr. Tauseef Ahmed, PhD, Principal Investigator, Dr. Farid Midhet, Team Leader DAFPAK, Palladium Group are highly acknowledged for the continuous support throughout the survey. Moreover, the contribution of research team of NIPS especially Dr. Aysha Sheraz, Senior Fellow, Mr. Ali Anwar Burriro, Fellow and Ms. Rabia Zafar, Fellow in successful completion of survey is also admirable.

The services of Dr. Naseer Mohiuddin, (former DG Health, M/o NHSR&C), are praiseworthy who facilitated and contributed for developing presentations, and policy brief for the seminar and remained associated with NIPS for organizing this event.



Mrs. Azra Aziz  
Director (Research & Survey)  
Team Leader PMMS

# Overview

The survey was conducted by the National Institute of Population Studies (NIPS) under the Ministry of National Health Services, Regulations and Coordination, Islamabad, Pakistan. The ICF provided technical assistance through the DHS Program, a project funded by the United States Agency for International Development (USAID) that provides worldwide support and technical assistance to conduct population and health surveys. The Department for International Development (DFID), United Nations Population Fund (UNFPA), and Bill & Melinda Gates Foundation (BMGF) also played a major role to assist the NIPS for this successful survey.

## About PMMS 2019

The Pakistan Maternal Mortality Survey (PMMS) 2019 is designed to provide reliable estimates for maternal mortality, maternal health and morbidity that can be used by the policy makers and program managers to evaluate, design programs & strategies for improving the maternal health situation in Pakistan. It is the first ever conducted nationwide survey on maternal mortality based on 2016 WHO standardized instrument of verbal autopsy and using ICD-10 code categories to determine the causes of death.

## Sample Design

The 2019 PMMS used a multistage and multiphase cluster sampling methodology based on the updated sampling frames from the 2017 Population and Housing Census. The design for the 2019 PMMS provides estimates at the national level (urban and rural areas separately), four provinces including Punjab (combined with Islamabad Capital Territory), Sindh, Khyber Pakhtunkhwa (combined with FATA), and Baluchistan. Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB) have also been made part of the survey.

In the first phase, all households were asked about births and deaths during the three-year period before the survey, including deaths among ever-married women age 15-49. Detailed verbal autopsies were conducted among households that reported at least one death of a woman age 15-49. In the second phase, a subsample of households was randomly selected to provide information on women age 15-49 including a complete pregnancy history.

# Who All Participated?

A nationally representative sample of 11,859 ever-married women aged 15-49 in 108,766 households were interviewed. The response rate was overwhelmingly high at around 97% of ever-married women. Overall, 1177 verbal autopsy interviews were conducted with a response rate greater than 99%. The Results of the household, individual, and verbal autopsy interviews for Pakistan, AJK, and GB have been analyzed in the post survey report.

## Methodology Used

Six questionnaires were used in the 2019 PMMS:

- Short Household Questionnaire
- Long Household Questionnaire
- Woman's Questionnaire
- Verbal Autopsy Questionnaire
- Community Questionnaire
- Fieldworker Questionnaire

A Technical Advisory Committee was established to solicit comments on the questionnaires from various stakeholders including representatives of government ministries and agencies, non-governmental organizations, and international donors. The survey protocol was reviewed and approved by the National Bioethics Committee, the Pakistan Health Research Council, and the ICF Institutional Review Board. After the English version was finalized, the questionnaires were translated into Urdu and Sindhi. The 2019 PMMS used paper-based questionnaires for data collection, while computer-assisted field editing (CAFE) was used to edit questionnaires in the field.

# Introduction and Methodology



## Key Findings: Khyber Pakhtunkhwa 2019 Pakistan Maternal Mortality Survey (PMMS)

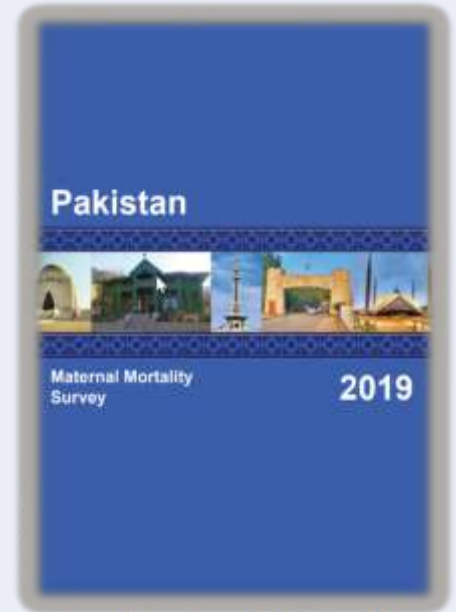


The **2019 Pakistan Maternal Mortality Survey (2019 PMMS)** was implemented by the **National Institute of Population Studies (NIPS)** under the aegis of the **Ministry of National Health Services, Regulations and Coordination (NHSR&C)** from 15th January 2018 through 30th September 2019. Funding for the PMMS was provided by the United States Agency for International Development (**USAID**), the United Nations Population Fund (**UNFPA**), Department for International Development (**DFID**) and the **Bill and Melinda Gates Foundation**. The **ICF** provided technical assistance through The DHS Program, a USAID-funded project providing support and technical assistance in the implementation of population and health surveys in countries worldwide



# The PMMS Survey

**Pakistan Maternal Mortality Survey (2019 PMMS)** is the First exclusive Maternal Mortality Survey conducted during 2019 by the National Institute of Population Studies (**NIPS**) along with four **Pakistan Demographic and Health Surveys (PDHS)** carried between 1990-91 and 2017-18 as part of The DHS Program



# The PMMS Survey

- The PMMS 2019 Survey is designed to provide estimates at the National level, urban and rural areas, for four Provinces including **Punjab** (combined with Islamabad Capital Territory), **Sindh**, **Khyber Pakhtunkhwa** (combined with ex-FATA), and **Balochistan**; and for two Regions including **Azad Jammu and Kashmir** (AJK) and **Gilgit-Baltistan** (GB)
- The National totals for indicators do not include **AJK** and **GB**



# PMMS Objective



- Main Objective of the Countrywide 2019 PMMS is to provide **Reliable Estimates of the Indicators** for:
  - **Maternal Health,**
  - **Maternal Morbidity and**
  - **Maternal Mortality**
- This information is essential for the Policymakers and the Program Managers **to evaluate and design programs and strategies for improving the maternal health situation** in Pakistan (All the Provinces and Regions)

## PMMS Aims

- **To estimate national and regional levels of maternal mortality** for the 3 years preceding the survey and determine whether the MMR has declined substantially since 2006-07
- **To identify medical causes of maternal deaths and the biological and sociodemographic risk factors** associated with maternal mortality
- **To assess the impact of maternal and newborn health services,** including antenatal and postnatal care and skilled birth attendance, on prevention of maternal mortality and morbidity
- **To estimate the prevalence and determinants of common obstetric complications and morbidities** among women of reproductive age during the 3 years preceding the survey

## Sample Design (HH Selection)

**Sampling Frame:** Derived from Pakistan 6<sup>th</sup> Population & Housing Census-2017

**Sampling Universe:** Consisted of 11 Domains comprising of urban and rural areas of the four Provinces (Punjab including ICT, Sindh, KP including ex-FATA and Balochistan) and AJK, and GB

**Sampling Methodology:** Multistage and multiphase cluster sampling approach applied:

- **First Stage:** Total 1,396 Clusters/ PSUs (656 urban and 740 rural) selected including **230 Clusters from KP+FATA (105 urban and 125 rural)**
- **Second Stage:** 110 households per Cluster/ PSU selected randomly; Overall, 153,560 households were selected (81,400 rural and 72, 160 urban) including **25,300 households from KP+FATA (11,550 urban and 13,550 rural)**

## Sample Design (Data Collection)

**In First Phase:** All the 110 households in each PSU were asked about births and deaths during the previous three years, including female deaths in the reproductive age (15-49 years)

- Households that identified with at least one death of a woman of reproductive age were then visited to conduct detailed verbal autopsies

**In Second Phase:** A subsample of households was randomly selected to provide information on women of reproductive age (15-49 year) including a complete pregnancy history

# PMMS Questionnaires

Six (06) Questionnaires have been used in the 2019 PMMS:

- **Short Household** Questionnaire
- **Long Household** Questionnaire
- **Woman's** Questionnaire
- **Verbal Autopsy** Questionnaire
- **Community** Questionnaire
- **Fieldworker** Questionnaire

Questionnaires were translated from English to **Urdu** and **Sindhi**

## Household Questionnaire

- **Lists** usual members and visitors to identify eligible individuals
- Basic demographic characteristics of each person in the household (age, sex, education, marital status, etc.)
- Housing characteristics (drinking water source, toilet/ sanitation facilities, etc.) ownership of assets and various durable goods
- **Collected information** on births and deaths in the household in the 3 years prior to the survey date to identify female deaths in the household to conduct verbal autopsies

# Woman's Questionnaire

**To Collect Information from all eligible ever-married women of reproductive age (15-49 year) on:**

- Background characteristics (age, education, literacy, etc.)
- Pregnancy History
- Antenatal care, Delivery and Postnatal care
- Use of Family Planning
- Maternal Morbidity
- Health Service Utilisation

# Verbal Autopsy Questionnaire

**Based on 2016 WHO standardised Instrument,** asking details on:

- Background characteristics
- Birth and Pregnancy information
- Narrative of illness/events leading to death
- General signs/symptoms
- Deceased illness history
- Antenatal care and characteristics of last pregnancy
- Deaths during labour, delivery or 40 days after
- History of injuries/accidents
- Care Seeking Behaviour

## Fieldwork and Data Processing

- Total of **41 teams**: 1 Supervisor, 1 Field Editor, 4 Female Interviewers
- Fieldwork conducted from **Jan-Sep/ Oct, 2019**
- Cause of death certification and coding exercise in **August 2019**
- Electronic files collected by the computer-assisted field editing (CAFE) were received via IFSS at the NIPS, Islamabad
- Data processing and editing were carried out using **CSPRO**

## Survey Staff Trainings

### **Pre-Test PMMS Protocol:**

- Training from 19 November to 6 December 2018 with 40 trainees to undertake pre-testing in Lahore, Sukkur, Peshawar, Rawalpindi & ICT

### **Household Listing and Mapping Training:**

- First week of December 2018 with 67 two-membered teams along with 15 field supervisors

### **Main Survey Field Staff Training:**

- Training from 17 December 2018 to 6 January 2019 with 158 enumerators/ interviewer trainees

### **Verbal Autopsy Cause of Death Workshop:**

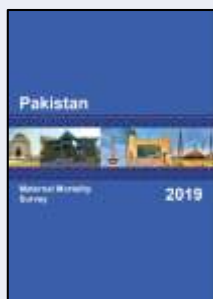
- Orientation for VA reviewers from 29 July to 2 August 2019

# Results of Household and Individual Interviews

Household Interviews	Pakistan	AJK	GB
Households selected	116,169	17,510	11,753
Households occupied	110,483	16,755	11,005
Households interviewed	108,766	16,588	10,872
Response rate	98%	99%	99%
Ever-married Women			
Eligible women	12,217	1,707	1,219
Women interviewed	11,859	1,666	1,178
Response rate	97%	98%	97%
Verbal Autopsies (VA)			
Number of deceased women selected	944	150	88
Number of VA interviews	940	149	88
Eligible VA response rate	>99%	99%	>99%

## PMMS Materials, Data, and Digital Tools

Final Report



Summary Report



Dataset available at [www.DHSprogram.com](http://www.DHSprogram.com)



Publications & the National Data Archive  
available at [www.nips.org.pk](http://www.nips.org.pk)

# Household and Respondent Characteristics



## 2019 Pakistan Maternal Mortality Survey (PMMS)

- **Household Characteristics**
  - **Water and sanitation**
  - **Electricity**
  - **Ownership of goods**
  - **Wealth**
- **Respondent Characteristics**
  - **Education**



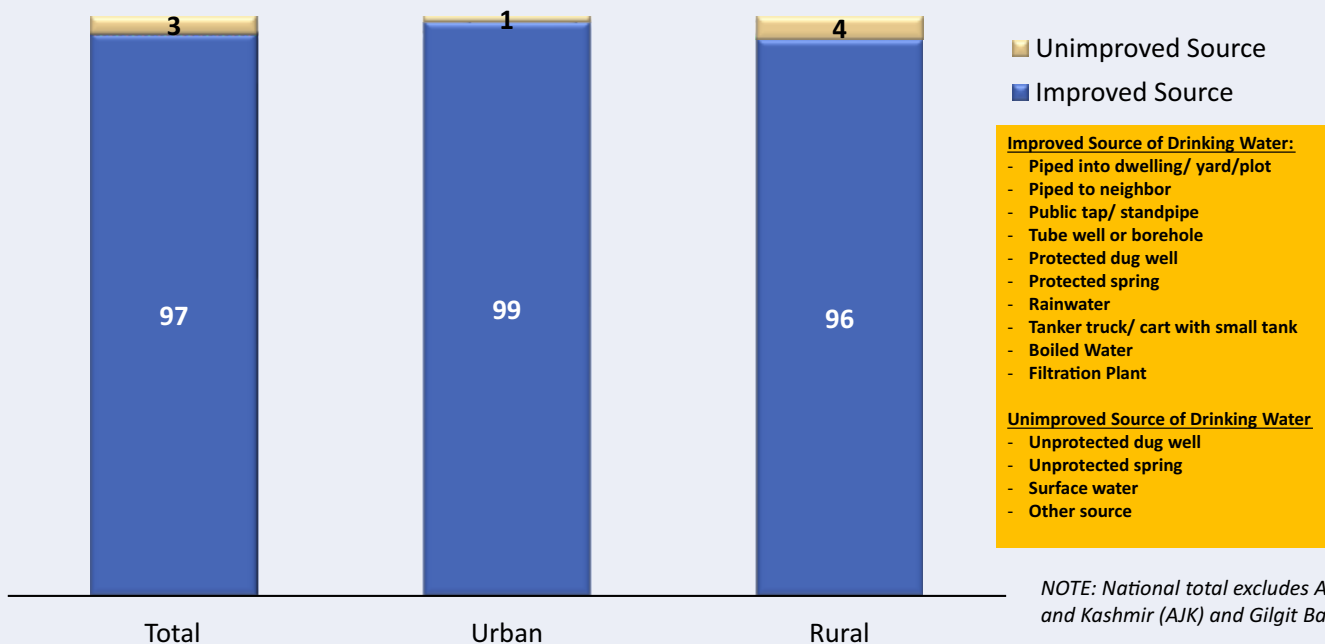
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# Household Size and Population by Age

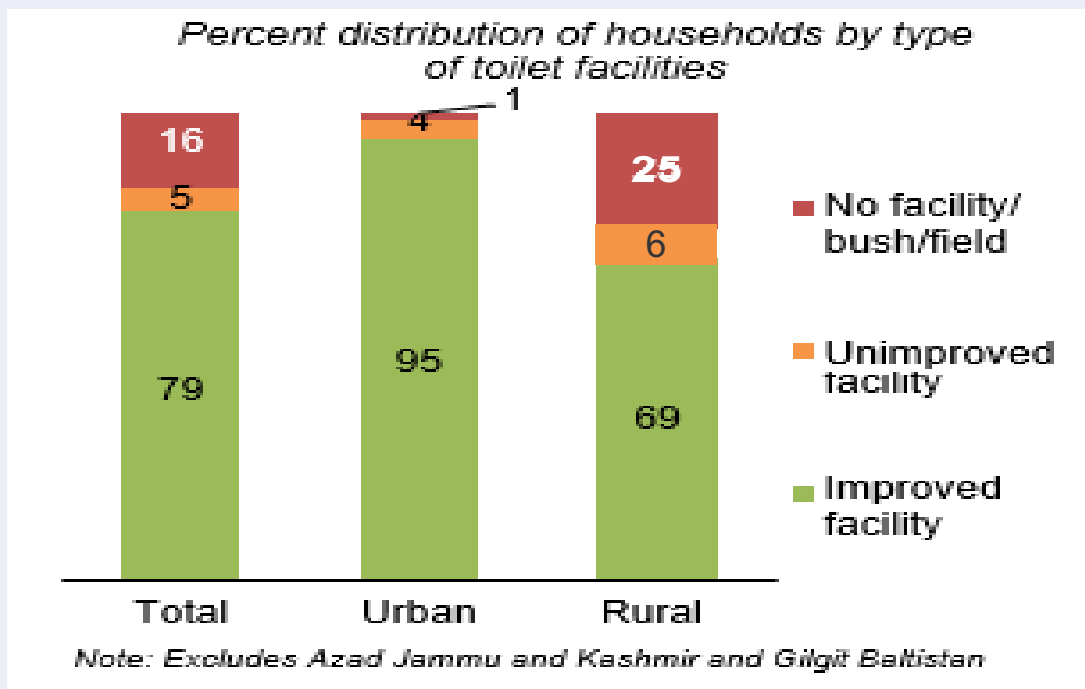
- **In Pakistan**, households have an average of **6.7 persons** and **74% of households have more than 4 persons**
  - Mean HH size in rural (6.9) is larger than urban (6.3) areas
- **At National level**, **40%** of the population is **under 15** years of age and **4%** is age **65+**, and **56 % is between 15-64 years**
- **In Khyber Pakhtunkhwa**, **43%** of population is **below 15** years of age, and **5%** is above **65** years of age whereas **52 % is between 15-64 years**

## Drinking Water by Residence

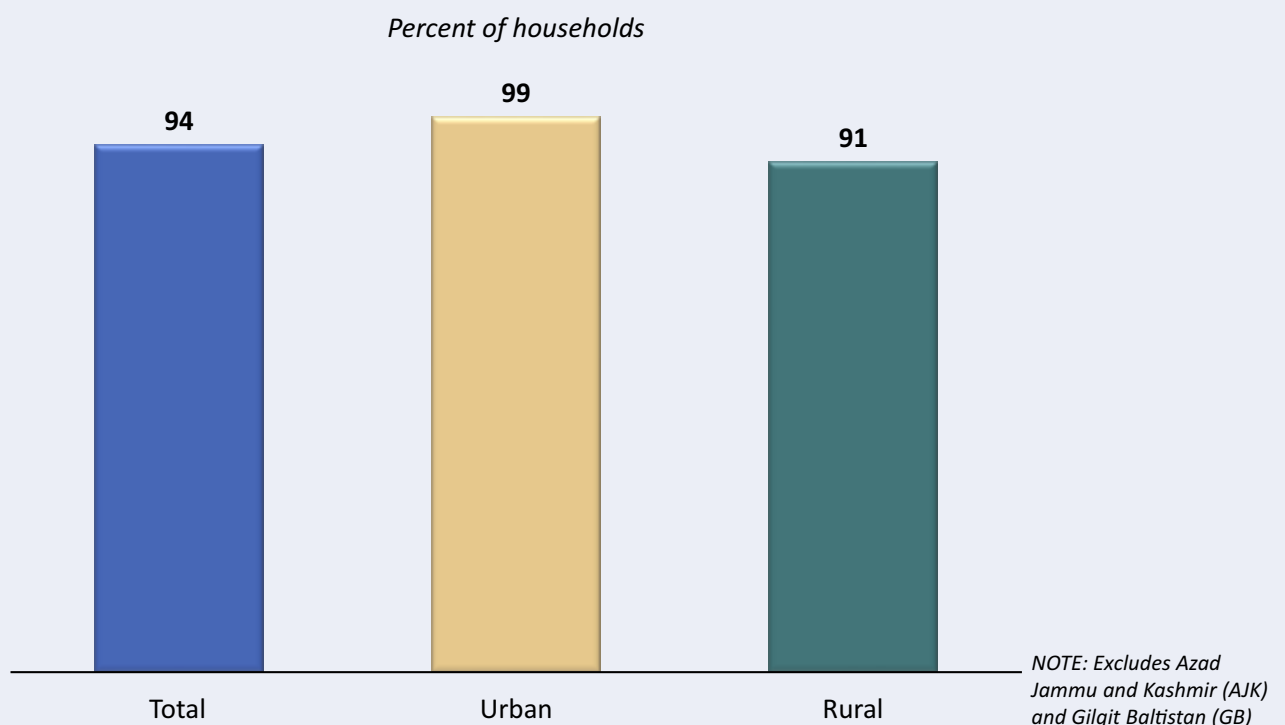
*Percent distribution of households*



# Sanitation by Residence

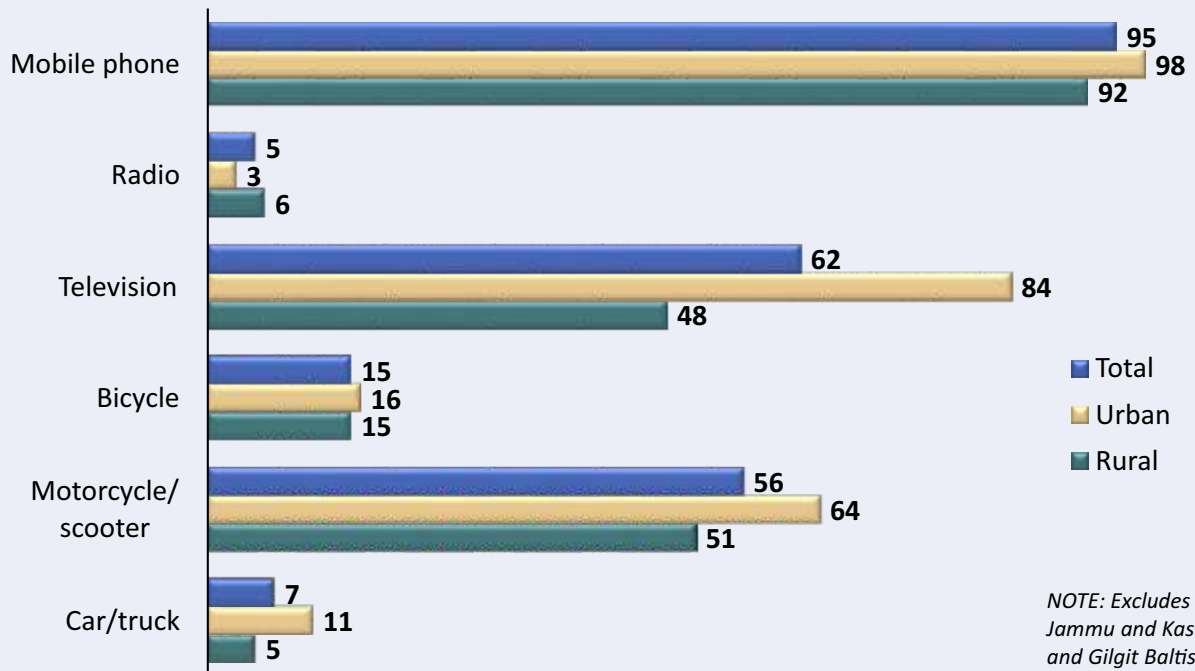


# Electricity by Residence



# Household Durable Goods and Possessions by Residence

Percent of households with:



## Wealth Index

- Wealth is determined by scoring households based on a set of characteristics including access to electricity and ownership of various consumer goods
- Households are then ranked, from lowest to highest score
- This list is then separated into 5 equal pieces (or quintiles) each representing 20% of the population
- Therefore, those in the highest quintile may not be “rich” but they are of higher socioeconomic status than 80% of the Khyber Pakhtunkhwa+FATA (True for Pakistan in terms of the National data)

# Wealth Index

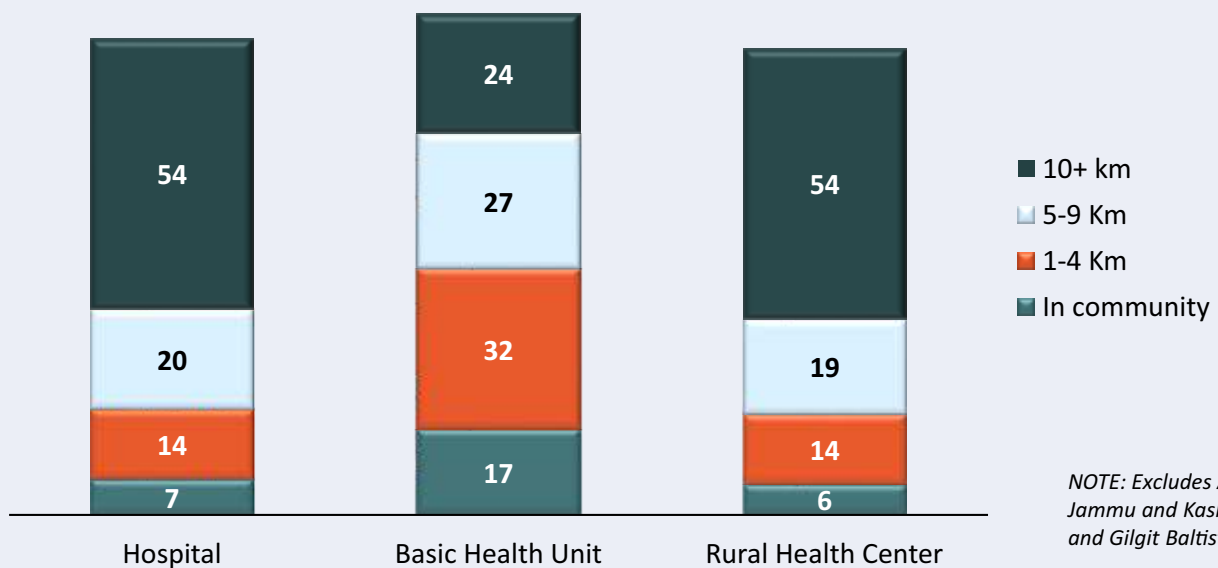
		Lowest	2 <sup>nd</sup>	Middle	4 <sup>th</sup>	Highest
National	Urban	3%	8%	19%	29%	41%
	Rural	30%	27%	21%	15%	8%
KP	Urban	6%	12%	22%	26%	34%
	Rural	20%	37%	25%	13%	5%

Data reflects that very less urban households are in the poorest quintile, while very few rural households are in the wealthiest quintile

*NOTE: National data excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)*

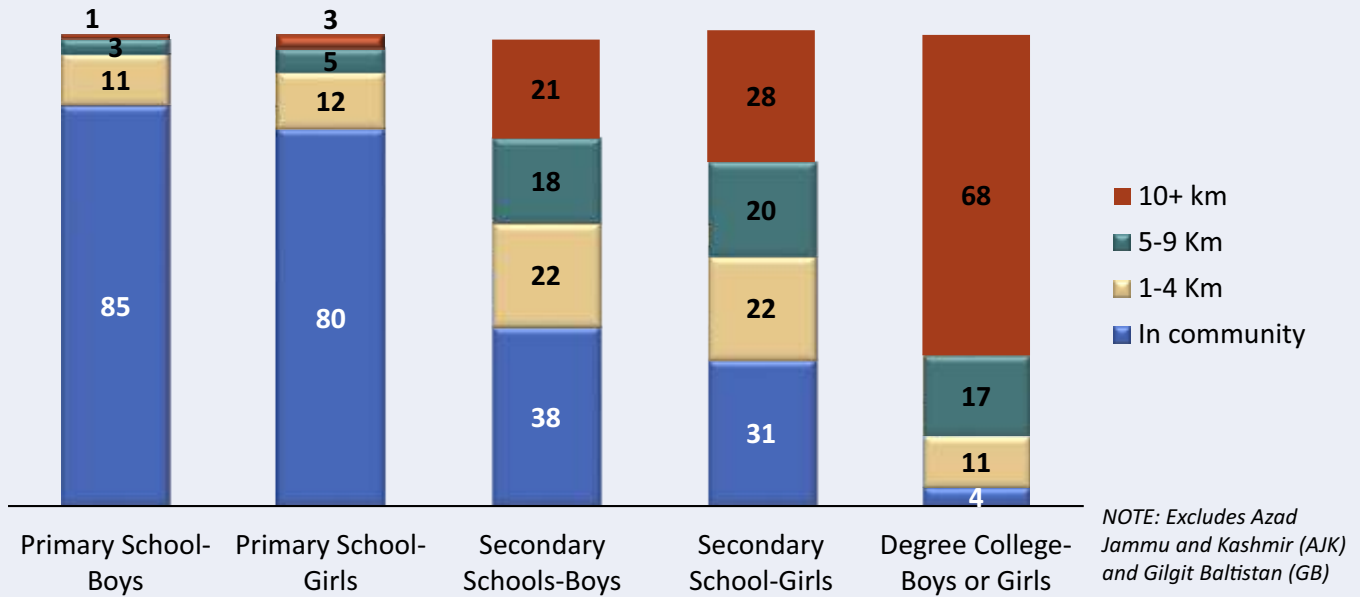
## Availability of Social Services in Rural Areas: Health Services

*Rural households by distance to health services*



# Availability of Social Services in Rural Areas: Educational Facilities

Rural households by distance to Educational Facilities



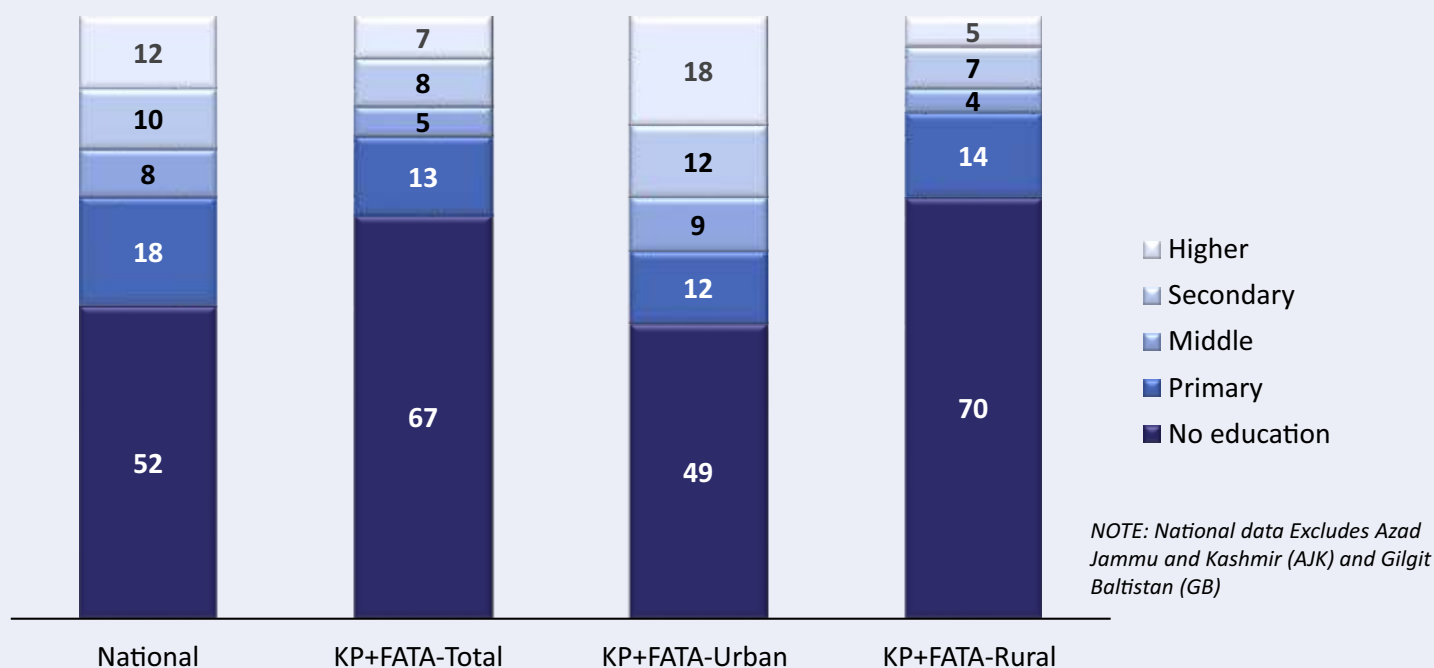
- Household Characteristics
  - Water and sanitation
  - Electricity
  - Ownership of goods
  - Wealth
- Respondent Characteristics
  - Education



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# Education: KP vs National

Percent distribution of ever married women age 15-49 by highest level of education



## Key Findings

- **97%** of households have access to an **improved water source**
- **79%** of households use **improved toilet facilities**
- **94%** of households have **electricity**
- **22% Hospitals and 21% RHCs** are situated in community/ 1-4 km
- **48% Functional BHUs** are within community/ within 1-4 km
- **Primary Schools (Boys & Girls)** are mostly situated in community
- **In KP 67%** of women have **never attended school**
- Few urban households are in the poorest quintile, while **very few rural households are in the wealthiest quintile**

# Mortality



## 2019 Pakistan Maternal Mortality Survey (PMMS)

- **Adult mortality**
- Pregnancy-related and maternal mortality



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# Adult Mortality Rates (15-49 Years of Age)

**Adult Mortality Rate** indicators can be used to **assess the health status and life expectancy** of a population

**In Pakistan**, mortality rate in 3-year period before the survey:

- **1.72** women (15-49 years age) died for every 1,000 women per year
- **2.48** men (15-49 years age) died for every 1,000 men per year

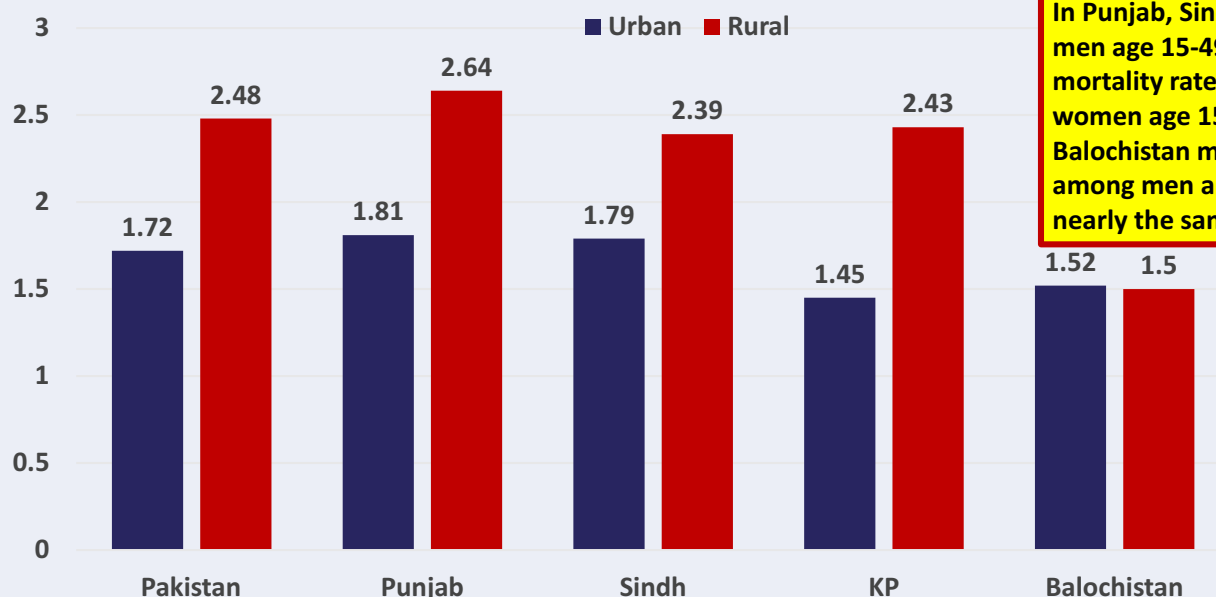
**In KP**, mortality rate during 3-year before the survey:

- **1.45** women (15-49 years age) died for every 1,000 women per year
- **2.43** men (15-49 years age) died for every 1,000 men per year

*NOTE: National data excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)*

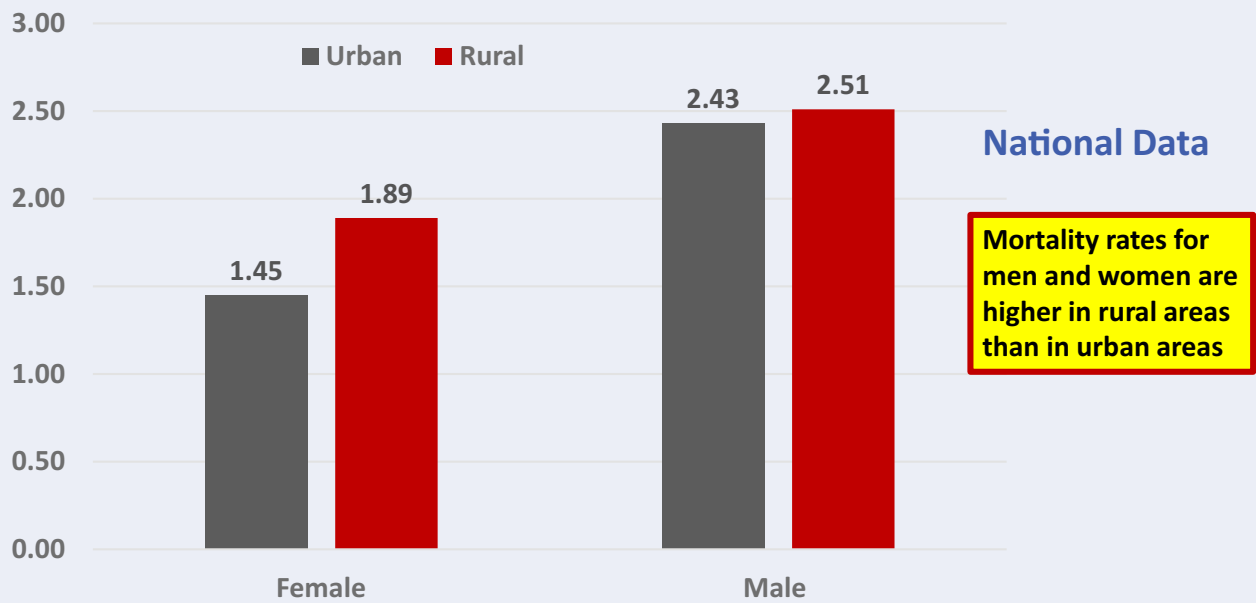
## All Causes Adult Mortality Rates (15-49 Years)

*Adult deaths per 1,000 in the 3-year period before the survey by sex and regions*



# All Causes Adult Mortality Rates (15-49 Years)

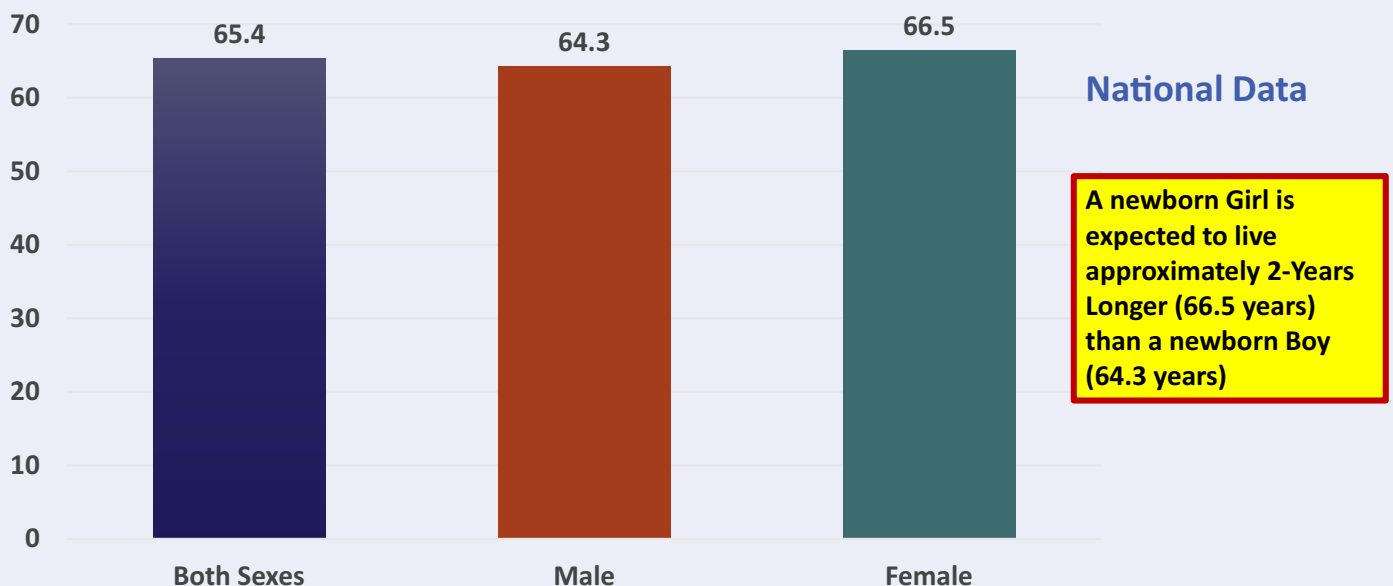
Adult deaths per 1,000 in the 3-year period before the survey by sex and residence



NOTE: Total excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# Life Expectancy: Sex-specific

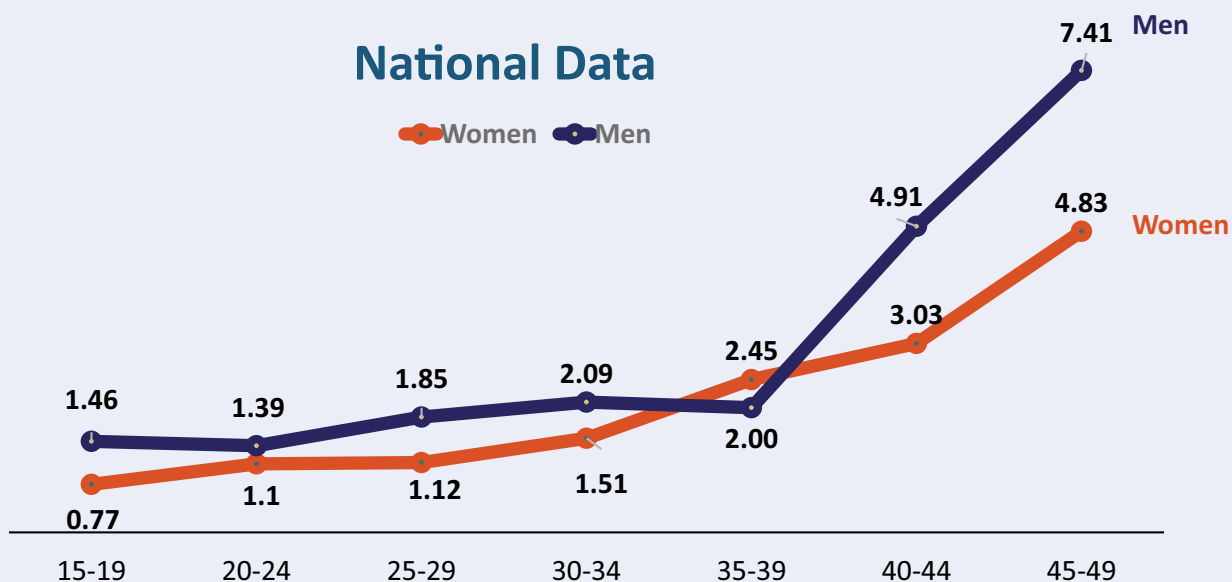
Based upon the data for the 3-year period before the survey



NOTE: Total excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# All-cause Adult Mortality Rate

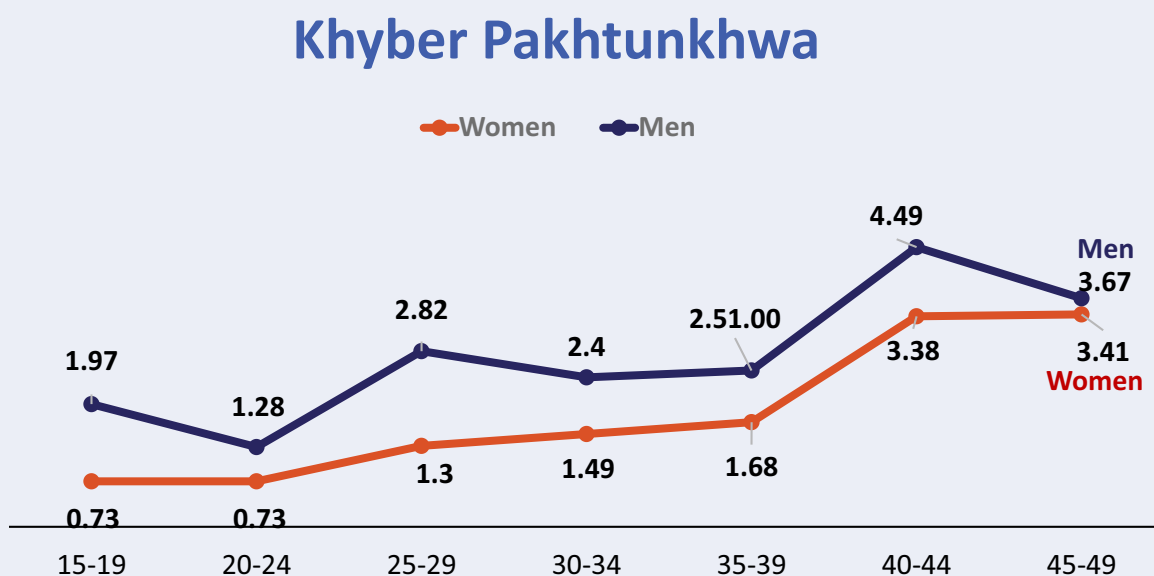
Mortality rates per 1,000 population for the 3 year period before the survey



NOTE: Excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# All-cause Adult Mortality Rate

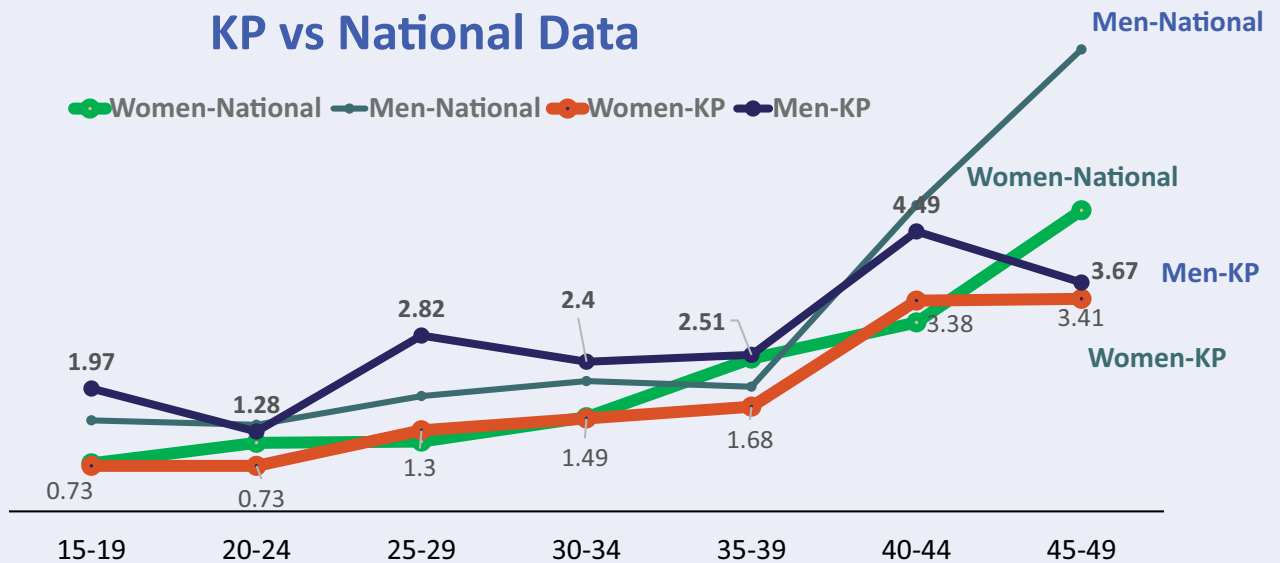
Mortality rates per 1,000 population for the 3 year period before the survey



# All-cause Adult Mortality Rate

Mortality rates per 1,000 population for the 3 year period before the survey

## KP vs National Data



NOTE: National data excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

- Adult mortality
- **Pregnancy-related and maternal mortality**



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# Definitions: Pregnancy-related Mortality vs Maternal Mortality Estimates

## Pregnancy-related mortality

includes all deaths that occur to women **during pregnancy or childbirth**

- Includes deaths up **to 2 months** after birth
- Irrespective of the cause of death
- Revised name

## Maternal mortality

includes all deaths that occur to women **during pregnancy or childbirth**

- Includes deaths within **42 days** after birth
- Excludes deaths from accidents or violence
- Revised definition

## Maternal Mortality

**Maternal Mortality Ratio (MMR)** for the 3-year period before the survey:

- **National:**

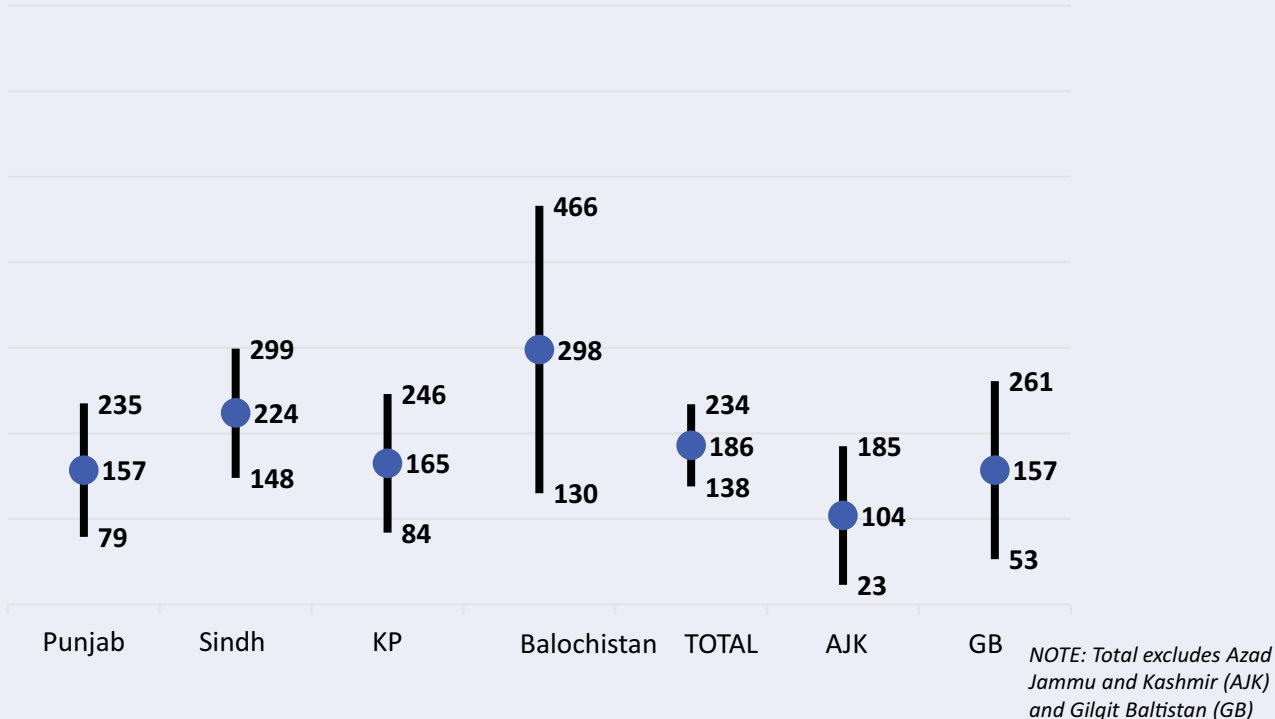
**186 Deaths per 100,000 live births  
(confidence interval: 138-234)**

- **KP:**

**165 Deaths per 100,000 live births  
(confidence interval: 84-246)**

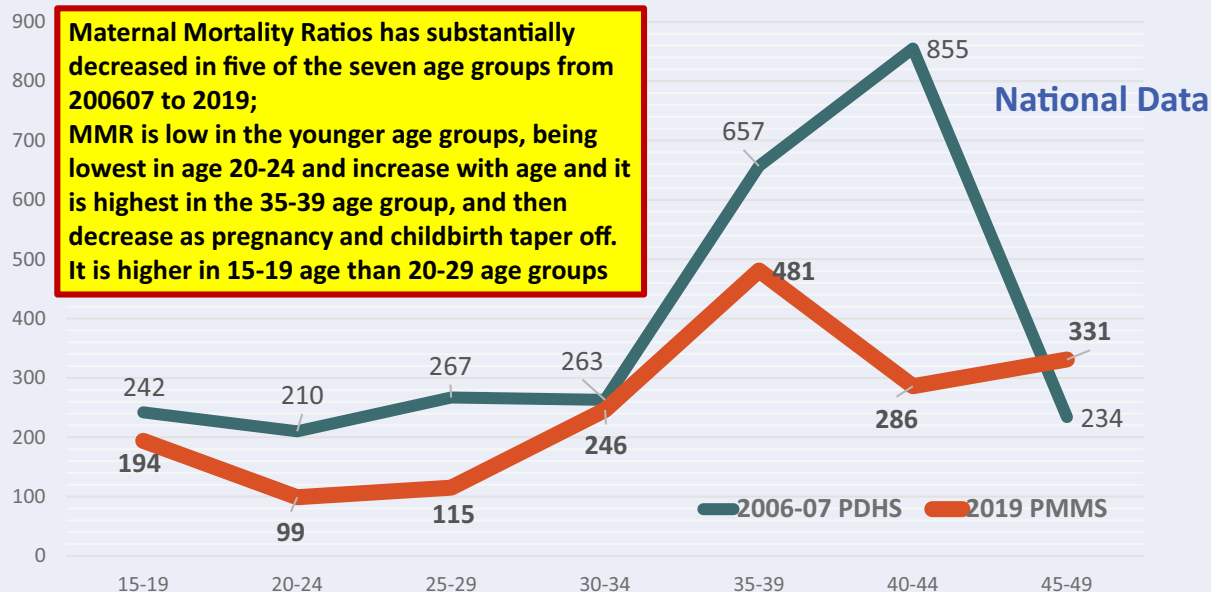
# Maternal Mortality Ratio (MMR) by Regions

Maternal deaths per 100,000 live births for the 3-year period before the survey



## Age-specific Maternal Mortality Ratio-MMR Trends, 2006-07 PDHS vs 2019 PMMS

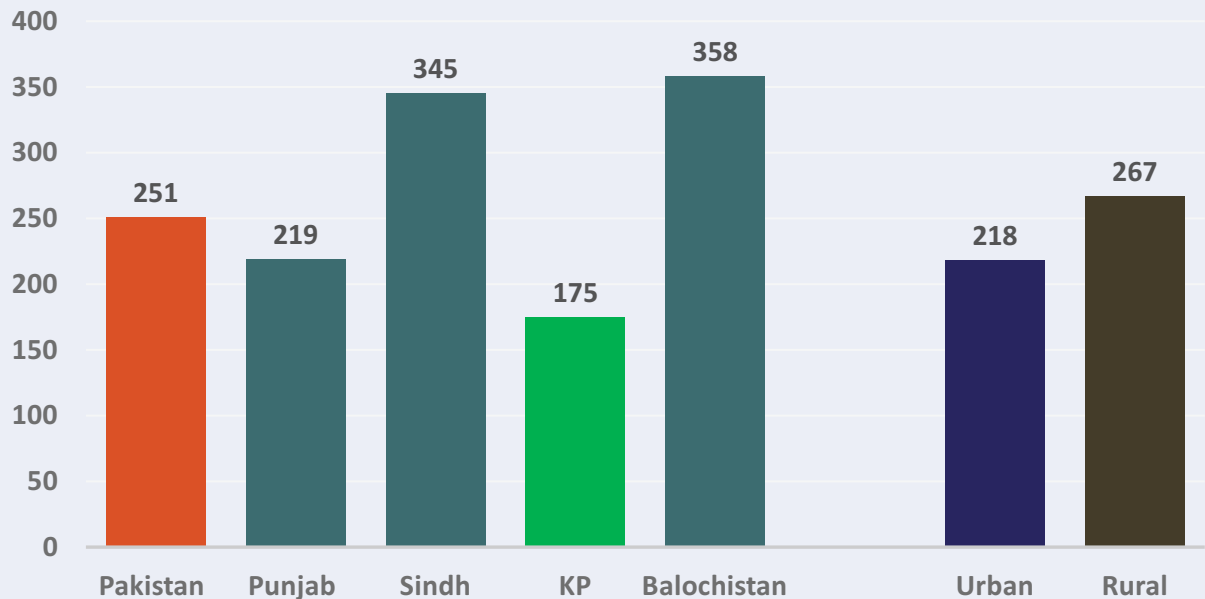
Age-specific maternal mortality ratios per 1,000 live birth for the 3 year period before the survey



NOTE: Excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# Pregnancy-related Mortality Ratios (PRMR)

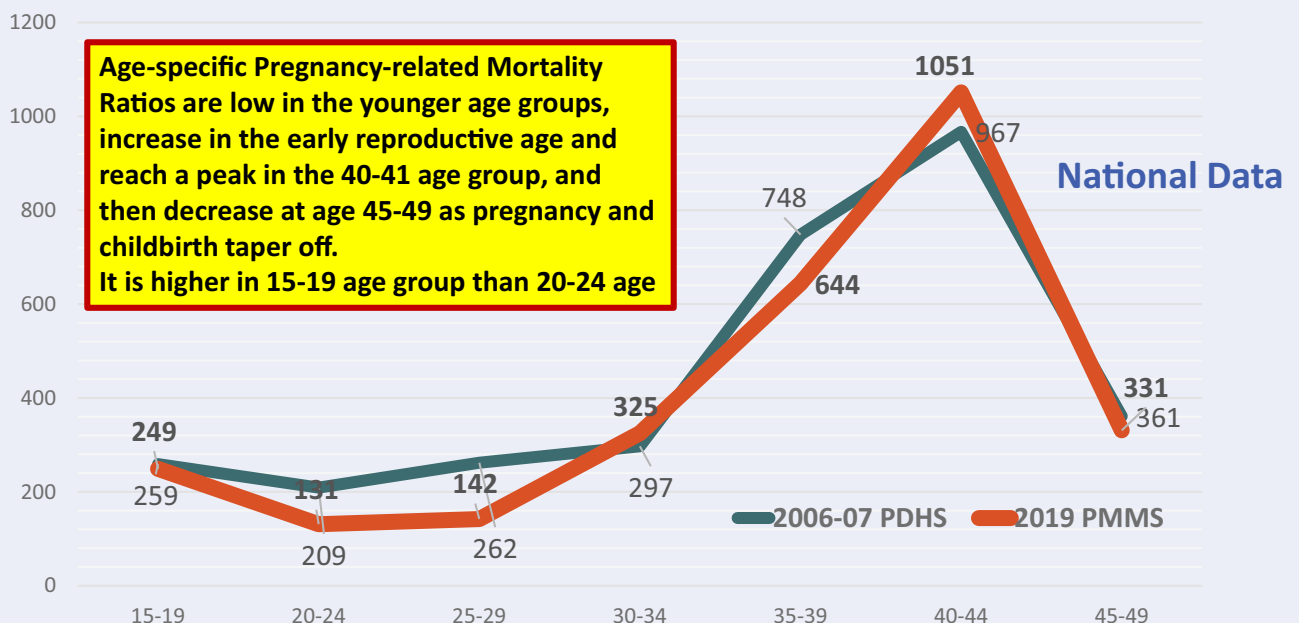
Pregnancy-related Maternal deaths per 100,000 live births in the 3-year period before the survey



NOTE: Total excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# Age-specific Pregnancy-related Mortality Ratio PRMR Trends, 2006-07 PDHS vs 2019 PMMS

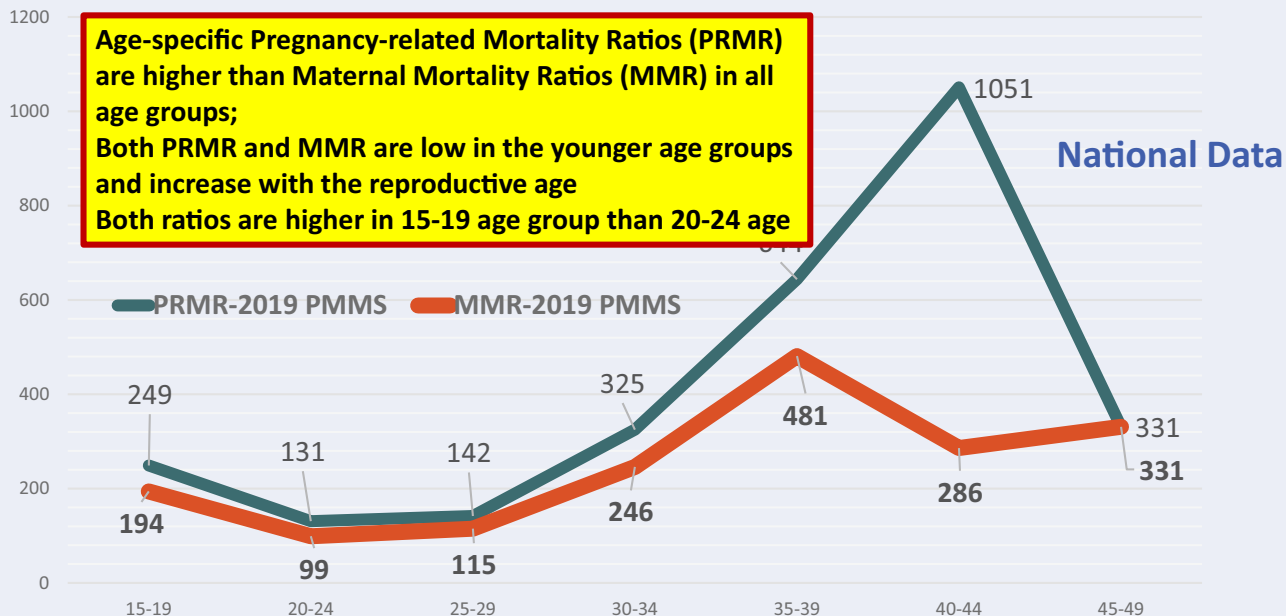
Age-specific Pregnancy-related mortality rates per 1,000 live birth for the 3 year period before the survey



NOTE: Excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# Age-specific MMR vs PRMR Comparison: 2019 PMMS

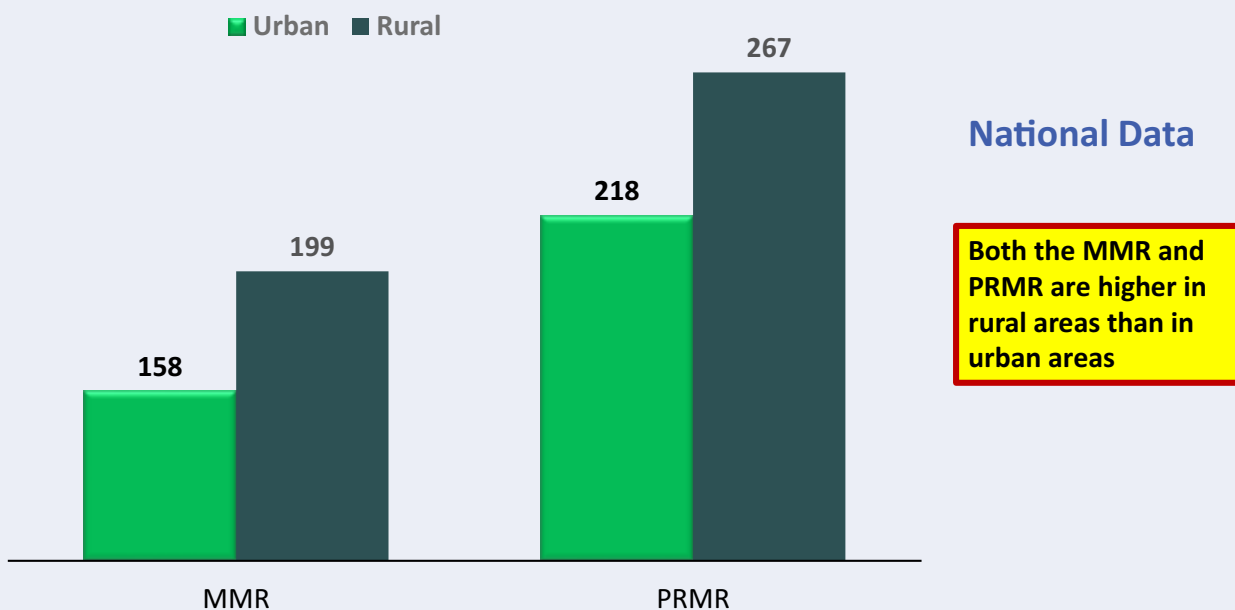
Age-specific PRMR vs MMR per 1,000 live birth for the 3 year period before the survey



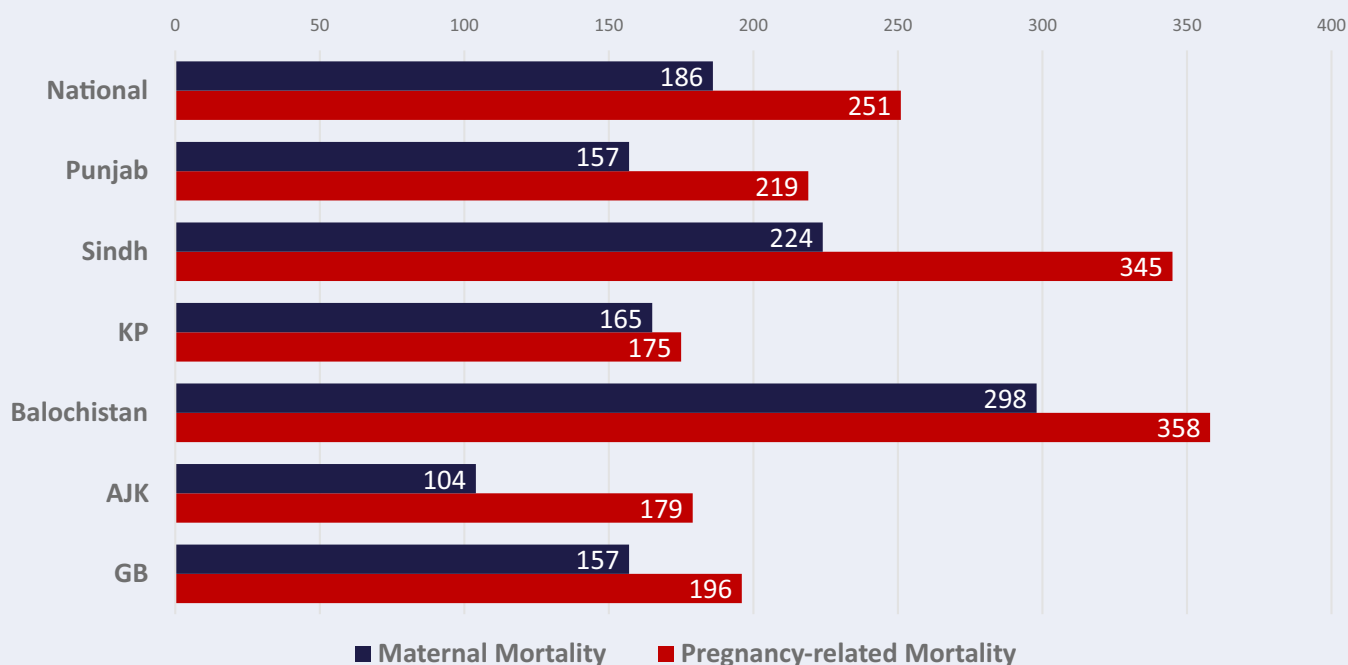
NOTE: Excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

## MMR vs PRMR by Place of Residence

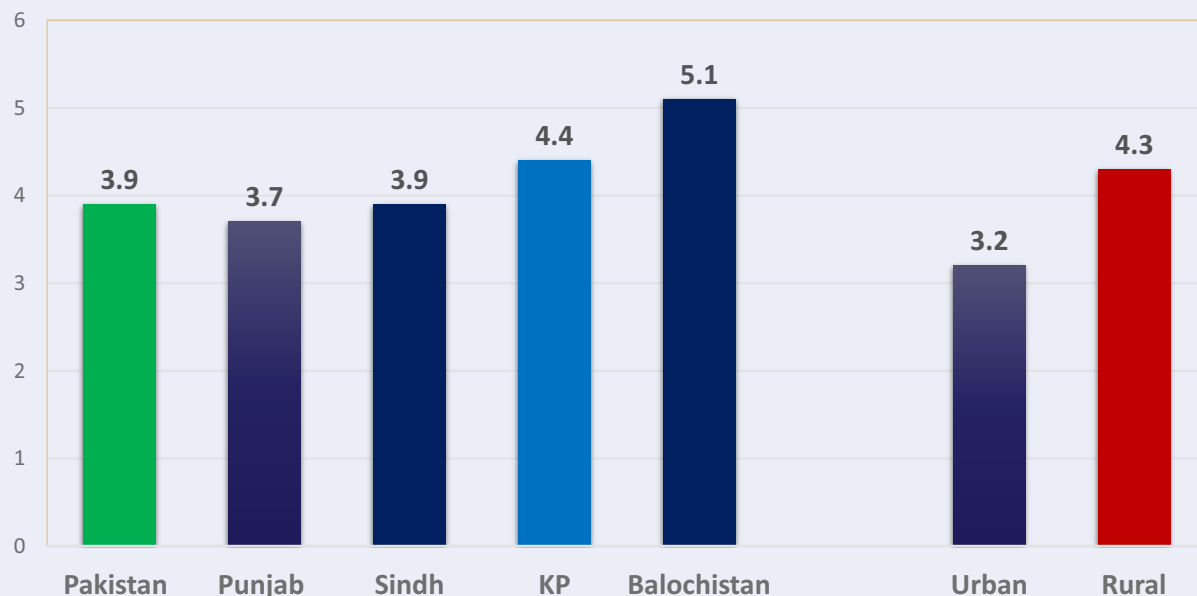
Adult deaths per 1,000 in the 3-year period before the survey by sex and residence



# Direct Estimates of Maternal and Pregnancy-related Mortality: Region-wise Overall Situation

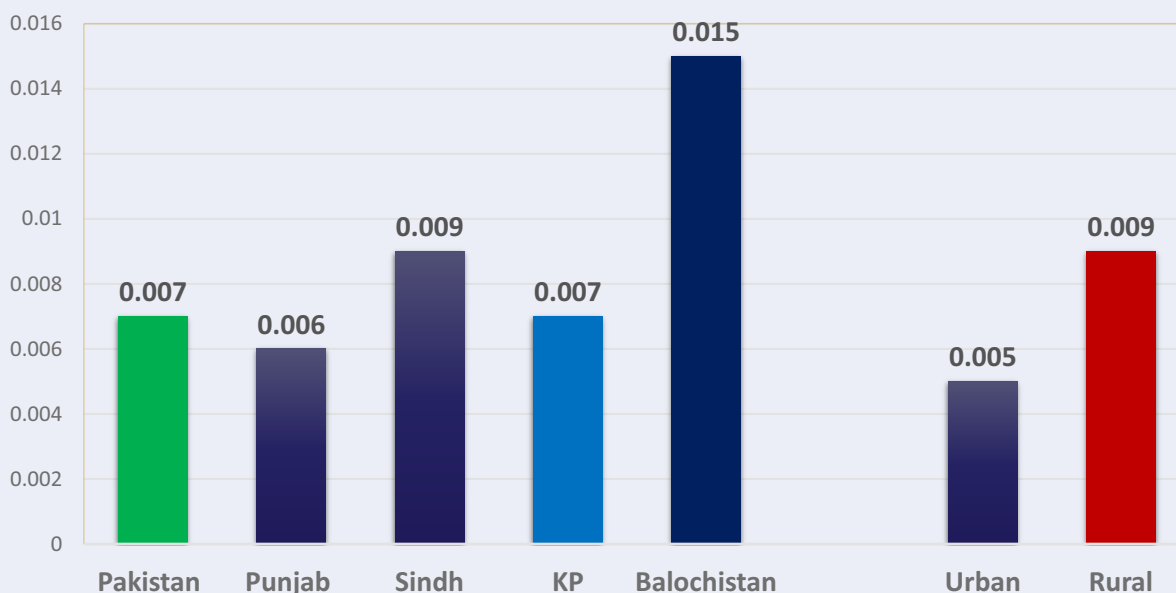


# Total Fertility Rates (TFR): By Region and Residence



NOTE: Total excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# Maternal Death: Life Time Risk By Region and Residence



NOTE: Total excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

## Key Findings

**National MMR** is **186** deaths per 100,000 live births (excluding AJK and GB)

- **KP MMR** is **165** deaths/100,000 live births (**2<sup>nd</sup> Lowest in the Country**)

**National Pregnancy-related Mortality Ratio** is **251** deaths per 100,000 live births (excluding AJK and GB)

- **KP Pregnancy -related Mortality Ratio** is **175** deaths per 100,000 live births (**Lowest in the Country**)

**Pregnancy and Childbearing at Older Age** are riskier; resulting in **Higher MMR** especially in women in 35-44 years age

**Higher the TFR, higher the Life Time Risk of Maternal Death;** TFR and Life Time Risk of Maternal Death are **higher in rural areas**

# Cause of Deaths



## 2019 Pakistan Maternal Mortality Survey (PMMS)

- **Verbal Autopsy**
- Causes of death



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# Verbal Autopsy Questionnaire-VAQ

- Verbal Autopsy Questionnaire was administered in households with the **death of a female resident age 15-49 who had died since January 2016**
- Questionnaire is based upon the *2016 WHO standardized Verbal Autopsy Instrument adapted to country specific context and to preserve comparability with 2006-07 PDHS*
- ICF's health experts provided inputs and the questionnaire finalized in accordance with *WHO ICD-10*
- Questionnaire included both structured (pre-coded) and unstructured (open-ended) questions

## Verbal Autopsy Questionnaire: Scope

- Background characteristics
- Birth and pregnancy information
- Narrative of illness/events leading to death
- General signs/symptoms
- Deceased illness history
- Antenatal care and characteristics of last pregnancy
- Deaths during labour, delivery or 40 days after
- History of injuries/accidents
- Care seeking behaviour

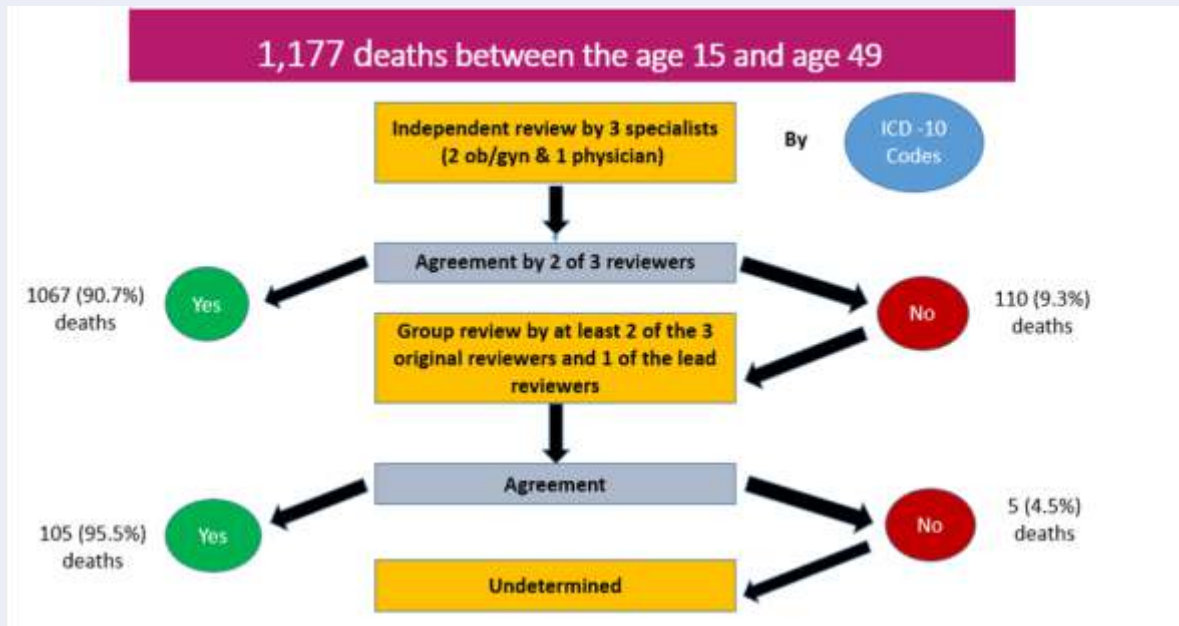
## Verbal Autopsy Data Collection

- Fieldwork teams visited all households where a female of age 15-49 had died during 3 years before the survey
- A respondent/ caretaker with detailed knowledge of the woman's death was interviewed to record information on the circumstances surrounding the event(s) that led to the death, the cause of death and the health services sought
- During fieldwork, a national total of **1,177** verbal autopsies (**497 urban and 680 rural**) have been completed in all provinces and regions of Pakistan with overall **eligible verbal autopsy response rate as 99.6%**

## Cause of Death Certification

1. **Three panels of 3 reviewers** (2 obstetrician/gynecologists) and 1 specialist physician) were created
2. Each physician interpreted VA result and produced **WHO-style cause of death certificate**
3. If at least 2 of the 3 reviewers agreed on the category and underlying cause of death, it was accepted as the category and underlying cause of death for that VAQ
4. Final underlying cause of death determined by **WHO ICD-10 guidelines**

# Review Process for VAs



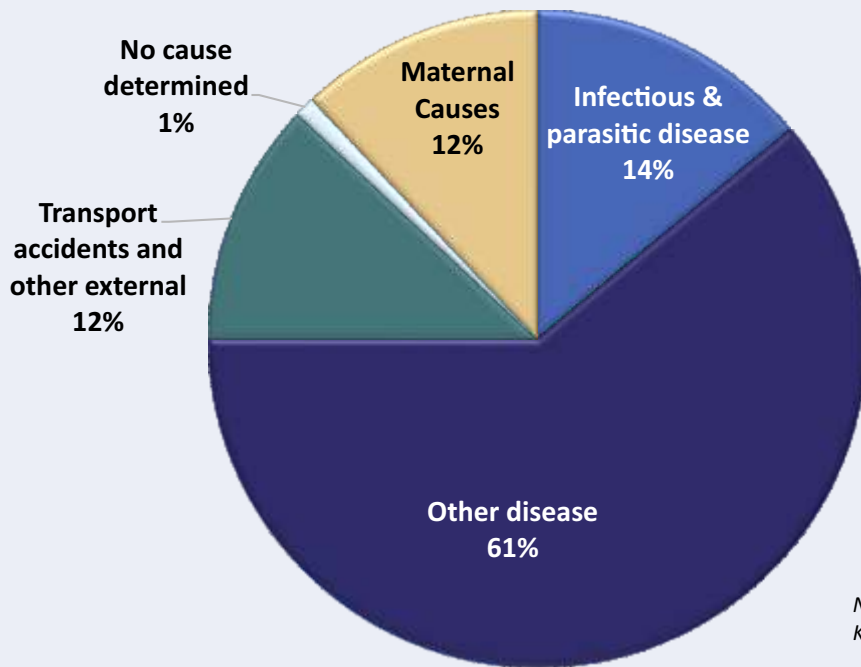
- Verbal autopsy
- **Causes of death**



© Photo by Asad Zaidi, UNFPA

# National: All Cause-specific Mortality

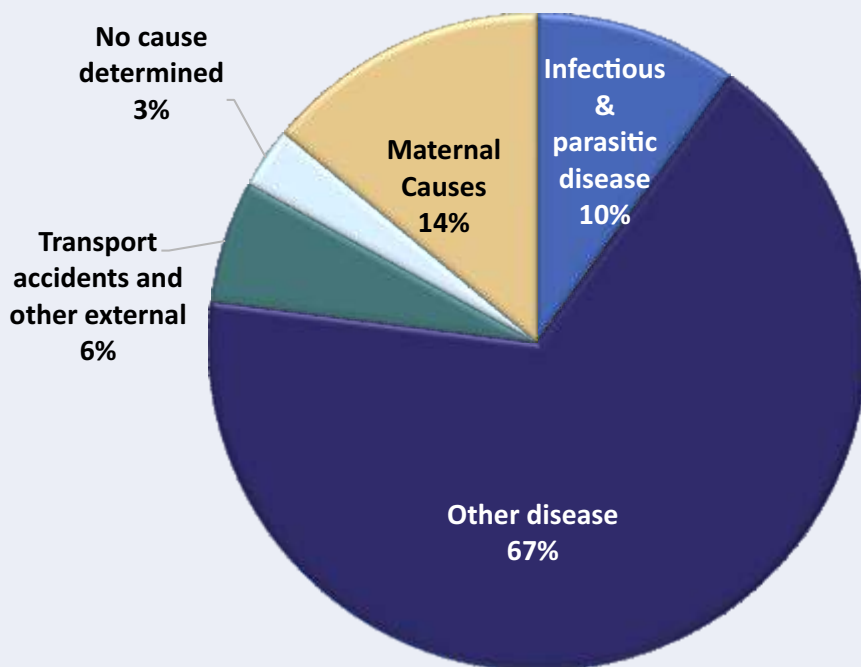
Percent distribution of causes of death among women age 15-49 in the 3 years before the survey



NOTE: Excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# KP: All Cause-specific Mortality

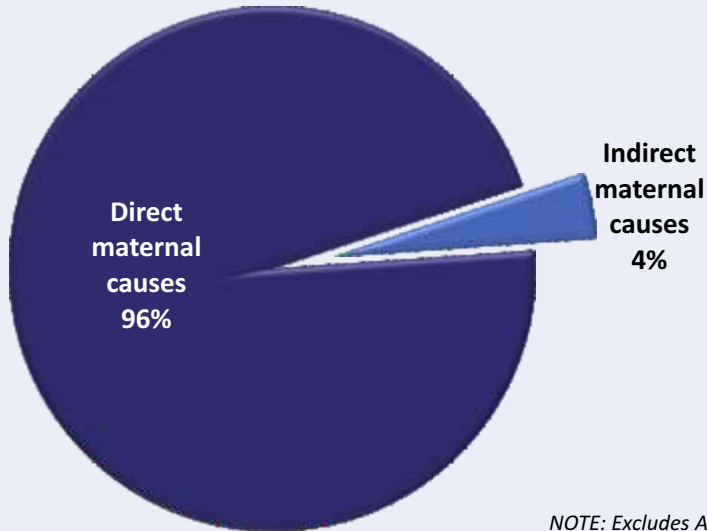
Percent distribution of causes of death among women age 15-49 in the 3 years before the survey



# Maternal Causes of Death

Percent distribution of causes of death among women age 15-49 in the 3 years before the survey

- Direct Causes:**
- Pregnancy with abortive outcome
  - Hypertensive Disorder
  - Obstetric Hemorrhage
  - Pregnancy-related Infection
  - Other Obstetric Complications
- Indirect Causes:**
- Non-obstetric Complications

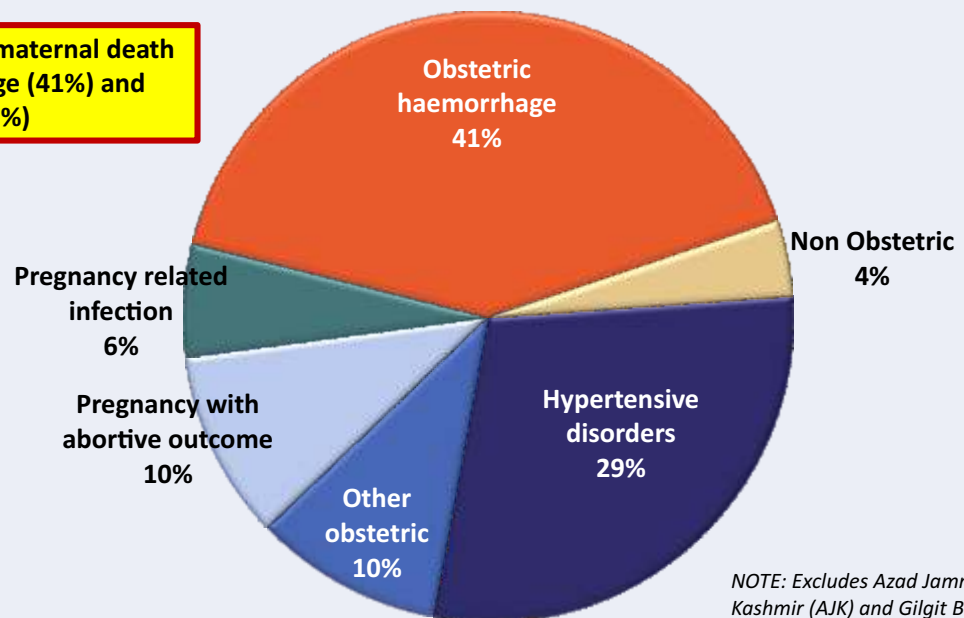


NOTE: Excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# Maternal Causes of Death: National

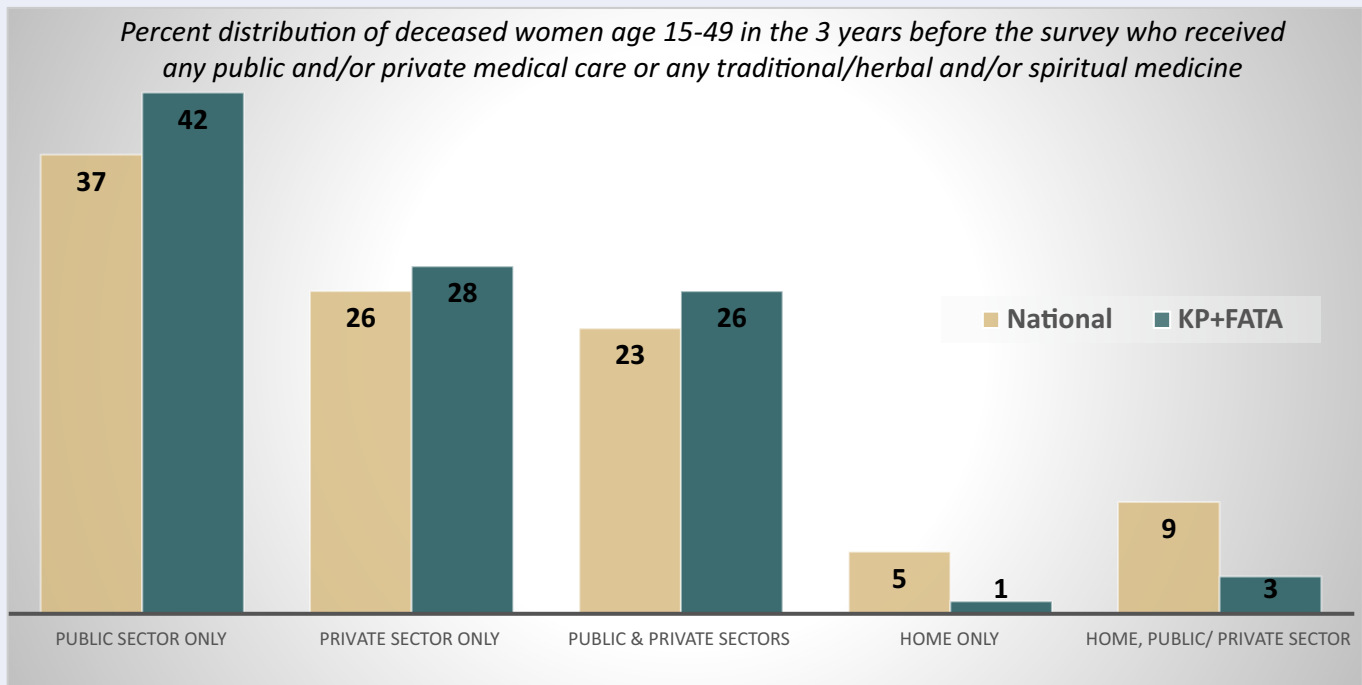
Percent distribution of causes of death among women age 15-49 in the 3 years before the survey

Most common causes of maternal death were obstetric hemorrhage (41%) and hypertensive disorder (29%)



NOTE: Excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# Treatment Received for Deceased Women: Place of Care

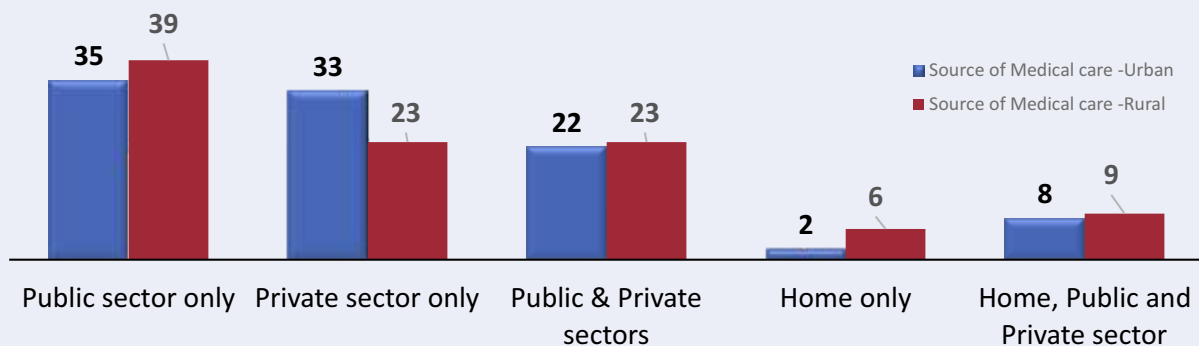


NOTE: Excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# Treatment Received for Deceased Women: By Household Residence (Urban vs Rural)

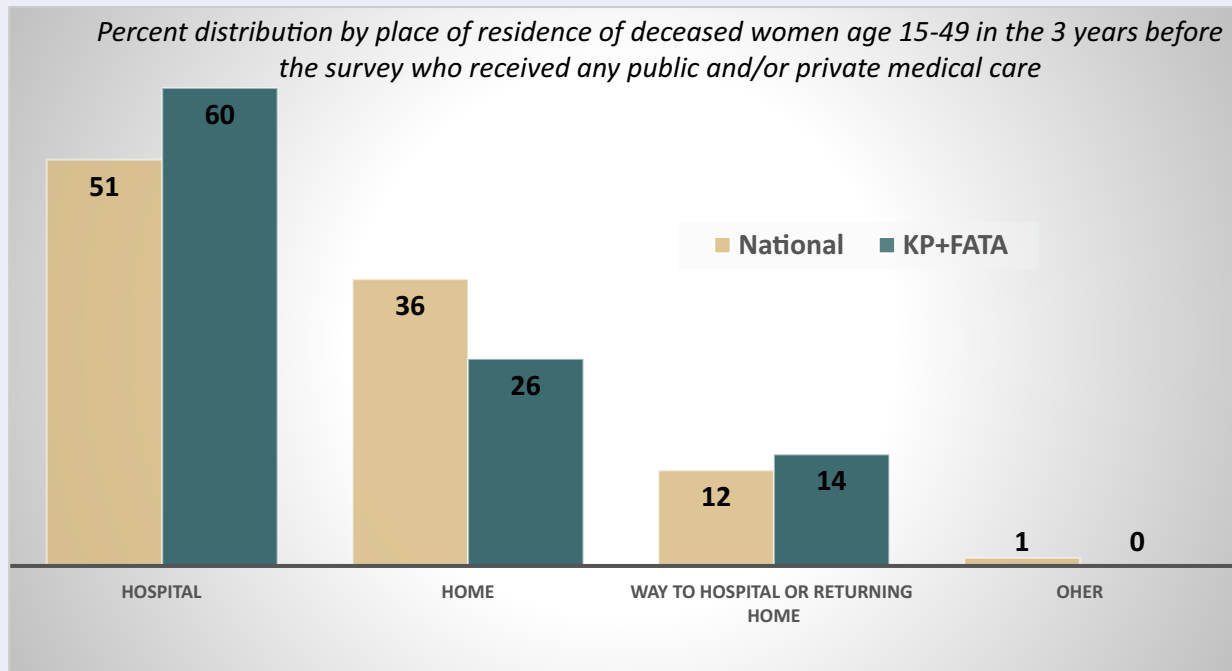
*Percent distribution by place of residence of deceased women age 15-49 in the 3 years before the survey who received any public and/or private medical care*

## National Aggregates



NOTE: National data excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

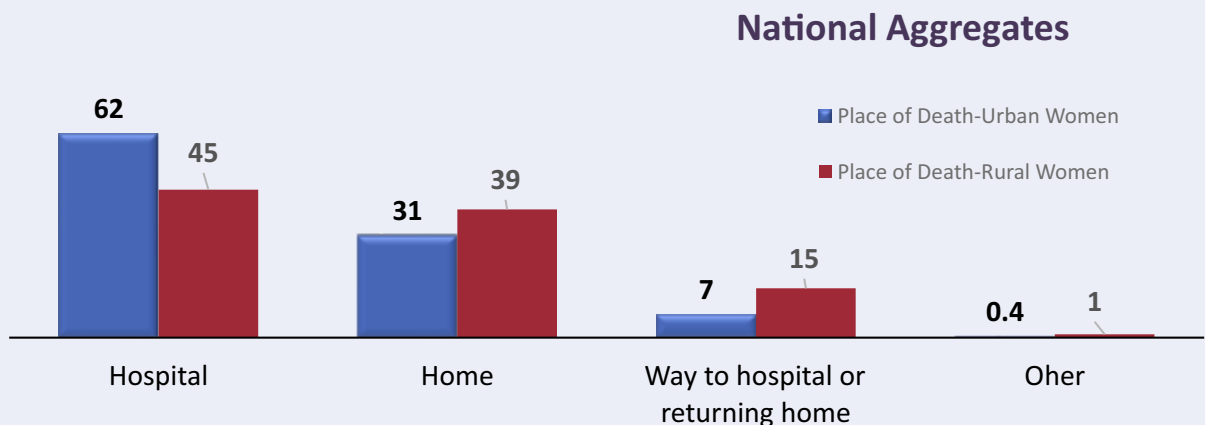
# Deceased Women's Place of Death: By Household Residence



*NOTE: National data excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)*

# Deceased Women's Place of Death: By Household Residence (Urban vs Rural)

*Percent distribution by place of residence of deceased women age 15-49 in the 3 years before the survey who received any public and/or private medical care*



*NOTE: National data excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)*

## Key Findings- KP

- Among maternal deaths **96%** were direct maternal deaths, **4%** indirect maternal deaths
- **Obstetric hemorrhage (41%) and Hypertensive disorder (29%)** are the most common direct causes of maternal mortality
- **In KP**, the most common (**67%**) causes of death included **other diseases** such as conditions of the nervous, digestive, and respiratory systems in addition to **infectious and parasitic disease (10%)**
- **In KP, Maternal deaths** accounted for **14%** of all-cause deaths
- **In KP, 42%** of women who died in the three years before the survey sought medical care at a **public sector health** facility while **28%** sought care a private sector health facility; **1%** of women received care at home

# Maternal Health Care



## 2019 Pakistan Maternal Mortality Survey (PMMS)

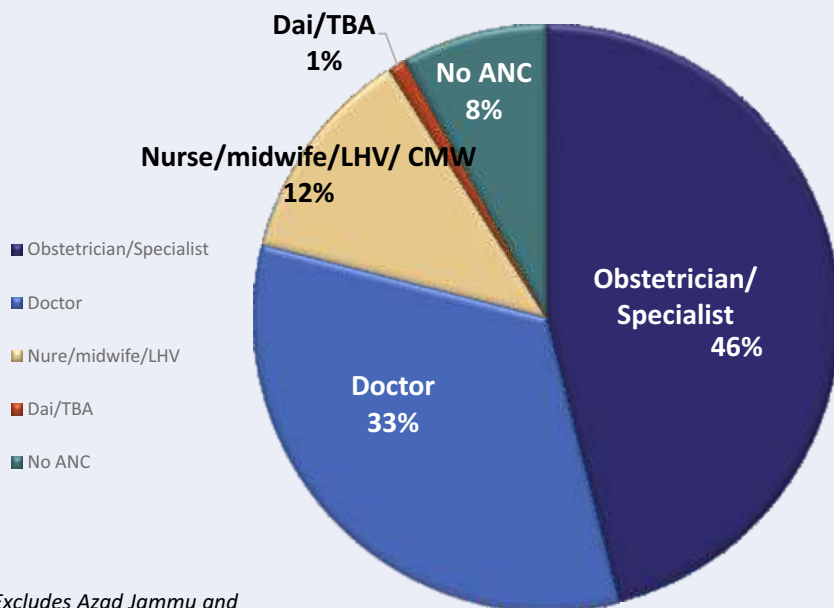
- **Antenatal care**
- Delivery and postnatal care
- Other health issues



© Photo by Asad Zaidi, UNFPA

# Antenatal Care (ANC) by Provider: National

Percent distribution of ever-married women age 15-49 with a live birth or stillbirth in the 3-year period before the survey



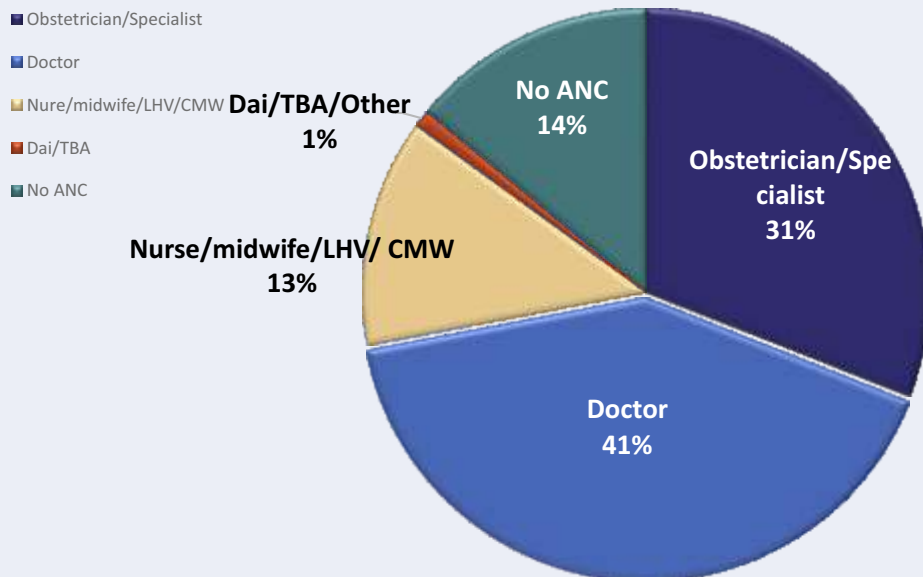
**91% of women received ANC from a skilled provider\***

*\*obstetrician, specialist, doctor, nurse, midwife, lady health visitor, or community midwife*

NOTE: Excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# Antenatal Care (ANC) by Provider: KP

Percent distribution of ever-married women age 15-49 with a live birth or stillbirth in the 3-year period before the survey

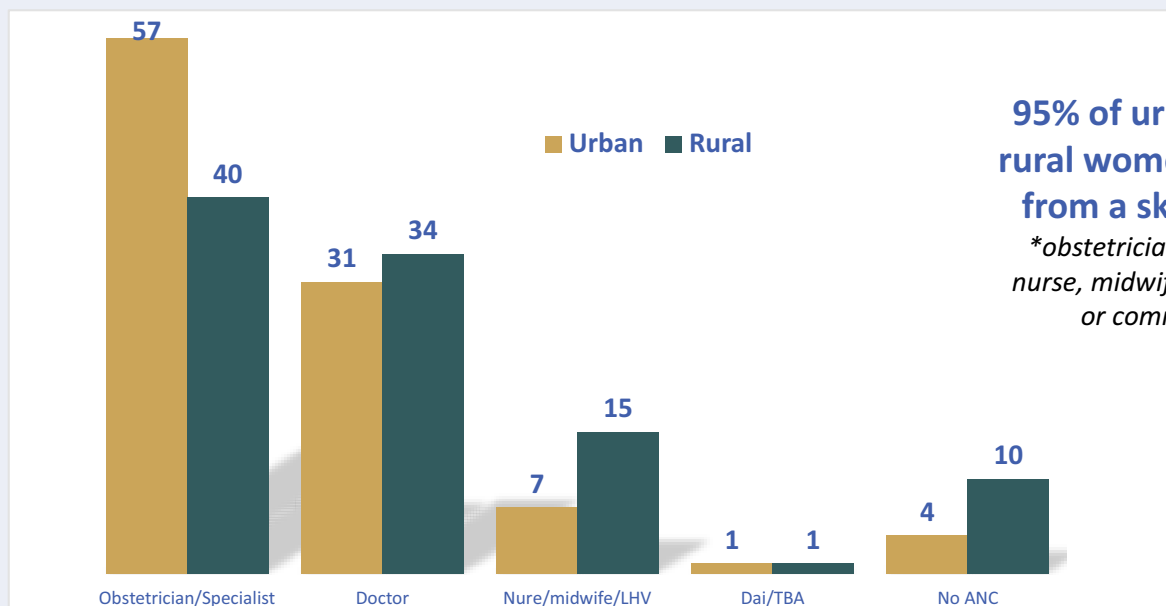


**85% of women received ANC from a skilled provider\***

*\*obstetrician, specialist, doctor, nurse, midwife, lady health visitor, or community midwife*

# Antenatal Care (ANC) by Provider: National

Percent distribution of ever-married women age 15-49 with a live birth or stillbirth in the 3-year period before the survey



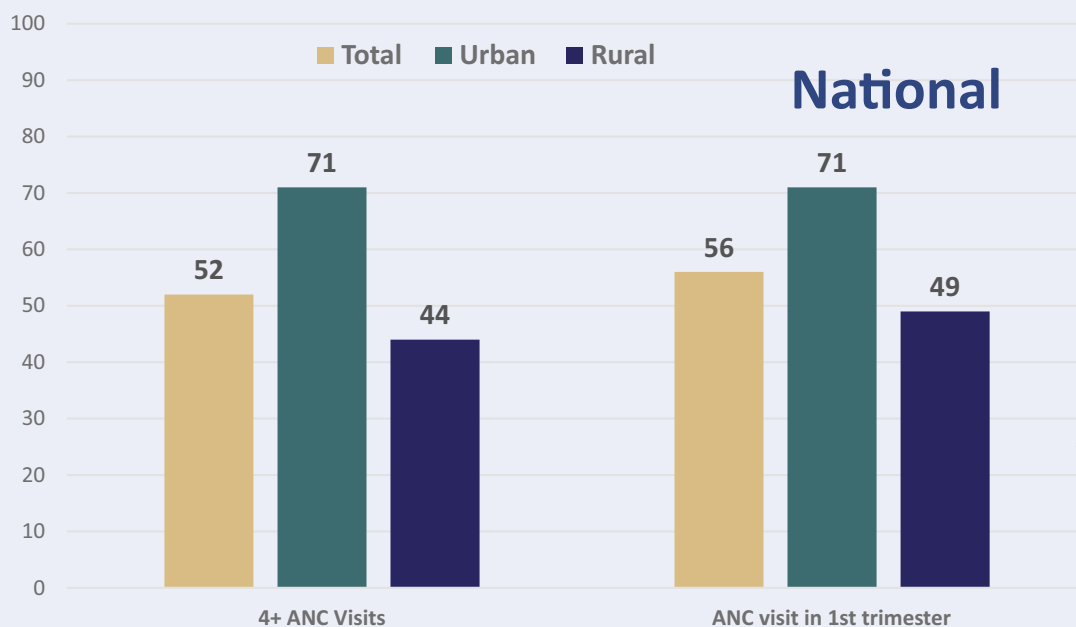
**95% of urban and 89% of rural women received ANC from a skilled provider\***

\*obstetrician, specialist, doctor, nurse, midwife, lady health visitor, or community midwife

NOTE: Excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# Timing and Number of ANC Visits by Residence

Percent of ever-married women age 15-49 with a live birth or stillbirth in the 3-year period before the survey for most recent live birth or stillbirth



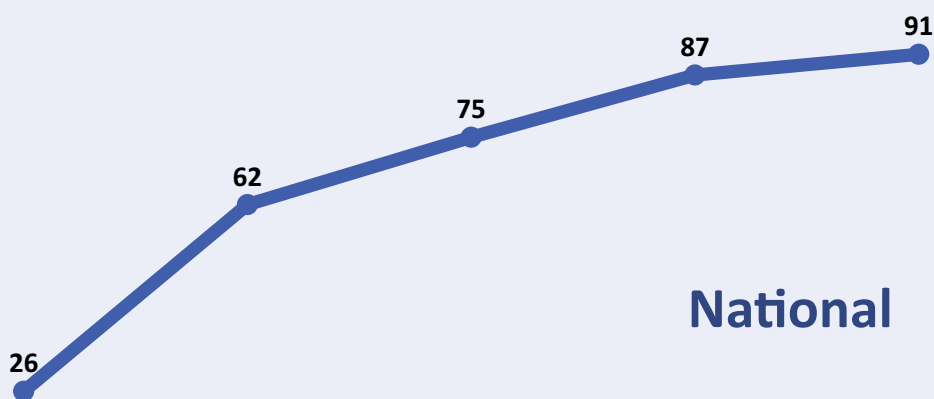
**National**

**Urban women are more likely to receive an early and frequent Antenatal Care**

NOTE: National data Excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# Historic Trends in ANC Coverage

Percent of ever-married women age 15-49 who received ANC from a skilled provider in the 3 years before the survey



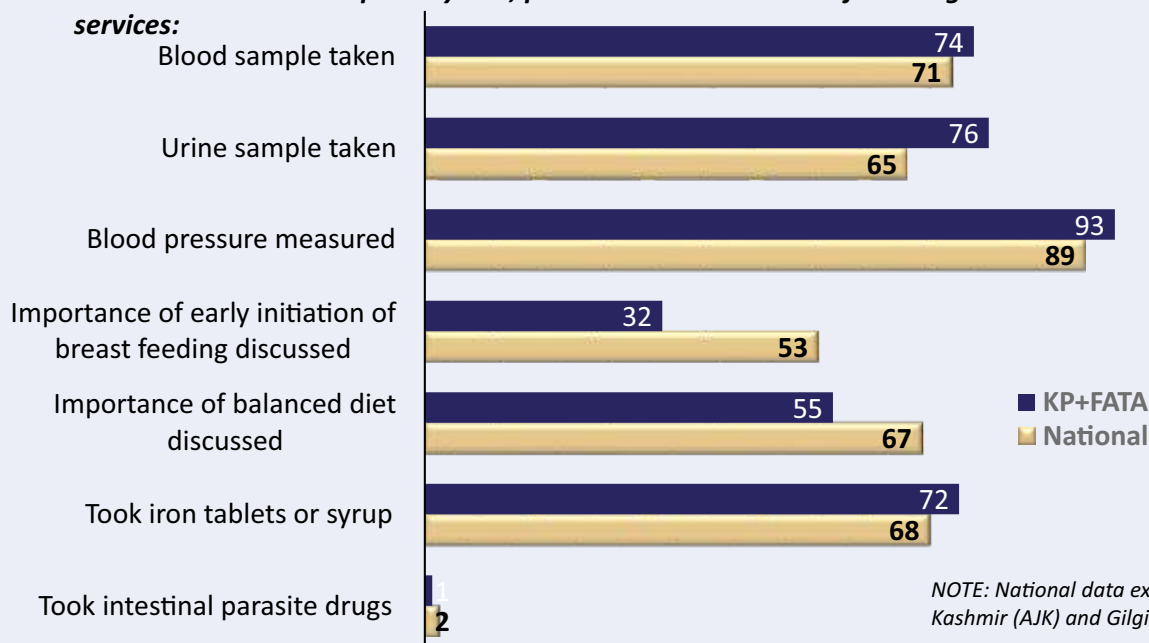
National

1990-91 PDHS    2006-07 PDHS    2012-13 PDHS    2017-18 PDHS    2019 PMMS

NOTE: Excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

## Components of ANC: KP vs National

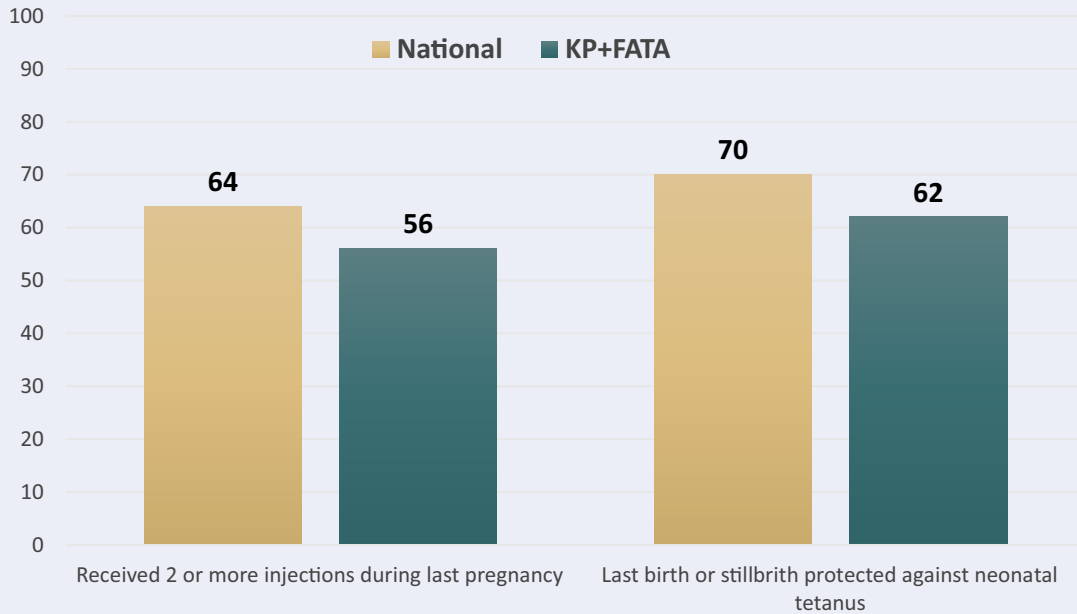
Among ever-married women age 15-49 who received ANC for most recent live birth or stillbirth in the past 3 years, percent who received the following services:



NOTE: National data excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# Tetanus Toxoid Vaccination: KP vs National

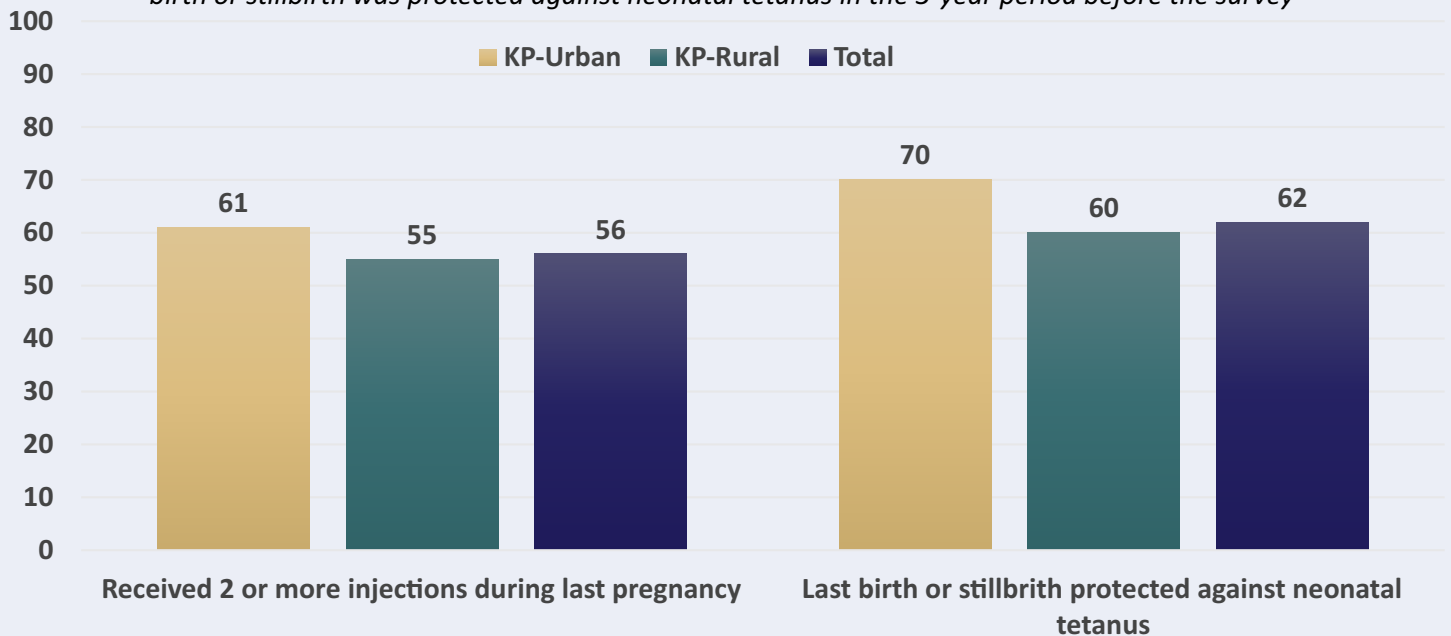
Percent of mothers age 15-49 with a live birth or stillbirth in the 3-year period before the survey



NOTE: National data excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# Tetanus Toxoid Vaccination: KP

Percent of mothers age 15-49 with a live birth or stillbirth and percent whose most recent live birth or stillbirth was protected against neonatal tetanus in the 3-year period before the survey



NOTE: National data excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

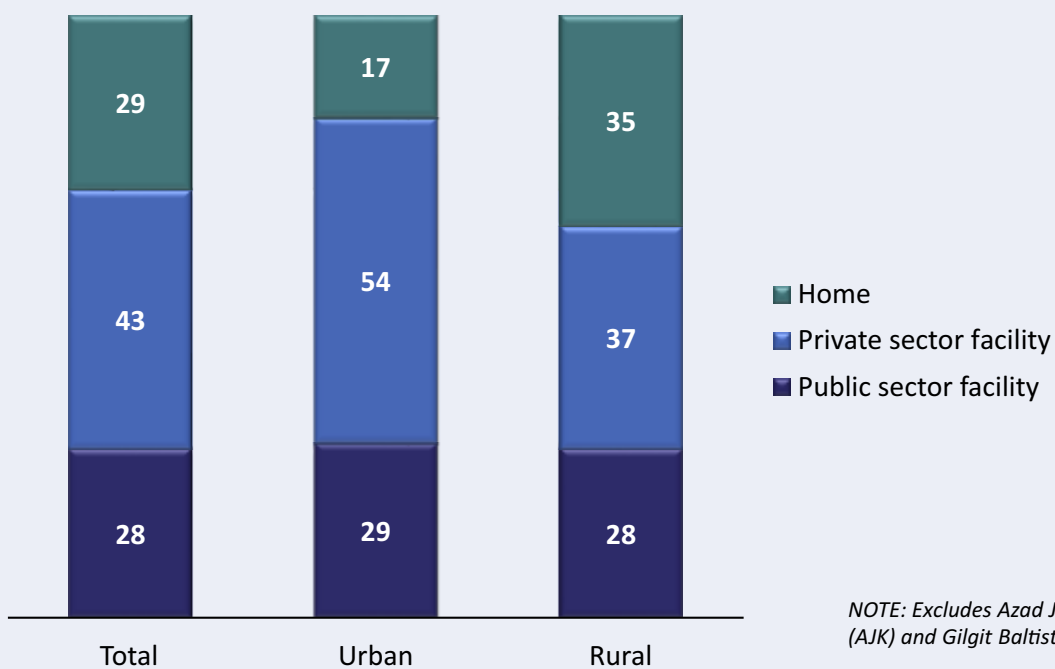
- Antenatal care
- **Delivery and postnatal care**



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## Place of Delivery: **National**

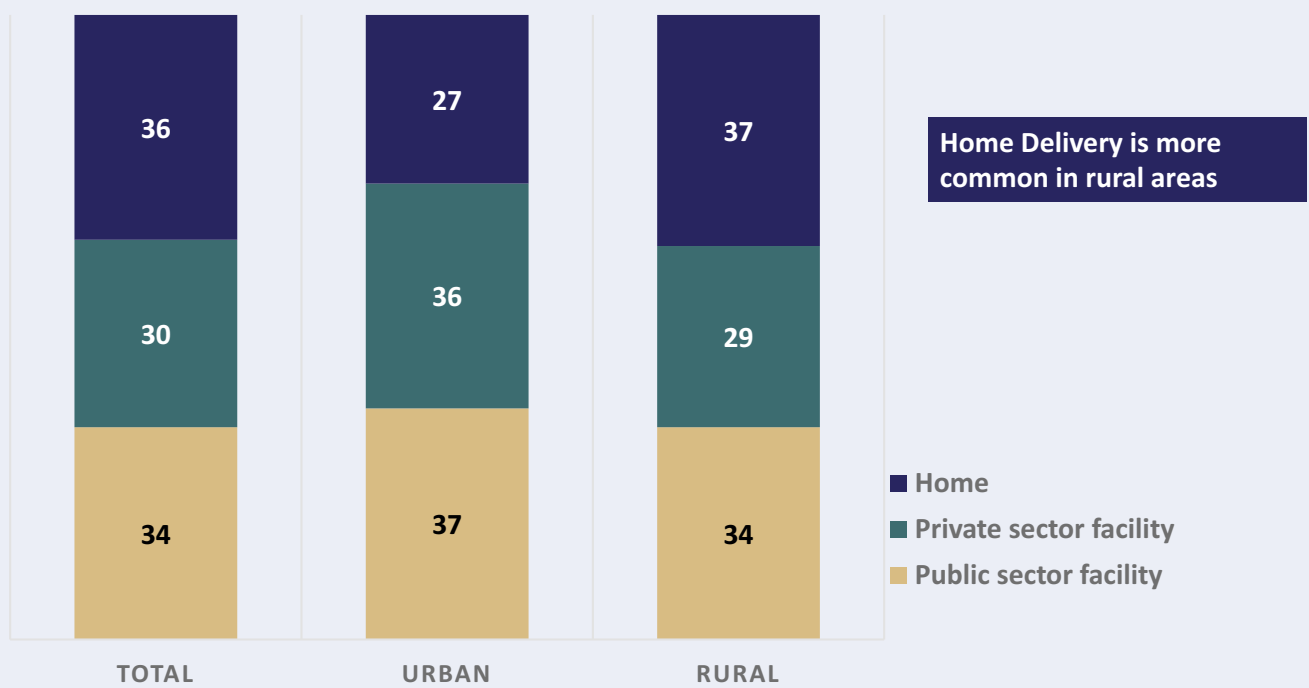
*Percent distribution of most recent live births in the 3-year period before the survey*



*NOTE: Excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)*

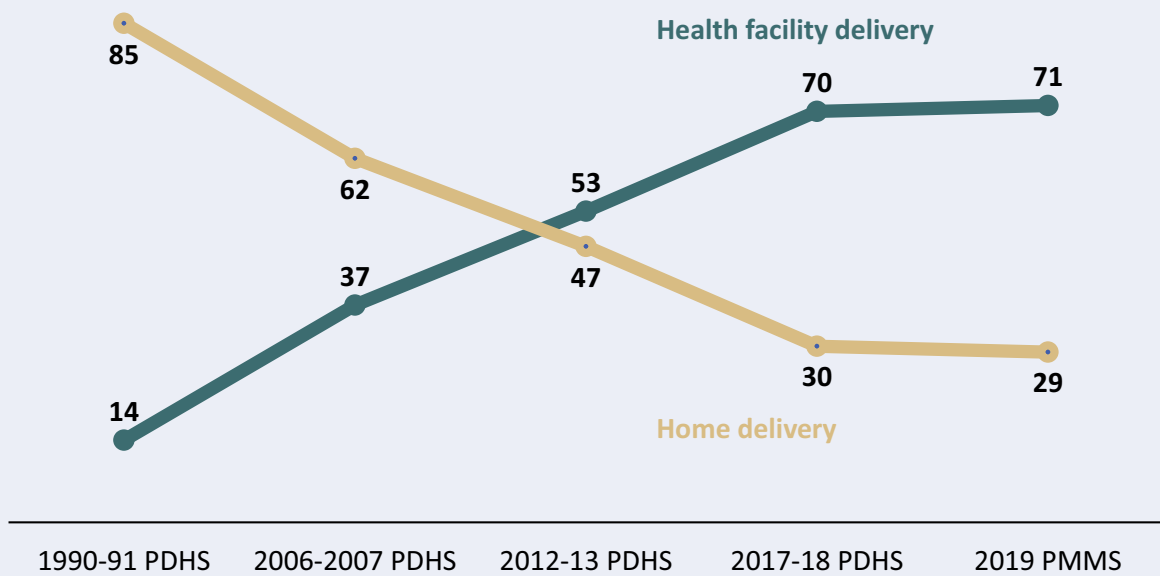
# Place of Delivery: KP

Percent distribution of most recent live births in the 3-year period before the survey



# Trends in Place of Birth: National

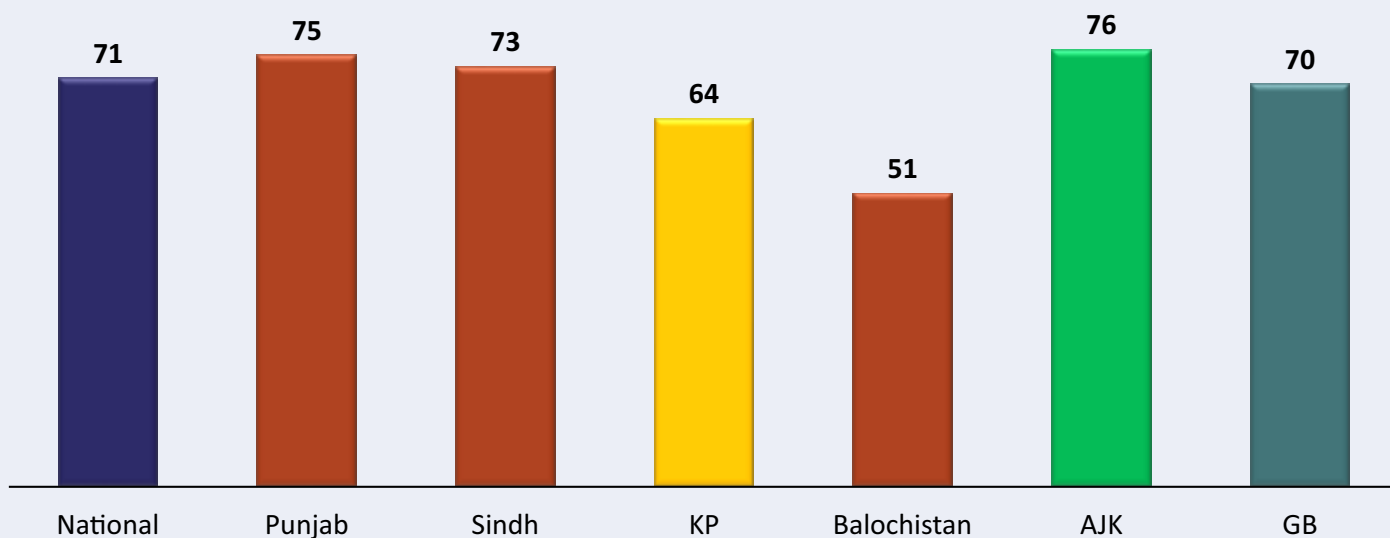
Percent of most recent live births in the 3 years before the survey



NOTE: Excludes Azad Jammu and

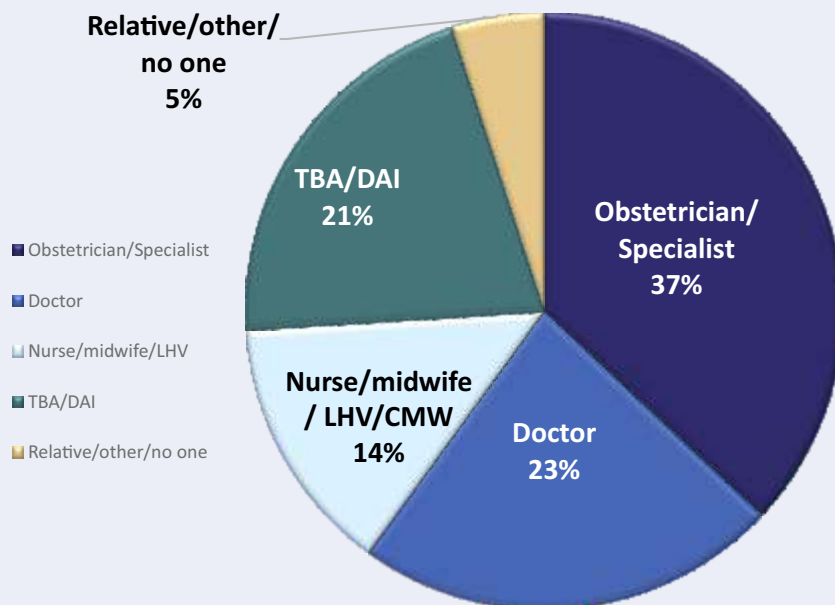
# Health Facility Delivery by Region

Percent of most recent live births in the 3 years before the survey delivered in a health facility



## National: Assistance during Delivery: Live Births

Percent distribution of most recent live births in the 3-year period before the survey



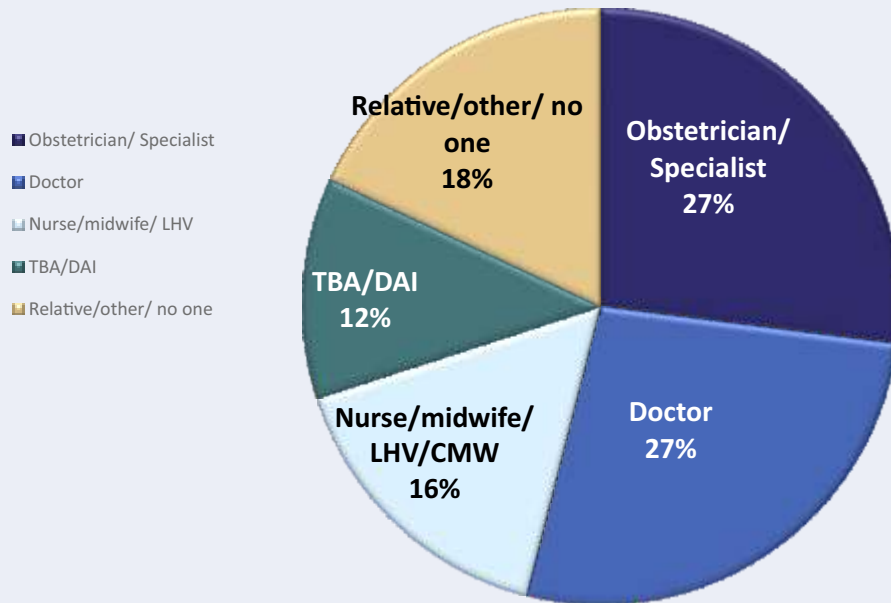
**74% of births are delivered by a skilled provider\***

\*obstetrician specialist, doctor, nurse/midwife, lady health visitor or community midwife

NOTE: Excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# KP: Assistance during Delivery: Live Births

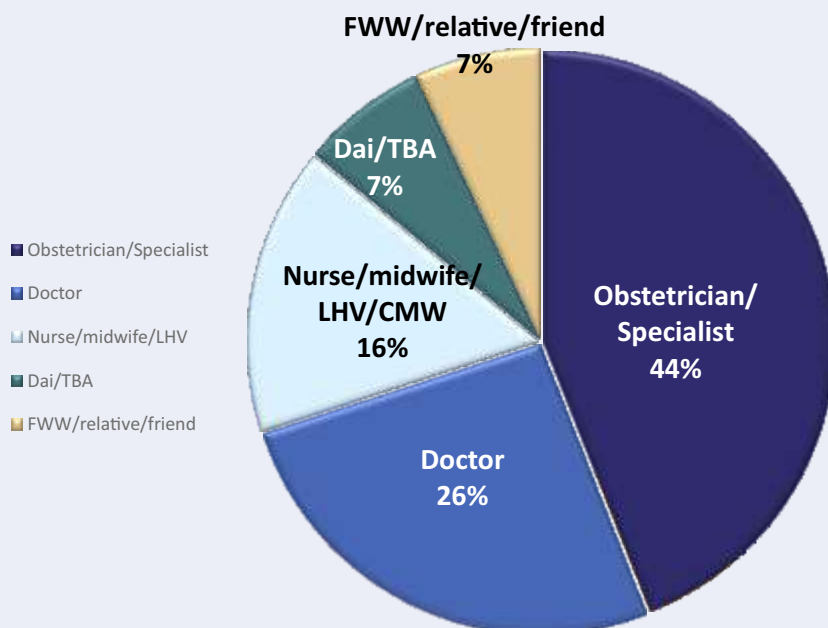
Percent distribution of most recent live births in the 3-year period before the survey



**70% of births are delivered by a skilled provider\***  
*\*obstetrician specialist, doctor, nurse/midwife, lady health visitor or community midwife*

# National: Assistance during Delivery: Still births

Percent distribution of still births in the 3-year period before the survey

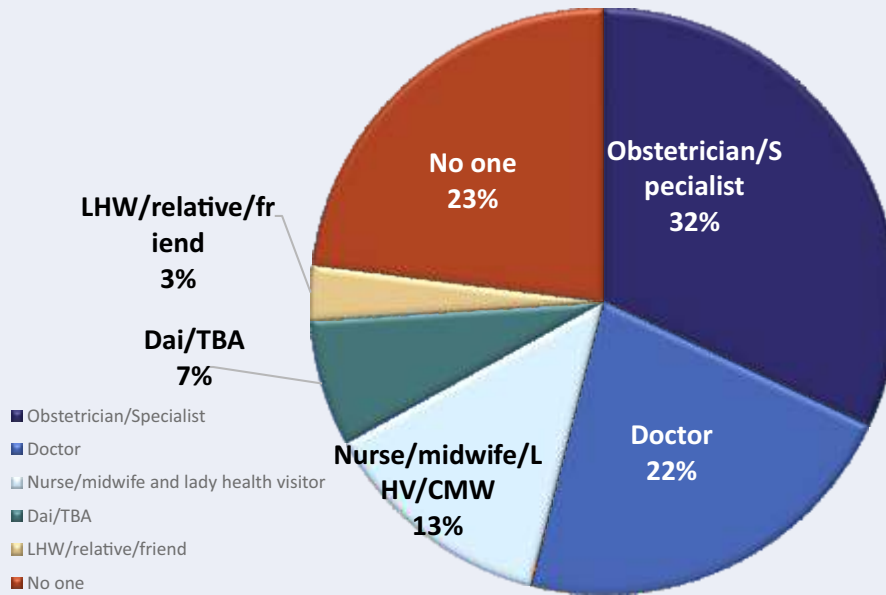


**86% of still births are delivered by a skilled provider\***  
*\*obstetrician specialist, doctor, nurse/midwife, lady health visitor or community midwife*

*NOTE: Excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)*

# National: Assistance during Delivery: Abortions and Miscarriages

Percent distribution of abortions or miscarriages in the 3-year period before the survey



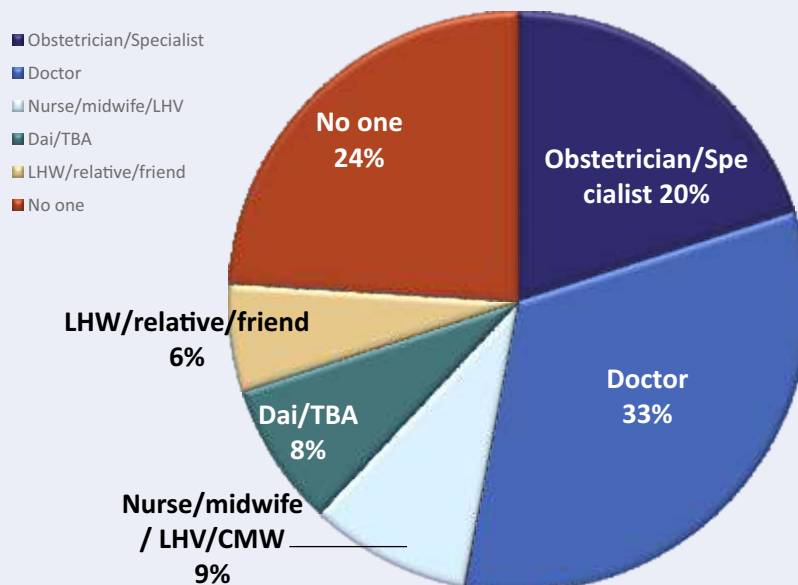
**67% of abortions/ miscarriages are delivered by a skilled provider\***

*\*obstetrician specialist, doctor, nurse/midwife, lady health visitor or community midwife*

NOTE: Excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# KP: Assistance during Delivery: Abortions and Miscarriages

Percent distribution of abortions or miscarriages in the 3-year period before the survey

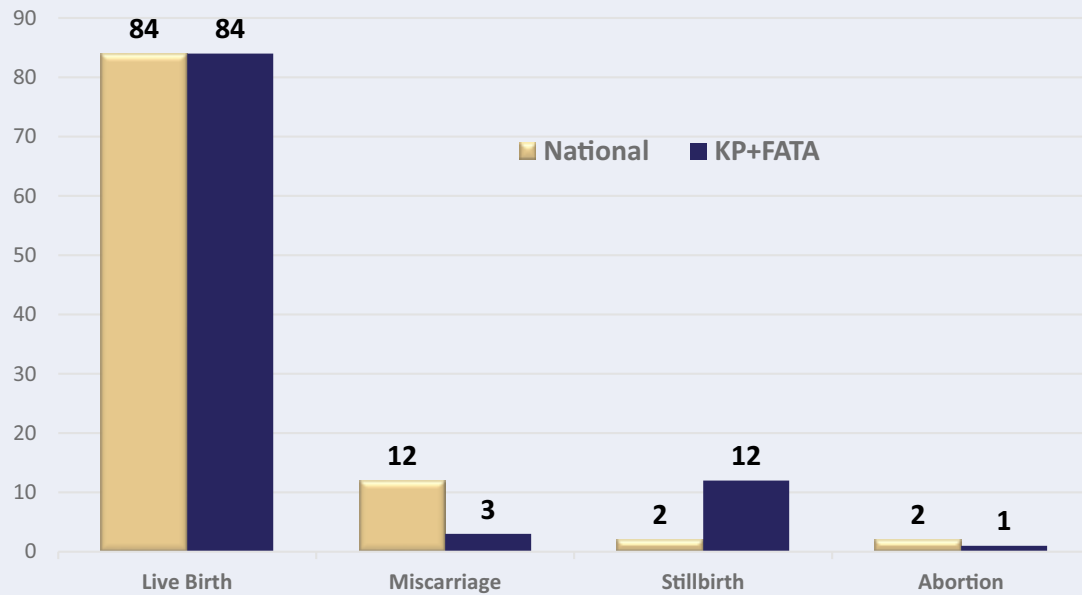


**62% of abortions/ miscarriages are delivered by a skilled provider\***

*\*obstetrician specialist, doctor, nurse/midwife, lady health visitor or community midwife*

# Pregnancy Outcomes: National vs KP

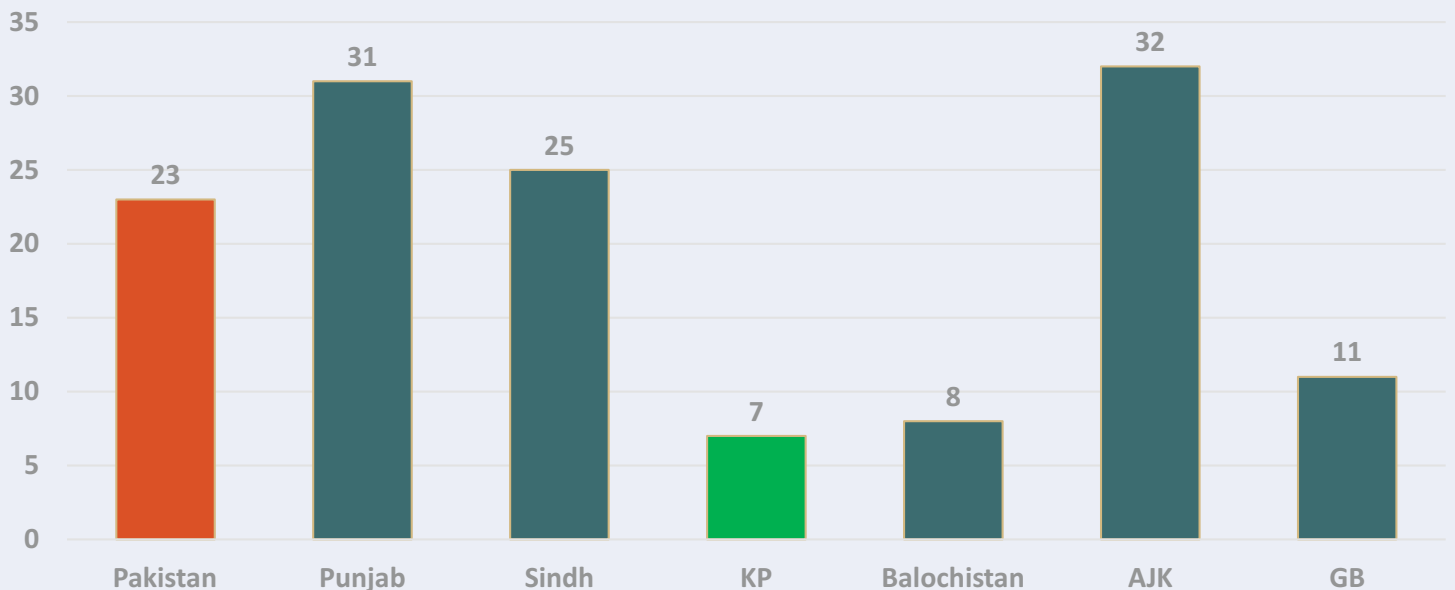
Percent distribution of pregnancies ending in the 3 years preceding the survey by pregnancy outcome



NOTE: Excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# Caesarean-Section by Region

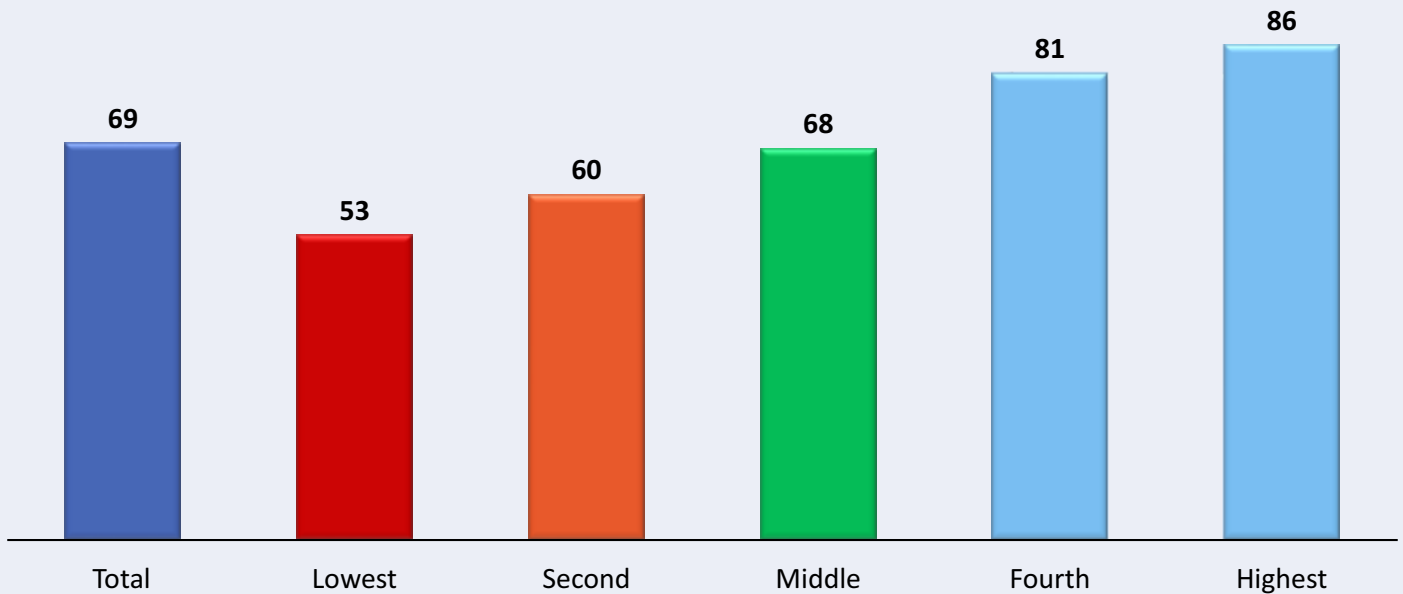
Percent of most recent live births in the 3 years before the survey delivered in a health facility



NOTE: National total excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# National: Postnatal Care (PNC) for Mothers and New-borns by Wealth

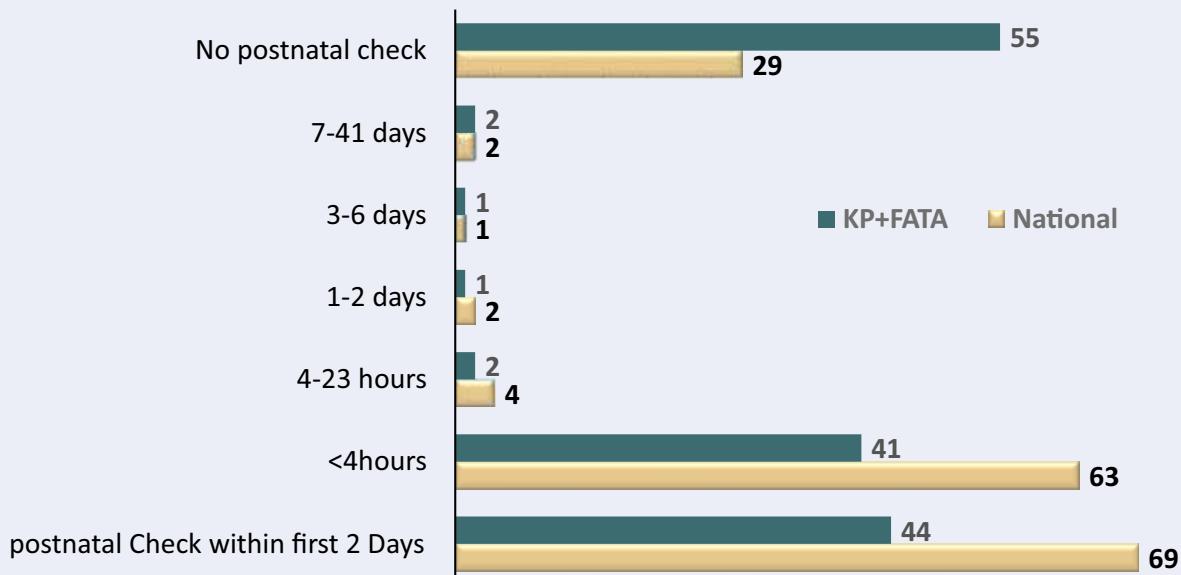
Percent of live births in the 2-year period before the survey with PNC within 2 days of delivery



NOTE: Excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

## Timing of 1<sup>st</sup> Postnatal Checkup of Mother: KP vs National

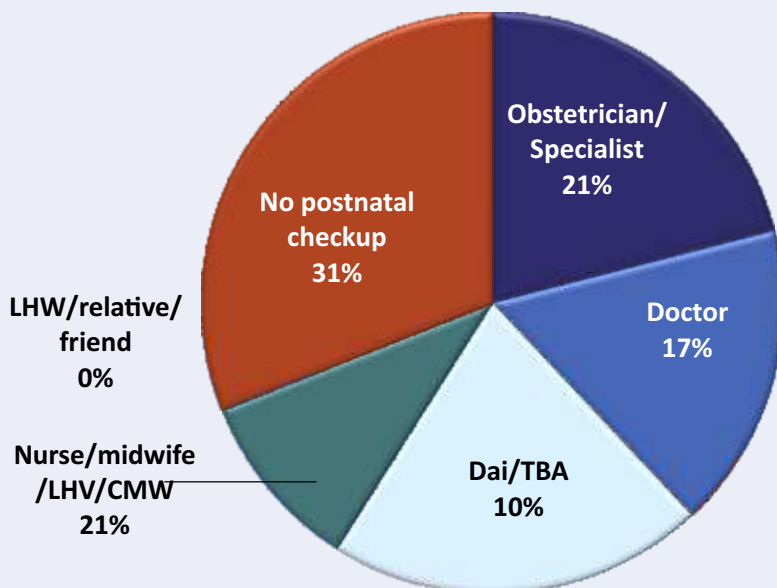
Percent of lever-married women age 15-49 giving birth in the 2-year period before the survey with PNC within 42 days of delivery



NOTE: National data excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# Type of Provider for 1<sup>st</sup> PNC Check: National

Percent distribution of ever-married women with live/ still birth in the 2-year period before the survey, by type of health provider for mother's first postnatal check up



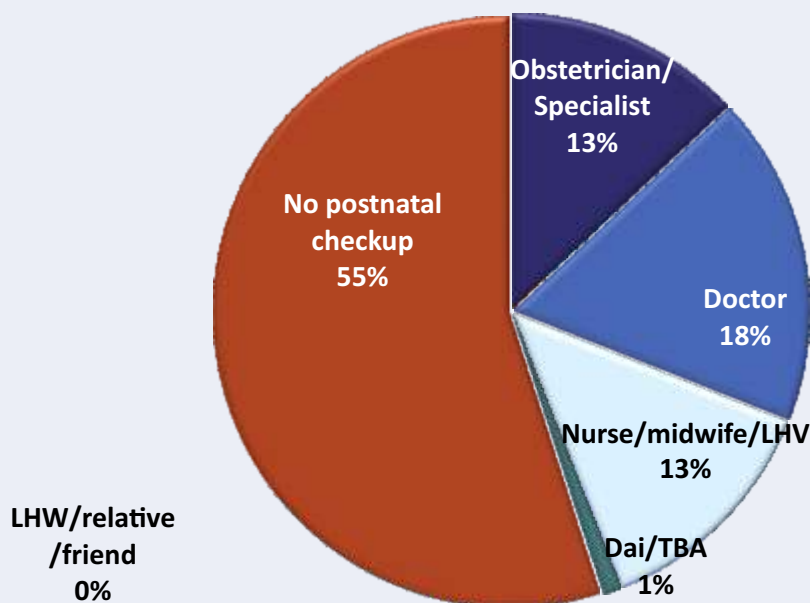
**59% of women received postnatal check from a skilled provider\***

*\*obstetrician specialist, doctor, nurse/midwife, lady health visitor or community midwife*

NOTE: Excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# Type of Provider for 1<sup>st</sup> PNC Check: KP

Percent distribution of ever-married women with live/ still birth in the 2-year period before the survey, by type of health provider for mother's first postnatal check up

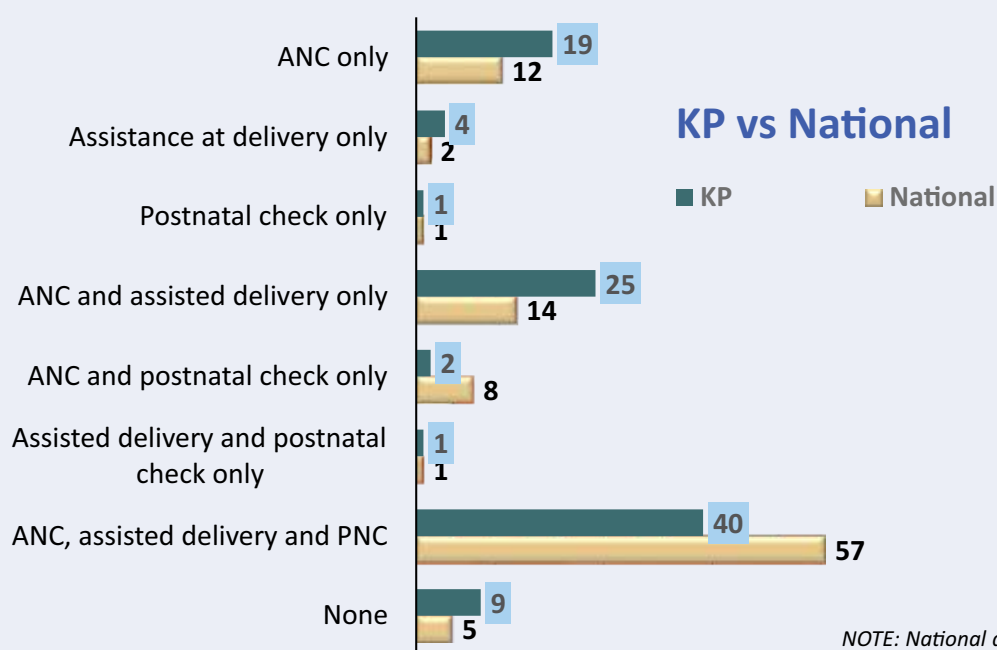


**44% of women received postnatal check from a skilled provider\***

*\*obstetrician specialist, doctor, nurse/midwife, lady health visitor or community midwife*

# Combination of ANC, Assisted Delivery & PNC

Percent of women who received ANC, assistance at delivery and postnatal check for the most recent live births/stillbirths during the last 3 years preceding survey:



## Key Findings: KP

- **85%** of women received **ANC** for a skilled provider at least once
- **Obstetricians/ Specialists and Doctors** are the main providers of ANC
- **14% women received no ANC** and **56%** had 2 or more TT Injections
- **70%** of births are **delivered by a skilled provider**
- **36%** of the births are **delivered at home**
- **12%** of births are **conducted by a TBA/ DAI** and **18%** by **relative/none**
- **44%** of women received PNC from skilled provider and **53%** had **No PNC**
- **40%** of ever married women received ANC, assisted delivery and PNC and, **9%** received **none of the ANC, assisted delivery or the PNC**

# Maternal Morbidities



## 2019 Pakistan Maternal Mortality Survey (PMMS)

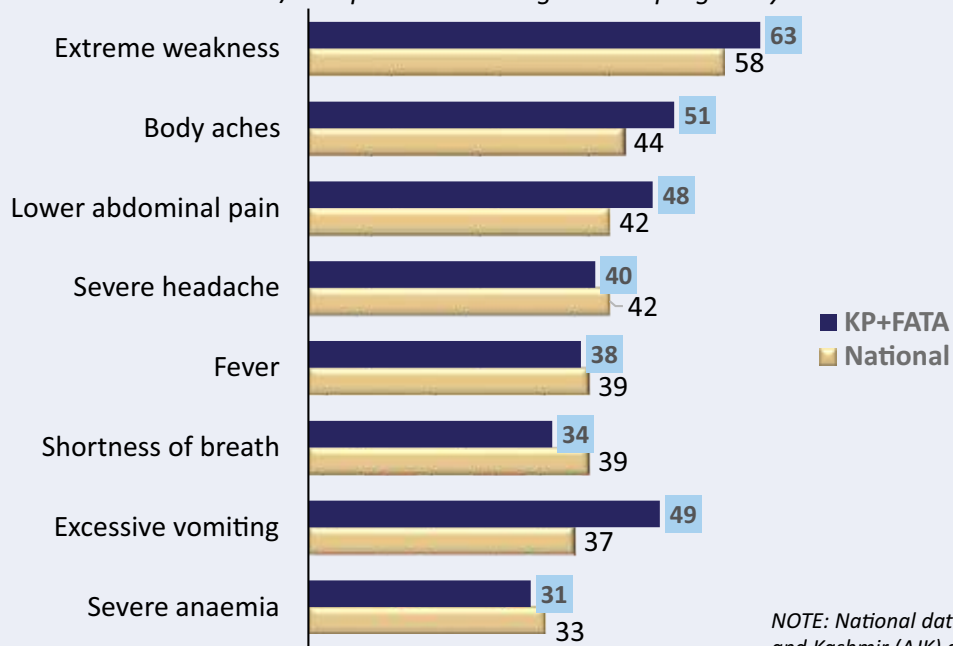
- **Morbidities during pregnancy, delivery, or postpartum**



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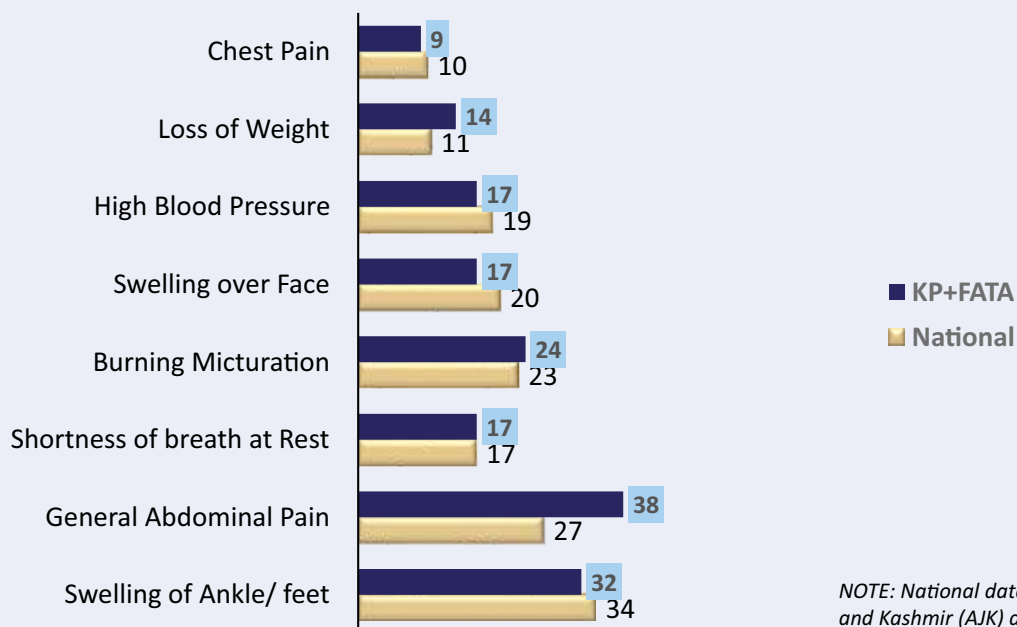
# Maternal Complications during Pregnancy: Self-Report KP vs National

Percent of live births/stillbirths/miscarriages/abortions for which women self-reported morbidities/ complications during the last pregnancy:



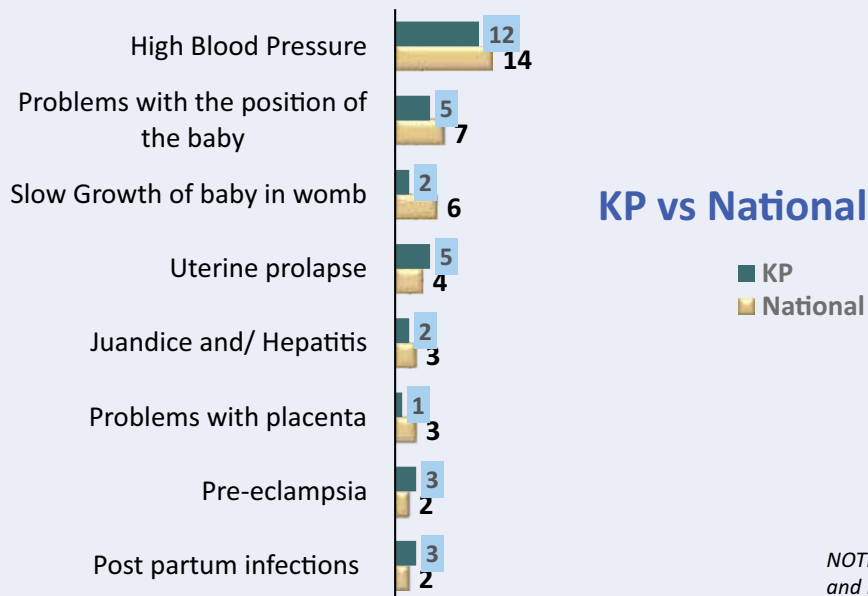
# Maternal Complications during Pregnancy: Self-Report KP vs National

Percent of live births/stillbirths/miscarriages/abortions for which women self-reported morbidities/ complications during the last pregnancy:



# Maternal Health Complications during Pregnancy: Informed by Health Provider

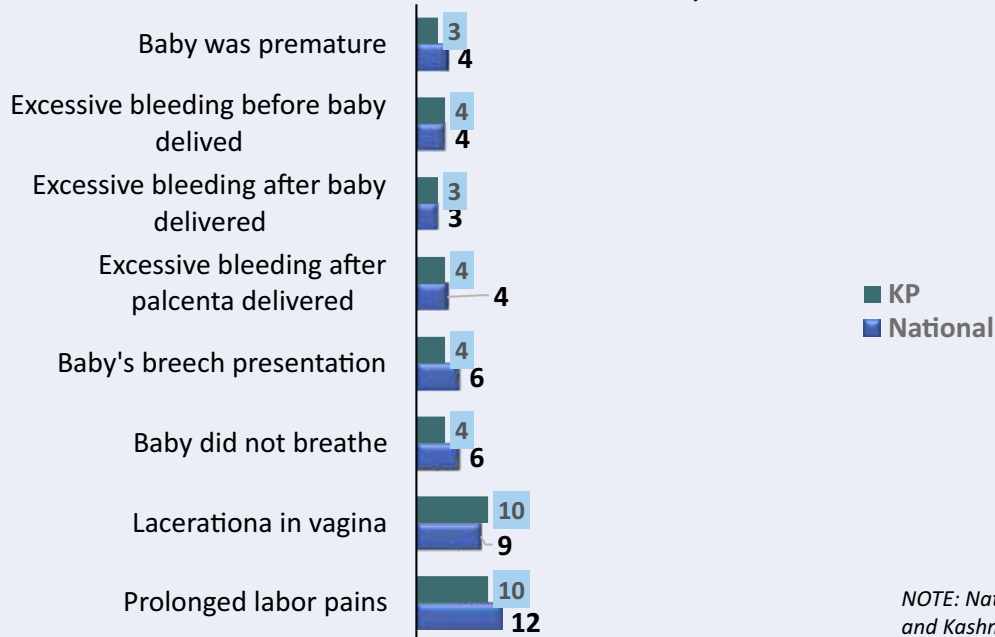
Percent of live births/stillbirths/miscarriages/abortions for which women were informed of complications by a provider:



NOTE: National data excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# Complications during Last Delivery: Self-Report KP vs National

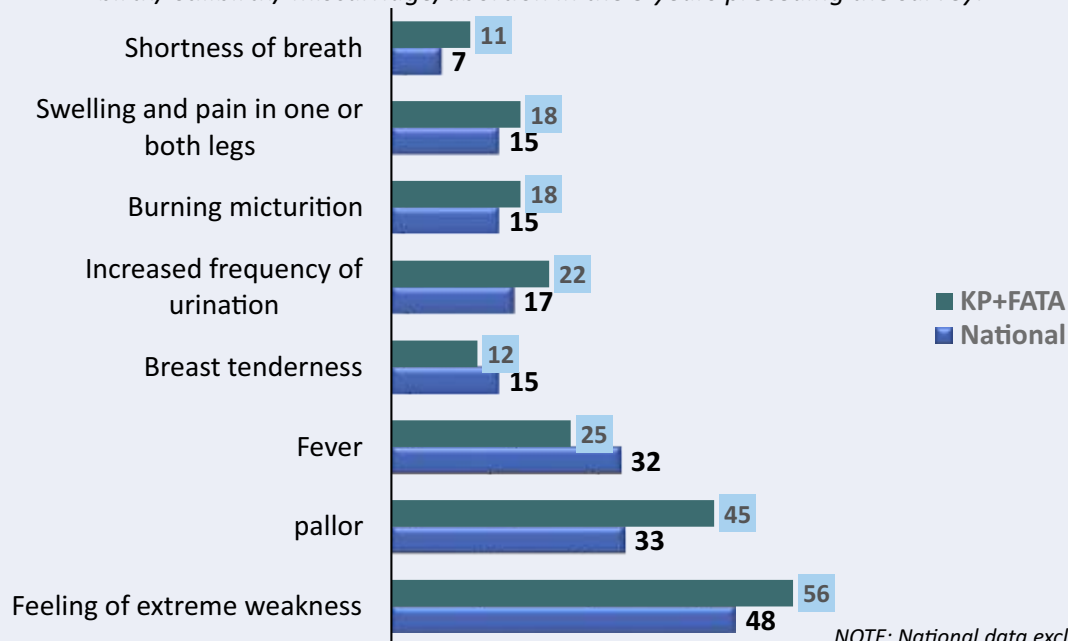
Percent of live births/stillbirths for which women self-reported morbidities/ complications during the last the last delivery:



NOTE: National data excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# Complications during Postpartum Period: Self-Report KP vs National

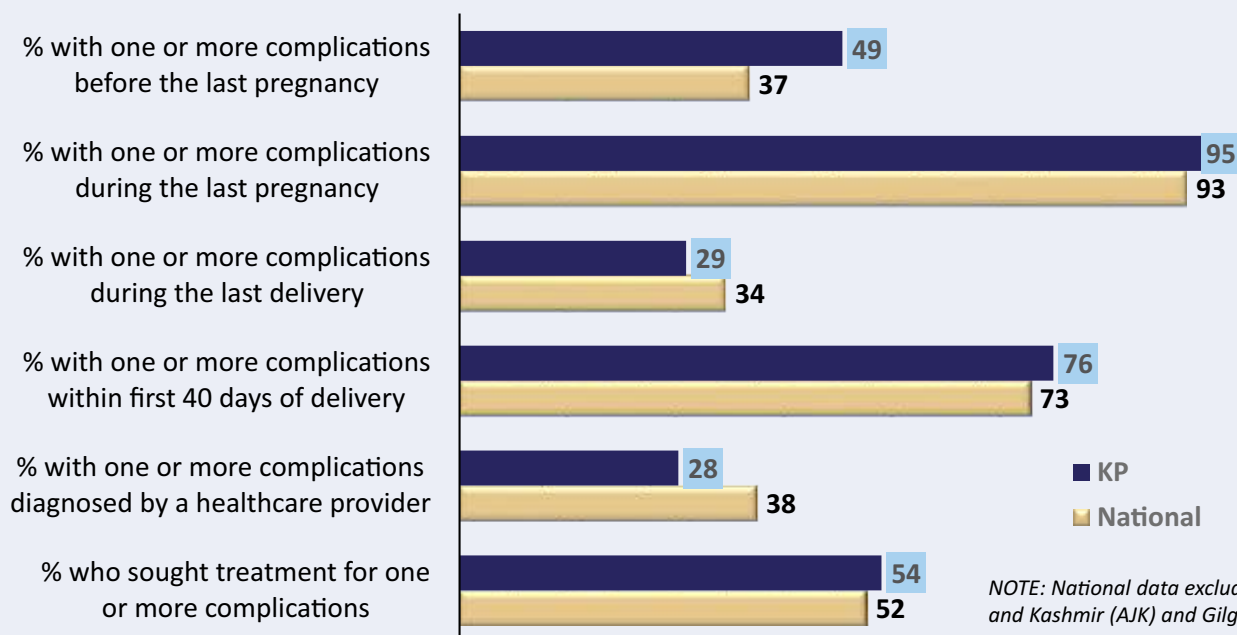
Percent of women's self-reported morbidities/ complications during the first 40 days after live birth/ stillbirth/ miscarriage/abortion in the 3 years preceding the survey:



NOTE: National data excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# Maternal Complications/ Morbidities: Overall Situation KP vs National

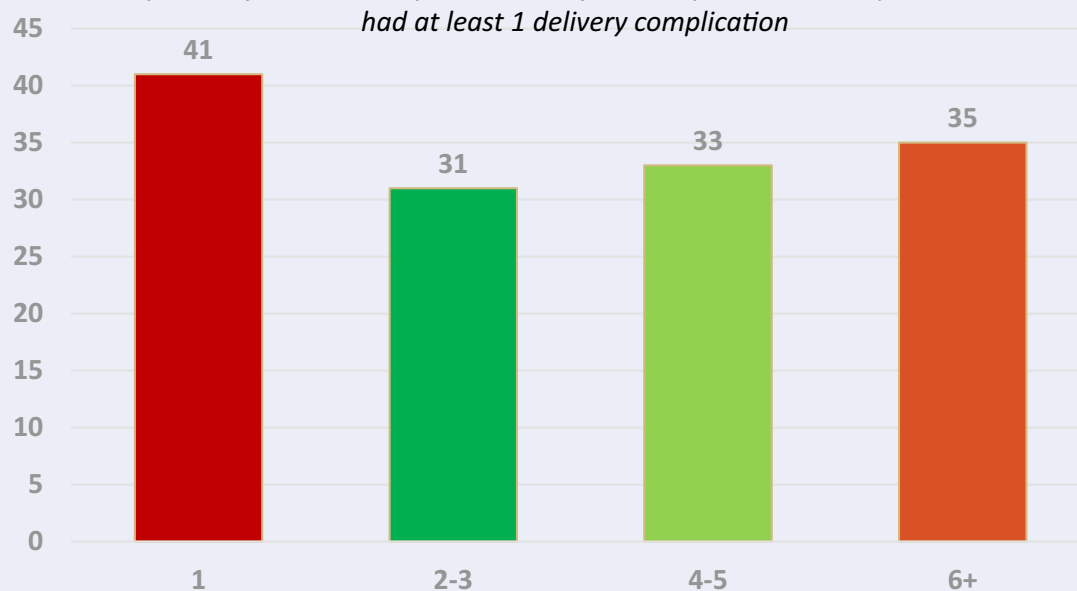
Percent of morbidities/ complications during pregnancy/ during delivery/ after delivery among women who had live births/ stillbirths/ miscarriage/ abortion during 3 years preceding survey:



NOTE: National data excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# Complications during Delivery by Birth Order

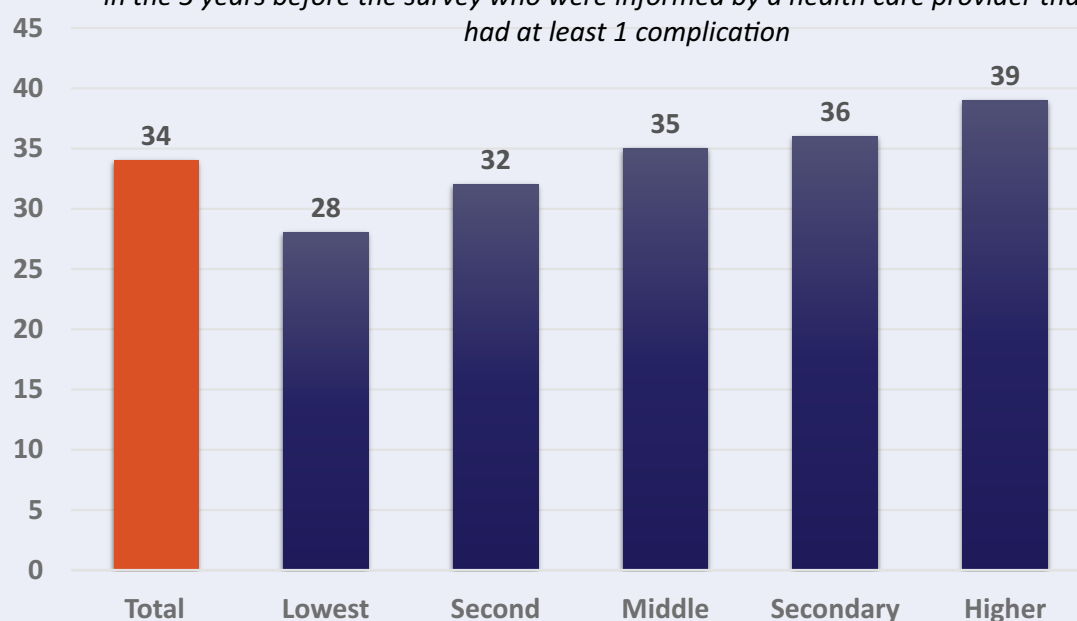
*Percent of ever-married women 15-49 with a live birth/stillbirth/miscarriage or abortion in the 3 years before the survey who were informed by a health care provider than that had at least 1 delivery complication*



*NOTE: Excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)*

# Maternal Morbidities by Household Wealth

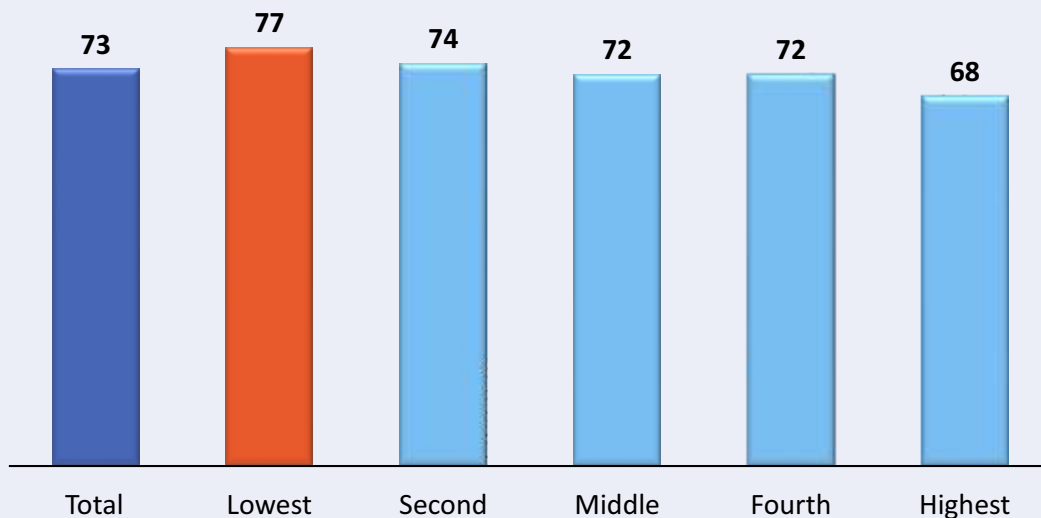
*Percent of ever-married women 15-49 with a live birth/stillbirth/miscarriage or abortion in the 3 years before the survey who were informed by a health care provider that they had at least 1 complication*



*NOTE: Excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)*

# Postpartum Complications by Household Wealth

Percent of ever-married women 15-49 with a live birth/stillbirth/miscarriage or abortion in the 3 years before the survey who had one or more complications within the first 40 days of delivery



NOTE: Excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

## Key Finding

- There are more chances of having one or **more complications during the pregnancy period** as compared to the delivery/ child birthing process and the postnatal period
- Chances of having one or more maternal complications/ morbidities are **highest for the first pregnancy** and then for the 5+ pregnancies
- In Pakistan, **52%** of women received treatment for one or more complications they experienced during pregnancy, delivery, or the postpartum period, whereas, **in KP similar health seeking behaviour is better (54%)**

# Health Care Seeking Behaviour



## 2019 Pakistan Maternal Mortality Survey (PMMS)

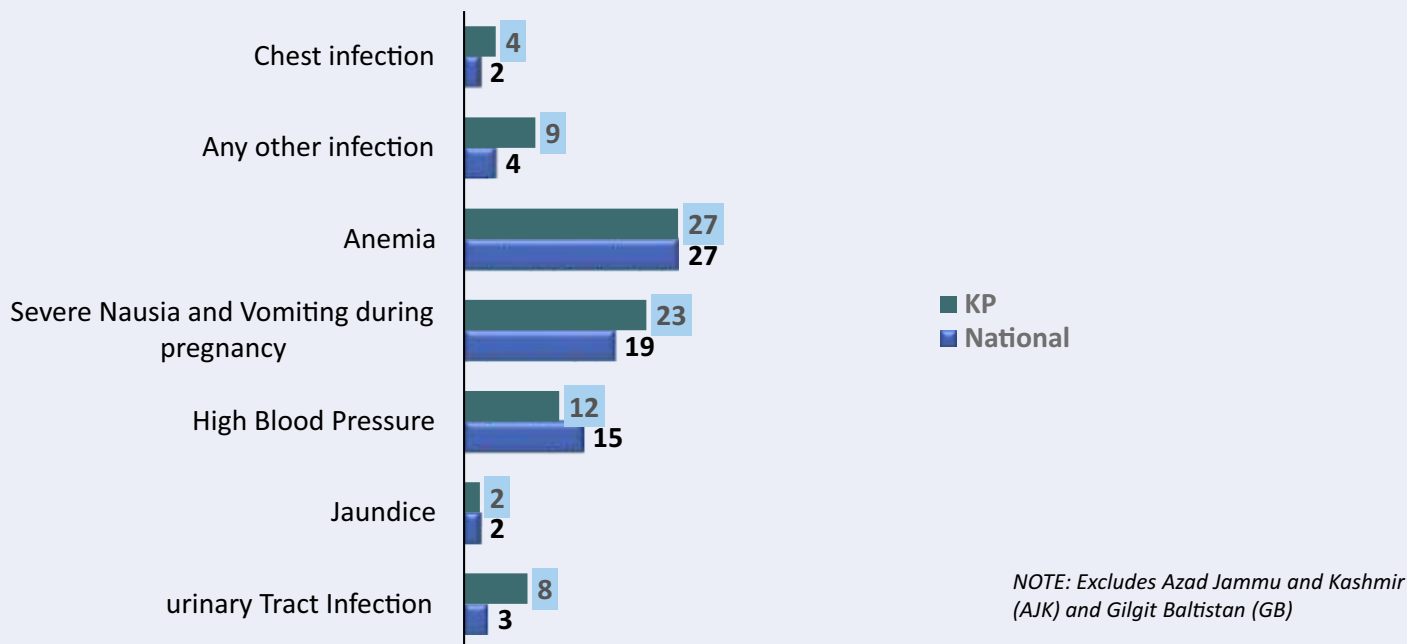
- Treatment for complications



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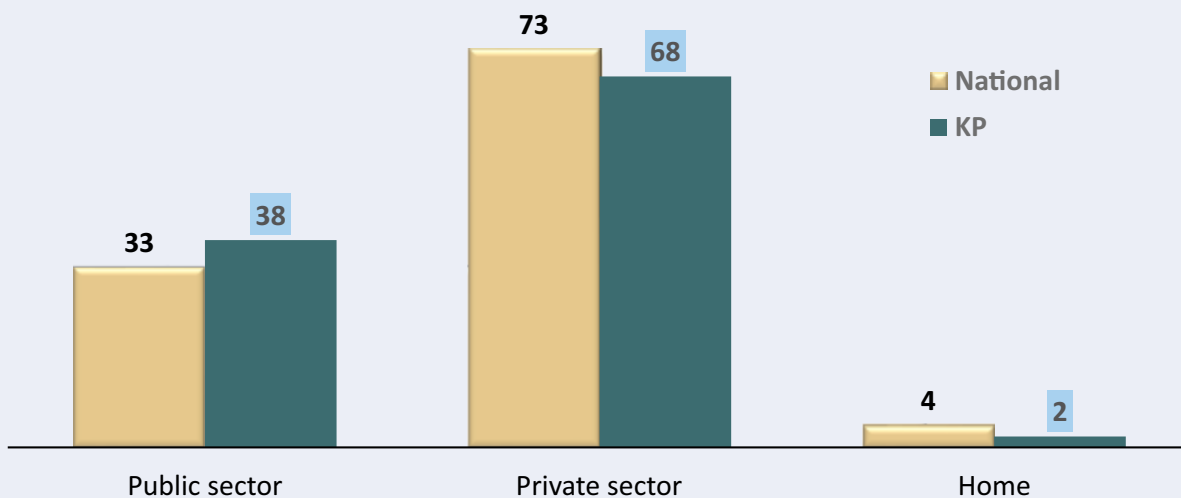
# Treatment for Maternal Complications/ Morbidities: Overall Situation: KP vs National

Percent of morbidities/ complications during pregnancy/ delivery/ after delivery among women who had live births/stillbirths/ miscarriage/ abortion during 3 years preceding survey:



# Place Where ANC Received: KP vs National

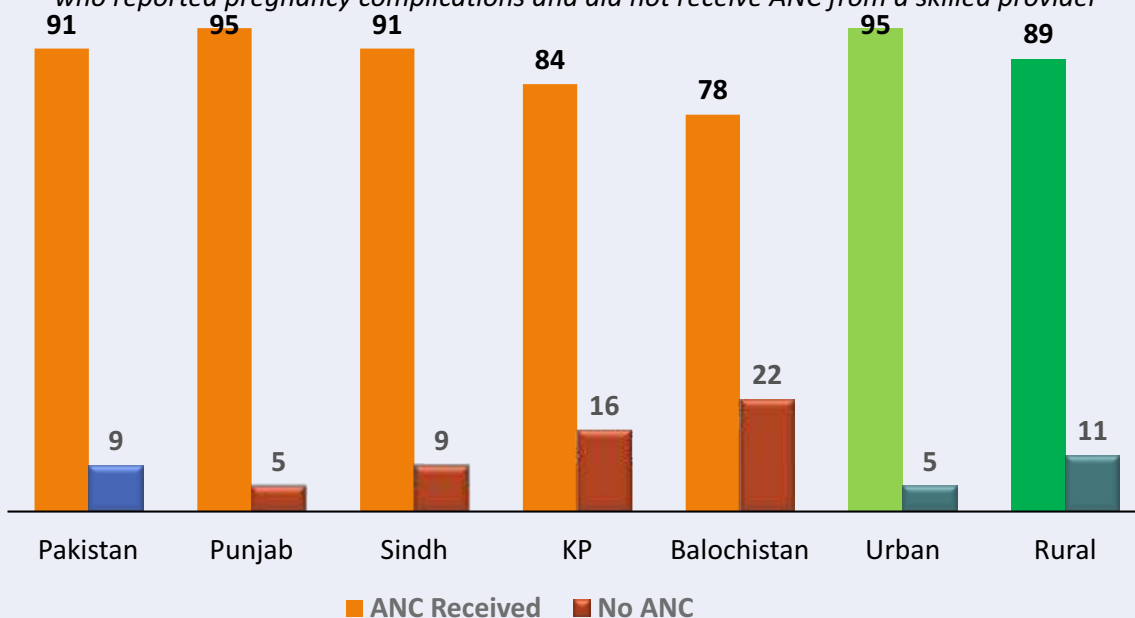
Percent of women age 15-49 with a pregnancy in the 3 years before the survey



NOTE: National data excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# Pregnancy Complications and ANC by Region

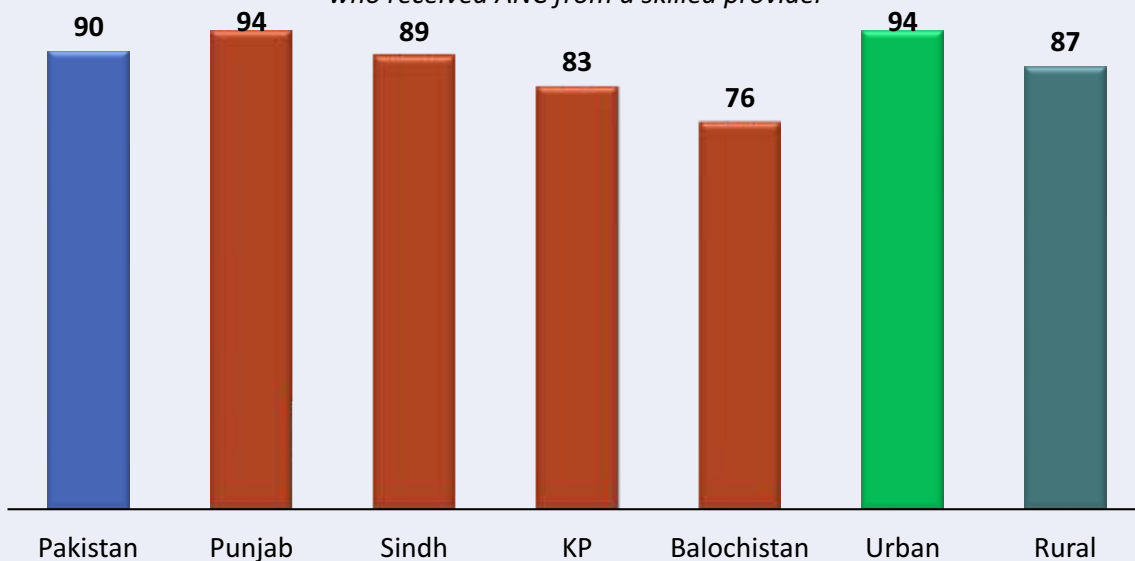
Percent of ever-married women age 15-49 with a pregnancy in the 3 years before the survey who reported pregnancy complications and did not receive ANC from a skilled provider



NOTE: National data excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# ANC Seeking from Skilled Provider by Region

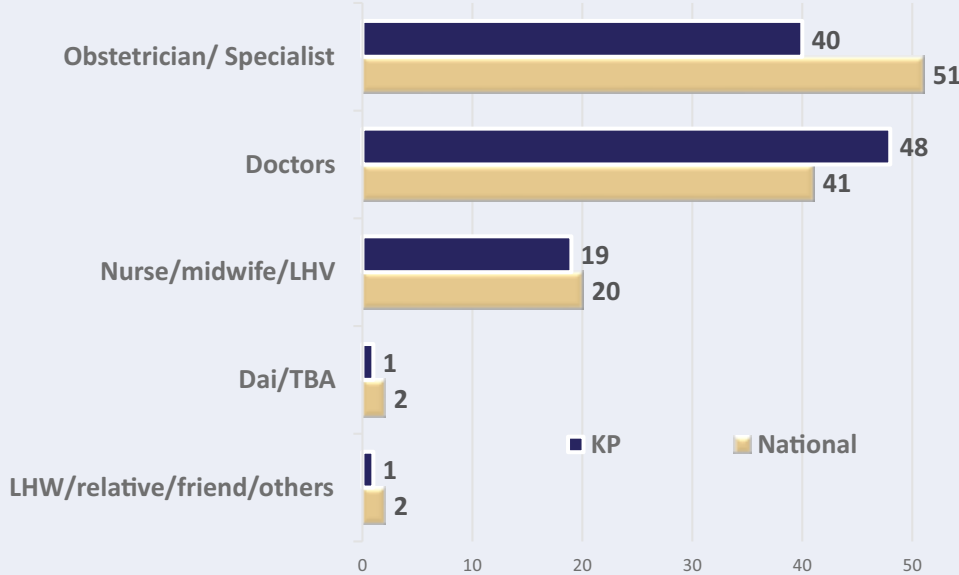
Percent of ever-married women age 15-49 with a pregnancy in the 3 years before the survey who received ANC from a skilled provider



NOTE: National data excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# Health Care Provider for Pregnancy Complications: (Antenatal Period) KP vs National

Percent distribution of ever-married women with pregnancy in the 3-year period before the survey, by type of health provider for Treatment of complication during pregnancy:

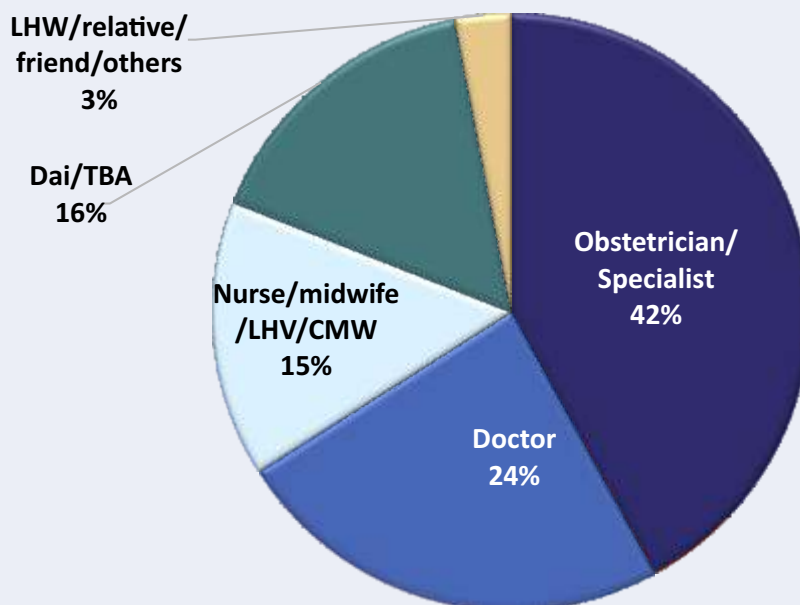


**Majority of women received ANC for Pregnancy Complications from a skilled provider\***  
 \*obstetrician specialist, doctor, nurse/midwife, lady health visitor or community midwife

NOTE: Excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# Health Care Provider for Delivery Complications

Percent distribution of ever-married women with livebirth/ stillbirth in the 3-year period before the survey, by type of health provider for Treatment of complication during Delivery:



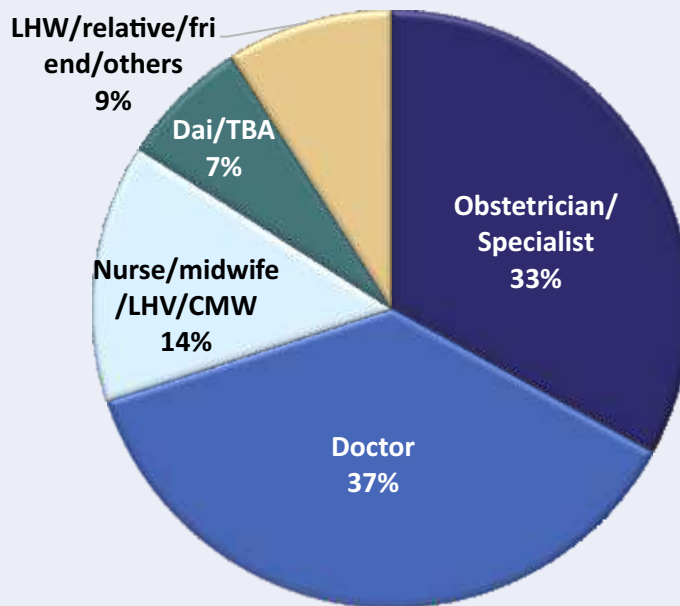
## National

**81% of women received care for Delivery Complications from a skilled provider\***  
 \*obstetrician specialist, doctor, nurse/midwife, lady health visitor or community midwife

NOTE: Excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# Health Care Provider for Delivery Complications:

Percent distribution of ever-married women with livebirth/ stillbirth in the 3-year period before the survey, by type of health provider for Treatment of complication during Delivery:



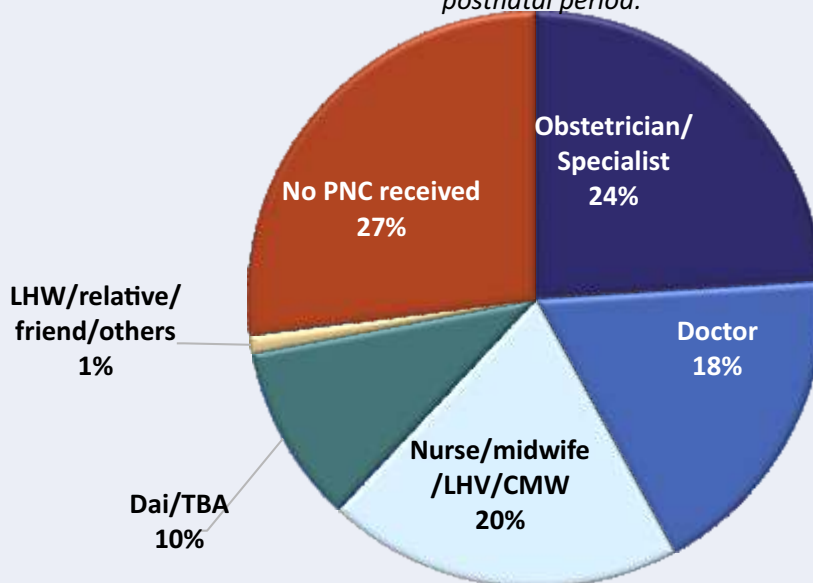
**KP**

**84% of women received care for Delivery Complications from a skilled provider\***

*\*obstetrician specialist, doctor, nurse/midwife, lady health visitor or community midwife*

# Health Care Provider for Postpartum Complications: (Postnatal Period)

Percent distribution of ever-married women with livebirth/stillbirth/miscarriage/abortion in the 3-year period before survey, by type of health provider for Treatment of complication during postnatal period:



**National**

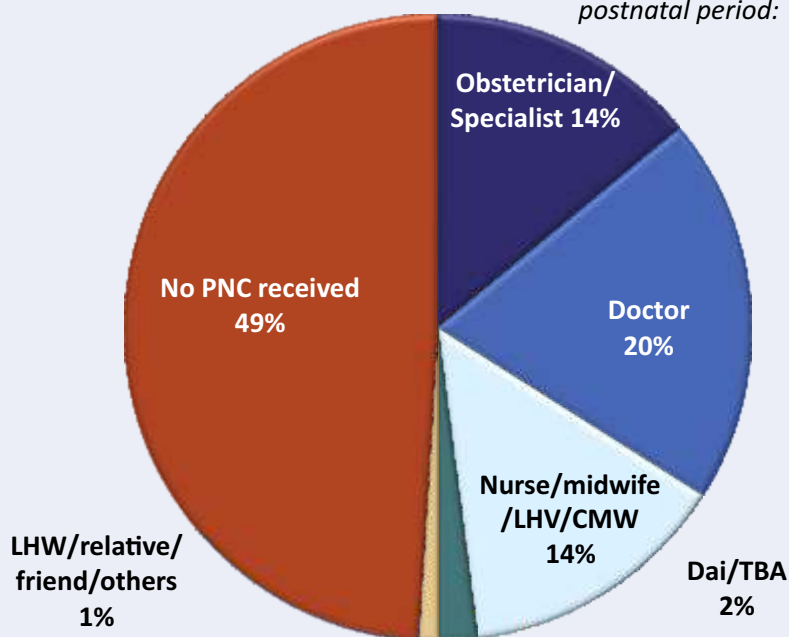
**62% of women received PNC for Complications from a skilled provider\***

*\*obstetrician specialist, doctor, nurse/midwife, lady health visitor or community midwife*

NOTE: Excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

# Health Care Provider for Postpartum Complications: (Postnatal Period)

Percent distribution of ever-married women with livebirth/stillbirth/miscarriage/abortion in the 3-year period before survey, by type of health provider for Treatment of complication during postnatal period:



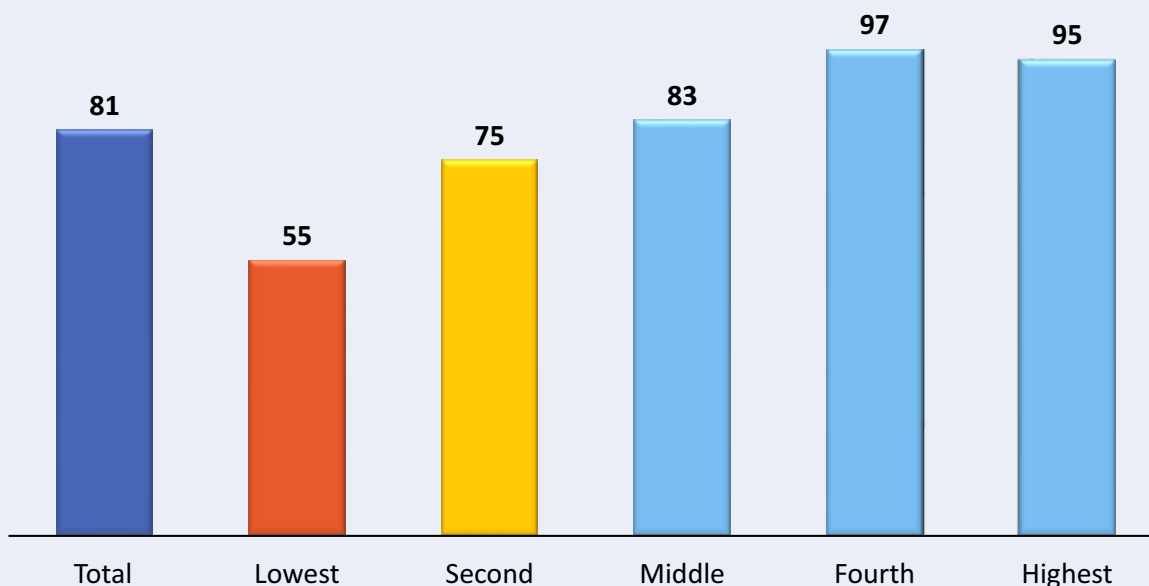
**KP**

**35% of women received PNC for Complications from a skilled provider\***

*\*obstetrician specialist, doctor, nurse/midwife, lady health visitor or community midwife*

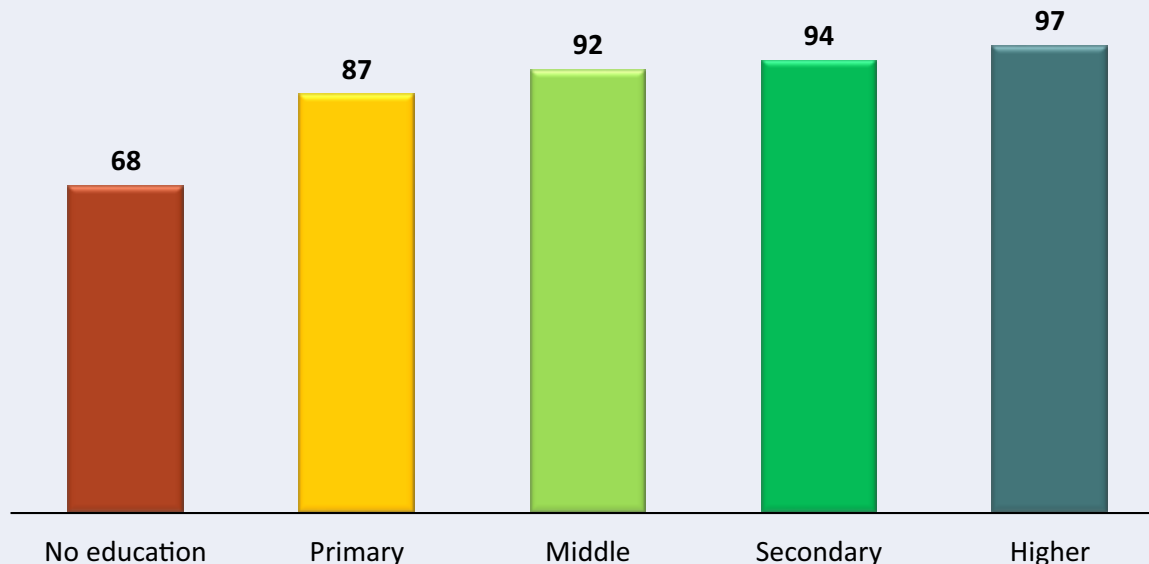
# Skilled Assistance for Delivery Complications by Wealth

Percent of ever-married women with a delivery in the 3 years before the survey who reported complications



# Skilled Assistance during Delivery Complications by Education

Percent of ever-married women with a delivery in the 3 years before the survey who reported complications



NOTE: Excludes Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB)

## Key Findings

### In KP:

- **68%** of women age 15-49 with pregnancy in the 3 years preceding the survey sought ANC from a private health facility while **38%** used a public sector facility; **16% did not receive any ANC from anywhere**
- **84%** of women age 15-49 with **complications during delivery** in the 3 years before the survey received health care from a skilled provider whereas, **7% received assistance from TBA/ DAI**
- **49%** of women age 15-49 who had **postpartum complications** in the 3 years before the survey **did not receive any PNC**
- Obstetrician/ Specialist and Doctors are the major health care providers for ANC, delivery and PNC complications

**National Institute of Population Studies,  
NIH Complex, Park Road, Chak Shahzad, Islamabad  
Tel: 051-9255931-8 Fax: 051-9255932  
Website: [www.nips.org.pk](http://www.nips.org.pk)**