

Pakistan Maternal Mortality Survey 2019

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In 2019, Pakistan achieved an important milestone by completing its first ever independent study on maternal mortality and morbidity – the 2019 Pakistan Maternal Mortality Survey (2019 PMMS). The 2019 PMMS provides a snapshot of maternal health, morbidity and mortality across Pakistan through a largescale household survey that is representative of the Country, the Provinces and Regions including Gilgit-Baltistan (GB) and Azad Jammu & Kashmir (AJK).

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, Islamabad, Pakistan. ICF provided technical assistance through The DHS Program, a project funded by the United States Agency for International Development (USAID) that provides support and technical assistance in the implementation of population and health surveys in countries worldwide. Support for the survey was also provided by the Foreign Commonwealth and Development Office (FCDO), the United Nations Population Fund (UNFPA), and Bill and Melinda Gates Foundation (BMGF).

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Additional information about the 2019 PMMS: Policy Brief on AJK may be obtained from the National Institute of Population Studies, Ministry of National Health Services, Regulations and Coordination, National Institute of Health (NIH), Park Road, Chak Shahzad, Islamabad, Pakistan; telephone: +92-51-9255937; fax: +92-51-9255932; internet: www.nips.org.pk.

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The Pakistan Maternal Mortality Survey-2019: Policy Brief on Maternal Mortality in Azad Jammu & Kashmir.



Background

In 2019, Pakistan achieved an important milestone by completing its first independent study on maternal mortality and morbidity – the 2019 Pakistan Maternal Mortality Survey (2019 PMMS). The 2019 PMMS provides a snapshot of maternal health, morbidity and mortality across Pakistan through a largescale household survey that is representative of the Country, the Provinces and Regions including Azad Jammu & Kashmir (AJK).

The 2006-07 Pakistan Demographic and Health Survey (2006-07 PDHS) collected information on maternal mortality for the first time in the country. A comparison of the maternal mortality ratio (MMR) at the national and provincial/ regional levels between the 2006-07 PDHS and 2019 PMMS provides an excellent opportunity to evaluate the country's progress in this area, while the data from the 2019 PMMS provide useful insights into the current situation and how best the country can prepare its health systems to better serve the needs of mothers and children.

This policy brief on Azad Jammu & Kashmir provides a summary of important findings from the 2019 PMMS to reflect the situation of maternal health and maternal morbidity & mortality in AJK. It also provides some evidence-based recommendations to improve the health status of women in Azad Jammu & Kashmir.

Maternal mortality is one of the most common causes of death among women of reproductive age (15-49 year) in developing countries, even though it is completely preventable in most cases. Although South Asia has reduced its MMR by nearly 60% between the years 2000 and 2017, the region still contributes one-fifth of all maternal deaths globally.¹ Pakistan had an estimated MMR of 276 maternal deaths per 100,000 live births in the years 2006-07.² In Pakistan, there is an overall decrease in the MMR between the 2006-07 PDHS and the 2019 PMMS, from 276 maternal deaths per 100,000 live births to 186 (for the 3 years preceding the survey), showing a one-third decline.³ In AJK, the MMR between the corresponding periods has declined from 201⁴ maternal deaths per 100,000 live births to 104 (reflecting 48% reduction). The SDG target for MMR is to reduce it to 70 maternal deaths per 100,000 live births by 2030. At the current rate of decline, Pakistan, including AJK, is unlikely to achieve this target, and the MMR in Pakistan in 2030 will be approximately 110 maternal deaths per 100,000 live births.

1. "Maternal Mortality." World Health Organization. Accessed November 2020. <https://www.who.int/news-room/fact-sheets/detail/maternal-mortality>.

2. National Institute of Population Studies (NIPS) [Pakistan], and Macro International Inc. 2008. Pakistan Demographic and Health Survey 2006-07. Islamabad, Pakistan: National Institute of Population Studies and Macro International Inc.

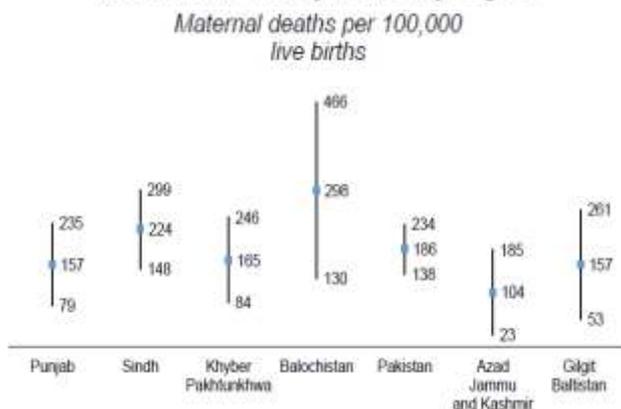
3. This evidence of a decline does not take account of statistical uncertainty in the estimates from the two surveys.

4. Multiple Indicator Cluster Survey (MICS), 2007-08, Pakistan Bureau of Statistics, Planning & Development Department, AJK

Key Findings from the 2019 PMMS

The overall MMR of Pakistan (excluding AJK and GB) is estimated to be 186 maternal deaths per 100,000 live births, with the distribution by region described in Figure below. The MMR in rural areas is greater (199, compared with 158 in urban areas). In AJK, MMR (104 with a confidence interval of 23-185 per 100,000 live births) is much lower than the national average.

Maternal mortality ratios by region



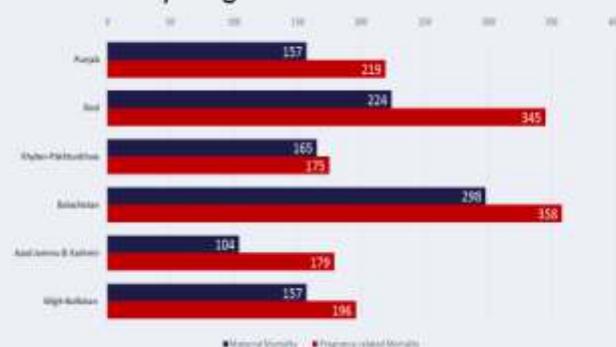
The overall MMR in Pakistan has declined from 276 in 2006-07 PDHS to 186 in 2019 PMMS.³ Observing the trend, the largest decline was observed in Balochistan where the MMR declined from 785 in 2006-07 to 298 in 2019. Declines were also observed in Punjab (from 227 to 157), Sindh (from 314 to 224), and KP (from 275 to 165; note that in the 2006-07 survey, FATA was not part of KP). The MMR decreased from 175 to 158 in urban areas and from 319 to 199 in rural areas. In AJK, the MMR has declined from 201 in 2007-08 to 104 in 2019.

The 2019 PMMS indicates that the major proportion of deaths is due to the direct causes such as obstetric hemorrhage, hypertensive disease of pregnancy, abortion-related complications and pregnancy-related infections, as compared to indirect causes. This finding may indicate that while the quality of maternal health services might have improved in the country, there is still a need to improve access to emergency obstetric care. The same stands true for the AJK.

AZAD JAMMU & KASHMIR (AJK)

- MMR is 104 with confidence interval: 23-185
- Pregnancy-related Mortality Ratio is 179
- Over 90% maternal deaths are attributable to direct obstetric causes
- Obstetric hemorrhage, hypertensive disorder, abortion-related complications and pregnancy-related infection are the major direct causes
- Indirect causes of maternal mortality include problems of nervous, digestive and respiratory systems, and infections
- In rural areas majority of the deceased women utilized public sector health facilities for seeking treatment
- In urban settings, private sector was the largest provider of treatment for the deceased women
- Many of the deceased women received treatment from both the public and private health facilities
- Utilization rate of public/ private health facilities is greater among educated women
- In rural areas, many women died on way to hospital or while returning home

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



Maternal Morbidity

For the first time in Pakistan, and the Azad Jammu & Kashmir, the 2019 PMMS collected information on maternal morbidity from women who had a pregnancy during the last three years preceding the survey. In AJK, overall 96% of the women interviewed said that they experienced an illness during pregnancy, while 48% reported having experienced a complication during delivery, and 75% reported that they suffered from an illness during the postpartum period. However, only 59% of women reported that they sought medical treatment for one or more complications during pregnancy, delivery or the postpartum period. 66% of women with live births or still births in the 3 years preceding the survey received ANC, assisted delivery and PNC.

In AJK, the most commonly reported symptoms during pregnancy (reported by 37%-61% of women) were feeling of extreme weakness, body aches, lower/ general abdominal pain, severe headache, excessive vomiting, shortness of breath and fever. The most commonly reported complications during delivery were prolonged labor pains (18%), excessive bleeding after placenta delivered (8%) or after baby delivered (9%) and laceration in the vagina (12%); breech presentation (12%), premature baby (10%) and the newborn not able to breathe (11%) after birth were also reported. Feeling of extreme weakness, pallor, heavy bleeding, increased frequency of urination, breast tenderness and fever during the postpartum period were reported by 14%-55% of women. In addition, 21% of women reported that they were informed by their healthcare provider that they had high blood pressure, while 12% of women were told about fetal malposition, 6% were diagnosed to have uterine prolapse and 6% were told about slow growth of the fetus.

Seeking treatment of the complications was much less common: The AJK data indicated that only 34% of women reported that they got treatment for anemia (the most probable cause of 'extreme weakness') and 24% and 22% of women received treatment for high blood pressure and severe nausea and vomiting during pregnancy, respectively.

AZAD JAMMU & KASHMIR (AJK)

- 97% of women received ANC from a skilled healthcare provider (Obstetrician or Specialist, Doctor, Nurse, LHV, Midwife/ CMW)
 - Obstetricians or Specialists (68%) are the major providers of ANC
 - Urban women seek ANC early and more frequently than rural women
 - ANC components-wise coverage is better than national averages
 - 80% women received 2 or more injections of tetanus toxoid vaccination
 - 76% deliveries are conducted at public (45%) or Private (31%) health facilities; while 24% deliveries are conducted at homes
 - 78% of live births are conducted by the skilled birth attendants; Obstetrician or Specialists are the major (53%) delivery assistance providers, followed by Doctors (16%)
 - Live birth (84%) is the usual outcome of the pregnancy whereas 11% end-up as miscarriage, 2% abortions and 3% stillbirths
 - 32% women undergo caesarian section
 - 25% women receive no postnatal checkup
 - Of those who receive PNC, 73% have postnatal check within first 2 days of delivery
 - 68% of women received PNC from a skilled provider; Obstetrician/ Specialist is the Major (34%) PNC provider followed by Nurse/ Midwife/ LHV/CMW (26%) and Doctor (9%)
 - Over 2% of women did not get ANC, assisted delivery or postnatal care
 - 1st childbirth is more prone (41%) to complications
- 66% of women received treatment for one or more complications they experienced during pregnancy, delivery or postnatal period

Conclusions and Recommendations

The good news is that the MMR has declined in Pakistan, and so in Azad Jammu & Kashmir also, over the last decade or so. Unfortunately, this decline has been slow, and it is unlikely that at this rate of decrease, Pakistan will achieve an MMR of 70 or less by the year 2030, which is the target for SDG-3 and ICPD25. However, looking at the past trend of MMR reduction, it can safely be envisaged that AJK can achieve the said target of lowering the MMR by 2030.

The decline in MMR is observed in all over the country; however, substantial differences exist between urban and rural areas and more developed and less developed regions and provinces of Pakistan. A comparison of the causes of maternal deaths in 2006-07 and 2019 suggests that women suffering from acute maternal complications such as obstetric hemorrhage and hypertensive disease of pregnancy are more vulnerable to die in the remote rural areas where access to emergency obstetric care is limited.

As the trends in antenatal care, skilled birth attendance, and delivery in a health facility, have increased remarkably over the past two decades, a corresponding decrease in maternal mortality has not been observed. This indicates that the quality and coverage of the reproductive health services in Pakistan and the AJK is generally not up to the mark. There are several other indicators to that effect:

- Family planning is an important intervention to prevent unwanted/ unintended pregnancies and unsafe abortions which, in turn, results into a decrease in maternal deaths. In Pakistan, the contraceptive prevalence rate (CPR) for modern methods is only 25% and has remained stagnant since 2013. However, as per 2017-18 PDHS, the modern Contraceptive Prevalence Rate (CPR) in AJK is 19% (much lower than the national average).
- The 2019 PMMS shows an increase in maternal deaths due to abortion-related complications (from 6% in 2006-07 to 10% in 2019). This indicates that family planning services are unable to meet the demand, especially in rural areas.
- Maternal deaths due to obstetric hemorrhage (antepartum and postpartum hemorrhage) have also increased, from 33% in 2006-07 to 41% in 2019. This indicates that quality emergency obstetric care services may not be accessible to all women. The situation may be worse in AJK.
- Not all women seek medical treatment for obstetric complications, particularly if they live in remote rural areas. In AJK, only 34% of women received treatment for anemia and just 24% for high blood pressure. Although, 95% of women in AJK receive antenatal care from a skilled provider and 59% sought treatment for one or more complications during pregnancy, delivery or postpartum period. This observation again raises questions about the quality of health care available to women during pregnancy, childbirth, and the postpartum period.
- In AJK, even though 84% of deliveries are conducted by skilled birth attendants (76% in a public or private health facility), the proportion of women having prolonged labor, vaginal laceration, and excessive bleeding after delivery are high particularly in remote rural areas.

The take-home message from the 2019 PMMS is that while Azad Jammu & Kashmir (and Pakistan as a whole) is on its way to achieving a better health status for its mothers, **the progress is slow and the healthcare delivery systems need much improvement** to meet the SDG-3 targets related to maternal health. AJK has a moderate system

for healthcare delivery, both in the public and private sectors which should be optimally utilized. In the public sector, its network of basic health units and rural health centers and its Lady Health Workers (LHWs) program are unique and could play a vital role for achieving the SDG/ICPD25 target of MMR below 70, if fully trained and equipped to provide quality obstetric and family planning services.

When women have universal access to good quality antenatal care and skilled birth attendance, they remain healthy during pregnancy and childbirth. Evidence from all over the world suggests that **providing universal access to maternal health services, including family planning, and improving the quality of healthcare available to women are crucial steps for reducing the MMR.** Following are some of the key interventions required/ recommended to reduce maternal mortality and morbidity and improve the maternal health status in Azad Jammu & Kashmir:

- Concerted efforts need to be made at all levels to **increase modern contraceptive use** to increase birth spacing and reduce unwanted/ unintended pregnancies and unsafe abortions. Family planning counselling and information and the full range of modern contraceptives should be freely available across the region, particularly in rural and low income urban areas. The federal and AJK governments must ensure that the supply of modern contraceptives remains uninterrupted in all areas of AJK. This can only be achieved when family planning is mandated as an essential health service, available at health facilities at all levels in both the public and private sectors. AJK will not be able to contribute towards country's national and international commitments related to fertility and maternal mortality targets stipulated in the CCI, FP2030, ICPD25 and SDGs unless public and private sectors and community health workers are fully mobilized and supported to meet the huge unmet need for modern contraception.
- Bringing routine maternal health services closer to women's homes by staffing and equipping basic health units and rural health centers to provide ANC, skilled birth attendance, and PNC.
- Improving the quality of maternal healthcare across all health facilities by rigorous training and monitoring of healthcare providers in the public sector and by closely regulating private sector maternity homes and hospitals. The government's initiative of universal healthcare (UHC) focuses on essential health services packages and inter-sectoral interventions, which may go a long way in assuring access to high quality reproductive health services to the entire population. However, the UHC interventions should highlight the importance of reproductive health services including family planning, antenatal care, skilled birth attendance and the postpartum and essential newborn care. Considering that AJK's MMR and infant and child mortality rates are high than the SDG targets, and that the rate of use of modern contraceptive methods is not optimal, there is an urgent need to bring greater and clearer emphasis on family planning and MNCH services across the region.

Achieving universal health coverage (UHC) is a Sustainable Development Goal (Goal 3, Target 3.8), which requires that the entire population should have access to affordable quality essential health care services and essential medicines and vaccines. The UHC approach would ensure that all women have access to affordable and quality antenatal care, delivery and postpartum care and emergency obstetric care Family Planning is also an essential health service included in the UHC approach and which can substantially improve maternal and child health indicators in Pakistan. While Pakistan has adapted the UHC approach at the federal level, there is a need to expand this to the entire country, and to ensure that all women have access to maternal health services, regardless of their residence, socioeconomic status, race, religion or education level.

Maternal death is defined as the death of a woman while pregnant, during childbirth, or within 42 days after delivery for which there was a verbal autopsy that classified deaths as being either direct or indirect maternal death.

Pregnancy-related death is defined as the death of a women while pregnant, during childbirth, or 42 days after delivery, regardless of the cause of death.

According to the WHO Maternal Mortality Working Group, maternal morbidity is defined as “any health condition attributed to and/or aggravated by pregnancy and childbirth that has a negative impact on the woman's wellbeing.” While self-reported information on the symptoms and description of maternal morbidity is subject to personal and recall biases, it does provide a general picture of prevailing complications during pregnancy, childbirth, and the postpartum period.

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