



Gallup Pakistan Analysis of Punjab Multiple Indicator Cluster Survey (MICS) 2024

Neonatal and Infant Mortality in Punjab



PRESS RELEASE

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Punjab's Child Survival Improves, But Neonatal Deaths and Deep Inequalities Persist

Islamabad, January 6th, 2026

Gallup Pakistan, as part of its Big Data Analysis initiative, presents an analysis of child mortality patterns in Punjab using the latest MICS 2023–24 data. The findings show that while child survival has improved over the past decade, Punjab continues to experience high neonatal and infant mortality, with significant disparities across rural areas, poorer households, and children born to young mothers. The report also examines the influence of maternal education, birth spacing, and demographic risk factors, highlighting the urgent need for targeted, equity-focused interventions in Punjab's maternal and child health system.

What is the Big Data Analysis Series by Gallup?

Gallup Pakistan's Big Data Series was founded by Bilal I Gilani, Executive Director of Gallup Pakistan. Explaining its purpose, Bilal notes: *"Pakistan isn't suffering from a shortage of data — it suffers from a shortage of usable, accessible data. Large datasets exist, but they're rarely translated into meaningful insights for policymakers and the public. Gallup Pakistan bridges this gap."* The series has previously analyzed a wide range of national datasets, including PSLM, the Labor Force Survey, Economic Survey of Pakistan, National Census Reports, and Election Commission datasets. Recent editions have examined major demographic and health trends using sources like the Global Burden of Disease (GBD), PBS, and DHIS2. The goal remains consistent: to transform raw data into public knowledge that can inform national dialogue and development priorities.

What data points this current edition covers:

This edition of Gallup Pakistan's Big Data Analysis uses the Punjab Multiple Indicator Cluster Survey (MICS) 2023–24 to examine child mortality patterns across the province. It reviews neonatal, infant, and under-5 mortality rates; inequalities by residence, mother's education, and household wealth; demographic risk factors such as birth spacing, birth order, and maternal age; as well as long-term mortality trends from 2007 to 2024. Together, these indicators provide a comprehensive, evidence-driven picture of child survival and the persistent gaps affecting vulnerable households in Punjab.

Punjab's Child Survival Improves, But **Neonatal Deaths** and Deep Inequalities Persist

High Under-5 Mortality:

Punjab records an under-5 mortality rate of **55** deaths per **1,000** live births, with infant mortality at **49** and neonatal mortality at **33**. Most deaths occur in the first month of life, underscoring major gaps in antenatal, delivery, and immediate newborn care.



Rural Children Face Greater Risk:

Under-5 mortality is **59** in rural areas compared to **45** in urban localities. This rural disadvantage reflects disparities in health facility access, transportation barriers, care quality, and timely treatment-seeking.



Sharp Socioeconomic Inequalities:

Children in the poorest households experience an under-5 mortality rate of **88**, nearly three times higher than the **31** recorded among the richest quintile. Structural disadvantages continue to drive preventable deaths among low-income families.



Maternal Education Strongly Predicts Survival:

Under-5 mortality decreases steadily with rising maternal education—from **67** among mothers with no schooling to **34** among mothers with higher education. Educated mothers demonstrate better care-seeking behaviors and health practices.



Demographic Risks Elevate Mortality: Short birth intervals (<2 years) result in extremely high mortality (90), while higher-order births (4th child and beyond) see under-5 mortality reach 81. Teen mothers also show elevated risk, with mortality at 76 for births to mothers under 20.

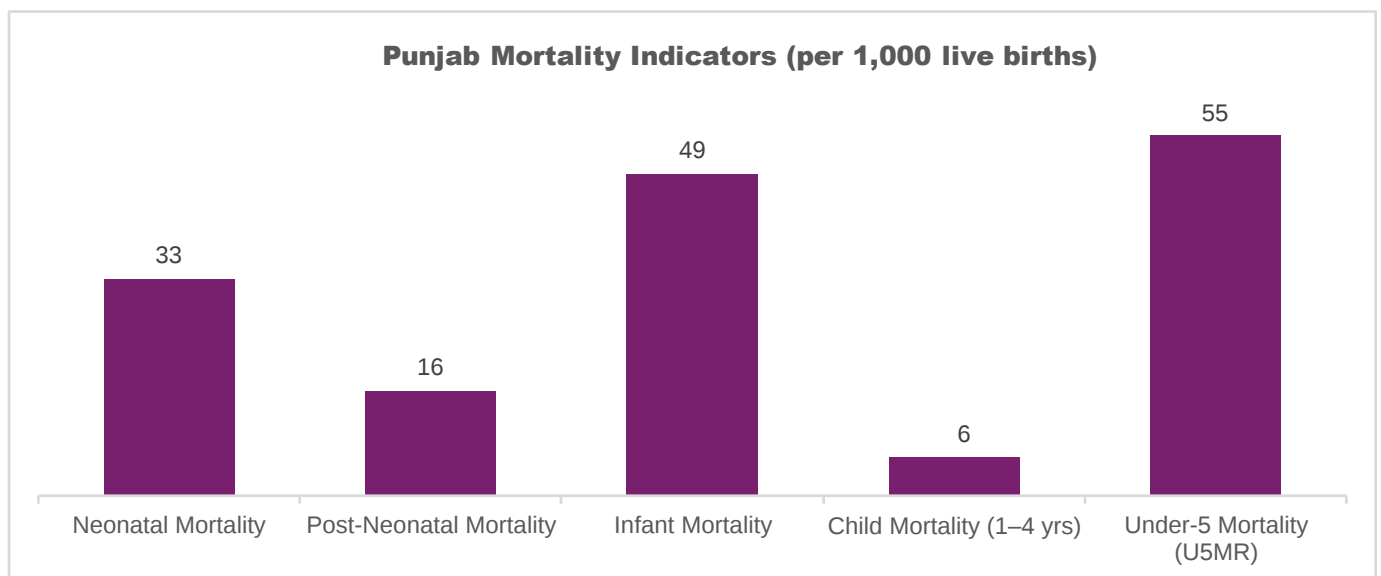
Boys Slightly More Vulnerable: Male under-5 mortality is 58, compared to 53 for females, reflecting biological vulnerabilities during the neonatal period.

Key Findings:

1. **High Under-5 Mortality:** Punjab records an under-5 mortality rate of 55 deaths per 1,000 live births, with infant mortality at 49 and neonatal mortality at 33. Most deaths occur in the first month of life, underscoring major gaps in antenatal, delivery, and immediate newborn care.
2. **Rural Children Face Greater Risk:** Under-5 mortality is 59 in rural areas compared to 45 in urban localities. This rural disadvantage reflects disparities in health facility access, transportation barriers, care quality, and timely treatment-seeking.
3. **Sharp Socioeconomic Inequalities:** Children in the poorest households experience an under-5 mortality rate of 88, nearly three times higher than the 31 recorded among the richest quintile. Structural disadvantages continue to drive preventable deaths among low-income families.
4. **Maternal Education Strongly Predicts Survival:** Under-5 mortality decreases steadily with rising maternal education—from 67 among mothers with no schooling to 34 among mothers with higher education. Educated mothers demonstrate better care-seeking behaviors and health practices.
5. **Demographic Risks Elevate Mortality:** Short birth intervals (<2 years) result in extremely high mortality (90), while higher-order births (4th child and beyond) see under-5 mortality reach 81. Teen mothers also show elevated risk, with mortality at 76 for births to mothers under 20.
6. **Boys Slightly More Vulnerable:** Male under-5 mortality is 58, compared to 53 for females, reflecting biological vulnerabilities during the neonatal period.
7. **Progress Slowing Over Time:** Although under-5 mortality has declined from 93 in 2007–08 to 55 in 2024, the rate of improvement has slowed considerably in the past decade. Stagnation suggests the need for targeted, equity-focused health system reforms.

1. Child Mortality in Punjab (Last 5 Years)

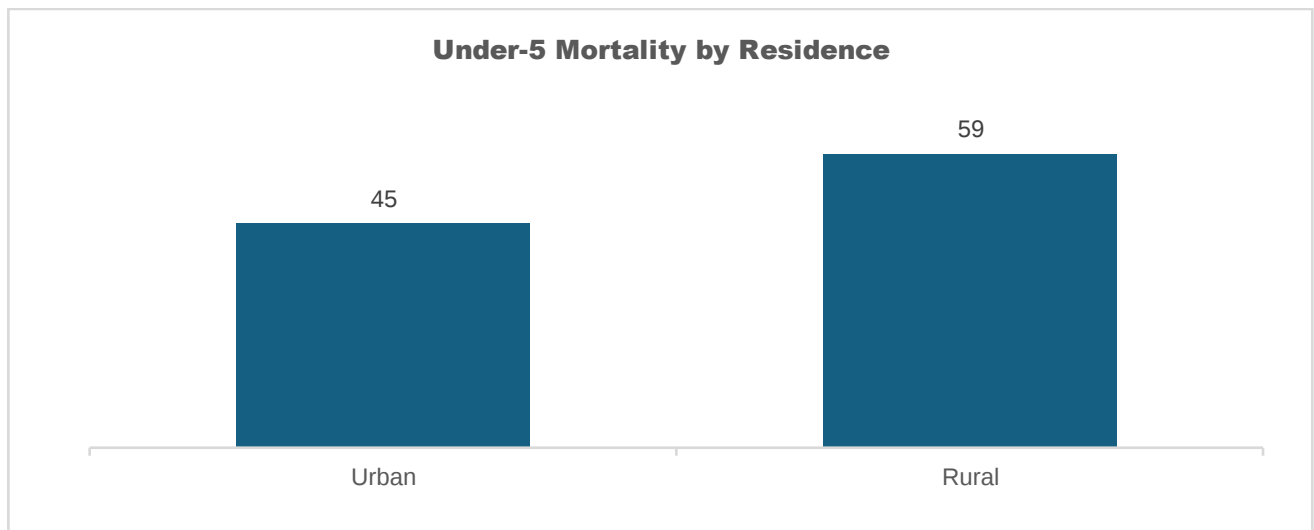
Child mortality in Punjab remains a major public health concern despite overall improvements in recent years. According to MICS 2023–24, the province records an under-5 mortality rate of 55 deaths per 1,000 live births, with infant mortality at 49, neonatal mortality at 33, post-neonatal mortality at 16, and child mortality (ages 1–4) at 6. These numbers reveal that the vast majority of deaths occur within the first year of life, particularly in the neonatal period, where biological vulnerability is high and timely medical intervention is critical. The gap between neonatal and post-neonatal deaths indicates that early-life complications, such as birth asphyxia, preterm birth, sepsis, and poor quality of immediate newborn care, remain significant challenges. Although Punjab has achieved progress compared to 2007–08 levels, the province’s mortality indicators still exceed global targets—particularly the SDG benchmark of reducing under-5 mortality to 25 per 1,000 live births. Taken together, these figures highlight the continued need for intensive investments in maternal and newborn health systems, especially at the point of delivery and during the initial 28 days of life, where risks remain highest.



Source: Punjab MICS 2023–24 (Bureau of Statistics Punjab & UNICEF)

2. Urban–Rural Divide

The urban–rural divide in child mortality is stark and consistent with long-standing structural inequalities in Punjab. Rural areas experience an under-5 mortality rate of 59 per 1,000 live births, compared to 45 in urban settings. This 14-point gap illustrates the profound influence of geographic and infrastructural disparities on survival outcomes. Rural mothers often face barriers that urban families do not—such as longer distances to health facilities, reduced availability of skilled birth attendants, delayed recognition of danger signs, transportation constraints, and lower access to emergency obstetric care. Households in rural Punjab are also more likely to rely on traditional practices, experience lower antenatal care coverage, and have limited access to essential newborn care services. These compounding disadvantages translate into delayed intervention at critical moments, which can escalate complications that are otherwise preventable. The persistent gap shows that improvements in Punjab’s overall health indicators are not evenly shared, and targeted strategies—increasing rural facility readiness, improving referral systems, and investing in community-based health workers—remain vital for reducing preventable deaths.

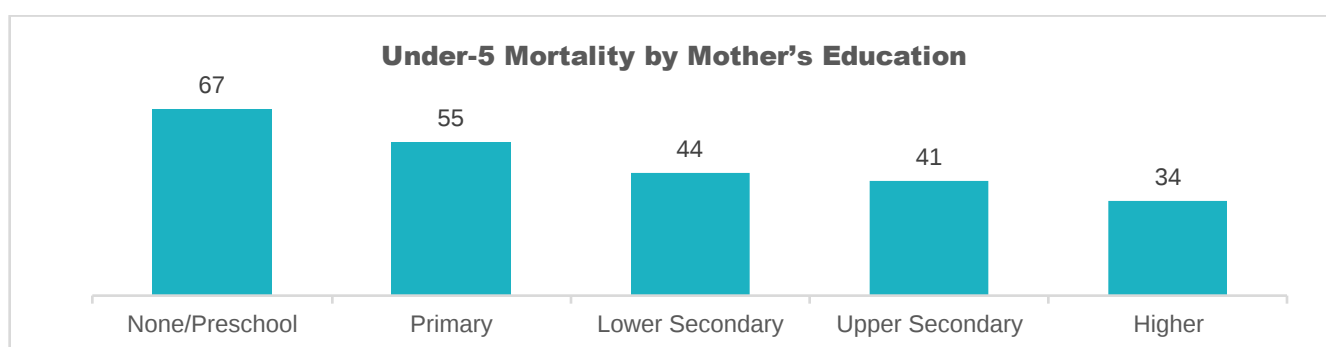


Source: Punjab MICS 2023–24 (Bureau of Statistics Punjab & UNICEF)

3. Inequalities by Mother's Education & Wealth

A. Mother's Education

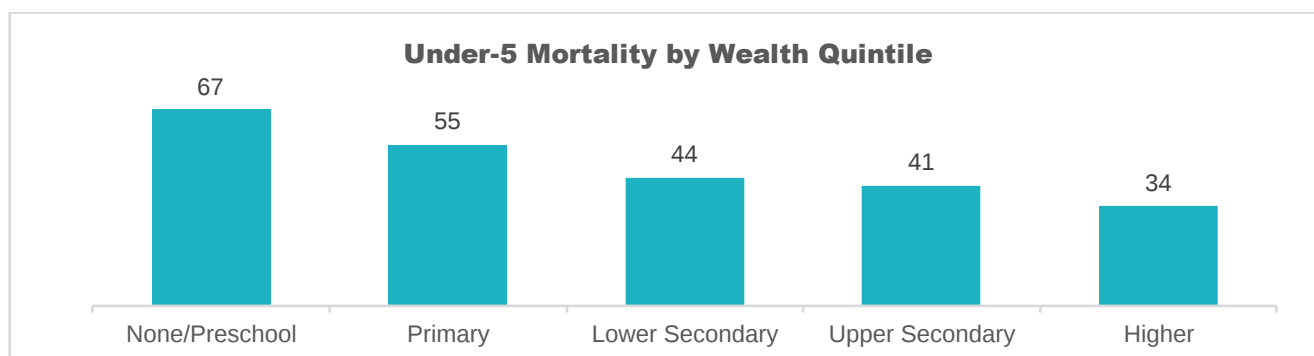
Maternal education remains one of the strongest predictors of child survival in Punjab. The MICS 2024 data show that under-5 mortality declines steadily with higher levels of education: from **67** among mothers with no schooling to **34** among mothers with higher education. This near 50% reduction reflects the powerful role of education in shaping health behaviors, awareness, and autonomy. Educated mothers are more likely to recognize danger signs during pregnancy and childhood illness, seek timely medical care, access antenatal and postnatal services, and demand quality healthcare for their newborns. They also tend to practice better nutrition, sanitation, and hygiene routines at the household level. Moreover, educated women typically possess greater decision-making power, which directly influences care-seeking patterns. These data reaffirm the long-term, intergenerational benefits of female education—not only for empowerment and economic mobility but also for improved survival prospects of children.



Source: Punjab MICS 2023–24 (Bureau of Statistics Punjab & UNICEF)

B. Household Wealth

The wealth gradient in child mortality in Punjab is even more pronounced. Mortality rates fall sharply from 88 deaths per 1,000 live births among children in the poorest quintile to only 31 among the richest—representing nearly a three-fold difference. This disparity underscores how socioeconomic status shapes nearly every dimension of maternal and child health—from the ability to access quality healthcare, nutrition, and sanitation, to the stability of household living conditions. Poorer households frequently experience inadequate access to clean water, low-quality diets, limited access to skilled birth attendants, and reduced financial capacity to seek private or emergency care when complications arise. Wealthier families, by contrast, often benefit from better education, stronger health-seeking behaviors, and easier access to medical services. The depth of the wealth gradient highlights the urgent need for social protection mechanisms, health financing solutions, and equitable distribution of healthcare infrastructure to ensure that survival is not determined by a child's economic circumstances at birth.

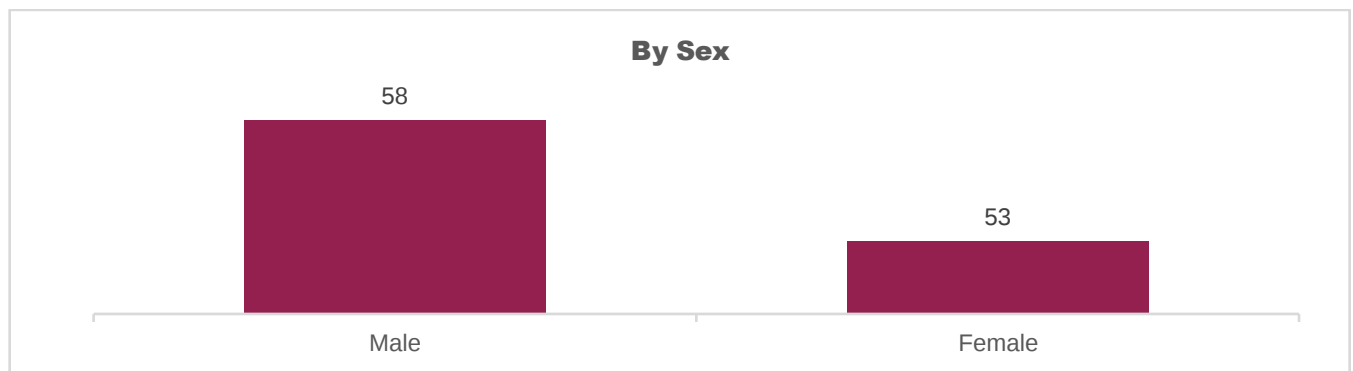


Source: Punjab MICS 2023–24 (Bureau of Statistics Punjab & UNICEF)

4. Demographic Risk Factors

A. Sex of the Child

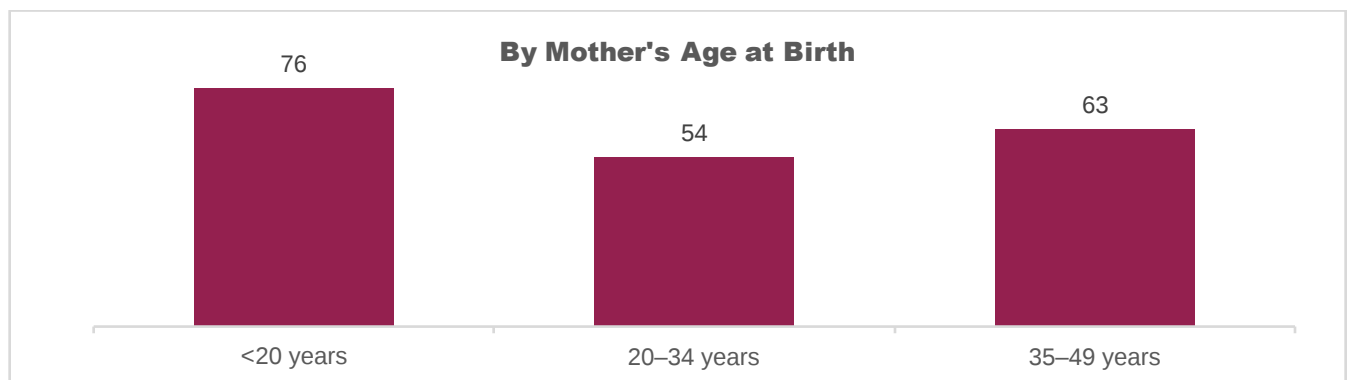
Although Punjab's overall child mortality rates have improved, male children continue to exhibit a slightly higher risk of death than females, with under-5 mortality recorded at **58** for boys compared to **53** for girls. This pattern aligns with biological evidence suggesting greater vulnerability among male newborns, particularly to complications such as respiratory distress, infections, and preterm birth. Despite cultural preferences that might favor boys in care-seeking, biological susceptibility during the neonatal window often outweighs behavioral factors. The narrowed gap compared to earlier surveys also reflects some progress in parity of care between genders.



Source: Punjab MICS 2023–24 (Bureau of Statistics Punjab & UNICEF)

B. Mother's Age at Birth

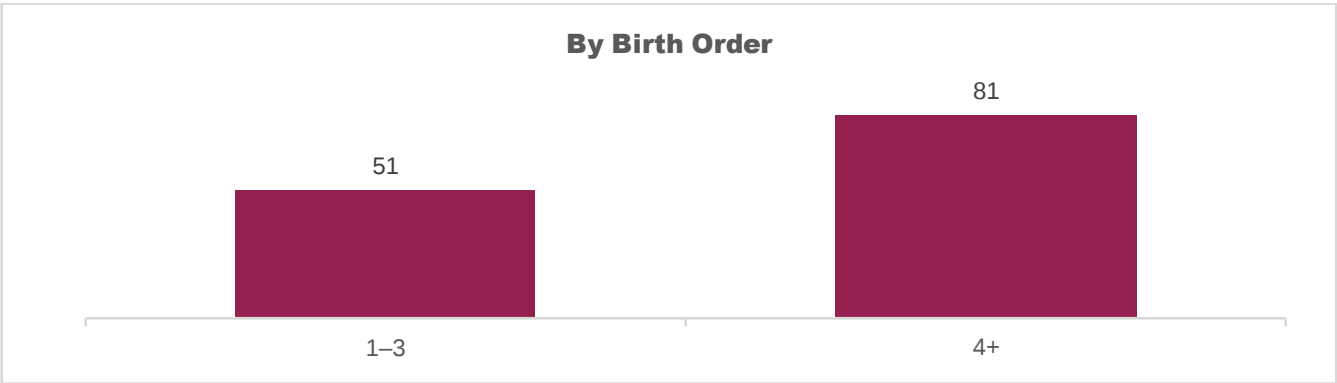
Maternal age is another powerful determinant of child survival. Children born to teenage mothers show an under-5 mortality rate of 76, significantly higher than the 54 among mothers aged 20–34. Younger mothers often lack the physiological maturity, financial stability, and health awareness needed for safe pregnancy and childbirth. They are also more likely to face complications such as obstructed labor, low birth weight, and reduced antenatal care coverage. Mortality again rises for mothers aged 35–49, where biological risks such as gestational complications and congenital anomalies increase. These findings emphasize the importance of delaying first pregnancy and providing targeted counseling to older mothers during antenatal visits.



Source: Punjab MICS 2023–24 (Bureau of Statistics Punjab & UNICEF)

C. Birth Order

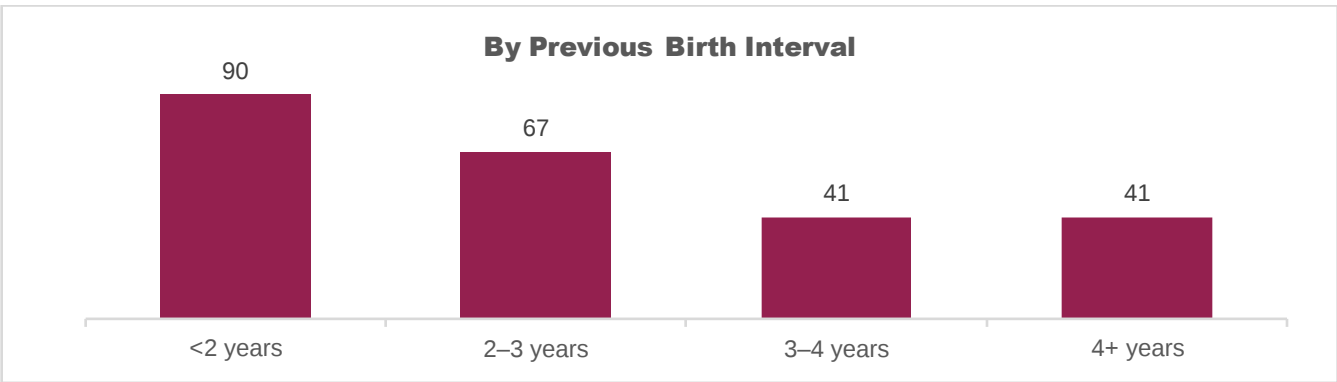
Child mortality escalates significantly with higher birth order. Children whose births fall in the 4+ birth order category have a mortality rate of 81, compared to 51 for birth orders 1–3. This pattern is linked to resource dilution—larger families may struggle to meet nutritional, financial, and healthcare needs across multiple children. Maternal depletion also plays a role, as women with many successive pregnancies may face nutritional deficiencies or incomplete recovery between births. These data underline the necessity of robust family planning programs that help families space and limit births according to their capacity and resources.



Source: Punjab MICS 2023–24 (Bureau of Statistics Punjab & UNICEF)

D. Previous Birth Interval

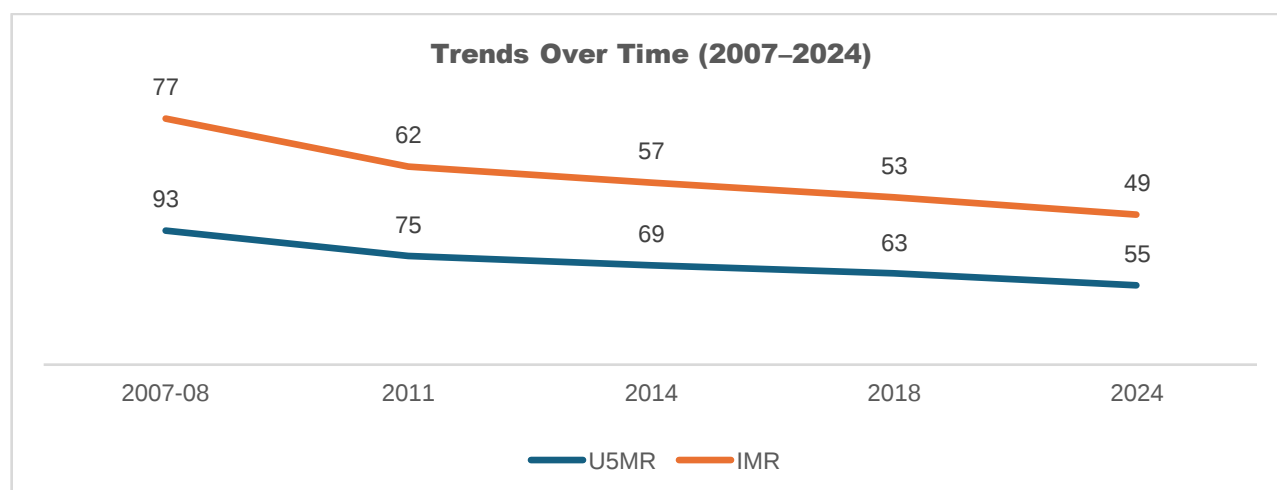
Birth spacing emerges as one of the most consequential demographic risk factors in the MICS dataset. Children born less than 2 years after a previous sibling exhibit an alarming under-5 mortality rate of 90, compared to only 41 among those spaced by 3–4 years or more. Short intervals heighten risks by reducing maternal recovery time, increasing chances of preterm birth, and weakening infant immunity. Longer intervals, on the other hand, allow mothers to regain nutritional and physiological strength, while enabling families to allocate more time and resources to each child. This striking gradient underscores the need for accessible, well-communicated birth spacing programs in Punjab’s maternal health strategy.



Source: Punjab MICS 2023–24 (Bureau of Statistics Punjab & UNICEF)

5. Trends Over Time (2007–2024)

Punjab’s long-term child mortality trend reflects substantial progress, but the pace of improvement has slowed in recent years. Under-5 mortality has fallen from approximately 93 deaths per 1,000 live births in 2007–08 to 55 in 2024, a reduction of nearly 41%. Infant mortality has also declined from around 77 to 49 over the same period. The steepest declines were recorded between 2007 and 2014, driven largely by improvements in immunization, expansion of maternal health services, and greater availability of skilled birth attendants. However, progress has plateaued since 2014, with reductions becoming notably slower. This slowdown suggests that Pakistan has exhausted many of the “quick win” interventions and must now tackle deeper systemic barriers—such as quality of care at delivery, emergency referral systems, neonatal intensive care availability, and persistent socioeconomic inequalities. The trend lines reveal that while Punjab is on the right trajectory, achieving SDG targets will require a renewed, targeted, and equity-focused approach.



Source: Punjab MICS 2023–24 (Bureau of Statistics Punjab & UNICEF)

About the MICS Punjab 2023–24 Survey

The Multiple Indicator Cluster Survey (MICS) 2023–24 is Punjab’s largest and most comprehensive source of population and social sector statistics, conducted by the Bureau of Statistics, Government of Punjab, in collaboration with UNICEF. The survey provides high-quality, internationally comparable data on the well-being of women and children across the province. MICS follows a globally standardized methodology used in more than 120 countries, ensuring that results are reliable, representative, and comparable over time.

The 2023–24 round covers a wide range of indicators—including child mortality, nutrition, health, education, water and sanitation, child protection, reproductive health, and socio-demographic characteristics. The survey sampled tens of thousands of households across urban and rural Punjab using a stratified, multi-stage cluster sampling design that guarantees statistical precision at both provincial and district levels. Data were collected through face-to-face interviews, with rigorous quality checks, real-time monitoring, and global MICS validation standards applied throughout the fieldwork.

MICS data are widely used by policymakers, researchers, development partners, and civil society to assess service delivery gaps, track progress toward the Sustainable Development Goals (SDGs), and monitor the situation of women and children. The Punjab 2023–24 edition is especially significant as it provides post-COVID evidence on vulnerabilities, inequalities, and emerging demographic patterns in the province. By offering granular insights across wealth quintiles, education levels, geographic regions, and demographic groups, MICS enables a deeper understanding of who is being left behind and where targeted investments are most urgently needed.

This PR series by Gallup Pakistan draws directly on this authoritative dataset to translate complex indicators into accessible insights for decision-makers and the wider public. The goal is to ensure that the rich evidence generated by the MICS survey meaningfully informs policy, programming, and public dialogue across Pakistan.

Editor’s Note

This edition of Gallup Pakistan’s Big Data Analysis Series highlights the continued challenges and progress in child survival across Punjab. While neonatal and infant mortality rates have shown improvement over the years, the data from the Punjab MICS 2023–24 reveal deep and persistent disparities, especially in rural areas, poorer households, and among children born to young mothers. As we look to the future, the need for targeted, equity-focused health interventions become increasingly clear, particularly to address the inequalities that continue to impact the most vulnerable populations. The findings underscore the urgency of strengthening maternal and newborn care systems to ensure that every child in Punjab has the chance to survive and thrive.

— **Aisha Aamir**

Research Executive, Gallup Pakistan



Wish to Contribute to Gallup Big Data Analysis?

Gallup Pakistan is looking for collaboration with researchers to expand the Big Data Analysis project. If you have any ideas, please write to Bilal I Gilani, Project Director, Big Data Analysis at Gallup Pakistan.

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*Contact Details:
Islamabad : +92 51 2655630
Email: isb@gallup.com.pk
www.gallup-international.com*