Adolescent Fertility Data Reference Guide

In 2019-2020, the PACE Project developed modelled estimates of adolescent fertility at the municipal level in Nepal for 2011 and 2016.

This reference guide helps decisionmakers and other stakeholders working in family planning or adolescent fertility in Nepal understand and interpret the analysis on adolescent fertility to make informed decisions and take action to reduce adolescent fertility.

What is included in the PACE Nepal suite of products on adolescent fertility?

These products highlight key results of the analysis, allow users to explore the data, provide guidance on interpreting the information, and recommend policy and programmatic actions to reduce adolescent fertility.

FIVE NATIONAL-LEVEL MAPS AND FOUR PROVINCIAL-LEVEL MAPS

Adolescent Fertility Data Insights
Adolescent Fertility Priority Municipalities
Adolescent Fertility Change Over Time
Adolescent Fertility Deep Dive

Allow users to visualize patterns in adolescent fertility rates among all girls 15-19. The provincial-level maps provide these analyses for each of the seven provinces.

7 PROVINCIAL FACT SHEETS

Summarize trends in municipal-level adolescent fertility estimates by province from 2011 and 2016, and provide decisionmakers guidance on how to interpret the data and information.

AN ONLINE DIGITAL INTERACTIVE MAP

Allows users to customize visualizations of patterns and trends in adolescent fertility rates, either among all girls 15-19 or married girls and by municipality, district, or province.

Why are data on adolescent fertility important at both a national and municipal level?

Reducing adolescent fertility remains a national and international priority.

- High rates of adolescent fertility can result in girls stopping their education early and missing employment opportunities.
- With the risk of mortality higher for newborns and infants born to adolescent mothers than those born to older mothers, high rates of adolescent fertility can lead to higher neonatal and infant mortality.
- By investing in family planning policies and programs to reduce adolescent fertility, Nepal can improve young women's participation in the labor force, advance adolescent girls' health and well-being, and contribute to Nepal's social and economic development.

With Nepal's devolution of authority to the municipal level, the need for the municipal-level estimates of adolescent fertility is more critical today than ever before.

- Estimates of adolescent fertility at the national or provincial level can mask important geographic variation in patterns and trends.
- Municipal-level estimates on adolescent fertility help decisionmakers monitor trends and compare municipal-level adolescent fertility estimates across municipalities or with the overall district-/provincial-level estimates.
- Identifying and flagging locations where adolescent fertility is stagnating at a high level or increasing help decisionmakers determine where adolescent girls may need improved access to family planning and other services and where targeted interventions are needed.

How can stakeholders explore and interpret these municipal-level adolescent fertility estimates?

These data can be used to examine:

- How adolescent fertility rates (AFRs) compare between municipalities in 2016.
- Which municipalities have seen declines, little change, or increases in their estimated AFRs from 2011 to 2016.

The primary maps for decisionmakers are the national and provincial **Adolescent Fertility Data Insights** and **Adolescent Fertility Priority Municipalities** maps. These maps differentiate the municipalities based on 1) the 2016 AFR, 2) the change in the AFR from 2011 to 2016, and 3) the absolute number of births to girls ages 15-19 from 2011 to 2016.

The Adolescent Fertility Data Insights maps show the 2016 AFR and the percent change in AFR from 2011 to 2016 by municipality. Based on the data in the Adolescent Fertility Data Insights maps, the Adolescent Fertility Priority Municipalities maps specifically highlight municipalities that have high AFR that are stagnant or increasing and an estimated 1,000 or more births to adolescent girls from 2011 to 2016. Both maps are available at the provincial and national level for all girls ages 15-19. The Adolescent Fertility Data Insights map is also available at the national level for married adolescent girls ages 15-19.

Two supplemental national-level and provincial-level maps offer additional opportunities to explore the data on adolescent fertility patterns and trends:

- The **Change Over Time** maps show the percent change in the AFR from 2011 to 2016 among all girls 15-19 at either the national or provincial level.
- The **Fertility Deep Dive** maps show the adolescent fertility rate among all girls 15-19 for 2016 at either the national or provincial level. Municipalities are indicated by different colors for lower and higher AFRs.

How can the information from the analysis help decisionmakers develop evidence-based policies and programs?

Such analyses can help decisionmakers:

- **Define priority municipalities and subgroups who would benefit from targeted interventions to address adolescent fertility.** Policymakers should focus efforts and resources on municipalities with high AFRs that are stagnant or increasing, as well as a large absolute number of births to adolescent girls. Targeted interventions could include:
  - Investing in programs to create and reinforce positive social norms, and encourage healthy behavior among adolescents.
  - Supporting programs to help newly married adolescent girls stay in school through secondary level, even when they are married or have children.
  - Encouraging newly married couples to delay first birth by using family planning after marriage.
  - Encouraging adolescent mothers to space their second pregnancy through correct and consistent use of voluntary family planning.
  - Providing adolescent-friendly, confidential family planning services to all adolescent girls who need contraception regardless of marital status.
  - Reducing rates of child marriage and increasing the average age at marriage by enforcing laws on minimum age at marriage.

- **Identify and apply lessons learned from districts or municipalities that have experienced declines in adolescent fertility.** Decisionmakers across municipalities and provinces can also use the data to identify similar districts or municipalities that may be able to follow a similar pattern of decline.

- **Recognize where more research is needed to identify factors related to geographic variations in adolescent fertility.** When looking at the AFR for 2016 across municipalities, decisionmakers can determine which geographic areas are experiencing high adolescent fertility that may benefit from additional in-depth studies.

What are the remaining gaps in knowledge or information that still need to be addressed?

These data highlight the need for additional research and data collection on adolescent fertility:

- The current analysis provides modeled estimates of adolescent fertility for each municipality based on the educational attainment and marriage patterns of adolescent girls in the municipality. However, we still do not have direct estimates of adolescent fertility available below the provincial level. These data highlight the importance of having good-quality vital registration on births at the municipal level for consistent and timely monitoring of trends in adolescent fertility and other important indicators at the local level.

- A recent 2019 Nepal Multiple Indicator Cluster Survey reported a national AFR substantially lower than the 2016 Nepal Demographic and Health Survey (DHS) estimate. However, differences in the sampling and methodology between the two surveys—such as the 2019 MICS sampling from enumeration areas rather than wards for the primary sampling unit in rural areas and oversampling households with young children—indicate that additional research and data collection will need to be done to validate this estimate, including seeing if the next Nepal DHS shows similar declines in adolescent fertility since 2016.

Methodology

- The AFR is equal to the number of births to girls ages 15-19 per 1,000 girls ages 15-19 in the population. We are using rates averaged over five years (from 2006 to 2011 and from 2011 to 2016).

- Given the lack of data available on adolescent fertility at the municipal level in Nepal and the well-established relationship between educational attainment, marriage patterns, and AFR, the AFRs presented in our analyses are estimated based on the distribution of educational attainment and the time adolescent girls spend in marriage.

- We estimated the AFR for each municipality using the regional-level AFR for each education group of adolescent girls and the distribution of educational attainment and marriage patterns for the municipality. This methodology allows us to estimate the AFR of each municipality based on the educational attainment and marriage patterns of adolescent girls in the municipality.[1]

Limitation

- The municipal-level AFR estimates are based on the educational attainment of adolescent girls and their time spent in marriage and do not account for the impact of other factors.

---

[1] We calculated the AFRs by level of educational attainment for five regions in Nepal: Eastern, Central, Western, Mid-Western/Far-Western Terai, and Mid-Western/Far-Western Hill and Mountain. We then applied the 2011 and 2016 education-specific AFRs at the regional level to educational attainment of adolescent girls in each municipality from the corresponding years that were estimated from the 2011 Nepal Population and Housing Census. The data for the education-specific AFR came from the 2011 and 2016 Nepal Demographic Health Surveys (DHS) that provide the birth history for women ages 15-24 at the time of the interview by level of education.

Design and Production

Anneka Van Scoyoc, PRB

Digital Data System for Development