

**Trends in primary infertility in Nepal: a repeated cross-sectional study**

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## **Abstract**

**Background:** Infertility is an essential, but often neglected component of reproductive and public health. Despite its significance, epidemiological evidence about primary infertility in Nepal is limited. Hence, this study was conducted with the objective to identify the trend in primary infertility in Nepal from 1996 to 2022 and to clarify the role of various socioeconomic and demographic factors in determining the pattern of primary infertility.

**Methods:** The study used secondary data from six survey waves (1996, 2001, 2006, 2011, 2016, and 2022) of the National Demographic and Health survey (NDHS) of Nepal. The trend in primary infertility rate was examined and its association with the socioeconomic and demographic components were examined using multivariable logistic regression model after adjusting for year and socio- demographic variables.

**Results:** A total of 37,379 women were included in the analysis. The prevalence of mean primary infertility decreased from 1.9% in 2001 to 1.4% in 2011. After 2011, the

mean of infertility increased to 1.5% in 2016 with a slight decline in 2022. But after adjustment for covariates there was no significant trend in primary infertility. Age, wealth index, BMI, and age at first cohabitation were associated with primary infertility.

**Conclusion:** This study provided valuable insights into the diverse factors influencing primary infertility in Nepal. The identified associations with age, socio-economic status, and lifestyle factors significantly contribute to a deeper understanding of the challenges associated with primary infertility and the need to address husbands related factors while defining infertility in women.

**Keywords:** Infertility, primary infertility, trends, Nepal, DHS