

Temporal Trends and Determinants of Adolescent Reproductive Health in Rural Guatemala: A Comparison of the 2015 and 2019 Global School-Based Health Survey

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Background: Sexual and reproductive health during adolescence impacts the physical health, emotional wellbeing, and economic prospects of adolescents. In 2015, the Global School-based Student Health Survey (GSHS) conducted in the rural SW Trifinio region of Guatemala revealed reproductive health as a key intervention area. Since, multiple factors have influenced adolescent health in the region. This analysis evaluated changes in adolescent reproductive health behaviors between 2019 and 2023 to aid in optimization of the ongoing Big Decisions sexual education program.

Methods: Adolescents ages 12-18 attending schools in rural Guatemala were surveyed. Analysis of two cross-sectional adapted GSHS conducted in 2019 and 2023 was performed. Data was analyzed in R programming software to determine prevalence and association of health behaviors and trends between 2019 and 2023.

Results: Overall, 1410 students completed the survey in 2019 and 1260 in 2023. In 2019, 14.6% of respondents indicated they had initiated sexual relations (SR) compared to 12.1% in 2023 ($p = 0.073$). Adolescents planning to use contraception increased from 44.4% to 50.3% ($p = 0.003$). Big Decisions more than doubled its penetration (299 students vs. 658 students, $p < 0.001$). No significant changes were found in the percentage that initiated SR before age 16 (10.9% in 2019, 13.6% 2023, $p = 0.115$) nor those planning to have SR in the coming year (25.4% in 2019, 25.9% in 2023, $p = 0.912$). No significant differences between years were found in number of sexual partners, use of alcohol/drugs, use of birth control at initiation of SR, or use of birth control in most recent SR.

Conclusions: The rate of adolescents reporting sexual initiation is overall low in this area compared with the region. More adolescents reported intending to use birth control in future sexual relations in 2023 than previously, possibly due increased student participation in the Big Decisions program. Sexual education programs serve as protective factors for adolescent reproductive health in rural Guatemala.