

## ABSTRACT

**Background:** High fertility rates can lead to overpopulation and underdevelopment. Across all continents, including Africa, efforts have been made to decrease fertility rates. In the case of Somalia, the country has a high TFR, with over 6 births per woman. Despite this, no national or sub-national studies have delved into the proximate determinants influencing fertility in Somalia. To bridge this knowledge gap, this study aims to explore the impact of intermediate fertility variables on TFR in Somalia.

**Methods:** The study utilized secondary data from the Somalia Health Demographic Survey (SDHS) conducted between 2018 and 2019, by employing Bongaart's Aggregate and Disaggregate models.

**Findings:** At the national level, postpartum infecundity caused a 51.14% reduction in Somalia's fertility rate, while marriage contributed to a decline of 48.01%. Contraception had a minimal effect, lowering the rate by only 0.79%. Sub-group analysis showed employed individuals contributed most to the Marriage Index (72.05%), with primary or higher education having a significant impact (65.77%). Unemployed individuals with no education had the highest contribution to the Postpartum Infecundability Index (75.48% and 59.48%, respectively). The Contraception Index had relatively low contributions, with urban areas and individuals with primary and higher education contributing the most (1.09% and 1.64%, respectively).

**Conclusion:** The study has identified longer breastfeeding and delayed marriage as major factors that significantly contribute to the reduction of fertility rates on a national level. In sub-groups, individuals with higher education and employment significantly influence fertility outcomes through the Marriage Index, whereas those with no education and unemployment have a greater impact on the Postpartum Infecundability Index. The Contraception Index had a relatively smaller impact, but it made more significant contributions to fertility reduction among women living in urban areas and those with higher education levels.

**Key words:** ***Postpartum Infecundability Index; Index of married; Bongaart's Model; SDHS2018-19.***