

Meeting SDG Under-five Mortality Target in India: Examining the Significance of EAG States Performance and Determinants

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Abstract

The present study examines the progress made towards achieving the Sustainable Development Goal (SDG) target of attaining an under-five mortality rate (U5MR) of 25 by 2030 in states and union territories of India with a focus on the performance of Empowered Action Group (EAG) states, and investigates the role of socioeconomic and maternal and child health interventions affecting U5MR. The analysis of large-sample survey data from the National Family Health Survey (NFHS 5), 2019-21 shows that the eight EAG states are amongst the states with the highest U5MR. Moreover, the difference in mean U5MR between EAG and non-EAG states is shown to be statistically significant. The multivariate regression results show that female education, sanitation, percentage of SC population, vaccination of children, and women having births of order three or more are key variables explaining variations in U5MR across states. The EAG states have on average higher U5MR than non-EAG states as the regression coefficient for the categorical dummy variable is highly statistically significant given the covariates. The prevailing socio-cultural factors in EAG states contribute to the prevalence of high child mortality indicating that high U5M is not only due to economic backwardness but is also due to the complex interplay of several related factors. Women's education, and employment, and social norms pertaining to early marriage, early child birth, adoption of modern family planning methods, sanitation, access to maternal and child health care etc. are significant factors affecting U5M that intersect with economic backwardness. In addition to improving general socioeconomic conditions and in particular, women's education and empowerment, the paper argues that the quality of health care services provided by schemes like Integrated Child Development Services (ICDS) can play a critical role in reducing under-five mortality in EAG states. To achieve SDG 3 goal of 'health for all', the existing sub-national inequities in U5MR need to be addressed with local-level policies focussing on improving quality of health care services and increasing resources, as well as ensuring more efficient spread of resources targeted towards marginalized communities in EAG states.

Key words: Under-five mortality; EAG states; SDG 3; multivariate regression

JEL Code: I12, I14, I15

Introduction

Under-five mortality rate (U5MR) is the probability of dying between birth and exactly five years of age, expressed per 1000 live births. SDG 3.2.1 has set a target of bringing the U5MR to 25 or below per 1000 live births by 2030. Substantial progress has been made globally with the global U5MR dropping by 59%, from 93 deaths per 1000 live births in 1990 to 37 in 2022 (UN IGME, 2024). In India, the U5MR declined from 109 per 1,000 live births as per NFHS-1, (1992-93) to 42 as per NFHS-5, (2019-21). However, the all-India progress conceals significant inequities across states. The eight Empowered Action Group (EAG) states of Uttar Pradesh (UP), Bihar, Jharkhand, Uttarakhand, Odisha, Chhattisgarh, Madhya Pradesh (MP), and Rajasthan, are among the worst-performing states in terms of U5MR. While Kerala has an U5MR of 5.2 per 1000 live births, the corresponding figures are more than 10 times for Uttar Pradesh and Bihar which have U5MR of 59.8 and 56.4 respectively. The eight EAG states are socioeconomically the most disadvantaged and account for more than 40 percent of India's population with significantly high rates of poverty.

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