PLOS | MEDICINE

RESEARCH ARTICLE

Increased Duration of Paid Maternity Leave Lowers Infant Mortality in Low- and Middle-Income Countries: A Quasi-Experimental Study

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Citation: Nandi A, Hajizadeh M, Harper S, Koski A, Strumpf EC, Heymann J (2016) Increased Duration of Paid Maternity Leave Lowers Infant Mortality in Low- and Middle-Income Countries: A Quasi-Experimental Study. PLoS Med 13(3): e1001985. doi:10.1371/journal.pmed.1001985

Academic Editor: David Osrin, Institute for Global Health, UNITED KINGDOM

Received: June 4, 2015

Accepted: February 18, 2016

Published: March 29, 2016

Data Availability Statement: Analyses utilized two sources of data, specifically: (1) live birth information collected from respondents surveyed as part of the Demographic and Health Surveys (DHS) in 20 countries (Table 1) and (2) measures of maternity leave policies. The DHS data are publicly available, but users must first register with the DHS program. Registration, which requires a summary of the proposed study and selection of country datasets, can be completed at: http://www.dhsprogram.com/data/new-user-registration.cfm. Data on current maternity leave policies for each sampled country

Abstract

Background

Maternity leave reduces neonatal and infant mortality rates in high-income countries. However, the impact of maternity leave on infant health has not been rigorously evaluated in low- and middle-income countries (LMICs). In this study, we utilized a difference-in-differences approach to evaluate whether paid maternity leave policies affect infant mortality in LMICs.

Methods and Findings

We used birth history data collected via the Demographic and Health Surveys to assemble a panel of approximately 300,000 live births in 20 countries from 2000 to 2008; these observational data were merged with longitudinal information on the duration of paid maternity leave provided by each country. We estimated the effect of an increase in maternity leave in the prior year on the probability of infant (<1 y), neonatal (<28 d), and post-neonatal (between 28 d and 1 y after birth) mortality. Fixed effects for country and year were included to control for, respectively, unobserved time-invariant confounders that varied across countries and temporal trends in mortality that were shared across countries. Average rates of infant, neonatal, and post-neonatal mortality over the study period were 55.2, 30.7, and 23.0 per 1,000 live births, respectively. Each additional month of paid maternity was associated with 7.9 fewer infant deaths per 1,000 live births (95% CI 3.7, 12.0), reflecting a 13% relative reduction. Reductions in infant mortality associated with increases in the duration of paid maternity leave were concentrated in the post-neonatal period. Estimates were robust to adjustment for individual, household, and country-level characteristics, although there may be residual confounding by unmeasured time-varying confounders, such as coincident policy changes.