Editors' Summary

Background

In 1990, 12 million children—most of them living in low- and middle-income countries (LMICs)—died before their fifth birthday. Out of every 1,000 children born alive, 90 died before they were five years old. In 2000, world leaders set a target of reducing under-five mortality (deaths) to one-third of its 1990 level by 2015 as Millennium Development Goal 4 (MDG4); this goal, together with seven others, was designed to eradicate extreme poverty globally. Over the years, steady progress was made towards MDG4. Better delivery facilities and programs that encouraged breastfeeding, immunization, and other practices that improved the health of young children reduced the global under-five mortality rate. But, by 2015, the rate had only fallen to 43 deaths per 1,000 live births, and 5.9 million children under five died that year from preventable causes such as preterm birth complications, delivery complications, and infections. Nearly half of these deaths occurred among neonates (babies less than 28 days old); three-quarters of them occurred among infants (children less than 1 year old).

Why Was This Study Done?

In high-income countries, paid leave from employment for mothers is associated with reduced neonatal and infant mortality. Many LMICs now have legislation granting paid maternity leave or gender-neutral parental leave. But does paid maternity leave have the same impact on infant health in LMICs as it does in high-income countries? In this quasi-experimental study, the researchers use the difference-in-differences statistical approach to investigate whether paid maternity leave policies affect infant mortality in LMICs. A quasi-experimental study uses observational data to compare outcomes in a group of people receiving an intervention (the treatment group) with outcomes in a group of people not receiving the intervention (control group); unlike a randomized controlled trial, these groups are not chosen at random. The difference-in-differences approach compares the average change over time in an outcome variable (here, infant mortality) in a treatment group (here, babies born in countries with a change—specifically, an increase—in paid maternity leave duration) with the average change over time in the outcome variable in a control group (here, babies born in countries without a change in paid maternity leave duration).

What Did the Researchers Do and Find?

The researchers assembled a panel of about 300,000 live births in 20 LMICs between 2000 and 2008 using birth history data collected by the Demographic and Health Surveys (which collect information on the demographic, health, and other characteristics of a nationally representative sample of households). The researchers merged these observational data with information on the duration of paid maternity leave provided by each country and used the difference-in-differences approach to estimate the effect of an increase in paid maternity leave duration on the probability of infant (<1 year old), neonatal (<28 days old), and post-neonatal (between 28 days and 1 year old) mortality. 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 leave was associated with 7.9 fewer infant deaths per 1,000 live births, a relative reduction