

# Birth Spacing: Research Update

## NEW BIRTH SPACING RESEARCH SHOWS THAT THREE TO FIVE YEAR INTERVALS SAVE MORE LIVES THAN TWO YEAR INTERVALS OR LESS

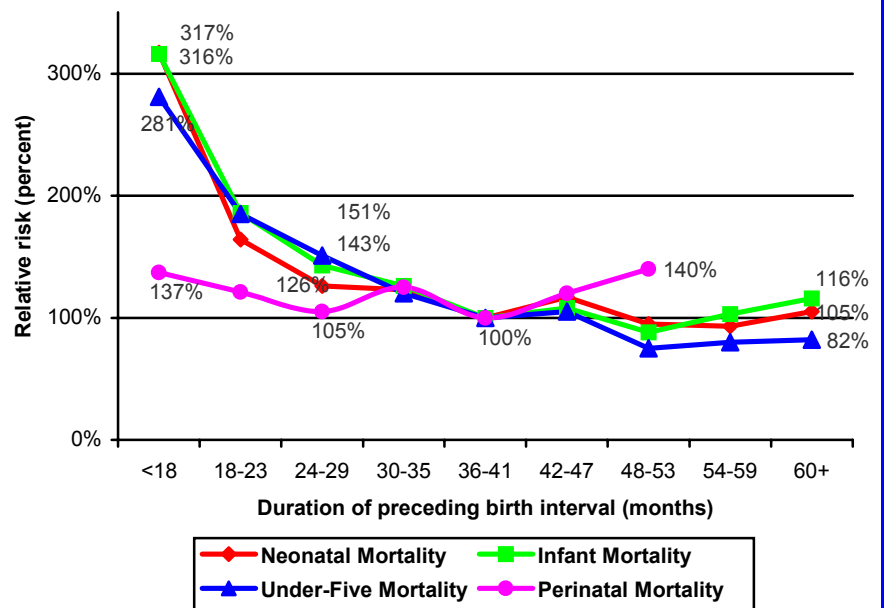
### Infant Mortality

Compared to 24 to 29 month birth intervals, 36 to 41 month intervals are associated with the following percentage reduction in risk:

- 26% reduction in neonatal deaths,
- 43% reduction in infant deaths, and
- 51% reduction in under-five deaths.

Risks increase for neonates and infants after 60 months, and for perinates after 42 months. The best evidence indicates that 3 to 5 year intervals are associated with the *lowest* risk of death among children.

Figure 1. Risk of death among under-five children with a preceding birth interval of 36-41 months compared to risk of death at other birth intervals



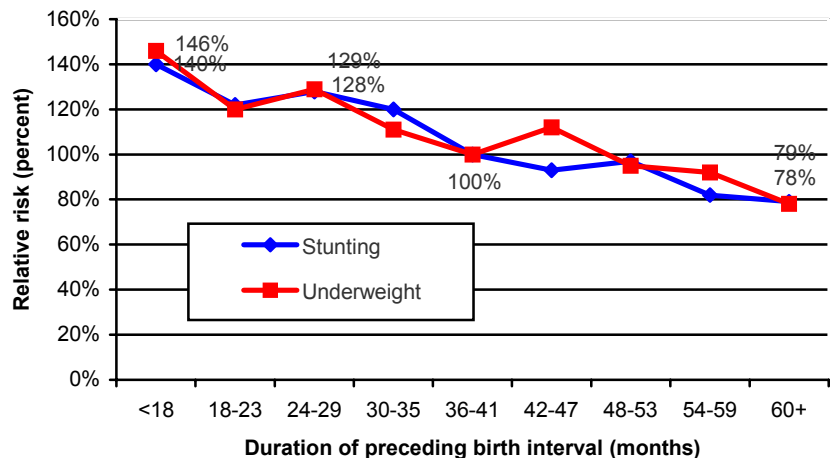
### Nutritional Status

Longer birth intervals are associated with nutritional status improvements. Compared to 24 to 29 month intervals, 36 to 41 month intervals are associated with a:

- 28% reduction in stunting, and
- 29% reduction in underweight.

Birth intervals longer than 41 months are associated with *additional* reduction in risk.

Figure 2. Three year intervals, or longer, are associated with lowest risk of stunting and underweight among under-five children



## Maternal Mortality

Birth intervals of 9 to 14 months are associated with increased risk of:

- maternal death (250%),
- third trimester bleeding (70%),
- premature rupture of membranes (70%), and
- anemia (30%)

compared to 27 to 32 month birth intervals. Intervals longer than 69 months are associated with increased risk of:

- maternal death (10%),
- third trimester bleeding (10%),
- eclampsia (80%), and
- postpartum hemorrhage (90%).

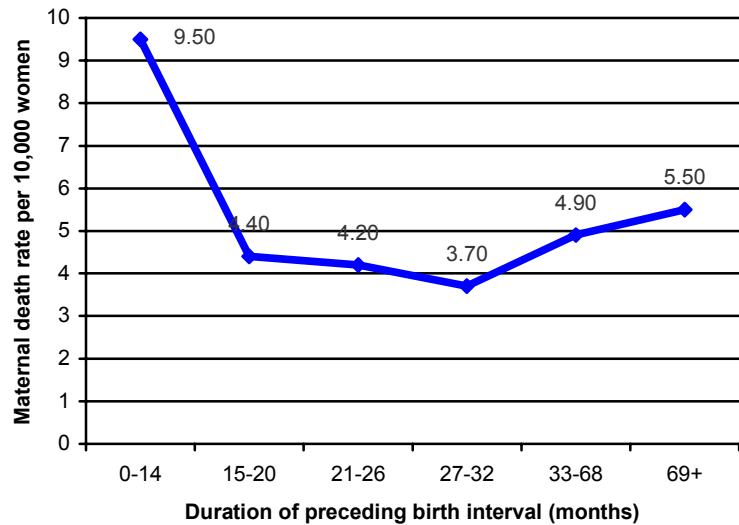
## Magnitude of the Problem

DHS data confirm that many women desire longer intervals. Yet, in most developing countries, more than 50% of non-first births occur less than 36 months after the previous birth.

In Less Developed Countries (excluding China), if no births occurred before 36 months of a preceding birth:

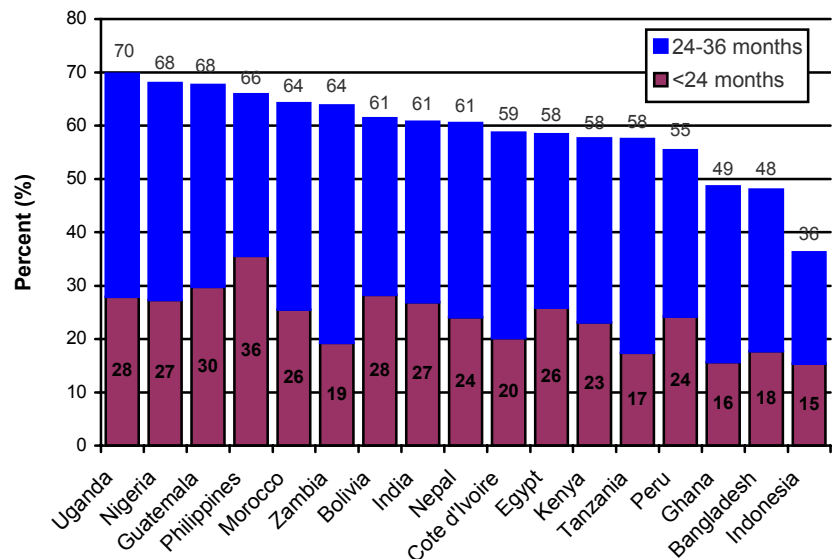
- infant mortality rate would drop by 24%,
- under five mortality rate would drop by 35%, and
- deaths to children under five years of age would fall by 2,875,000 **annually**.

Figure 3. Risk of Maternal Death by Length of Birth Interval



Source: Conde-Agudelo and Belizán, Maternal Morbidity and Mortality Associated with Interpregnancy Interval: Cross Sectional Study, *British Medical Journal*, 18 November 2000. <http://bmj.com/cgi/content/full/321/727/1255>

Figure 4. Percent of Birth Intervals that are Short: Select Developing Countries



<sup>1</sup> Unless otherwise noted, all data drawn from: Rutstein, Shea, *Effects of Birth Interval on Mortality and Health: Multivariate Cross-Country Analysis*, MACRO International, Presentation at USAID, July 2000. These and other analyses are summarized in: Setty-Venugopal, V. and Upadhyay, U.D. *Birth Spacing: Three to Five Saves Lives*. **Population Reports**, Series L, No. 13. Baltimore, Johns Hopkins Bloomberg School of Public Health, Population Information Program, Summer 2002.