



- HOME
- RESEARCH AREAS
- RESEARCH LOCATIONS
- PROGRAMS
- PUBLICATIONS / RESOURCES

[Publications](#) > [Policy Research Division Working Papers](#) > Working Paper No. 198



No. 198, 2005

Hossain, Mian Bazle, **James F. Phillips**, and Thomas K. LeGrand. "The impact of childhood mortality on fertility in six rural thanas of Bangladesh," *Policy Research Division Working Paper* no. 198. New York: Population Council. ([PDF](#))

Abstract

This paper examines the causal structure of the relationship between child mortality events and subsequent fertility with an analysis of prospective longitudinal data on births and childhood deaths occurring to nearly 8,000 mothers observed in Bangladesh over the 1982–93 period, a time of rapid decline in fertility. Generalized hazard-regression analyses are employed to assess the effect of infant and child mortality on the hazard of conception, controlling for birth order and maternal age and educational attainment. Results show that childhood mortality increases the hazard of birth-interval closure if the death occurs in the index interval, representing the combined effect of biological and volitional replacement. Substantial birth-interval effects are also evident if the death occurs during a prior birth interval, signifying a volitional replacement effect alone. Moreover, mortality effects in prior birth intervals are consistent with the hypothesis of insurance effects. Interaction of replacement with elapsed time suggests that the volitional impact of child mortality increases as the demographic transition progresses. This volitional effect interacts with sex of the index child. Investigation of higher-order interactions suggests that this gender-replacement effect has not changed with time.



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- ▶ **Annual Report**
- ▼ **JOURNALS**
 - Population and Development Review
 - PDR Supplements
 - Studies in Family Planning
- ▼ **WORKING PAPERS**
 - Poverty, Gender, and Youth Working Papers
 - South and East Asia Working Papers
- ▼ **NEWSLETTERS/SERIALS**
 - Population Briefs
 - Momentum
 - Quality/Calidad/Qualité
 - SEEDS
- ▶ **Publicaciones en español**
- ▶ **Publications en français**
- ▶ **إصدارات عربية**
- ▶ **Software**

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- EVENTS
- SEARCH
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