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Correlated mortality risks of siblings in Kenya The role of state dependence

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VOLUME 18 - ARTICLE 11
PAGES 311 - 336

Date Received: 20 Jun 2006
Date Published: 23 Apr 2008

<http://www.demographic-research.org/volumes/vol18/11/>

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Abstract

Random-effect models have been useful in demonstrating how unobserved factors are related to infant or child death clustering. Another potential hypothesis is state dependence whereby the death of an older sibling affects the risk of death of a subsequent sibling. Probit regression models incorporating state dependence and unobserved heterogeneity are applied to the 1998 Demographic and Health Survey (DHS) data for Kenya. We find that mortality risks of adjacent siblings are dependent: a child whose preceding sibling died is 1.8 times more likely to die. After adjusting for unobserved heterogeneity, the death of the previous child accounts for 40% of child death clustering. Further, eliminating state dependence would reduce infant mortality among second- and higher-order births by 12.5%.

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Keywords

[death clustering](#), [dynamic Probit and Logit models](#), [initial conditions problem](#), [Kenya](#), [sequence data](#), [state dependence](#), [unobserved heterogeneity](#)

Word count (Main text)
8099

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