

Child Health and Immunization Status in an Unregistered Mumbai Slum

Joya Banerjee, 14 May 2010

Masters Thesis, Department of Global Health and Population, Harvard School of Public Health

joya.banerjee@gmail.com

Abstract

As of 2007, more than half of the world's population was living in urban areas, with about one-third (fully 1 billion people) living in urban slums. India alone is home to roughly 170 million slum dwellers, one-third of whom are children under five years of age. The squalid, congested living environment of such slums includes limited access to basic services such as piped water and improved sanitation—whose absence increases the risk of infectious disease among children. This thesis uses the case of an unregistered urban slum, Kaula Bandar (KB), in Mumbai, India, to examine the determinants of child mortality and immunization coverage using primary quantitative and qualitative data from a household survey (n=226 households) and focus groups.

Results indicate that although immunization services are widely available in urban centers, a “knowledge-action gap” keeps immunization rates low—and child mortality high—in slum communities. In particular, lack of knowledge about the protective benefits of immunization, lack of trusted channels of influence, and systemic barriers to accessing health services (such as cost, provider discrimination, and distrust of the system by non-tenured slum dwellers at risk of losing their homes) leave the majority of urban slum-dwelling children unprotected from vaccine-preventable diseases. A quantitative analysis of the determinants of child mortality, immunization status, and mother's health knowledge of immunization reveals that unvaccinated children in KB are 3.2 times more likely to die before the age of 5 than vaccinated children. Data on health determinants and outcomes from children in government-registered slums are compared with those from unregistered communities, revealing profound disparities not just between urban non-slum and urban slum populations, but also within the slum gradient. For example, roughly 29% of children in KB are fully immunized, compared with 69% of children in registered slums receiving outside services. Similarly, the infant mortality rate in KB (58 per 1,000 live births) is more than double that of registered slums (25 per 1,000 live births). Lastly, to account for the unique constraints faced by urban-slum dwellers, the thesis proposes contextually appropriate interventions that could increase vaccination rates and put India on the path toward universal immunization coverage.