

The cost of reducing drowning in rural Bangladesh and implications for governments, policy makers and donors

Eric Finkelstein¹, Saideep Bose¹, Fazlur Rahman², Aminur Rahman³, Justin Scarr⁴ and Michael Linnan⁵

Health Services and Systems Research Program, Duke-NUS Graduate Medical School, Singapore¹, Centre for Injury Prevention Research, Bangladesh (CIPRB)², International Drowning Research Centre, Bangladesh (IDRCB)³, Royal Life Saving Society – Australia (RLSSA)⁴, The Alliance for Safe Children (TASC)⁵

Drowning is the single leading cause of child death in rural Bangladesh after infancy. Among children aged 1–4 years, drowning is responsible for over half of all deaths. Currently there are no drowning prevention programs on a national scale in Bangladesh. Unless interventions are begun, this leading cause of early child death may present a significant impediment to achieving the Millennium Development Goal related to early child mortality.

Although many interventions exist to reduce the incidence of drowning in rich countries, they are for the most part unaffordable for rural Bangladesh. Additionally, the circumstances of drowning in low and middle income countries mandate different approaches in order to be effective in the context of rural low income populations. In this session we present data on the costs, effectiveness and cost-effectiveness of a drowning prevention program implemented on a large scale in rural Bangladesh. This low cost program was specifically designed to be appropriate, sustainable and effective in reducing drowning in rural populations.

The program consists of two intervention components: 1) the Anchal, a community-based crèche program for children under five during high-risk periods with a link between the crèche and the child's home; and 2) SwimSafe, a survival swimming and water safety program taught in village ponds for children ages four and older. Results show that the Anchal component can be implemented for about \$70int per child per year and the onetime cost of SwimSafe is roughly \$18int per child. Both components are highly effective. As a result, the cost effectiveness ratio of the combined program compares favorably to other commonly funded programs that aim to reduce childhood mortality in developing countries.

Corresponding Author

Eric Finkelstein
Associate Professor and Assistant Director
Health Services and Systems Research Program
Duke–NUS Graduate Medical School
Singapore