EDITOR'S CHOICE

Where should the world invest?

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Deaths in children under 5 have fallen impressively in the past quarter of a century: they've nearly halved since 1990. But they are still not falling fast enough for the world to meet the millennium development goal to reduce childhood deaths by two thirds by 2015. Progress is especially slow in the poorest countries. So with the clock ticking the search is on for the best development bets. Where should countries invest for the quickest and biggest gains in life expectancy?

Matthieu Hanf and colleagues have done their best to move us towards an evidence based answer (doi:10.1136/bmj.f6427). They reviewed 10 years' worth of annual data on the determinants of childhood mortality from the 193 member states in the United Nations.

This is a complex study, involving advanced modelling and statistical analysis. If you read the full text you will find the words "homoscedasticity" and "monotonic," for which definitions from readers are welcome. We should perhaps have provided a glossary. As helpfully summarised by Andrew Hodge and Eliana Jimenez-Soto in their editorial (doi:10.1136/bmj.f6632), although the study cannot establish cause and effect, these longitudinal data can tell us more than previous cross sectional analyses.

The study confirms that several factors are associated with childhood mortality with no time delay (national income, access to sanitation, and HIV prevalence), while others show delayed associations (urbanisation, health spending, corruption, and political instability). Women's education—so often championed as a route to better health—is associated with lower mortality, but the benefits seem to level off after only a few years of schooling. And surprisingly the study found no association between childhood mortality and undernourishment.

One problem is that many of the factors associated with mortality are themselves closely linked. This "multicollinearity" is unsurprising. As the editorial puts it, "countries that do things well do most things well, whereas those that do things badly do most things badly." But it makes it hard to isolate the effects of one variable from another.

Where does this leave us? Hodge and Jimenez-Soto break it to us gently. Given the methodological limitations, "we have little choice but to admit the vexing limitations of non-experimental data," they say. And despite the attractions of global data, we should not expect to find easy answers that can be applied worldwide.

Having said which, this week also sees the publication of the *Lancet's* commission on global health in 2035 (*Lancet* 2013 Dec 3, doi:10.1016/S0140-6736(13)62105-4). The report presents a positive challenge. The world could, if it chose to, eliminate health inequalities between nations over the next 20 years, by doubling investment in new drugs, vaccines, and health technologies (doi:10.1136/bmj.f7186), saving 10 million lives in low and middle income countries in the year 2035 alone.

Into this welcomingly optimistic picture we must, however, factor the growing impact of natural and manmade disasters. Typhoon Haiyan has devastated the Philippines and, as Leigh Daynes describes in his blog, literally washed away much of its health system (<http://bit.ly/187Em40>). Daynes works for Doctors of the World, which is this year's *BMJ* Christmas charity. You can find out more about them from Jane Feinmann's report (doi:10.1136/bmj.f7193). *BMJ* readers have been fantastically generous in previous years. Please do give generously again.

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