

Why do some poor communities have levels of child mortality as low as those in wealthy countries while others lose more than a fifth of their children under the age of five? Research by **Peter Boone** shows that the key lies in having parents with good general education and health knowledge – and the willingness to seek out modern healthcare.

Cutting child mortality: the power of parents

Every day, 30,000 children die from diseases that can be easily prevented or cheaply cured. This chronic, daily ‘disaster’ can’t be blamed on a lack of technology: a recent study by leading health experts concluded that 63% of child deaths could be prevented with 24 simple and cost-effective measures. Nor is poverty to blame: the cures are inexpensive, and the success of many poor countries in lowering mortality is proof enough that much more can be achieved.

So why do so many children die, and what can be done to reduce deaths? In research with Zhaoguo Zhan, I compiled a unique set of survey data from 45 low-income countries to analyse the survival outcomes of 278,000 children. Our goal was to measure the relative importance of socio-economic factors, infrastructure (such as water and sanitation) and parents’ health-seeking behaviour in child

survival. We also examined whether predominantly public or private systems perform better.

As Figure 1 shows, the three main killers of children who survive past birth are diarrhoea, pneumonia and malaria. These are largely preventable deaths. Sugar and salt solutions can prevent dehydration due to diarrhoea. Oral antibiotics given early enough (and costing roughly 15 pence per course) can prevent most pneumonia deaths. And a course of effective anti-malarial drugs can prevent deaths for between 10 pence and 50 pence per course.

Faced with these facts, medical professionals and many people in wealthy countries conclude that we should expand and enhance public healthcare to ensure it reaches the needy populations. This is the path that countries like Cuba have taken, and it has generated large declines in child mortality.

But in theory, there is a second route to low mortality. The biological bond

between a parent and child ensures that parents are their child’s greatest advocates. If we can help the parent, by providing better health knowledge and general education, we may be able to direct that powerful advocacy to tackle the causes of child deaths.

And if markets respond to parents who seek out appropriate care, a private healthcare sector could arise to provide adequate services. This second route to low mortality doesn’t rely on the continuing goodwill of foreign donors or domestic elites, and it may prove to be a more sustainable path to child health.

Our research shows that this second route is not just a theory. Indeed, Cuba seems to be the exception. Other places labelled ‘socialist’ – such as Vietnam and the Indian state of Kerala – have achieved low mortality via a large *private* healthcare sector. Roughly 50% of child healthcare services are provided privately in Egypt, Indonesia and Vietnam. The equivalent figure is 65% in Kerala, which is

renowned for its good health outcomes. And in China, 73% of health services are financed by the user.

This prevalence of private healthcare is far from the common perception, but it may provide the key to lasting improvements in child health. If we can change demand for health services and treatment-seeking, we may be able to generate a sustainable system of healthcare that leads to low child mortality without needing to construct, finance, motivate and sustain large public health systems.

There are two essential outcomes of our analysis suggesting that much more focus should be placed on parents when targeting child mortality. The first is that child survival depends more on parents' education and healthcare-seeking activities than on disease prevalence, nearness of public services or quality of water and sanitation infrastructure.

We calculate that if we raise all parents' years of schooling to the level in Egypt (8.3 years for men and 6.3 for women), child mortality would fall by 19% in our 45 low-income countries. This is calculated after controlling for differences in wealth, so it should reflect the impact of schooling over and above the influence it has on incomes and general prosperity. Using an index that we created, we find that children of mothers who tend to seek out modern healthcare have substantially lower mortality than those who don't, once again after controlling for other socio-economic factors.

In India, the only country where adequate data are available, we also examined whether health knowledge or general education is more important. We find that both are highly important, suggesting that the expansion of health knowledge may lead to large mortality declines if it coincides with changes in behaviour.

This large parental role in child health contrasts with the recommendations of many health experts, who provide a list of urgently needed health services. They rarely consider health knowledge in the family and they assume that the medical profession must bring healthcare to the household.

Our analysis suggests that, in reality, in low-income countries, children survive best when they have educated parents with health knowledge who *choose to seek* modern care, regardless of whether public clinics are nearby and regardless of how frequently their children become ill. We believe this correlation reflects a simple fact: it is easy to cure the diseases that kill children, and parents who know how to do this can successfully prevent child deaths.

The second main outcome of our analysis is that public health systems in low-income countries are, on average, no better at generating equality or reducing child mortality than private-based systems.

Many public health advocates argue strongly against a private route to better healthcare. For example, the World Health Organisation's Commission on

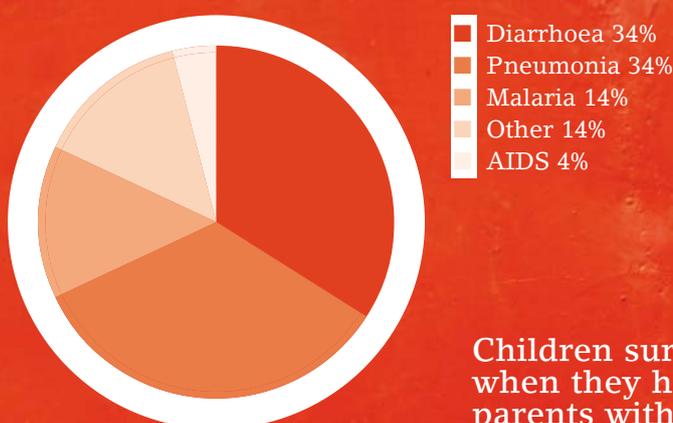
Educated parents seek out healthcare regardless of their proximity to public health infrastructure

Macroeconomics and Health advocated a \$47 billion expansion of annual public health provision in poor countries. They ruled out using the private sector because they believed it would not adequately reach the poor, and it would not provide equivalent quality services. But while this is plausible, no evidence was offered to back up these arguments.

Our research asked parents where they sought healthcare, so we were able to measure whether child healthcare was predominantly private or public. As Figure 2 shows, both public and private systems have achieved low child mortality. So there is no evidence to back claims that private-based systems don't work well enough.

The inequality of public systems will come as no surprise to people working in low-income countries. At Effective

Figure 1:
Estimated causes of post-neonatal child deaths in 2003

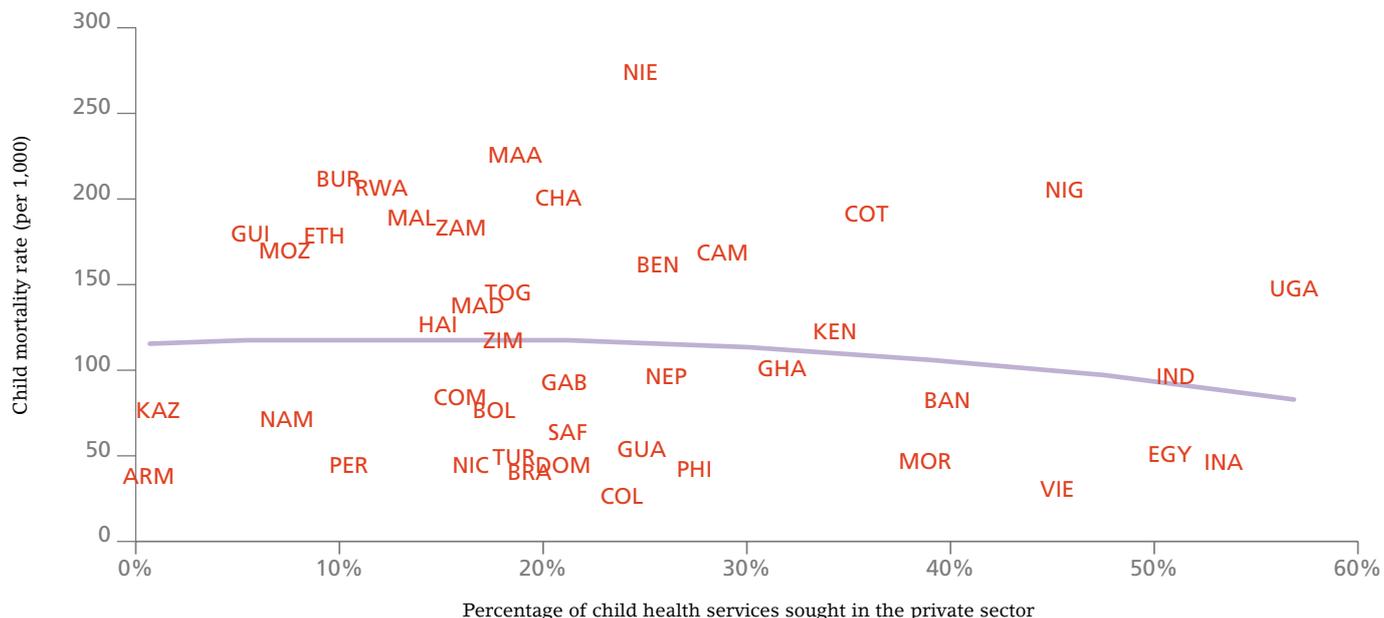


Children survive best when they have educated parents with health knowledge who choose to seek modern care



Image: Kresta King Cutcher

Figure 2:
The relationship between child mortality and the percentage of child health services sought in the private sector



Key to countries

ARM	Armenia	GHA	Ghana	NIC	Nicaragua
BAN	Bangladesh	GUA	Guatemala	NIE	Niger
BEN	Benin	GUI	Guinea	NIG	Nigeria
BOL	Bolivia	HAI	Haiti	PER	Peru
BRA	Brazil	IND	India	PHI	Philippines
BUR	Burkina Faso	INA	Indonesia	RWA	Rwanda
CAM	Cameroon	KAZ	Kazakhstan	SAF	South Africa
CHA	Chad	KEN	Kenya	TAN	Tanzania
COL	Colombia	MAD	Madagascar	TOG	Togo
COM	Comoros	MAL	Malawi	TUR	Turkey
COT	Cote d'Ivoire	MAA	Mali	UGA	Uganda
DOM	Dominican Republic	MOR	Morocco	VIE	Vietnam
EGY	Egypt	MOZ	Mozambique	ZAM	Zambia
ETH	Ethiopia	NAM	Namibia	ZIM	Zimbabwe
GAB	Gabon	NEP	Nepal		

Intervention (the organisation I chair), we are currently designing and sponsoring several large trials that aim to reduce child mortality in the poorest regions of India and Africa.

The public clinics where we work in Andhra Pradesh are in terrible condition: absenteeism among doctors is high, hygiene is poor and facilities lack medicines and staff to provide even basic services. While we originally planned to bolster the public clinics, we have now agreed with the government and our local partners to run a well-designed trial that experiments with contracting out services to the private sector while also running a large community health promotion campaign. The jury is still out, but we hope this new system will substantially reduce the 5-6% of babies that die before they are one month old.

In Guinea-Bissau, which still shows the destructive effects of civil conflict that ended eight years ago, military budgets continue to dwarf state expenditures on health, and public health clinics are effectively shells. We are working in a region where 30% of children die before the age of five. A vicious combination of lack of demand for health services due to poor knowledge and education, combined with the absence of an effective public health sector, probably explains the enormous mortality rates, which hark back

to death rates last seen in Europe over a century ago.

Does it make sense to try to rebuild public systems in countries where instability and lack of public will mean that they may not be sustained? Or can better health and lower mortality levels be achieved by encouraging and empowering parents to seek out care for their children in the private sector?

There is growing evidence that this second route may work better in many regions of the world, and if so, perhaps our current lack of emphasis on education and knowledge-based routes may help explain why high child mortality persists, despite numerous efforts, in many regions of the world today.

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His new paper with Zhaoguo Zhan, which this article summarises, is called 'Lowering Child Mortality in Poor Countries: The Power of Knowledgeable Parents', CEP Discussion Paper No. 751 (<http://cep.lse.ac.uk/pubs/download/dp0751.pdf>).

'Socialist' countries like Vietnam have achieved low child mortality via a large private healthcare sector