

EDITORIALS

Improving the delivery of safe and effective healthcare in low and middle income countries

Research is needed into creating workable systems that can deliver and sustain interventions

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Many resource constrained countries are unlikely to attain their millennium development goal targets by 2015, ¹ despite major global efforts and much progress (figure). ² ³ For example, only 23 countries are currently estimated to be on track to achieve the target of a 75% reduction in maternal mortality. ⁴ In addition, the rate of new HIV infections continues to outpace the number of HIV positive patients who start treatment—for every five people newly infected with HIV only two begin treatment each year, and about 5.5 million people needing treatment for HIV in low and middle income countries still do not receive it. ⁵ ⁶

	World	Africa	Americas M	Eastern editerranea		South east Asia	Western Pacific
Under 5 mortality per 1000 live births	65	142	18	78	14	63	21
Measles immunisation % coverage	81	73	93	83	94	75	93
Maternal mortality per 100 000 live births	400	900	99	420	27	450	82
Skilled birth attendant % of births	66	47	92	59	96	49	92
Contraceptive use % of women aged 15-49	62	24	71	43	68	58	83
HIV prevalence % of adults aged 15-45	0.8	4.9	0.5	0.2	0.5	0.3	0.1
Malaria mortality per 100 000 population	17	104	0.5	7.5	-	2.1	0.3
Tuberculosis treatment success rate %	86	79	82	88	67	88	92
Water % using improved sources	87	61	96	83	98	86	90
Sanitation % using improved facilities	60	34	87	61	94	40	62

Health millennium development goal scorecard for World Health Organization regions. Adapted, with permission,

from the WHO report²

At the heart of bridging the gap between knowing what interventions can improve health and delivering appropriate healthcare to patients is the delivery of efficacious interventions in ways that allow their implementation. A statement from the African Academies of Science meeting in Accra, Ghana, in December 2009 pointed out that the lives of four million women, newborns, and children in sub-Saharan Africa could be saved each year if well established, currently available, affordable healthcare interventions could be implemented across the region.⁷

If we want to see a different kind of outcome, we have to change the system. Stakeholders need to be willing to change the status quo. A key question is, how can we change the conversation about improving health systems from just "where will we get more resources?" to include "what ideas can we harness to improve the system?" It is possible to improve the delivery of effective interventions in resource constrained settings. A recent study of 27 collaborative improvement projects that covered a range of global health priorities in 12 low and middle income countries found that 88% were able to achieve 80% compliance with evidence based standards and maintain it for more than a year of observation.

What is needed is research into creating systems capabilities that will allow healthcare providers to continually adapt interventions so that they work for more patients in more contexts. Successful implementation of interventions depends on the recognition of the different epidemiological and contextual conditions that exist, and the interactions between them.⁹

The greater the scope and scale of improvement in healthcare systems, the greater the need for effective leadership to drive this change. The Salzburg Global Seminar, "Improving health

care in low and middle income economies: what are the next steps and how do we get there?", to be held in Salzburg, Austria, from 22 to 27 April 2012 (www.salzburgglobal.org) will bring together 60 global health leaders from more than 20 countries to consider, among other things, how to sustain successful improvement efforts and strengthen health systems globally.

The capacity of low and middle income countries to change their healthcare systems in order to deliver better outcomes can be enhanced only by the involvement of high level government figures and health systems providers within the country. Change must involve care providers throughout the system, from highest level policy makers to practitioners at the sharp end of care delivery—in homes, where much of healthcare takes place—through primary healthcare centres, regional hospitals, and tertiary centres. Only by ensuring that simple, evidence based, high impact interventions reach all patients every time that they are needed can the millennium development goals be achieved, so that countries can avoid continuing to fall behind in health status.

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- 1 United Nations. United Nations millennium declaration. 2000. United Nations general assembly resolution 55/2. www.un.org/millennium/declaration/ares552e.pdf.
- WHO. Accelerating progress towards the health-related millennium development goals. 2011. www.who.int/topics/millennium_development_goals/MDG-NHPS_brochure_2010. pdf.
- 3 Haines A, Cassels A. Can the millennium development goals be attained? BMJ 2004;329:394-7.
- 4 Hogan MC, Foreman KJ, Naghavi M, Ahn SY, Wang M, Makela SM, et al. Maternal mortality for 181 countries, 1980-2008: a systematic analysis of progress towards millennium development goal 5. *Lancet* 2010;375:1609-23.
- 5 United Nations. Millennium development goal report 2010. www.un.org/millenniumgoals/ pdf/MDG%20Report%202010%20En%20r15%20-low%20res%2020100615%20-.pdf
- 6 United Nations. The global partnership for development: time to deliver. 2011. MDG gap task force report. 2011. www.un.org/millenniumgoals/2011_Gap_Report/11-38394%20(E)%20MDG%20Gap%20Report%202011_WEB.pdf.
- 7 Kinney MV, Lawn JE, Kerber KJ, eds. Science in action: saving the lives of Africa's mothers, newborns, and children. Report for the African Academy Science Development Initiative, 2009. www.who.int/pmnch/topics/continuum/scienceinaction.pdf.
- Franco L, Marquez L. Effectiveness of collaborative improvement: evidence from 27 applications in 12 less-developed and middle-income countries. BMJ Qual Saf 2011;20:658-65.
- 9 Fraser S, Greenhalgh T. Coping with complexity: educating for capability. BMJ Qual Saf 2001;323:799-803.

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