

A disadvantage of early vaccination in infancy can be reduced immunogenicity because of acquired immune responses that are less mature, and interference from maternal antibodies. However, newer vaccines supported for potential introduction into some developing countries pose safety as well as efficacy questions about timing. More than 30% of children in most countries surveyed by Clark and Sanderson were vaccinated later than the current recommended safety cutoff for the first dose of rotavirus vaccine, which is 12 weeks. An increased risk of intussusception was seen in US infants who received their first dose of Rotashield after 12 weeks of age.¹¹ Information from postlicensure safety surveillance in developed countries for the newer rotavirus vaccines will hopefully enable the 12 week cutoff to be removed but, until this time, many children could be prevented from receiving a rotavirus vaccine. Additionally, onset of rotaviral disease in developing countries is earlier than that in developed countries, which underlines the importance of early vaccination.¹²

There is some cause for optimism. Countries as diverse as Rwanda, Egypt, and Peru provide high coverage with timely administration. Many countries use opportunistic immunisation to minimise missed opportunities.⁵ Potentially generalisable lessons can be learnt from these successes.

*Jim P Buttery, Stephen M Graham

Murdoch Children's Research Institute and Centre for International Child Health, Department of Paediatrics, University of Melbourne, Royal Children's Hospital, Parkville 3052, VIC, Australia (JPB, SG); and Department of Paediatrics, Monash University, Clayton, VIC, Australia (JPB)
jim.buttery@mcri.edu.au

We declare that we have no conflict of interest.

- 1 Lim SS, Stein DB, Charrow A, Murray CJL. Tracking progress towards universal childhood immunisation and the impact of global initiatives: a systematic analysis of three-dose diphtheria, tetanus, and pertussis immunisation coverage. *Lancet* 2008; **372**: 2031–46.
- 2 Semba RD, de Pee S, Berger SG, Martini E, Ricks MO, Bloem MW. Malnutrition and infectious disease morbidity among children missed by the childhood immunization program in Indonesia. *Southeast Asian J Trop Med Public Health* 2007; **38**: 120–29.
- 3 Bates AS, Fitzgerald JF, Dittus RS, Wolinsky FD. Risk factors for underimmunization in poor urban infants. *JAMA* 1994; **272**: 1105–10.
- 4 Jani JV, De Schacht C, Jani IV, Bjune G. Risk factors for incomplete vaccination and missed opportunity for immunization in rural Mozambique. *BMC Public Health* 2008; **8**: 161.
- 5 Clark A, Sanderson C. Timing of children's vaccinations in 45 low-income and middle-income countries: an analysis of survey data. *Lancet* 2009; published online March 20. DOI:10.1016/S0140-6736(09)60317-2.
- 6 Ruff TA, Gertig DM, Otto BF, et al. Lombok Hepatitis B Model Immunization Project: toward universal infant hepatitis B immunization in Indonesia. *J Infect Dis* 1995; **171**: 290–96.
- 7 Bisgard KM, Rhodes P, Connelly BL, et al, on behalf of the Centers for Disease Control and Prevention. Pertussis vaccine effectiveness among children 6 to 59 months of age in the United States, 1998–2001. *Pediatrics* 2005; **116**: e285–94.
- 8 Daly AD, Nxumalo MP, Biellik RJ. Missed opportunities for vaccination in health facilities in Swaziland. *S Afr Med J* 2003; **93**: 606–10.
- 9 Szilagyi PG, Rodewald LE. Missed opportunities for immunizations: a review of the evidence. *J Public Health Manag Pract* 1996; **2**: 18–25.
- 10 Murakami H, Van Cuong NV, Tuan HV, Tsukamoto K, Hien DS. Epidemiological impact of a nationwide measles immunization campaign in Viet Nam: a critical review. *Bull World Health Organ* 2008; **86**: 948–55.
- 11 Simonsen L, Viboud C, Elixhauser A, Taylor RJ, Kapikian AZ. More on RotaShield and intussusception: the role of age at the time of vaccination. *J Infect Dis* 2005; **192** (suppl 1): S36–43.
- 12 Cunliffe NA, Kilgore PE, Bresee JS, et al. Epidemiology of rotavirus diarrhoea in Africa: a review to assess the need for rotavirus immunization. *Bull World Health Organ* 1998; **76**: 525–37.

A global fund for the health MDGs?

The world is off track to achieve the health-related targets of the Millennium Development Goals (MDGs) by 2015.¹ Maternal mortality has stagnated for two decades,² child mortality is not declining fast enough,³ HIV/AIDS still infects people faster than the pace of antiretroviral treatment roll-out,⁴ and inequalities are widening within and across countries.⁵ Addressing these crises will require increased funding and more efficient spending. The next Board meetings of the Global Fund to Fight AIDS, Tuberculosis and Malaria and the GAVI Alliance, scheduled for May and June, respectively, present an opportunity to tackle these issues.

There is widespread recognition of the need for bold action to streamline the global aid architecture for health.

Last year WHO launched an effort to “Maximise positive synergies between global health initiatives and health systems”,⁶ whose conclusions will be submitted to the G8 in late June. A Taskforce on Innovative International Financing for Health Systems was established in September, 2008, to explore new strategies to mobilise and channel resources for health systems.⁷ The executive directors of the GAVI Alliance and the Global Fund recently wrote to the Taskforce co-chairs that “It is time to take a comprehensive approach with the necessary support from key donors to refocus on all of the health-related MDGs”.⁸ An interim report from one of the Taskforce working groups suggests considering “the Global Fund and GAVI as a conduit for additional resources for health

systems [to achieve] MDG 4, 5 and 6".⁹ The scene is set: now is the time for explicit discussion of a global fund for the health MDGs.

In the past ten years global health aid has increased substantially, in particular for HIV/AIDS,¹⁰ while HIV/AIDS funding is still inadequate, the resources committed to other health needs or to strengthen health systems have seen only modest increases, or a relative decline.¹¹ Development assistance for health has been constrained by the aim of national financial autonomy—the expectation that nations receiving assistance should eventually finance health services from domestic revenues. This model is a major constraint to scaling up service provision in countries where public services rely heavily on international resources.

International aid to fight AIDS has escaped this constraint. Grounded in a right to health approach, the so-called Harvard Consensus Statement, while acknowledging that antiretroviral treatment would remain unaffordable for some countries, argued that the international community should support the rapid scale-up of AIDS treatment "on moral, health, social and economic grounds".¹² Another exceptional feature of the AIDS response has been its multisectoral nature, which has allowed more effective action on the social determinants of HIV transmission.

The idea that the aim of national financial autonomy should be set aside for AIDS was based on the assumption that health systems were working reasonably well, or could be improved with conventional development assistance, but could not afford bulk procurement of antiretroviral drugs. If that assumption had been correct, it would indeed have been sufficient to create an exceptional funding channel for expensive drugs. The reality, however, is that the health systems of many countries lack basic capacity in governance, health financing, procurement, human resources, and information systems. Therefore health systems have often been unable to take full advantage of the new funding channels, or, paradoxically, might have been weakened by over-concentrating human and financial resources in specific initiatives.¹³

Only by comprehensively strengthening health systems will it be possible to overcome structural challenges to service delivery, in particular the shortage of health workers.¹⁴ Some lament that a decade of disease-specific attention was a lost opportunity, because better results

Panel: Desirable features of a global fund for the health MDGs

- Focus on measurable improvements in health outcomes, with performance evaluation framework that looks at coverage with services relating to reproductive, maternal, newborn, and child health, HIV, malaria and tuberculosis, other infectious and non-communicable chronic diseases, quality of care, and fairness of financial contribution to the health system
- Clear mandate and funding criteria that address key bottlenecks in health systems (including long-term predictable support for recurrent costs)
- Rights-based approach to health supported by new model of globally shared financial sustainability
- Capacity to disburse resources beyond public system and beyond health sector when this represents appropriate and cost-effective approach to improve health outcomes
- Governance and accountability structure open to civil society at global and country levels
- Flexibility to provide support to public sector on-budget or off-budget, in form of grants and not loans, unconstrained by financial ceilings
- Independent mechanism that judges proposals exclusively on technical grounds

would have been possible had greater resources been invested in health systems. For others, the pressure to save lives through disease-focused programmes was needed to overcome decades of underinvestment in health systems.

We can agree to disagree on the past, but must start a constructive discussion about the future. We propose that the exceptional approach created for the fight against AIDS should be expanded: the entire global health agenda must adopt a rights-based approach, which in some countries requires challenging the model of national financial autonomy.

We therefore recommend that the Global Fund and the GAVI Alliance gradually move towards becoming a global fund for all the health MDGs, which will require substantially greater resources to address the broader mandate. As a first step the next Global Fund and GAVI Alliance board meetings should expand the review of their architecture to provide greater support to national health plans, including co-financing non-disease-specific human resources for health.

The desirable features of a global fund for the health MDGs are listed in the panel. Such a fund should sustain the successful programmes and expand the effective approaches pioneered by the Global Fund and the GAVI

Alliance, while extending the same principles to other health needs and to general health system strengthening. A global fund for the health MDGs would eventually allow the delivery of prevention and treatment services for specific diseases through revamped general health services, reducing transaction costs and streamlining the global health architecture. Such radical, yet rational, action is our best chance of meeting—or at least making significant progress toward—the health-related MDG targets by 2015.

*Giorgio Cometto, Gorik Ooms, Ann Starrs, Paul Zeitz
Save the Children UK, London EC1M 4AR, UK (GC); Institute of Tropical Medicine, Department of Public Health, Antwerp, Belgium (GO); Family Care International, New York, NY, USA (AS); and Global AIDS Alliance, Washington, DC, USA (PZ)
giorgiocometto@hotmail.com

GC is a member of the GAVI Health System Strengthening Task Team; his views are not necessarily those of Save the Children UK or of the GAVI Alliance. GO, AS, and AZ declare that they have no conflicts of interest.

- 1 WHO. World health statistics 2008. 2008. http://www.who.int/whosis/whostat/EN_WHS08_Full.pdf (accessed March 17, 2009).
- 2 Hill K, Thomas K, AbouZahr C, et al, on behalf of the Maternal Mortality Working Group. Estimates of maternal mortality worldwide between 1990 and 2005: an assessment of available data. *Lancet* 2007; **370**: 1311–19.
- 3 Loaiza E, Wardlaw T, Salama P. Child mortality 30 years after the Alma-Ata Declaration. *Lancet* 2008; **372**: 874–76.
- 4 UNAIDS. 2008 Report on the global AIDS epidemic. July, 2008. http://www.unaids.org/en/KnowledgeCentre/HIVData/GlobalReport/2008/2008_Global_report.asp (accessed March 17, 2009).

- 5 Commission on Social Determinants of Health. Closing the gap in a generation: health equity through action on the social determinants of health. 2008. http://whqlibdoc.who.int/publications/2008/9789241563703_eng.pdf (accessed March 17, 2009).
- 6 WHO. Maximising positive synergies between health systems and global health initiatives. 2008. <http://www.who.int/healthsystems/MaximizingPositiveSynergies.pdf> (accessed March 17, 2009).
- 7 High Level Taskforce on Innovative International Financing for Health Systems. Terms of reference and management arrangements. Nov 29, 2008. [http://www.internationalhealthpartnership.net/pdf/IHP%20Update%2013/Taskforce/TF%20REVISED%20Press%20statement%20\(2008%2011%2030\)%20v%206.pdf](http://www.internationalhealthpartnership.net/pdf/IHP%20Update%2013/Taskforce/TF%20REVISED%20Press%20statement%20(2008%2011%2030)%20v%206.pdf) (accessed March 15, 2009).
- 8 Lob-Levyt J, Kazatchkine M. Letter to the High Level Taskforce on Innovative International Financing for Health Systems. March 10, 2009. <http://www.internationalhealthpartnership.net/pdf/IHP%20Update%2013/Taskforce/london%20meeting/new/GAVI%20and%20GFATM%20letter.pdf> (accessed March 21, 2009).
- 9 Taskforce for Innovative International Financing for Health Systems. Working group 2: raising and channelling funds. Progress report to Taskforce. March 13, 2009. <http://www.internationalhealthpartnership.net/pdf/IHP%20Update%2013/Taskforce/london%20meeting/new/Working%20Group%202%20First%20Report%20090311.pdf> (accessed March 17, 2009).
- 10 Gordon JG. A critique of the financial requirements to fight HIV/AIDS. *Lancet* 2008; **372**: 333–36.
- 11 Shiffman J. Has donor prioritization of HIV/AIDS displaced aid for other health issues? *Health Policy Plan* 2008; **23**: 95–100.
- 12 Individual Members of the Faculty of Harvard University. Consensus statement on antiretroviral treatment for AIDS in poor countries. March, 2001. http://www.cid.harvard.edu/cidinthenews/pr/consensus_aids_therapy.pdf (accessed March 17, 2009).
- 13 Travis P, Bennett S, Haines A, et al. Overcoming health-systems constraints to achieve the Millennium Development Goals. *Lancet* 2004; **364**: 900–06.
- 14 Médecins sans Frontières: Help wanted: confronting the health care worker crisis to expand access to HIV/AIDS treatment. MSF experience in southern Africa. May, 2007. http://www.msf.org/source/countries/africa/southafrica/2007/Help_wanted.pdf (accessed March 17, 2009).



NHS Evidence: better and faster access to information

Published Online
April 30, 2009
DOI:10.1016/S0140-6736(09)60786-8
See Online/Editorial
DOI:10.1016/S0140-6736(09)60830-8

NHS Evidence is a new service, hosted by the UK's National Institute for Health and Clinical Excellence (NICE), launched today, April 30, 2009.¹ The aim is to provide easy access to a comprehensive evidence base for everyone in health and social care who takes decisions about treatments or the use of resources—including clinicians, public health professionals, commissioners, and service managers—thus improving health and patients' care. NHS Evidence will build on NICE's substantial international reputation for developing high-quality evidence-based guidance.² NHS Evidence provides access to a range of information types, including primary research literature, practical implementation tools, guidelines, and policy documents.

Barriers to seeking information appear to be lack of time, the large amount of material to search, forgetfulness, and an expectation that there will be no answer.³ This problem—too much information in too

many different places—is exactly what NHS Evidence is designed to address. Through a fast, efficient, web-based search facility, NHS Evidence will help users access a wide range of information, by sorting, sifting, and prioritising the best and most relevant. To ensure the right information is available, NHS Evidence also has a commissioning function, to ensure any knowledge gaps are filled, and to provide central purchasing of online journals for staff in the National Health Service (NHS) in England.

To ensure users have comprehensive access to all relevant sources of information, NHS Evidence will exclude only those sources likely to present significantly biased opinions. To effectively sort, sift, and prioritise the resultant large volume of information, NHS Evidence is using three main approaches. First, a formal system for accrediting producers of guidance that will enable the best and most trusted sources to be easily recognisable