

# South African and African priorities for child health research



George Swingler, MB ChB, PhD, FCP (SA), DCH (SA)

School of Child and Adolescent Health, University of Cape Town

Every year more than 10 million children die before they turn 5, and African children have the best chance of doing so.<sup>1</sup> Thirty of the 31 countries globally with the highest mortality rates are in sub-Saharan Africa.1 How do we respond to that? We may think that research is a luxury when African health resources are so limited, but the more limited the available resources, the more research evidence is needed to guide hard choices on how to use those resources. Unfortunately African and other low- and middle-income countries have less of a research evidence base than industrialised countries on which to draw,<sup>2,3</sup> and African children seem to have been systematically ignored even by the countries in which they live. In the African countries that generate the bulk of Medlineindexed research output in sub-Saharan Africa, few systematic research prioritisation processes have even included children. In those that have, children's interests appear to have been distorted by including children in adult-related categories; for example, reproductive health features prominently when categories include adolescents, but not younger children.4

Despite the shortcomings of existing research evidence and of research priorities, we already know how to increase child survival meaningfully. Up to 63% of the annual 10.6 million deaths could be prevented by existing low-cost interventions – but global coverage for most of these interventions is less than 50%. Far more research has been done on new interventions than on effectively delivering the ones that we already have. Existing health research evidence for children is therefore of limited value without further research on the implementation of existing research findings.

Much of this implementation research can be done only onsite, where the problem is. In South Africa we are in a highly privileged position to perform research. Our special context at the interface between the wealthy industrialised 'North' and the much poorer 'South' involves more than merely having both the infrastructure to do research and too many patients with diseases of poverty. The mere juxtaposition of disease and a laboratory is convenient but not essential for research. Other semi-colonial research models work too, for example 'postal' research whereby African workers courier laboratory samples to researchers in industrialised countries, 'parachute' research involving short visits to Africa to collect the samples, and 'annexed sites' controlled by expatriate researchers.7 The key is not just that we are close to the people with the 'right' diseases, it is that we are ourselves part of the context. Involvement in a context brings insights indispensable to the best research. Just as the best clinical research requires people who are both well-trained researchers and competent practising clinicians, so the best health research in low- and middle-income countries requires well-trained researchers who are also immersed in their contexts. In other words, for our research to be most meaningful (both locally and globally)

we need to do it ourselves. We need to ask the questions and conceive and perform research ourselves, as only we can – and we need to do it to the highest methodological standards. Doing so of course does not negate collaboration with researchers from industrialised countries, but it does shift the centre of gravity of such partnerships. To achieve this we need to develop local research capacity. Developing African researchers of the highest quality is in my view the highest current research priority for African children.

The low coverage of known effective interventions at local level suggests that, of the different types of research, implementation research is the over-riding priority, but it is not as simple as that. The Gates Global Challenges to find solutions to 'the problems that stand in the way of important advances against disease' include laboratory science (creating effective new vaccines), problems needing multiple approaches (improving nutrition, controlling insects that transmit disease), and epidemiology (measuring disease and health status accurately). It is perhaps not the genre or the specific topic of the research that really matters, but who does it, why we do it, and how well we do it. High-quality research done to answer important questions born out of a knowledge of our own context will yield meaningful answers for African children.

This is a powerful motivation, but we do of course do research for other reasons too. One is academic recognition. Unfortunately academic recognition and its rewards militate against some types of research, and particularly implementation research. The slogan 'publish or perish' is old hat. Now it is perhaps 'be cited or blighted', and applied research is cited less often than basic research. One reason is that implementation research is about action and therefore more likely to find expression in action than citation. To foster appropriate research we need new measures of the importance of research performed in and for our context. But we need to take it further than that. We need to generate new benchmarks for research excellence in low- and middle-income countries. When our universities and health science faculties *only* strive to move up the log tables of the world's top (Northern) universities, measured by the number of Nobel Prize winners and papers in Science and Nature, we risk losing our way. We neglect an opportunity, and abrogate a responsibility, to help lead the world in research that improves the health of our children, and children in countries like ours. To accept that challenge is not to lower the bar but to raise it. World-class intelligence, skill and courage will be needed to forge and test new hypotheses, and to develop and validate new answers, in a way that can be done only in the creative tension that exists at the interface between two worlds. To do so we first need to train and develop more African health researchers of the very high quality that African children deserve.







#### References

- 1. Black RE, Morris SS, Bryce J. Where and why are 10 million children dying every year? *Lancet* 2003; 361: 2226-2234.
- Isaakidis P, Swingler GH, Pienaar E, Volmink J, Ioannidis JPA. Burden of disease and randomized evidence in sub-Saharan Africa. BMJ 2002; 324: 702-704
- Swingler GH, Volmink J, Ioannidis JPA. Number of published systematic reviews and global burden of disease: database analysis. BMJ 2003; 327: 1083-1084.
- Swingler GH, Irlam JH, Macharia WM, Tietche F, Meremikwu MM. A systematic review of existing national priorities for child health research in sub-Saharan Africa. Health Res Policy Syst 2005; 3: 7.
- Jones G, Steketee RW, Black RE, Bhutta ZA, Morris SS; Bellagio Child Survival Study Group. How many child deaths can we prevent this year? *Lancet* 2003; 362: 65-71.
- Rudan I, El Arifeen S, Black RE, Campbell H. Childhood pneumonia and diarrhoea: setting our priorities right. *Lancet Infect Dis* 2007; 7: 56-61.
- 7. Costello A, Zumla A. Moving to research partnerships in developing countries. *BMJ* 2000; 321: 827-829.
- 8. Bill & Melinda Gates Foundation [Internet]. Seattle: Bill & Melinda Gates Foundation; 1999-2008. Grand Challenges in Global Health. http://www.gatesfoundation.org/GlobalHealth/BreakthroughScience/GrandChallenges/default.htm (accessed 25 February 2008).

## MESSAGE

# Welcome to the 2008 Congress

In September 1996, just over ten years ago, I moved to Bloemfontein as the new Head of the Department of Paediatrics and Child Health there. The Department happened to be the host of the SAPA Congress that year, and the Congress was to be held in the Medical School of the University of the Free State.

Looking back, this was a fairly modest congress as far as 'fringe' benefits were concerned. But because the scientific committee had been able to put together an excellent academic programme, it had a major impact on the practice of paediatrics in South Africa.

Now, twelve years later, it is again the University of the Free State's turn to organise the congress. It has become clear to me that this congress is now a major event, not only for paediatrics in South Africa but also in the wider sense. In contrast to the 1996 event, we now have to manage a congress with a turnover of several millions of rands. Whether this in fact reflects progress can be debated, but the positive and enthusiastic involvement of the industry and the participation of the various interest groups has made it very exciting.

The combined SAPA, UNAPSA and ALLSA Congress to be held in Sun City on 29 May to 1 June represents a milestone in the history of our specialty, as we are also hosting UNAPSA. To my knowledge this will be the first time that South Africa will be hosting representatives from other African paediatric associations. We welcome them all with open arms and hope they will not only benefit from the scientific programme but enjoy the social and personal interactions from which so much can be gained during such an event.

We are also delighted to have ALLSA join us again this year, as well as all the subgroups of SAPA such as PANDA, the oncology group and the paediatric surgeons. It appears that in future we will have even more subgroups, with the inauguration of groups such as the neonatal interest group and the vaccine group (PVAC). It is probably fitting that we should all convene at the same congress, as at this stage our numbers do not allow for each of these groups to arrange their own congresses.

My thanks go to everyone who has been involved in this congress, but especially to the Editor of the *South African Journal of Child Health* for allowing us to publish the abstracts of the oral presentations in this journal. A dedicated academic paediatric journal in South Africa has been a long time coming. We are delighted that there is now a journal that can potentially fill this role, and we trust that it will soon be an accredited vehicle for all matters pertaining to children in South Africa, as well as the rest of our continent.

I wish all participants, delegates and speakers a most enjoyable and fruitful congress. It is going to be great not just to see old friends again but to meet new ones. My very best wishes to you all. Remember, the sky's the limit!

### A Venter

Conference Chair

Professor and Head Department of Paediatrics and Child Health University of the Free State Bloemfontein



