

but we believe that the global estimate of 8.2 million blind persons due to uncorrected refractive error by Resnikoff et al. is an overestimate, largely due to the inclusion of an implausibly high estimate for India. While on the one hand we should not overlook blindness due to uncorrected refractive error as it can be addressed relatively easily, on the other hand we should be careful not to swing the pendulum in the other direction by overestimating it. Related to this issue, we have also published a proposal for revision of the definitions of blindness and visual impairment in the International Statistical Classification of Diseases that would take into account the inclusion of refractive error as a cause of blindness and visual impairment.⁴ ■

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Author reply to: *Estimation of global visual impairment due to uncorrected refractive error*

In response to the letter by L Dandona & R Dandona,¹ we would like to point

out that the study to which they refer (*BMC Medicine* 2006;4:6) – certainly a useful study in its own right – was not included in the references of our own paper as it informed neither the approach we took to our analysis nor the geographical scope of our work. Our study included data sources for all age groups from 68 surveys in 31 countries, chosen with epidemiological criteria different from those used by L Dandona & R Dandona, who derived their global estimates from nine surveys in eight countries. Our work presents an age-specific algorithm developed for missing data.

May we also point out a misinterpretation of our findings in this letter with regard to India. According to the estimated presenting and best-corrected blindness (visual acuity < 6/60) for people aged 50 years and older in 15 Indian states reported by Murthy et al.,² the reduction of visual impairment after correction is 42% and not one-fifth. The authors themselves point this out by saying that “the blindness load could be nearly halved by correction”.

We agree with L Dandona & R Dandona's emphasis on the need for new definitions. This issue has been extensively discussed since a consultation on refractive errors held by WHO in 2000. The International Council of Ophthalmology adopted a resolution in 2002, followed in 2003 by a WHO consultation on the development of standards for characterization of visual loss and visual functioning, which led to significant changes in definitions and categorizations.³ These have been subsequently integrated into the revision of the 10th International Classification of Diseases. ■

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Country ownership and vertical programmes in health, health information and health research

In the March 2008 issue, the *Bulletin of the World Health Organization* published two related items on the complex issue of ownership of health information in international health programmes and on the “vertical versus horizontal” nature of the health programmes responsible for generating this information.^{1,2}

The first is an editorial by Sanjoy Bhattacharya of the Wellcome Trust, which highlights (once again) the divide between protagonists of vertical and horizontal health programmes, and makes a call for “adaptive verticality” to optimize the potential of international health programmes to integrate with primary health care systems in low-income countries and strengthen these in the process.¹ The second is a news item: an interview with Sally Stansfield of the Health Metrics Network in which she calls for country-ownership of health information and for “vertical” health programmes to integrate with and strengthen national health information systems. These she argues should become the source of information for improved public-health decision-making and, at the same time, for information needed by donors and by specific (“vertical”) health programmes.²

The problems raised by Bhattacharya and Stansfield are not confined to the health sector nor to health information. On the contrary, the issue of ownership of data and the practice of vertical programming is, in many ways, far worse in the domain of health research. In most low- and middle-income countries, foreign-funded initiatives determine national health research agendas, even in countries in which governments contribute substantially to supporting national health

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research systems, institutions and personnel. As a result, research activities in many low- and middle-income countries reflect more closely foreign and global health research priorities than the research needs of the countries in which research is being conducted. As externally funded research is virtually monopolised by HIV/AIDS, tuberculosis and malaria,³ little if any funding or research capacity is left to deal with other diseases, conditions or the improvement of health systems, let alone for research with a more expanded goal of social and economic development (i.e. “research for health”).

The concept of “responsible vertical programming”⁴ defines a health research programme as “responsible” if it “succeeds in building the capacity of a country’s researchers and the national research system – in the process of achieving its own research goals”. It sets out some practical steps that decision-makers in countries and in research programmes can take to increase the synergy between national research capacity and research programme implementation.

Countries have to take responsibility to put in place and resource a basic national health research system that provides mechanisms for research governance, identifies national priorities and formulates and implements a policy framework to enhance the effectiveness of the national research effort.

Vertical programmes have to realize that their research cannot be conducted in isolation from national contexts and that their contributions to the research infrastructure from which they benefit will enhance research output and quality in the future. They can do this by ensuring that – as a minimum – activities align with, rather than fragment, national research system needs and by investing in equitable partnerships that strengthen the capacities of national researchers, research institutions and research systems.

It is clear that health system strengthening needs both information and research. Stated in another way, national health information systems and national health research systems are key tools in generating the evidence needed to guide health and health sys-

tem improvement in low- and middle-income countries, just as they are in high-income countries.

“Responsible vertical programming” is about supporting long-term sustainable development as the primary objective of all development interventions in low- and middle-income countries. At the same time, we agree with Bhattacharya in acknowledging that there is still much to be learned about how best to integrate “vertical” and “horizontal” programmes. What is not in any doubt, however, is that strengthening of national research and information systems should be a key component of (large) health and health research programmes. ■

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Integrating cervical cancer prevention in HIV/AIDS treatment and care programmes

Peckham and Hann’s call for integrating cervical cancer prevention as part of broader sexual and reproductive health prevention services¹ is especially relevant to sub-Saharan Africa where both cervical cancer and sexually transmitted infections, especially HIV/AIDS, are widely prevalent.

Over the past decade, successful HIV/AIDS care and treatment programmes have been instituted in over a dozen hardest-hit sub-Saharan African countries, largely through bilateral

and multilateral programmes like the United States President’s Emergency Plan for AIDS Relief (PEPFAR) and the Global Fund to Fight AIDS, Tuberculosis and Malaria.² HIV-infected women are at heightened risk for pre-invasive and invasive neoplasia of the cervix.^{3,4} HIV/AIDS care and treatment programmes thus provide an ideal platform to integrate cervical cancer prevention activities in countries which face a dual burden of both AIDS and cervical cancer, an AIDS-defining disease. With steady donor support over the past 5 years, these programmes are slowly but steadily contributing to the development of health-care service delivery capacity in emerging nations by establishing infrastructures, training the health-care work force, and tackling complex and challenging problems in implementation and scale-up.⁵

Limited access to cervical cancer prevention services, the usual circumstance for women in low-resource environments, serves as a counterforce to the life-prolonging potential of increased access to affordable antiretroviral therapy. Cervical cancer prevention strategies that use visual inspection with acetic acid (VIA) and same-visit cryotherapy (“see-and-treat”) are cost-effective alternatives to cytology-based screening programmes. These procedures can be performed by nurses and other non-physician health-care workers and allow screening and treatment to be linked to the same clinic visit. Our experience in Zambia has shown that VIA-based prevention services that are nested within the context of antiretroviral therapy programmes allow early detection of cervical cancer in high-risk HIV-infected women in a cost-effective way.^{6,7} It also allows opportunities for the provision of broader gynaecologic and other health care for women. Eventual integration of low-cost, rapid screening tests for detecting human papillomavirus within VIA-based screening services will additionally increase programmatic efficiency. When cervical cancer prevention services are offered to HIV-infected women in a venue attended by non-HIV-infected women, a scalable intervention is established that can reach out to all women regardless of HIV status.

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