

## Reaching Every District (RED) approach: a way to improve immunization performance

In their paper, Victora et al.<sup>1</sup> show that “child survival interventions are inequitably distributed within low- and middle-income countries”. Areas of greatest need were not prioritized, and expansion of these health programmes in more difficult areas has tended to be delayed or postponed. In response, we wish to share some results and propose a way forward based upon experiences with immunization programmes.

Immunization programmes around the world have recognized and strived to reduce inequity for many years. While Universal Child Immunization (UCI) of 80% coverage was achieved in 1990, this merely emphasized the need to balance the inequalities within and between countries. Accordingly, several approaches were adopted. The “high risk approach” was designed in the mid-1990s to reach women in underserved areas with tetanus toxoid immunization using a campaign-style approach.<sup>2</sup> District level microplanning has been the cornerstone of the polio eradication and measles elimination initiatives, to maximize the delivery of vaccines to all districts, especially underserved populations. District-level coverage and disease surveillance data are now routinely collected in most countries, with reporting of selected indicators to the global level since 2000.

In 2002, the Reaching Every District (RED) approach was developed and introduced by WHO, the United Nations Children’s Fund (UNICEF) and other partners in the GAVI Alliance to improve immunization systems in areas with low coverage. Far from being a programme, or separate initiative, the approach outlines five operational components that are specifically aimed at improving coverage in every district:

- re-establishment of regular outreach services;

- supportive supervision: on-site training;
- community links with service delivery;
- monitoring and use of data for action;
- better planning and management of human and financial resources.<sup>3</sup>

The RED approach encourages countries to use coverage data to make an analysis of the distribution of unimmunized infants, and thereby prioritize districts with poor access and utilization of immunization, while districts are encouraged to make microplans to identify local problems and adopt corrective solutions.

Since 2003, 53 developing countries have started implementing RED to various degrees, mostly in Africa and south and south-east Asia.<sup>4</sup> All 53 countries belong to the groups of lower income and lower-middle income countries, as per World Bank classification. In 2005, an evaluation of 5 countries in Africa that had implemented RED found that, in 4 of the 5 countries, immunization coverage had increased since the implementation of RED, and that the proportion of districts with DTP3 (three-dose diphtheria, tetanus and pertussis vaccine) coverage above 80% had more than doubled.<sup>5</sup> The number of unimmunized children in these 5 countries was reduced from 3 million in 2002 to 1.9 million in 2004. Interestingly, the report notes that outreach services, one of the five components of RED, were often used to deliver other interventions beyond immunization, such as Vitamin A, antihelminthic drugs or insecticide-treated bed nets. This indicates that implementation of RED components may start to have an impact beyond immunization services alone.

An analysis of coverage data supports the findings of the evaluation in Africa. It shows that in the 53 countries that started to implement RED between 2003 and 2005, DTP3 coverage

(as estimated by WHO and UNICEF) increased between 2002 and 2005 in 34 (64%) countries, and decreased in only 7 (13%).<sup>6</sup>

Although these data need to be interpreted with caution, since RED implementation has not been nationwide in many countries, they seem to indicate that where RED is implemented, it can help to reduce gaps in immunization coverage. We agree with the suggestion of Victora et al. regarding the need for information systems and training. Most of the 53 countries we refer to have functional immunization information, logistics and supply systems and have implemented district training, often using funds from the GAVI Alliance. Furthermore WHO, UNICEF and other partners at country and regional level have been closely involved in guiding countries adopting the RED approach to reach the unreached. We believe that the RED approach of district microplanning based upon local data using simple operational components and supported by supply and logistics has the potential for the successful delivery of other child health interventions, especially during outreach. ■

Jos Vandelaer,<sup>a</sup> Julian Bilous<sup>b</sup>  
& Deo Nshimirimana<sup>c</sup>

### References

1. Victora CG, Huicho L, Amaral JJ, Armstrong-Schellenberg J, Manzi F, Mason E et al. Are health interventions implemented where they are most needed? District uptake of the Integrated Management of Childhood Illness strategy in Brazil, Peru and the United Republic of Tanzania. *Bull World Health Organ* 2006;84:792-801. PMID:17128359 doi:10.2471/BLT.06.030502
2. Anonymous. The high-risk approach: the WHO-recommended strategy to accelerate elimination of neonatal tetanus. *Wkly Epidemiol Rec* 1996;71:33-9. PMID:8851826
3. *Global Immunization Vision and Strategy 2006-2015*. Geneva: WHO and UNICEF; 2005.
4. *Global Polio Eradication Initiative: 2005 annual report*. Geneva: WHO, Rotary International, CDC, UNICEF; 2006 (WHO/Polio/06.02).

<sup>a</sup> Health Section, Programme Division, UNICEF, New York, NY, United States of America.

<sup>b</sup> Department of Immunization and Biologicals, World Health Organization, 20 avenue Appia, 1211 Geneva 27, Switzerland.

<sup>c</sup> Regional Office for Africa (AFRO), World Health Organization, Brazzaville, Republic of the Congo.

Correspondence to Jos Vandelaer (e-mail: vandelaerj@who.int).

5. *Report of evaluation of Reaching Every District approach in five countries*. Brazzaville: WHO Regional Office for Africa, 2005 [unpublished document].
6. WHO vaccine-preventable diseases: monitoring system: 2006 global summary. Geneva: WHO; 2006 (WHO/IVB/2006). Available from: [http://www.who.int/immunization\\_monitoring/data/en/](http://www.who.int/immunization_monitoring/data/en/)

## Health insurance in sub-Saharan Africa: a call for subsidies

De Allegri et al.<sup>1</sup> rightly describe low enrolment as a principal problem related to the functioning of community health insurance (CHI) in sub-Saharan Africa. Furthermore, they identify a set of important factors affecting the decision to enrol. Nonetheless, on reflection about the evidence established by this paper and related research, I would like to suggest some additional considerations.

First of all, the described (and not too surprising) fact that the educational and, importantly, the socioeconomic status of a household play predominant roles in the decision of whether to enrol in health insurance is depicted by a series of articles<sup>2</sup> as well as several systematic article reviews.<sup>3</sup> Some of them are quoted by the authors themselves.<sup>4,5</sup>

Second, the consistency of this observation and the clear-cut cause-effect relationship between socioeconomic well being and the readiness to embark on an expenditure (be it for health insurance or anything else) allow the conclusion that wealth is a fundamental predictive factor for enrolment into health insurance.

Third, if then poverty can be understood as a risk factor for *not* embarking into health insurance, the discussion around an insurance approach for the poor should focus very much on the following three questions: What percentage of the population targeted by the envisaged or existing insurance scheme are too poor to enrol on their own? By which kind of corrective measures can they be included? What consequences do these measures have for the financial viability of the scheme?

Two recent analyses from Ghana<sup>6</sup> and Rwanda<sup>7</sup> suggest that the capacity of households to contribute financially is so weak that the dual objectives of mobilizing significant resources for health on one side, and of covering a large percentage of the targeted rural population on the other, are mutually exclusive. That is to say that insurance schemes requiring a contribution of little more than a few US dollars per year are beyond the reach of the majority, but they still do not allow the financing of reasonable (and thus attractive) health services! Furthermore, schemes charging about ten times such an amount are still affordable by a considerable minority of the population and maximize resource mobilization in absolute terms. This phenomenon is explained largely by the highly skewed distribution of wealth in the settings studied (as expressed equally by a high Gini coefficient). This finding seems to be one of the main reasons underlying the aforementioned low enrolment rate scrutinized by De Allegri et al. In many countries in sub-Saharan Africa, health insurance schemes might find themselves in a tragic situation: Depending on the design, people are either unable to pay for the schemes, or the schemes are unable to pay for the envisaged services.

Therefore, it is suggested that future research go beyond the identification of additional predictive factors for health insurance enrolment. If health insurance is to cover broader population strata in sub-Saharan Africa and to assure satisfactory health services, schemes will require continuous and long-term subsidies to bridge the gap between household capacity to contribute financially and the real costs of health care. The development of approaches addressing this dilemma should be considered as a research priority. They might include initiatives of north-south risk pooling as between the Netherlands and Ghana.<sup>8</sup> This necessity is underpinned by the capacity of health insurance to formalize social protection and to create a market between health service providers and their "customers", simultaneously alleviating poverty and empowering communities. Yet, available evidence

points out that to play these roles, health insurance needs subsidies. ■

Andreas Kalk<sup>a</sup>

## References

1. De Allegri M, Kouyaté B, Becher H, Gbangou A, Pokhrel S, Sanon M. et al. Understanding enrolment in community health insurance in sub-Saharan Africa: a population-based case-control study in rural Burkina Faso. *Bull World Health Organ* 2006;11:852-8.
2. Musango L, Dujardin B, Dramaix M, Criel B. Les profils des membres et non membres des mutuelles de santé au Rwanda: le cas du district sanitaire de Kabutare. *Trop Med Int Health* 2004;9:1222-7. PMID:15548320 doi:10.1111/j.1365-3156.2004.01318.x
3. Preker AS, Carrin G, Dror D, Jakab M, Hsiao W, Arhin-Tenkorang D. Effectiveness of community health financing in meeting the cost of illness. *Bull World Health Organ* 2002;80:143-50. PMID:11953793
4. Ekman B. Community-based health insurance in low-income countries: a systematic review of the evidence. *Health Policy Plan* 2004;19:249-71. PMID:15310661 doi:10.1093/heapol/czh031
5. Walkens MP, Criel B. *Les mutuelles de santé en Afrique sub-Saharienne – Etat de lieu et réflexion sur un agenda de recherche*. Washington, DC: World Bank; 2004 [Health, Nutrition and Population Discussion Paper].
6. Arhin-Tenkorang D. Experience of community health financing in the African region. In: *Health financing for poor people: resource mobilization and risk sharing*. Washington, DC: World Bank; 2004.
7. Schmidt JO, Mayindo JK, Kalk A. Thresholds for health insurance in Rwanda: who should pay how much? *Trop Med Int Health* 2006;11:1327-33. PMID:16903895 doi:10.1111/j.1365-3156.2006.01661.x
8. Improving social protection for the poor: *health insurance in Ghana – The Ghana social trust pre-pilot project*. Geneva: International Labour Organization; 2005.

## Anti-tuberculosis medication side-effects constitute major factor for poor adherence to tuberculosis treatment

Two significant issues that require further clarification in Garner et al.'s stimulating paper (*Promoting adherence to tuberculosis treatment*<sup>1</sup>) are the impact of medication side-effects on treatment adherence as well as how adherence to tuberculosis (TB) chemotherapy should be defined and monitored. The treatment regimen recommended

<sup>a</sup> Health Sector Coordinator, German Cooperation, GTZ, BP 59, Kigali, Rwanda. Correspondence to Andreas Kalk (e-mail: [andreas.kalk@gtz.de](mailto:andreas.kalk@gtz.de)).