

that the trends shown by the Demographic and Health Survey are correct, that Nepal has really achieved a lot in the health and family planning sector over the years despite all the problems that the country has been facing, and that the trends are in the right direction.

Credit is due in part, she says, to the massive public awareness of health issues created by information and communication campaigns, launched by the government and other health-related agencies, through the national radio network, regional community broadcasting and local FM stations, television as well as traditional and non-traditional channels of communication. Nepal is considered a leader in community broadcasting and FM networks in South Asia, she said.

"But there are still strong cultural taboos. The results would have been better if all those women and children who wanted to take advantage of the health services could really travel freely from their homes to the health centres," added Ms Manandhar. ■

Prakash Khanal, *Katmandu*

Africa's largest measles vaccination campaign could reduce childhood mortality by 20%

After years of declining immunization rates, a nationwide measles vaccination campaign in Kenya, the largest ever to be undertaken in Africa, was judged "very successful" by Minister of Public Health Sam Onger. "From a target

population of 13.6 million the number immunized was 13.3 million, a record coverage of 98%" he said. In the year 2000 coverage was just 60%.

Rudi Eggers, WHO Inter-Country Epidemiologist for Eastern Africa, told the *Bulletin* that "more than 85% coverage is needed to protect against a measles epidemic. We need to have a herd immunity effect". In other words, the few unimmunized people need to be far enough apart so that transmission cannot continue. "For measles this is quite a big task, as this is quite an infectious disease. So you actually need to reach very high coverage — 98% or so — to get that herd immunity. It seems that Kenya has reached that figure. We did a coverage survey after the campaign, to get some independent verification of that data" said Eggers.

The biggest remaining uncertainty, however, is not the number vaccinated but the census — how many people there actually are in the country. And mopping up now needs to be done in areas that did not reach the target level.

Measles in Kenya is still a severe disease. Some 10% of cases develop complications including convulsions, inner ear infections, pneumonia, diarrhoea and inflammation of the brain. "Survivors are often left with lifelong disabilities including blindness and brain damage" said Onger. Yet over the last three years, Kenya had seen a fall in measles immunization coverage. It was estimated that 18 000 children were dying each year from measles in Kenya. Directly and indirectly, measles was

contributing 20% of the mortality rate in children under five years of age.

Nicholas Alipui, the UNICEF country representative, said that with the success of the campaign in Kenya, doors were opening for other African countries to undertake similar campaigns. "Measles has been and continues to be a highly contagious infectious disease throughout the world" said Alipui. "UNICEF continues to stand behind the Ministry of Health, to use resources accrued from this campaign to strengthen routine vaccination in private and public health facilities." With a concerted effort, he said, it would be possible for Kenya to have no measles deaths in a few years.

The Kenyan Ministry of Health organized the vaccinations and ran this campaign, while WHO and UNICEF gave in-country support. The main funders were the US Centers for Disease Control, the UN Foundation and the American Red Cross. Eggers added, "A group called the Measles Initiative has solidified around those three funders, and now has US\$ 20 million in the kitty to do more campaigns. We are planning for all of East Africa to be doing similar campaigns in due course". ■

Catherine Wanyama, *Nairobi*

Reflectors could reduce road deaths ninefold, says Global Forum for Health Research

4500 secondary school pupils in Arusha, United Republic of Tanzania, a small tourist town in sight of Mounts Meru and Kilimanjaro, are to receive 5 cm-square plastic yellow reflectors to tie on their arms or pin on the backs of their clothes. These will help reduce accidents in which they are injured or killed by walking on the roads in the dark.

The independent Global Forum for Health Research, which works to increase research on developing country issues, bought the US 60-cent reflectors "as a gesture" from the Danish makers "C you" — to coincide with Forum's annual meeting in Arusha this November. "The children will get two reflectors each, one themselves and one for a sibling," said a Forum spokesman.

The Forum will seek investigators, and funding, to study their effect on deaths and injuries. In Denmark, studies have shown that reflectors reduce users' risk of fatal accidents ninefold, according to the Forum but their effects in developing country situations is unknown.



Wendy Stone

While Kenya decided to vaccinate all age groups simultaneously, other countries such as the United Republic of Tanzania — here illustrated — chose to spread the vaccinations over two or three years. Kilosa district, Ruaha Catholic Clinic.



One of Nairobi's flamboyant matatu buses.

Every year, more than US\$ 70 billion is spent worldwide on health research by the public and private sectors, but only about 10% of this is devoted to 90% of the world's health problems. The Global Forum refers to this as the "10/90 gap."

Samwell Nungu, consultant orthopaedic surgeon at Muhimbili Orthopaedic Institute, Dar es Salaam, is one African researcher who might be able to undertake work on the reflectors, given funding. He studies traffic accidents in Dar es Salaam, the capital of United Republic of Tanzania. He told the *Bulletin* that he sees 50 seriously injured under 12-year-old victims of road accidents victims every month. "The peak injury hours are in the evening, coming home from school, and in the late evening" said Nungu. Few streets have lights, and those are only in the city centre.

"Reflectors will definitely contribute to the fight against accidents" said Nungu. But no comprehensive study had been done so far in United Republic of Tanzania on this age group of victims, looking carefully at the circumstances of the accident, said Nungu. "High-risk victims have to be identified and then targeted if we want to evaluate the results of any intervention measure". The reflectors should be made available to all children, Nungu believes — "not

just schoolchildren, but also street kids from the town and the outskirts".

According to WHO estimates road traffic injuries accounted for over 1.2 million deaths worldwide in the year 2000, amounting to 2.3% of all deaths. Many of the deaths occur in young adults, and 90% of the deaths occurred in the middle and low income countries, where death rates (21 and 24 deaths per 100 000 population, respectively) are approximately double the rates in high income countries (12 per 100 000 population).

The objectives of The Global Forum's meeting in Arusha, where it was to donate the reflectors, were much wider than traffic accidents, however. An

independent, international foundation, established in 1998, and funded by the Rockefeller Foundation, WHO, the World Bank, and the governments of Canada, Denmark, Netherlands, Norway, Sweden and Switzerland, the Forum planned to "celebrate African Health research", showcasing the development of interventions by African institutions, their impact on the health of the African populations, particularly the poor, and their impact outside Africa.

The Global Forum's host partner for the meeting was the National Institute for Medical Research of Tanzania (NIMR). ■

Robert Walgate, *Bulletin*

Kenya's bus drivers go back to school

Next door to the United Republic of Tanzania (see adjacent "reflectors" story), reckless drivers of Kenya's "matatu" buses, who help make Kenya's roads 20 times more dangerous than Britain's, are to go back to driving school to improve their skills.

"They are unsafe and reckless" passenger Musyoka Makau told BBC reporter Andrew Harding. "It's a lack of responsibility". According to Harding "a morbid, macho culture" has prompted many matatu owners to paint names like "Chechnya," "Aggression," "Monica Lewinsky," "Upsetter," and "Why Drive When You Can Fly?" on the vehicles.

Now with British funding special one day courses are being held for all of Kenya's estimated 16 000 matatu drivers, Harding reported. "What is the brake for?" instructor Daniel Muchai asks a classroom full of young men. Silence ... Then a cautious volunteer suggests "to slow the vehicle?"

"We're trying to teach them the need to be responsible," Dickson Mbugua, who owns two matatus, and is also chairman of the Matatu Welfare Association, explaining to the BBC. "The course will teach them first aid too — and explain about the effects of driving when taking drink or drugs. We hope it will cut down the number of deaths on the roads."

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