

Underweight the main cause of ill-health; five causes account for 28% of all DALYs

Childhood and maternal underweight, unsafe sex, high blood pressure, tobacco, and alcohol are the five main causes of today's global burden of disease, in that order, of 25 health risks chosen for study by the Comparative Risk Assessment Collaborating Group, an international team whose research forms the basis for this year's World Health Report (see *WHO News*).

According to the study, these five causes account for 28% of total disability-adjusted life years (DALYs) lost to ill-health each year. Childhood and maternal underweight causes 138 million DALYs (9.5% of total), unsafe sex 92 million (6.3%), high blood pressure 64 million (4.4%), tobacco 59 million (4.1%), and alcohol 58 million (4.0%).

However, the ranking varies according to the state of development of countries. In the poorest regions of the world the third, fourth and fifth most important risk factors are unsafe water, sanitation, and hygiene; indoor smoke from solid fuels; and micronutrient deficiencies, while underweight and unsafe sex remain the first and second. Alcohol, tobacco, high blood pressure, and high cholesterol are major causes of disease burden in both developing and developed regions, the study concludes.

This analysis of health by risks could not, however, include some important diseases, such as TB and malaria, which have multiple causes and influences varying from one group of people to another. Such diseases, say the researchers, are best suited to analysis of specific interventions tailored to specific settings, rather than to risk factor analysis.

The Comparative Risk Assessment Collaborating Group consist of a team of over 140 experts from WHO and institutions predominantly in Australia, New Zealand, the United Kingdom and the United States, but also including institutions based in Canada, Chile, Mexico, South Africa, Spain, Sweden, and Switzerland, plus UNAIDS. Their study has been published in the *Lancet* and is available on the WWW (<http://image.thelancet.com/extras/02art9066web.pdf>). ■

Robert Walgate, *Bulletin*

Nepal's childhood mortality falls by half as vaccinations rise tenfold



Khemraj Shrestha, JHU/CCP

Street theatre artists preparing for a family planning drama at Mainapokhar in Bardiya district, Nepal.

Nepal, one of Asia's poorest countries, has been taking hard knocks in recent years, struggling with a Maoist rebellion since 1996, and facing the appalling slaughter of many of its royal family by one of its own members in June 2001. But a delighted Sarat Singh Bhandari, Nepalese Minister for Health, recently reported significant health improvements in the country.

From 1980 to 2000 mortality in under five-year-olds fell by 55% (to 110 deaths of children 0–4 years old per 1000 births), said Bhandari; infant mortality has dropped by 33% (to 76 deaths per 1000 births) and fertility by 26% (to 4.7 children per woman).

The population still managed to more than double — from 15 million in 1980 to 37 million in 2000 — but it would have risen further if it had not been for a steady rise in the use of modern contraceptives by married women, from just 7% of such women in 1981 to 35% in 2001. The drop in child mortality is linked to the massive increase in the proportion of 12–23 month-old Nepalese children fully immunized against diphtheria, pertussis and tetanus: a rise to 80% in the year 2000, from just 8% 20 years ago.

These were some of the encouraging conclusions of Nepal's new Demographic and Health Survey, said the minister, speaking at the launching ce-

remony for the Survey in Kathmandu. Rebecca Rohrer, Director of the Health and Family Planning Unit of USAID, which funded the survey, said that Nepal has led the way in South Asia in improving demographic and health indicators in the last five years.

Some professionals working in the health sector, however, are not so confident, at a time when all growth indicators in Nepal are pointing downward. "I feel the health service delivery system has worsened in the last five years," claims Badri Raj Pandey, a senior health professional who has worked as the medical superintendent of Bir Hospital, the largest hospital in Nepal, and Chairman of Family Planning Association of Nepal (FPAN).

There is certainly still a great deal to do. Pandey points out that most Nepalese women deliver their babies at home without any medical aid or birth attendant. And cultural taboos are so strongly rooted in the rural areas of far western Nepal that menstruating women and those delivering babies still have to live outside the home in a shed, and fend for themselves. The maternal mortality rate in Nepal was 539 per 100 000 live births in 1996, according to USAID figures.

However Ms Pancha Kumari Manandhar, a consultant at Health and Family Planning Unit of USAID, is confident