Saturday 3 April 2004

BMJ

Is there hope for South Asia?

Yes, if we can replicate the models of Kerala and Sri Lanka

Two years turned the Indian subcontinent into South Asia. Between 14 August 1947 and 4 February 1948, India, Pakistan (its eastern part would later become Bangladesh), and Sri Lanka all gained independence from the British Empire. Amid the optimism of independence, the new states were comparable in population health and development indicators. Their progress since has been different.

This issue of the *BMJ* maps out the extent of the region's myriad difficulties. Non-communicable and communicable diseases ravage South Asia (see pp 781, 794, 807, 811). Tobacco and pharmaceutical industries are exploiting weak legislation to nurture new markets (pp 778, 780, 801). There is little pride in the progress of surgery (p 782), health research (p 826), or postgraduate education (p 779). Yet one challenge dwarfs all these: the desperate state of maternal and child health. Several articles reinforce the message that the scale of morbidity and mortality caused by neglect of mothers and children is driving the region to disaster (pp 791, 816, 820, 823). And unless regional priorities switch from nuclear weapons to maternal and child health the progress that is being made in community development (p 830), by integrating care in refugee camps (p 834), by the creators of the Jaipur foot (p 789) and the Karachi ambulance service (p 790), and on cricket fields (pp 800, 843) will count for nothing.

The answers to the region's problems may already be with us. Despite a civil war, Sri Lanka has the best health indicators in the region (also beating those of most other countries with comparable incomes), with average life expectancy at 73 years, infant mortality at 16 per 1000, and maternal mortality at 30 per 100 000 live births.[1] India's Kerala state has achieved health and demographic indicators far ahead of Indian national averages, with similar levels to Sri Lanka[2]; over 80% of infants receive all routine vaccines by 1 year, use of family planning services is high, and population growth is steady at replacement levels.[3 4]

The genesis of this success is an object lesson for the entire region. Soon after independence Sri Lanka decided to invest heavily in education and health as a cornerstone of socioeconomic development. Gains in education have been impressive, with literacy rates for both sexes exceeding 90%.[5] Similarly, Kerala has the highest literacy rates among all Indian states.[3] Both have maintained policies to achieve gender and social equity, reflected in outstanding health and economic indicators for women.[6] In Sri Lanka, women constitute over half the work force.[7]

Political will and grassroots support have stimulated development, underpinning largely consistent health and investment strategies. Soon after independence, both governments introduced agrarian reform that ended feudal land holdings, thus alleviating poverty and promoting equity. An important policy plank has been a focus on primary care—especially maternal and child health—through a multilayered health system with adequate provision of basic services at community level. Sri Lanka does not have a single magnetic resonance scanner in the public sector, epitomising a deliberate public focus on primary and secondary care. By contrast, many other countries in South Asia boast expensive tertiary care institutions (where sophisticated imaging is to be found), with low funding of primary and rural care.

This progress has not gone unchecked. Improvements in socioeconomic conditions prompted growth of the private sector in Kerala, as public institutions failed to keep up with the population's demand for quality care. A recent review of community health workers found gaps in their ability to adapt from implementing vertical national programmes to problem solving at local level.[8] Others have criticised health in Kerala as "low mortality high morbidity," with little attention paid to diseases of transition.[9] Local communities, in typical fashion, have assumed the responsibility for resolving these issues.[10]

What can the rest of South Asia learn from Kerala and Sri Lanka? Firstly, given leadership, investments in education and primary care can provide a framework for human development. Secondly, gains have been achieved against a background of participatory democracy; indeed, social consciousness is crucial in overcoming the menace of corruption.[11] Thirdly, maternal and child health is critical to development.

Can the rest of South Asia follow this lead? Yes, but doing so requires setting aside political differences, resolving regional conflicts, and creating an atmosphere that reduces spending on defence and nuclear arsenals. This may sound like wishful thinking but how else will we create hope from the despair of untold child death, wanton neglect of girls and women, and a rich elite feasting on the misery of millions in poverty? Health professionals in the region have an opportunity to join hands across national boundaries, cast aside historic divisions that suffocate progress, and begin to realise this vision of something better—a vision crystal clear in the heady days of independence, since lost in the intervening years of poverty, conflict, and nationalism.

BMJ 2004;328:777–8

We hope this issue of the *BMJ* will stimulate similar intiatives, promoting a dialogue about health throughout the region.

Zulfiqar Bhutta *Husein Lalji Dewraj professor of paediatrics and child health*

Aga Khan University, Karachi 74800, Pakistan (zulfiqar.bhutta@aku.edu)

Samiran Nundy *consultant gastrointestinal surgeon*

Sir Ganga Ram Hospital, New Delhi 110016, India (snundy@hotmail.com)

Kamran Abbasi *deputy editor*

BMJ, London WC1H 9JR (kabbasi@bmj.com)

Competing interests: None declared.

1 The World Bank. *Sri Lanka's health sector: achievements and challenges.* Washington, DC: World Bank, 1998.
2 Rani M, Shah S. *Worlds apart: why are Kerala and Uttar Pradesh so different in their human development outcomes? World development report 2004.* Washington, DC: World Bank, 2004. www.econ.worldbank.org/files/31147_33.pdf (accessed 18 Mar 2004).
3 Zachariab KC. Models of development and demographic change: a case study of Kerala. *Demography India* 1998;27:71-89.
4 *Demographic and Health Survey 2000.* Colombo: Sri Lanka, Department of Census and Statistics, Ministry of Finance and Planning, 2001.
5 Rannan-Eliya RP, Berman P, Eltigani EE, de Silva I, Somanathan A, Sumathiratne V. *Expenditures for reproductive health and family planning services in Egypt and Sri Lanka.* Washington, DC: Policy Project, 2000.
6 Pathmanathan I, Liljestrand J, Martins JM. Rajapaksa LC, Lissner C, Silva AD, et al. *Investing in maternal health: learning from Malaysia and Sri Lanka.* Health Nutrition and Population Series. Washington, DC: World Bank, 2003.
7 Sustainable Development Department, Food and Agriculture Organization of the United Nations. *Asia's women in agriculture, environment and rural production. Sri Lanka.* www.fao.org/sd/wpdirect/WPre0112.htm (accessed 18 Mar 2004).
8 Nair VM, Thankappan KR, Sarma PS, Vasan RS. Changing role of grassroot health workers in Kerala, India. *Health Policy Plann* 2001;16:171-9.
9 Panikar PGK, Soman CR. *Health status of Kerala.* Trivandrum: Center for Development Studies, 1984.
10 Franke RF, Chasin BH. The Kerala decentralisation experiment: achievements, origins, and implications. May 23-28, 2000. International Conference on Democratic Decentralisation, May 2000. http://chss2.montclair.edu/anthropology/keralaexperiment.htm (accessed 30 Mar 2004).
11 Bhutta ZA. Beyond Bellagio: addressing the issue of sustainable child health in developing countries. *Arch Dis Child* 2004 (in press).

Marketing of medicines in India

Informing, influencing, or inducing?

India has a large pharmaceutical industry. A major expansion started in the early 1970s when the Indian government took two fateful decisions. Firstly, it decided to permit domestic manufacturers to produce generic versions of patented molecules without permission from overseas innovators—provided a different manufacturing process was employed. Secondly, small scale pharmaceutical units were eligible for huge fiscal incentives and state subsidies. The new policy led to an unprecedented growth of medicine makers. Today an estimated 17 000 pharmaceutical companies produce over 40 000 branded formulations, many times more than the rest of the world.

Since the industry has free access to medicines discovered abroad, there is little incentive to undertake research to make new drugs. Consequently, nearly all companies are engaged in vicious competition to sell the same molecules under different brand names. Over 140 brands of omeprazole and over 120 brands of cefadroxil exist in India. As companies resort to unconventional methods to sell their brands, ethics take a back seat. Expanding indications, exaggerating efficacy, ignoring contraindications, and underplaying adverse effects have become routine practice.

Some recent examples illustrate these questionable marketing methods. Nimesulide, a non-steroidal anti-inflammatory drug, is being recommended for use in neonates and infants for undiagnosed fever. The European Medicine Evaluation Agency has contraindicated its use in children below 12 years due to its hepatotoxic potential.[1] Metoclopramide is marketed for nausea and vomiting in all age groups including low birthweight neonates,[2] though its use was restricted in the West in the mid-1990s to people aged over 18 years. The Nootropil brand of piracetam is indicated for cortical myoclonus in people older than 16 years.[3] In India, it is recommended for social maladjustment, lack of alertness, loss of memory, and learning disabilities in children. Known side effects are conveniently side stepped.

Companies find it hard to generate prescriptions based solely on science. Relying on published datasheets issued by the inventing companies reduces the scope of a drug because of the inconvenience of contraindications, precautions, drug interactions, and adverse effects. Sometimes, for purely promotional purposes local data are generated, as happened with letrozole, which was given to over 430 young women to test its efficacy in inducing ovulation.[4]

Without new molecules, companies create "novel" products by mixing two or more medicines in a fixed dose combination. Such combinations are often irrational, and some pose danger. Short term use of combinations of quinolones with imidazoles for undiagnosed diarrhoea is encouraging *Salmonella typhi* resistance to quinolones.[5]

Just as elsewhere, gifts and other incentives to prescribers are used by manufacturers to promote their products—and the methods are often ingenious. There is little consumer resistance to these practices for two reasons: faith in the perceived integrity of the medical profession, and lack of information. An examination of 1200 randomly selected formulations showed that only 316 had package inserts, and none had patient information leaflets.[6] Many poor, illiterate people in India ask pharmacists for medicines for common problems such as colds, cough, aches, and pains. In order to tap this lucrative market, companies produce "branded generics." These are not promoted to the medical profession, but to pharmacies, which are offered huge discounts. In the process it is conveniently forgotten that inducing pharmacies to sell prescription drugs without prescriptions is unethical and illegal.

The commercial needs of countless, fiercely competing pharmaceutical companies have led them to depend on the tried and tested 3Cs: convince if possible, confuse if necessary, and corrupt if nothing else works. It is easy to find fault with policies adopted decades ago, and the fault may lie in the regulatory system failing to keep pace with innovations in the pharmaceutical industry.

BMJ 2004;328:778–9