

In this month's *Bulletin*

The hidden cost of outbreaks

Big business is not the only beneficiary of globalization. Small bugs have joined the game. Of the 30 or so new infectious diseases to have surfaced in the past decade, a fair number have spread without difficulty across countries and continents and the oceans between them. Hence, the need for every nation with an infectious disease outbreak of potential international importance to report it to WHO. The trouble is that too few countries actually do so, according to Cash & Narasimhan (pp. 1358–1367). In an analysis of the problem, they describe two incidents that illustrate one reason why. In September 1994, India dutifully reported seven cases of a pneumonia-like disease that seemed to be caused by what looked like the plague bacillus. Within a week, news of a plague outbreak, with 52 deaths and 876 clinically confirmed cases, hit the world's headlines. Countries throughout Asia, the Eastern Mediterranean, Europe and the Americas imposed trade and travel sanctions on India that ultimately cost it an estimated US\$ 2 billion in lost income. A similar sequence of events followed Peru's announcement of a cholera epidemic in January 1991, that spread over the next four years to several Latin American countries and ultimately led to losses totalling close to US\$ 1.5 billion for Peru itself and several other affected countries of the region. One solution the authors propose for the dilemma facing poor countries confronted with an infectious disease epidemic would be an international system of financial compensation for countries economically victimized for reporting the outbreak. Another would be to ensure that the media report the outbreak accurately. Yet another would be to ensure that affected countries had proper diagnostic facilities — imprecise diagnoses prompted both India and Peru to use excessively broad case definitions that swelled the reported numbers of cases and the ensuing international reaction.

Clinical practice and the information revolution

Despite the advances of technology in the past half-century, medical practice is still often based on a subjective mix of textbook dogma, preconceived ideas, anecdotal or personal experience, and flair. Over the past decade, clinicians have been under growing pressure, from a better informed general public and also in their training at the more enlightened medical schools, to adopt a more “evidence-

based” approach. As Rodrigues notes in a broad review of the topic (pp. 1344–1351), evidence-based practice is simply a systematic way of finding, understanding and using the best available information to make a clinical decision. What is not so simple is actually making that information available. Enter the “information systems” and “knowledge management” buffs, whose job is to turn raw data — from clinical studies, the scientific literature, epidemiological databases, and so on — into processed data (*information* or *evidence*) and thence into knowledge (*information in context*). If you think this is just another way of making life more complicated, consider that in 1998 about one quarter of the one trillion dollars, or thereabouts, spent on health care in the United States was on unnecessary or avoidable care, redundant tests and excessive administrative costs. Take heart, also, from the fact that the growing need for more rational, evidence-based medicine has been matched by the growing power of computer technology, designed to handle the deluge of information becoming available. This “health information revolution”, however, also raises questions: Does, for example, automated “clinical thinking” by software constitute the practice of medicine? What role can it have in making critical clinical decisions? What are the ethical and legal implications of errors it might produce? Don't look for the answers in your computer.

Diarrhoea, also a problem in older children

Diarrhoea is a notorious cause of mortality and impaired growth in pre-school children throughout the developing world. On the commonly held assumption that most of the damage from diarrhoea is done in infancy, efforts to combat diarrhoeal disease have concentrated mostly on children under five. A prospective cohort study, however, by Torres et al. in Bangladeshi children aged 5 to 11 years (pp. 1316–1323) suggests that the link between diarrhoea and impaired growth is still present in school-age children and that efforts to reduce the frequency of diarrhoea in these older children could have a significant beneficial effect on their catch-up growth.

Little added value from high-tech stroke management

Stroke carries a poor prognosis in whatever part of the world it occurs. In developing countries, though, that have little in the way of

fancy equipment, one may think stroke patients have less of a chance of surviving or retaining their functional integrity than in a high-tech stroke unit of an industrialized country. To test this assumption, Heller et al. (pp. 1337–1343) applied a “decision analysis” software programme to published data on the outcome of stroke in relation to the technological level of the treatment provided. With no treatment at all, 61.5% of stroke patients die or become dependent. Giving aspirin some time after the stroke raises the chances of a favourable outcome by 0.5%. Access to an organized care setting in a stroke unit adds a further 2.7%. However, performing a computed tomography (CT) scan in that setting further increases the chances of a favourable outcome by only 0.4%. Thus, for stroke patients in developing countries, aspirin given in a low-tech but organized setting offers about the same benefit as a typical high-tech approach in an industrialized country.

Education lowers heart risk in poorer countries too

Evidence continues to accumulate that as developing countries move up the economic ladder they inevitably become saddled with the health problems traditionally associated with industrialized societies. A cross-sectional study reported by Yu et al. (pp. 1296–1305) in 4000 adults living in a Chinese city found an inverse relationship between socioeconomic status and cardiovascular risk. Of the four socioeconomic variables studied — education, occupation, income and marital status — length of education showed the strongest inverse association with the presence of one or more of three cardiovascular risk factors: smoking, obesity and high blood pressure. This is much the same pattern as is seen in industrialized countries. ■

Fresh Perspectives

The *Bulletin* welcomes for its *Perspectives* section views, hypotheses, points for discussion, or commentaries on issues of public health interest. Contributions should be a maximum of 850 words and should not contain reference lists; they will be edited and may be shortened. Please submit texts electronically if possible, by email (bulletin@who.int) or through our web site (www.who.int/bulletin).