increasingly regards sunscreens as health rather than cosmetic products. Though this is certainly encouraging, the role of sunscreens in preventing skin cancer still needs clarifying.

J M MCGREGOR
Senior lecturer in dermatology

A R YOUNG
Senior lecturer in photobiology

Department of Photobiology,
St John's Institute of Dermatology,
St Thomas' Hospital,
London SE1 7EH

1 Green A, Williams G. Ultraviolet radiation and skin cancer: epidemiological data from Australia. In: Young AR, Bjorn LO, Moan J, Nultsch W, eds. *Environmental UV Photobiology.* New York: Plenum, 1993:233-54.
2 Eller MS, Yaar M, Gilchrest BA. DNA damage and melanogenesis. *Nature* 1994;372:413-4.
3 Young AR, Chadwick CA, Harrison GI, Hawk JLM, Nikaido O, Potten CS. The in situ repair kinetics of epidermal thymine dimers and 6-4 photoproducts in human skin types I and II. *J Invest Dermatol* 1996;106:1307-13.
4 De Gruijl FR, Van der Leun JC. Estimate of the wavelength dependency of ultraviolet carcinogenesis in humans and its relevance to the risk assessment of a stratospheric ozone depletion. *Health Phys* 1994;67:1-8.
5 Forbes PD, Davies RE, Sambuco CP, Urbach F. Inhibition of ultraviolet radiation-induced skin tumours in hairless mice by topical application of the sunscreen 2-ethyl hexyl-p-methoxycinnamate. *J Toxicol Cut Ocular Toxicol* 1989;8:209-26.
6 Thompson SC, Jolley D, Marks R. Reduction of solar keratoses by regular sunscreen use. *N Engl J Med* 1993;329:1147-51.
7 Autier P, Doré JF, Schifflers E, Cesarini J-P, Bollaerts A, Koelmel KF, *et al.* Melanoma and use of sunscreens: an EORTC case-control study in Germany, Belgium and France. *Int J Cancer* 1995;61:749-55.
8 Westerdahl J, Olsson H, Måsbäck A, Ingvar C, Jonsson N. Is the use of sunscreens a risk factor for malignant melanoma? *Melanoma Res* 1995;5:59-65.
9 Setlow RB, Grist E, Thompson K, Woodhead AD. Wavelengths effective in the induction of malignant melanoma. *Proc Natl Acad Sci USA* 1993;90:6666-70.
10 Westerdahl J, Olsson H, Måsbäck A, Ingvar C, Jonsson N, Brandt L, *et al.* Use of sunbeds or sunlamps and malignant melanoma in Southern Sweden. *Am J Epidemiol* 1994;140:691-9.
11 Young AR, Walker SL. Photoprotection from UVR-induced immunosuppression. In: Krutmann J, Elmets CA, eds. *Photoimmunology.* Oxford: Blackwell Science: 1995:285-97.
12 Kelfkens G, van Weelden H, de Gruijl FR, van der Leun JC. The influence of dose rate on ultraviolet tumorigenesis. *J Photochem Photobiol B: Biol* 1991;10:41-50.

European health policy: must redefine its raison d'être

Market model has failed: more imaginative individual national policies are needed

Sep 1663

Market ideology, language, principles, and practices have been incorporated into the healthcare reforms in Europe over the past 10 to 15 years. The rationale has been to increase efficiency in largely government run health services and put a brake on escalating healthcare costs. The reforms have also promoted private sector funding and provisions of services and increased sharing of costs by patients. The resulting public-private mix has assumed different forms, but experts on healthcare policy throughout Europe agree that no one has got it right. Healthcare costs have continued to rise in 19 of the 20 countries of the OECD (Organisation for Economic Cooperation and Development), and gains in efficiency have been more than offset by rising inequity in the quality and distribution of care.

In recognition of this, the World Health Organisation (WHO) has drawn up a charter—adopted last week by the member states of WHO's[1] European region and reproduced on p 1663 of this week's *BMJ*. This underlines that the fundamental principle of healthcare reform should be to improve people's health, not contain costs. (Whether the British government supports this new move is unclear; its delegates were absent from the meeting that adopted the charter by consensus.)

But if the market is not the solution to Europe's provision of health care, what is? This question was debated at a recent meeting of members of the European Health Systems Reform Network—a network of health policy makers and researchers led by the Nuffield Institute for Health in Leeds, which has set up a database of information on health reforms in Europe. Part of the problem in defining a way forward, participants agreed, is that while there are many descriptive accounts of the reforms there is little information about their impact. Governments have undertaken little evaluative research. Emphasis has been on measuring activity, not outcomes. What is clear, however, is that introducing markets has increased transaction costs. Also, it is clear that by pursuing competition and efficiency, some governments—perhaps those in the United Kingdom and the Netherlands in particular—have lost sight of what a healthcare system is there to achieve.

What is needed, it was agreed, is a change in philosophy and direction. Health care should not be seen as an industry in which more management and more competition can go on squeezing more services from a finite pool of money. There should be a return to the ideology of health as a public good where the rights of individuals are balanced more equitably with the health needs of the whole community. Control of spending on health care will not be achieved by minor adjustments to the mix of public and private sectors. A more radical approach is necessary, based on a much more critical look at current provision. "We tend to take the existing level of health service provision for granted," said Professor Ole Berg of the Centre for Health Administration at Oslo University, "when what we really have in many countries in western Europe is oversupply. Arguably, as much as half of what we do—take investigations in specialist units, for example—is of little value. We must stop providing unnecessary services and build up our primary care base."

Another way to tackle rising costs, suggested Professor Berg, is to reduce spending on the salaries of healthcare staff. "Many of the services provided by doctors could be carried out equally well by nurses. Similarly, many of the things nurses do could be delegated to patients and their carers. Patients can and should be educated to take more responsibility for their own health, and each doctor-patient or nurse-patient encounter is a potential opportunity for this." Such opportunities are often lost, several speakers emphasised, as doctors are increasingly being driven to "process" patients and provide compartmentalised care under unrealistic time constraints.

The "co op" wing in New York University Hospital was cited as an innovative approach to patient education. Patients are admitted to the ward with a relative or other carer, and during the admission both are taught about the nature of the disease, how to monitor it, and how to manage it. This approach emphasises that the doctor's role as advocate and educator is just as important as that of disease manager and dispenser of care.

WHO's Ljubljana Charter: summary

European health care systems should be:

- Driven by values of human dignity, equity, solidarity, and professional ethics
- Targeted on protecting and promoting health
- Centred on people, allowing citizens to influence health services and take responsibility for their own health
- Focused on quality, including cost effectiveness
- Based on sustainable finances, to allow universal coverage and equitable access
- Orientated towards primary care

But if doctors are to fulfil this role, it was agreed, working practices must change. The trend to reduce doctors and other healthcare staff to industrial workers whose (simplistically measured) output is subject to scrutiny and potential censure by non-medical staff has damaged professional morale and discouraged doctors from using their professional judgment. It has not been good for patients either. Healthcare managers and administrators need to understand that their decisions have a direct impact on patient care and that they are part of a medical team, not guardians of an industrial machine. At the same time, doctors need to know more about healthcare management and participate more in debates about health policy.

The meeting concluded that if the experience of the past 10-15 years has shown anything it is that the rapid adoption by countries of broadly similar philosophies and healthcare reforms has been misconceived. Nevertheless, the experiences gained have been valuable, and what information there is on the development and effects of different strategies needs to be widely shared.[2]

This should help countries to develop policies that better reflect their diverse history, culture, traditions, and health needs. Where the national balance lies between public and private provision is probably not crucial, provided the core values of a public health service are respected. What is important is to encourage entrepreneurial provision in both sectors, flexibly tailored at national and local level. "That, and going slowly," said Dr Miguel Gonzalez Block, a health policy analyst from Mexico who is setting up a health reform network in South America. "This debate has left me more convinced than ever of the need to pilot all initiatives and proceed on the basis of evidence, not ideology and anecdote."

TESSA RICHARDS
Associate editor

BMJ,
London WC1H 9JR

The European Health Systems Reform Network is led by Professor David Hunter, who can be contacted at the Nuffield Institute for Health, Leeds LS2 9PL. Its database is available at http://www.leeds.ac.uk/nuffield/infoservices/echhsr/dbase.html

WHO databases and publications are available on the WHO Europe Internet home page (www.who.dk) and from the Communications and Public Affairs Unit at the WHO Regional Office for Europe, Scherfigsvej 8, 2100 Copenhagen, Denmark, tel +45 39 171717, fax +45 39 171770, email fapawho.dk

1 The Ljubljana Charter on Reforming Health Care. *BMJ* 1996;312:1664-5.
2 *European Health Care Reforms: analysis of current strategies*. Copenhagen: World Health Organisation. Regional Office for Europe, 1996.

Specialist rehabilitation after stroke

Effective in the short term, but more work needed in the long term

See p 1642

The era of nihilism about stroke rehabilitation must surely have ended with the publication of a recent overview showing that patients cared for in specialist stroke units are significantly less likely to die than those cared for on ordinary wards.[1] Organised stroke care lowers mortality without increasing the number of dependent survivors, since the reduction in the combined endpoint of death or institutionalisation is even greater (34%) than the reduction in mortality alone (21%).[2] A decrease in odds of 34% is equivalent to an absolute reduction in risk of about 10%—far greater than the accepted benefits of thrombolysis for heart attack.

But these and other overviews[3] raise several issues. Firstly, if a cumulative meta-analysis of the trials had been undertaken as they were published convincing evidence of benefit would have emerged at least 10 years earlier (P Langhorne, unpublished data). Secondly, the trials used different techniques for measuring their main outcome measure, disability, which has hampered meta-analysis. Thirdly, the overviews could not examine depression and other emotional sequelae of stroke because these were rarely measured, despite their great impact on the quality of life. Any effect of stroke units on depression, although plausible, is not known and probably never will be since further trials of stroke units are unlikely to be carried out. You cannot find by analysis what was lost by design. Fourthly, we do not know what it is in the "black box" of a stroke unit that is effective because the trials did not systematically measure the interventions. Fifthly, trials using unblinded assessments of outcome probably overestimate the effect of treatments[3].

Stroke units generally only deal with a small part of the long term process of rehabilitation, and several studies have examined the efficacy of later interventions. In this issue of the *BMJ* (p 1642), Young and Forster report on an evaluation of input from a specialist stroke nurse after patients were discharged from hospital.[4] Other trials have compared domiciliary and hospital based rehabilitation,[5 6] and evaluated leisure therapy,[7] occupational therapy,[8] and physiotherapy.[9] All of these trials were properly randomised and used valid and sensible outcome measures. Most have indicated some sort of positive result. None of these trials is convincing on its own due to small numbers, and in some cases the positive results come from analysis of even smaller subgroups.

The past has taught us the need to ensure that our evidence database is constantly updated. The Cochrane Collaboration now collates the results of all randomised controlled trials in stroke management, and so information from new trials can quickly add to the sum of knowledge.[10] This promises a great step forward towards evidence based medicine, but greater progress might be achieved by prospective collaboration. For practical and financial reasons small trials in single centres rather than multicentre mega-trials are likely to remain the norm in rehabilitation research. Nevertheless, these single centre studies could be coordinated in a collaborative framework. The broad questions and subsidiary hypotheses could be agreed in advance so that each study has a defined place within the overall structure. There could be a common core protocol and a common set of measures of case mix, process, and outcome. This kind of preplanned collaboration is termed prospective meta-analysis in the United States[11] and epi-analysis[12] in Europe.

These issues are now being addressed by the Collaborative Stroke Audit and Research (COSTAR) Group, an open collaboration set up with support from the NHS research and development programme for cardiovascular disease and stroke, which all potential stroke rehabilitation trialists are invited to join. Agreement has been reached on some of the "burning issues" in stroke rehabilitation, and these broad questions provide a framework within which individual trials can be fitted, so that epi-analysis can be performed. One such epi-analysis will compare "social-environmental", physical, and psychological approaches to rehabilitation in the community (the trial from Bradford reported here would fit into the first of these categories) aiming to reduce long term misery after stroke. Agreement has already been reached on basic methodological criteria for trials of rehabilitation, and a standard core dataset has been drafted. The next major task will be to reach a consensus on a common clini-