mation; apart from supplementing what is said, this should help ensure consistency. In fact, assessment by nurses already works well in many day case surgical units.

More controversially, the report revisits the concept of non-physician anaesthetists. Faced with shortages of consultants and reduced service contribution from Calman trainees, trusts may find that training nurses or operating department practitioners to give anaesthetics, as in America and some European countries, is an attractive option. This was considered, though not supported, by a recent NHS Executive study.⁴ The Association of Anaesthetists is firmly opposed to nurse anaesthetists.⁵ Its objections include difficulties in recruitment of nurses and in training opportunities, but the association's main concern is patient safety. Though historical comparisons in America have not suggested higher mortality when anaesthetics are given by nurse anaesthetists,⁶ two European studies have found that adverse outcomes are more common.^{7,8} Nevertheless, for uncomplicated cases death under anaesthesia is rare. The report quotes the view that this reflects the inherent safety of modern anaesthesia, whoever gives the anaesthetic. The "controlled research" that the commission advocates into the use of other staff for giving anaesthetics would have to be extensive indeed to show a difference in mortality, but it could be used to shed light on the commission's assumption that nurse anaesthetists would be cheaper to employ than anaesthetists. One of the commission's other concerns—of a lack of anaesthetists—might be resolved soon: the Royal College of Anaesthetists hopes that consultants will no longer be in short supply within the next few years.⁹

The report makes many recommendations, such as strengthening the role of clinical directors and increasing the flexibility of the consultant contract. Delegation

to nurses of tasks such as preoperative assessment and information and management of postoperative pain, together with guidelines to ensure that grades of anaesthetic staff are matched to complexity of cases, should help consultants to make the best use of their time. In many cases these suggestions have already been made by the National Confidential Enquiry into Perioperative Deaths¹⁰ and by the anaesthetic organisations. The Audit Commission report has exposed wide variations in practice, including the fact that some trusts have successfully adopted newer ways of working. This knowledge, together with the commission's follow up local audits, should encourage the rest to follow suit, improve their services, and use their anaesthetists more efficiently and effectively.

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Who should be the next head of the WHO?

A strong leader with a clear sense of purpose—and much else besides

After 10 years under the director generalship of Dr Hiroshi Nakajima, the World Health Organisation is to have a new leader. For the first time in the organisation's 50 year history there are more than four nominees for the post and also a strong chance that the new director general will come from outside the organisation. Both these firsts reflect more openness in the selection procedure and could presage a change in the WHO's fortunes. On p 11 five of the seven nominees answer questions about the WHO's future, and on the *BMJ*'s website we invite you to cast your vote in advance of the decision by the WHO's executive board on 27 January (www.bmj.com).

So what sort of organisation will the successful nominee take on, and what attributes should he or she have? The WHO was established to provide technical expertise and to set international standards for health. Two decades ago it embraced the wider role of international advocate for equity and social justice. This move into the complex and competitive realms of socioeconomic influences raised the organisation's

profile as never before, with the commitment to Health for All and successful campaigns against the vested interests of the baby milk and pharmaceutical industries.

But such an approach required strong leadership and a clear sense of purpose, things that the WHO has lacked in recent years. Financial constraints, shared by most other United Nations agencies, have not been helped by mismanagement or by the WHO's determination to spread its limited resources across an ever growing list of "priorities." The six autonomous regional offices, once considered the organisation's great strength, have lost the little accountability they had, dependent as this was entirely on the force of personality of the previous director general, Dr Halfden Mahler. The globalisation of diseases and the advent of modern management techniques have changed the rules, requiring global strategy setting and limited term projects rather than permanent departments.

The WHO's undoubted successes—the eradication of smallpox in 1977 and the imminent eradication of

See p 11

Readers can vote for the candidate of their choice on our website

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polio—must be set against its failings in developing health infrastructure in individual countries. Other players in international health—Unicef, the World Bank, and non-governmental organisations—have too often been seen as threats rather than partners, so that countries are confused by an array of competing and sometimes inappropriate interventions. As programmes have been cut despite growing numbers of senior managers, staff morale has fallen. Gradually the scientists, clinicians, and administrators who gave their lives to furthering the good of mankind have found themselves mired in bureaucracy, political infighting, and petty corruption.

The new director general faces a daunting challenge: to restore the WHO's finances, reform its constitution, modernise its management structure, recast its priorities, build creative alliances with other agencies, and rebuild staff morale. Faced with these challenges, what sort of person does the WHO need? Above all, it needs a leader—someone who can create a clear vision of where the organisation is headed, communicate that vision throughout the organisation and

beyond, and motivate others so that they want to achieve that vision too.

Beyond this fundamental attribute, the new director general should have certain specific skills and experience. She or he should be politically independent, command respect from the major donors, be able to relate to both developed and developing countries, be well versed in the problems of poverty and the links between development and health, and have a real interest in the empowerment of women. She or he should have proved abilities to cooperate in a complex global environment and to engender a culture of openness, accountability, and advancement on merit. She or he should be committed to reform.

Not everyone will agree with this prescription. It is based on the premise that the WHO must change or die. The good news is that, for once, the field of applicants is strong; the bad news is that many of those who will choose the next director general may prefer the status quo to an uncertain future.

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The effect of speed cameras on injuries from road accidents

The technology exists to ensure all road traffic is regulated to safe speeds

When motor cars first appeared on British roads they had to be preceded by a man waving a red flag to warn the public of the approaching danger. As the number of vehicles has grown, many ways of ensuring the orderly management of traffic and public safety have been tried. Despite improvements in vehicle and road design, traffic regulation, and driver behaviour and despite reductions in accident rates, road traffic accidents remain a major cause of premature death or serious injury.¹ Can anything further be done to reduce this toll?

The epidemiology of road traffic accidents is well known. For prevention the most important measures are separation—of streams of traffic from each other and of vehicles from people—and control of speed. Limited separation has proved practicable only on motorways: the complete separation of heavy goods vehicles from cars, bicycles, and pedestrians is unrealistic. The role of speed in accidents and in seriousness of injury is incontrovertible, but the issue for prevention is how to apply and enforce speed limits. Abundant data have accumulated from observational studies on the effects of introducing speed limits (in urban areas, on motorways, for war time black out, for fuel economy in the petrol crisis) and also on the effects of relaxing speed limits.^{2 3}

The Highways Agency recently reported the findings of a six year experiment in the use of speed cameras on west London trunk roads. The design was a before and after comparison of deaths and injuries in the three years before the installation of cameras and the three years afterwards. The numbers of deaths

reduced threefold, from 68 to 20, and the numbers of serious injuries by over a quarter, from 813 to 596. Lesser injuries also fell significantly, from 4983 to 4375. The study considered the spillover effects of traffic seeking side roads to avoid cameras and found no compensating increases in neighbouring roads. Acknowledging the difficulties of ascribing causality from a before and after comparison, the study also included a control: comparable trunk roads in other areas of London with no cameras over the same period. A small reduction in accidents was observed on control roads, and all rate reductions in the study area were adjusted accordingly: even so, all reductions on the study roads remained highly significant.

American studies have also suggested an 8% reduction of fatal accidents for each reduction in average speed of 1 mile per hour (1.6 kilometre per hour).³ Another trial of area wide traffic calming schemes, based on speed bumps, road narrowings, and road markings, has shown a comparable reduction in overall accidents.⁵ The gradient in risk reduction by severity of injury in the speed camera project may be interpreted as a sort of dose response.

The next question for road safety and public health is whether the improvements in this study are sustainable and repeatable elsewhere. The risk compensation theory suggests that motorists will find other ways of injuring themselves and other road users. However, the technology to measure and record vehicle identification, time, place, and speed has been with us for many years and the automation of this technology makes enforcing speed limits more practicable. In the interest of safety we should expect all road traffic to be regulated