

genetic technology is likely to make it possible in the very near future to design into organisms and agents changes that make them more infectious, resistant to antibiotics or vaccinations, and easier to distribute. But even without these changes bioterrorists could readily infect themselves with a lethal agent and start an epidemic by walking among us—for example, in an airport.

The only current legal protection that we have against the use of such weapons is that of the Biological and Toxin Weapons Convention. Although this convention outlaws biological weapons, it has no teeth; no provision has been made for inspection or verification visits to ensure that state sponsored or privately owned laboratories are not engaged in the development or production of weapons. Despite eight years of work by a group, under the chairmanship of Hungarian ambassador Tibor Toth, the convention stands alone. States have signed and promised to abide by its provisions, but we cannot check their veracity. Last November the experts of 144 states that are party to the convention met to consider the “verification protocol,” but the United States opposed its introduction and so the protocol was lost. However tempting it might be to criticise the US government’s position, we need to move on instead, to attempt to achieve some better measure of security, taking all states with us in that process.

Many groups have expressed concerns about the risks and are searching for ways to reduce them. The US National Academy of Sciences, through its working group on biological weapons and its subcommittee on security issues, is currently talking to scientists from around the world on ways to reduce risk. The World Medical Association (www.wma.net), meeting in Wash-

ington DC in the first week of October, is considering a “declaration of Washington” on biological weapons. The BMA’s own book identified concepts including the so called web of deterrence—getting scientists to abide by an overarching ethical framework and informally monitoring each others’ work to identify those with the knowledge base and the physical infrastructure to produce weapons.

The scientific concern is there; political will is now needed to make this happen. On 25 September, the International Committee of the Red Cross launched an appeal to attempt to capture this scientific will and fuse it with political concern (www.icrc.org/). Doctors and scientists have recognised the risks that face us; now we must manage them. As we reach the anniversary of the anthrax attacks we have an opportunity to reaffirm the rules and share responsibility with governments for ensuring that the advances in biotechnology and genetic engineering are never again used for poisoning or the deliberate spread of disease.

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Population strategies to prevent obesity

Only few studies attempted so far and with limited success

It has been accepted for some time that obesity is associated with an increased risk of disease and disability, and that this condition needs to be managed more effectively in obese individuals. Only recently, however, has obesity been recognised as a population wide problem that requires preventive action. Obesity has reached epidemic proportions in most developed countries. In England, the United States, and Australia more than a half of all adults are overweight or obese, and trend data show a dramatic increase in prevalence over the past two decades.¹⁻³ What then are the causes of the obesity epidemic, and what can be done to prevent it?

Genes determine individual susceptibility to weight gain, but the obesity epidemic is not attributable to genetic factors, since the increase in the prevalence of obesity has occurred over too short a period for the genetic make up of the population to have changed substantially.⁴ According to a recent review by Jeffery, the current epidemic of obesity is caused largely by an environment that promotes excessive food intake and discourages physical activity.⁵ Factors such as increases

in the availability and marketing of foods, increases in the use of computers and television viewing, greater reliance on motor vehicles for transport, reductions in physical education in schools and physical activity at work, and changes in family life related to increasing affluence have all been identified as potentially important as drivers of the obesity epidemic.⁴⁻⁶

To prevent obesity health authorities have proposed a series of population based strategies that place an emphasis on changing the environment.^{1 3 6} These include strategies such as modifying the design of buildings to encourage the use of stairs, examining urban design to make neighbourhoods more walkable, promoting active transport by providing a safer and more integrated network of footpaths and bicycle lanes, improving food labelling to help consumers to make informed choices, and increasing the range of healthy foods in schools and work cafeterias. Although common sense suggests that such interventions will have a positive impact, they are yet to be implemented in studies designed to prevent obesity, and we therefore lack evidence of their

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effectiveness. Only a handful of studies have focused specifically on the prevention of weight gain. Most have focused on providing the public with education and behavioural skills, with little emphasis on environmental change.

In their systematic review Hardeman et al identified four studies that included adults.⁷ Two focused on African-American women and entailed between six and 12 educational sessions.^{8,9} Participants learnt to read food labels, calculate fat content, how to reduce intake of fat at fast food restaurants, and in one study they also tasted foods, modified favourite recipes, made use of label information, and participated in discussions regarding the health consequences of obesity and difficulties in making changes in lifestyle.⁹ At the conclusion of these studies, however, no differences were found in body mass index between participants in the intervention and control groups. The other two studies of adults, the “pound of prevention” studies aimed to prevent weight gain through encouraging dietary change and physical activity by means of education.^{10,11} In the larger of these (conducted over three years) the strategies included regular education sessions, monthly newsletters, and financial incentives.¹¹ However, neither intervention showed long term effectiveness in preventing weight gain.

In their recent systematic review of interventions aimed at preventing obesity in children, Campbell et al examined seven long term studies (at least one year).¹² These involved children from kindergarten to age 12 years; most were school based, although one included a family based component and one was exclusively family based. A variety of strategies were used, with all but one providing nutrition education, with a strong emphasis on reducing the consumption of fat while increasing that of fruit and vegetables. Four studies included strategies aimed at increasing physical activity (via activity sessions), and one also concentrated on reducing sedentary behaviours, particularly television viewing. One attempted to modify the school’s food supply. The reviewers concluded that strategies that encourage a reduction in sedentary behaviours and an increase in physical activity may be fruitful in prevent-

ing obesity in children—with the caveat that currently only limited high quality data on the effectiveness of interventions are available.

In summary, the few weight gain prevention studies that have been attempted have had only limited success. Given the threats to the health of populations posed by obesity, why have greater efforts not been made to prevent it? It is only in the past five years that obesity has become recognised as an issue that warrants preventive action. We lack an understanding of its determinants and of where best to intervene. Undoubtedly, the need to prevent obesity is urgent. Similarly, there can be no doubt of the need for research to underpin the development of population strategies.

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Decision time on consultants’ contract

New contract is crucial to meeting NHS targets

In 1999, the UK government promised a “consultant delivered” NHS, relying on a new contract for consultants to increase commitment to the NHS.¹ This week ballot papers have been issued to consultants and junior doctors on the proposed new contract, ending months of discussion, road shows, questions, and explanations. Now it’s decision time.

The new contract represents a notable departure from the current one.² The linchpin to it is the job plan agreed between individual consultants and trust managers, which will describe personal goals for annual review and explicitly timetable a consultant’s working week. Potential working hours will be extended to three sessions of four hours each per weekday and one on each weekend morning, with con-

sultants expected to work 10 sessions (40 hours) each week and up to 12 if they wish. On-call duties and extra activities such as clinical governance can be negotiated locally to fill some sessions. Consultants wishing to practise privately must offer to work the first (the first two for new consultants) of their potential private sessions in their NHS trust. The merit awards scheme in England and Wales, seen by many as a profitable “old boys’ network,” will be replaced with new clinical excellence awards to reward the consultants contributing most to the NHS. Finally, in England disciplinary decisions will in future be made locally but based on a new national framework.

In return consultants will receive increased basic salaries and a more generous pay scale—from £63 000