

ways of explaining the pros and cons of existing technologies to the public.^{11 12}

Stronger and braver governance is required to ensure that responsible decisions about risk management emerge for areas such as screening, which have such potentially enormous individual and societal consequences. These decisions must be based on sound research and proper partnerships.

Hazel Thornton *honorary visiting fellow*

Mary Dixon-Woods *senior lecturer in social sciences and health*

Department of Epidemiology and Public Health, University of Leicester, Leicester LE1 6TP [? to A: Please provide an email address]

Competing interests: None declared.

1 Giddens A. *Modernity and self-identity*. Cambridge: Polity, 1991.
 2 Dixon-Woods M, Baum M, Kurinczuk JJ. Screening for breast cancer with mammography *Lancet* 358:2166-7.

3 Ciatto S, Zappa R, Bonardi G, Gervasi G. Prostate cancer screening: the problem of overdiagnosis and lessons to be learned from breast screening. *Eur J Cancer* 2000;36:1347-50.
 4 NHS Cancer Screening Programmes. The prostate cancer risk management programme. www.cancerscreening.nhs.uk/prostate/index.html (accessed 26 Sep 2002).
 5 Lu-Yao G, Albertson PC, Stanford JL, Stukel TA, Walker-Corkery ES, Barry MJ. A natural experiment examining the impact of aggressive screening and treatment on prostate cancer mortality in two fixed cohorts from the Seattle area and Connecticut. *BMJ* 2002;325:740-3.
 6 Chapple A, Ziebland S, Shepperd S, Miller R, Herxheimer A, McPherson A. Why men with prostate cancer want wider access to prostate specific antigen (PSA) testing: qualitative study. *BMJ* 2002;325:737-9.
 7 Donovan J, Mills N, Brindle L, Frankel S, Smith M, Jacoby A, et al. Improving the design and conduct of randomised trials by embedding them in qualitative research: the ProtecT study. *BMJ* 2002;325:766-70.
 8 Girgis ST, Thomson C, Ward J. "The courts expect the impossible": medico-legal issues as perceived by New South Wales general practitioners. *J Law Med* 2000;7:273-80.
 9 Thornton H. Consequences of screening. *Lancet* 2000;356:1033.
 10 Cochrane AL, Holland WW. Validation of screening procedures. *Br Med Bull* 1971;27:3-8.
 11 Thornton H, Dixon-Woods M. Recruitment of women into trials. *Lancet* 2002;359:164-5.
 12 Ward J, Girgis S. GPs' estimates of men's risk of prostate cancer and screening expectations. *Austr N Z J Public Health* 1999;23:219-20.

Treating violence as a public health problem

The approach has advantages but diminishes the human rights perspective

In every country, to a greater or lesser extent, violence blights lives and undermines health. Acknowledging this, in 1996 the 49th World Health Assembly adopted a resolution (WHA49.25) declaring violence a major and growing public health problem across the world. The resolution ended by calling for a plan of action for progress towards a science based public health approach to preventing violence. The World Health Organization defines violence as the intentional use of physical force or power, threatened or actual, against oneself, another person, or a group or community, that either results in, or has a high likelihood of resulting in, injury, death, psychological harm, maldevelopment, or deprivation.¹ In 2000, an estimated 1.6 million people died as a result of violence. Many more suffered injury. Of the deaths, nearly half were suicides, almost a third were homicides—of whom 57 000 were of children—and about a fifth were related to war. This week, the WHO published the *World Report on Violence and Health*.² The report includes sections on youth violence, child abuse, violence by intimate partners, abuse of elderly people, sexual violence, self directed violence, and collective violence. Underlying the bleak statistics in each chapter is a terrifying amount of pain and suffering.

Bringing all forms of intentional violence together in one volume makes very clear how much the different forms of violence feed on each other. People who were subjected to child abuse or violence from an intimate partner are much more likely to harm themselves. Collective violence fractures normal social bonds and often leads to sexual violence and heightened violence in young people. Almost every form of violence predisposes to another. Wherever power is distributed unequally across divisions of socioeconomic class, race, or sex, violence flourishes, and the more unequal the distribution the greater the

flourishing. All social classes experience violence, but people with the lowest socioeconomic status are consistently at greatest risk. More than 90% of all violence related deaths occur in low and middle income countries. Inequality always compounds inequality, and, as Wilkinson points out, the distributions of violence and of death from non-violent causes are closely related.³

The fundamental premise of the report is that violence is both predictable and preventable. The authors argue that more can be achieved by regarding violence as a problem of public health rather one of crime, and that politicians and decision makers in all countries and at all levels of society have a responsibility to make changes that will prevent violence and so protect health. A science based public health approach has considerable strengths. The painstaking collation of the available statistics from countries across the world

News p 731

BMJ 2002;325:726-7



ACTION PRESS/REX

allows useful conclusions to be drawn about those factors that seem to make violence more likely. A huge variety of interventions has been tried in different places and the impact evaluated more or less robustly. Public health research already shows that much can be done to minimise violence and that more research is likely to be increasingly useful.

But a public health approach also has its weaknesses. As Skrabanek argues in relation to poverty, violence is unacceptable not primarily because it undermines health but because it is, in itself, demeaning, cruel, and unjust.⁴ People should be entitled to live free of violence, not because this protects their health but because they have a human right to do so. In important ways, the public health approach diminishes what it is to be human. Human individuals are moral beings whose futures are never entirely determined by their circumstance and who have at least a degree of freedom to make choices about the ways in which they will and will not act. This freedom is the essence of human dignity and, as humans, we judge each other on the basis of these free choices. The existence of choice is captured in the report in the notion of intentionality included in the definition of violence but thereafter receives scant attention. Clearly, it can be much easier to make laudable moral choices when the circumstances of one's life are untroubled by lack of hope and opportunity, but everyone retains a degree of choice, whatever their circumstances. To what extent does an explanation of violence condone it? These issues were well understood by Aristotle and the writers of the Greek tragedies, and the extenuating power of a lack of moral luck has been debated ever since.⁵ The debate remains as relevant as ever and deserves some consideration by the WHO.

The report's recommendations call on policy makers and governments to integrate prevention of violence into social and educational policies and so promote gender and social equality. What the report does not point out is that governments are dependent on their electorates, who too often resist the allocation of more services and resources to poor families and communities. The unasked question is whether people in all societies who find themselves comfortably situated on the gaining side of inequality and favoured by moral luck will exercise their gift of free choice to support policies that promote the more equal distribution of hope, opportunity, and power. Mann and colleagues argue that the promotion and protection of health are inextricably linked to promotion and protection of human rights and dignity.⁶ If a human rights perspective were allowed to temper the undoubted strengths of the science based public health approach a much more comprehensive response to the challenge of world violence could be achieved.

Iona Heath *general practitioner*

Caversham Group Practice, Kentish Town, London NW5 2UP
(iona.heath@gp-f83022.nhs.uk)

Competing interests: None declared.

- 1 World Health Organization Global Consultation on Violence and Health. *Violence: a public health priority*. Geneva: WHO, 1996.
- 2 Krug EG, Dahlberg LL, Mercy JA, Zwi A, Lozano R, eds. *World report on violence and health*. Geneva: WHO, 2002.
- 3 Wilkinson R. *Mind the gap. Hierarchies, health and human evolution*. London: Weidenfeld and Nicolson, 2000.
- 4 Skrabanek P. *The death of humane medicine*. London: Social Affairs Unit, 1994.
- 5 Nussbaum MC. *The fragility of goodness. Luck and ethics in Greek tragedy and philosophy*. Cambridge: Cambridge University Press, 1986.
- 6 Mann JM, Gostin L, Gruskin S, Brennan T, Lazzarini Z, Fineberg HV. Health and human rights. *Health Hum Rights* 1994;1:7-23.

Bioweapons

Usable weapons are technically easier to produce now, but we lack legal protection against them

Biological weapons have been used throughout history.^{1,2} For example, in medieval sieges infected animal corpses were thrown over the walls to start epidemics. In the first world war attempts were made to infect horses with glanders, and throughout history invading armies have poisoned wells and other water sources. Despite the 1972 international convention banning their use,³ attempts have been made to use these weapons—the Aum Shin-rikyo sect in Japan tried to use them in 1995. The attacks on media and government offices in the United States with anthrax in 2001 in the aftermath of the events of September 11 reminded all of us of our vulnerability to biological and toxin weapons. Whether those attacks were the work of organised groups, rogue states and their supporters, or individuals with perceived grievances against the US government and its agents is irrelevant. The key point is that they show that the clandestine manufacture and distribution of effective biological weapons is possible today, and as

genetic and other technology becomes more easily available the risk of further attacks must be increasing.

The reality is that our protection from biological and toxin weapons has been based on the scientific difficulty of producing robust weapons grade materials and packaging them so that they survive transport and distribution. In relation to the anthrax produced and distributed in the United States it is clear that these problems were largely solved—the anthrax was produced in large quantities and was sufficiently fine to be suspended in the air and inhaled after some of the releases. Anthrax is easier than some agents to release—the spores are relatively resistant to drying and changes in heat, and hence the postal distribution was effective.

Advances in biotechnology and genetic engineering are making it easier to manufacture and handle other agents. With simple automated systems, weapons grade material can be manufactured with reduced risk to the people making it. In addition