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or the European Food Safety Authority. Unresolved questions about corporate links have been raised about expert advisers to the FSA, the European Food Safety Authority, WHO's International Programme on Chemical Safety, and the international Codex Alimentarius Commission.<sup>12-18</sup> The first FSA Board (May, 2000) had 14 members, of whom five declared relevant personal interests.<sup>11</sup> In December, 2007, five of 12 declared personal interests but one analyst has argued that if recent interests were included, the number would rise to 11 of 12 who "either works, or worked, for a food, farming or catering company, or own shares in such companies, or is an adviser to the industry or has a close relative working in it".<sup>6</sup> In March, 2008, after new members had been appointed, the balance altered. Although seven of 14 declared current interests, if previous commercial and industry interests were included, nine would be seen as having present or recent commercial interests.<sup>19</sup> Although the Code of Conduct safeguards the participation of Board members in the discussion of matters in which they have a potential interest, in view of the preponderance of Board members with industry interests and the Code's failure to deal clearly with recent and previous interests, the undertakings provided by ministers on the independence of the FSA Board have not been consistently or fully implemented. That implementation deficit is unacceptable.

With the UK Conservative Party consulting a proposal to weaken the FSA, if returned to power,<sup>20</sup> and demands to improve political accountability, the FSA needs all the support it can get. The credibility and trustworthiness of the FSA is the currency in which it trades. Ministers, the FSA, and the public cannot afford to allow that currency to depreciate.

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- 1 Wilson B. Swindled: from poison sweets to counterfeit coffee. The dark history of the food cheats. London: John Murray, 2008.
- 2 Nestle M. Food politics. Berkeley, CA: University of California Press, 2002.
- 3 Millstone E, van Zwanenberg P. A crisis of trust: for science, scientists or for institutions? *Nat Med* 2000; **6**: 1307-08.
- 4 Lang T, Rayner G, Rayner M, Barling D, Millstone E. Policy councils on food, nutrition and physical activity: the UK as a case study. *Public Health Nutr* 2005; **8**: 11-19.
- 5 BBC News. EU backs rival food label scheme. Jan 30, 2008. <http://news.bbc.co.uk/1/hi/health/7217198.stm> (accessed June 11, 2008).
- 6 Lobstein T. Board stiff. *The Guardian* Jan 7, 2008. [http://commentisfree.guardian.co.uk/tim\\_lobstein/2008/01/board\\_stiffs.html](http://commentisfree.guardian.co.uk/tim_lobstein/2008/01/board_stiffs.html) (accessed March 27, 2008).
- 7 Bernstein MH. Regulating business by independent commission. Princeton, NJ: Princeton University Press, 1955.
- 8 James P. Food Standards Agency: an interim proposal. Aberdeen: Rowett Research Institute, 1997.
- 9 Ministry of Agriculture Fisheries and Food. The Food Standards Agency: a force for change. London: The Stationery Office, 1998.
- 10 House of Commons. *Hansard* Jan 14, 1998, columns 357-58. <http://www.parliament.the-stationery-office.com/pa/cm199798/cmhansrd/vo980114/debtext/80114-25.htm> (accessed March 27, 2008).
- 11 Food Standards Agency. Register of Board Members' interests. Document SO 07/12/05. Dec 13, 2007. <http://www.food.gov.uk/multimedia/pdfs/board/so071205.pdf> (accessed March 27, 2008).
- 12 Revill J. E-numbers adviser paid by Tesco. *The Observer* Sept 16, 2007. <http://www.guardian.co.uk/uk/2007/sep/16/health.healthandwellbeing> (accessed March 27, 2008).
- 13 Muller RA, Morris DE. Geomagnetic reversals driven by sudden climate changes. *Eos* 1989; **70**: 276.
- 14 MacMillan T. Tales of power in biotechnology regulation: the EU ban on BST. *Geoforum* 2003; **34**: 187-201.
- 15 Watterson A. Chemical hazards and public confidence. *Lancet* 1993; **342**: 131-32.
- 16 Avery N, Drake M, Lang T. Cracking the Codex: a report on the Codex Alimentarius Commission. London: National Food Alliance, 1993.
- 17 Masson-Matthee MD. The Codex Alimentarius Commission and its standards. The Hague: TMC Asser Press, 2007.
- 18 Millstone E, van Zwanenberg P, Levidow L, Spök A, Hirakawa H, Matsuo M. Risk-assessment policies: differences across jurisdictions. Seville: European Commission Joint Research Centre, Institute for Prospective Technological Studies, 2008.
- 19 Food Standards Agency. Details of Board Members and their register of interests. <http://www.foodstandards.gov.uk/aboutus/ourboard/boardmem/> (accessed March 27, 2008).
- 20 Conservative Research Department. Public health: our priority. Consultation document. April, 2007. <http://www.conservatives.com/pdf/publichealthconsultationv2.pdf> (accessed March 27, 2008).

## Five metaphors about global-health policy

In January, 2009, a new administration will assume power in Washington, DC, USA. Whichever of the current presidential candidates wins, US foreign policy will change direction. One element of this policy will be global health, a subject often characterised by controversy. The debate that will shape the next administration's approach to global health has begun,

including the decision by the US Institute of Medicine to update its 1997 report on US global-health priorities.<sup>1</sup> What principles might inform this debate?

Policy makers often reason by metaphors to boil down a set of complex policy tradeoffs into a few consistent strategies and principles.<sup>2</sup> We suggest that there are at least five metaphors that can be applied to global health

Principle	Selected goals	Priority diseases	Key institutions
Global health as foreign policy	Trade, alliances, democracy, economic growth, reputation, stabilise or destabilise countries	Infectious diseases, HIV/AIDS	US State Department, USAID, President's Emergency Plan for AIDS Relief
Global health as security	Combat bioterror, infectious diseases, and drug resistance	Avian influenza, severe acute respiratory syndrome, multidrug-resistant tuberculosis, AIDS	US Centers for Disease Control and Prevention
Global health as charity	Fight absolute poverty	Famine or malnutrition, HIV/AIDS, tuberculosis, malaria, rare diseases	Bill & Melinda Gates Foundation, other philanthropic bodies
Global health as investment	Maximise economic development	HIV/AIDS, malaria	World Bank and International Monetary Fund, International Labour Organisation, private sector
Global health as public health	Maximise health effect	Worldwide burden of disease	WHO, vertical disease-specific non-governmental organisations

**Table: Five leading global-health metaphors**

(table). These are global health as foreign policy,<sup>3,4</sup> global health as security,<sup>5</sup> global health as charity,<sup>6</sup> global health as investment,<sup>7</sup> and global health as public health.<sup>8</sup> The policies that will be pursued crucially depend on which metaphor is dominant.

The first metaphor, global health as foreign policy, is based on politicians using global-health policies to create a positive worldwide reputation and exert political influence, forging alliances with countries where they have strategic interests, opening new markets for trade, and protecting domestic pharmaceutical companies. Global-health priorities follow foreign-policy goals.

The second metaphor, global health as security, is where health policy seeks to protect one's own population, focusing mainly on communicable diseases that threaten this population. Only diseases of poor countries that pose a potential threat to citizens of rich countries matter. Thus, diseases such as severe acute respiratory syndrome, avian influenza, and drug-resistant tuberculosis are prioritised,<sup>9</sup> whereas leprosy, filariasis, and schistosomiasis are deprioritised. Health policy is integrated with protection from bioterrorism, missile shields, and "defensive" warfare.

Global health as charity involves the promotion of health as a key element in the fight against poverty. Priorities are often indicative of popular views of victimhood, so the beneficiaries are those seen as most deserving by those who must contribute to their relief. Consequently, the focus is typically on mothers and children, and on issues such as malnutrition, natural disasters, and safe childbirth. Non-governmental organisations dependent on public fundraising will be natural allies.

Global health as investment involves the use of health as a means of maximising economic development,

a view exemplified by WHO's Commission on Macroeconomics and Health. The focus is on young and working-age people, and on diseases seen as acting as a brake on development, such as AIDS, tuberculosis, and malaria, as well as veterinary diseases of economic importance.

The final metaphor, global health as public health, seeks to decrease the worldwide burden of disease,<sup>10</sup> with priority given to those risk factors and diseases that make the greatest contribution to this burden. Resources will be directed to maximise the potential health effects.

In practice, policy making rarely follows just one of these strategies and the end result is typically a "mush". Different actors push for different goals, often without making explicit which metaphor they are using, so that the end result is a mix of contradictory policies.

Under the current US administration, the dominant metaphors are global health as security and as foreign policy. The former has led to a focus on bioterrorism and pandemic preparedness. The latter has directed resources to countries rich in natural resources, especially oil, and to bilateral initiatives that support US companies, such as the purchase of expensive proprietary antiretroviral drugs by the President's Emergency Plan for AIDS Relief, or that promote particular ideologies, such as abstinence and antiabortion policies. Elements of this approach are likely to remain under a McCain presidency, although there is likely to be less focus on sexual matters.

Victory by Barack Obama can be expected to focus on global health as a combination of charity, security, and investment, consistent with the approach by the 1992–2000 Democratic administration.<sup>11</sup> The USA's global-health policy will promote democracy, establish

trade alliances, and integrate developing countries into the worldwide marketplace, as well as open dialogues with governments in the Middle East previously considered as hostile.

These metaphors are, however, likely to be implicit, because the forthcoming discussions are dominated by advocacy for individual issues and diseases. Ideally, these discussions would be informed by the metaphor of global health as public health, so that priorities would move closer to the actual, rather than the commonly perceived, contributors to the burden of disease, with a greater emphasis on non-communicable diseases and mental illness. Yet, unless these discussions take account of the other metaphors, which are likely to dominate the definition of broader US foreign policy, any proposals risk being marginalised. The Institute of Medicine's 1997 report<sup>1</sup> identified the key issues as "global health as security" and "global health as foreign policy". Now the challenge is to build a coalition that embraces the principal metaphors being used, explicitly aligning the pursuit of public health with foreign policy, security, charity, and investment and, when contradictions emerge, exposing and dealing with them. The UK's new global-health strategy, which does just this, might be a good place to start.<sup>12</sup>

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We declare that we have no conflict of interest.

- 1 Institute of Medicine. America's vital interest in global health: protecting our people, enhancing our economy, and advancing our international interests. Washington DC: Institute of Medicine, 1997.
- 2 Lau RR, Schlesinger M. Policy frames, metaphorical reasoning, and support for public policies. *Political Psychol* 2005; **26**: 77–114.
- 3 Horton R. Health as an instrument of foreign policy. *Lancet* 2007; **369**: 806–07.
- 4 Stoere J, Gadio CT, Dlamini-Zuma N, Pibulsonggram N. Oslo Ministerial Declaration—global health: a pressing foreign policy issue of our time. *Lancet* 2007; **369**: 1373–78.
- 5 Lederberg J. Infectious disease—a threat to global health and security. *JAMA* 1996; **276**: 417–19.
- 6 Smith M. Poverty and health need to be tackled together. *Lancet* 1996; **347**: 1760.
- 7 WHO. Report of the Commission on Macroeconomics and Health. Geneva: World Health Organization, 2001.
- 8 WHO. Primary health care: a framework for future strategic directions. Geneva: World Health Organization, 2003.
- 9 Chong JR. Airline passengers exposed to multi-drug-resistant TB. *Los Angeles Times* Jan 3, 2008.
- 10 Ezzati M, Lopez AD, Rodgers A, Murray CJL, eds. Comparative quantification of health risks: global and regional burden of disease due to selected major risk factors. Geneva: WHO, 2004.
- 11 Obama B. Renewing American leadership. *Foreign Affairs* 2007; **86**: 2–16.
- 12 Donaldson L, Banatvala N. Health is global: proposals for a UK government-wide strategy. *Lancet* 2007; **369**: 857–61.

## Smokeless tobacco use by south Asian youth in the UK

The problem of the easy availability and increasing use of smokeless tobacco products by young people of south Asian origin in the UK needs to be urgently addressed. Legislation exists, but is often flouted with the consequence that these products, which are associated with significantly increased risk of oropharyngeal cancers in young people,<sup>1</sup> are available for as little as £0.20.

Cancer of the oropharynx constitutes one of the ten commonest cancers in the world. Important causal agents include the alkaloid content of the habit-forming betel nut (areca)—commonly known as *supari* among south Asians—and tobacco, whether smoked in cigarettes, *bidis*, or through a hookah or chewed as *gutka* or *paan*.<sup>2</sup>

*Gutka* is made up of tobacco, betel-nut fragments, fennel, and other spices, and is marketed in attractive colourful sachets that are appealing to children (figure).

The recent addition of chocolate-flavoured ingredients may further enhance this appeal. *Gutka* can be bought by young people from "corner shops" in many UK inner cities for only a few pence.<sup>3</sup>

Such a mixture is also often sold wrapped in a green betel plant-leaf or *paan*; in this form other ingredients, such as lime, may be included as a paste. A *paan* might be offered as a delicacy after food because it gives a pleasant oral sensation; the oral mucosa and lips being tinted red by the ingredients. *Paan* is believed by many to be an aphrodisiac, which thus further heightens its attractiveness, particularly to young men. Its use is, however, far from benign, as shown by a study among Gujaratis in northwest London, which found that *paan* chewers had cocaine-like dependency with withdrawal symptoms of headaches and sweating.<sup>4</sup> The sight of queues outside *paan* shops in the morning is thus perhaps not surprising. *Paan* is unfortunately