Editorials

Being prepared to protect the public health. Information for thinking the unthinkable and doing the essential

Salmonella, Listeria, Legionella, HIV/AIDS, BSE, MRSA, Cryptosporidium, E coli, Hepatitis A, B, C..., Alpha Piper, Kings Cross, The Herald of Free Enterprise, Bradford City, Hillsborough...the litany goes on and on. Public health incidents, accidents, ongoing disasters, and epidemics that seem to constantly catch us flatfooted. First the disaster, then the vacillation, closely followed by the accusations of cover up and closing the door after the horses have bolted, the apparent absence of any meaningful lines of accountability and the failure of institutions to learn any lessons. How did we get into this mess and how do we get out of it? What are and should be the responsibilities of the NHS to ensure that it has adequate, appropriate, and timely information and intelligence to foresee and forestall these threats to the population for which ultimately it has a responsibility?

According to the Acheson committee set up to enquire into failures of public health in the mid-1980s (salmonella in an old peoples home; legionella in a hospital),¹ public health is "the science and art of preventing disease, prolonging life and promoting physical health and efficiency through organised community efforts." In fact this definition is attributable to Winslow,² writing in 1920 and its reappearance 68 years later should make us question our inability to learn from experience. One of the parables told by proponents of the "New Public Health" is that health workers are like life savers standing beside a fast flowing river. Every so often a drowning person floats past precipitating frenetic lifesaving activity—jumping in, pulling out, and resuscitating. Just as this casualty has been dealt with another one floats by and so busy are our heroes with their work that nobody has anytime to investigate where all the casualties are coming from.³ The information corollary of this little vignette would involve a detailed database on every aspect of life saving activity carried out—charter standards for jumping in and pulling out times, protocols for intervention, an efficiency index that concentrated on how many episodes of life saving had taken place during the year and a particularly detailed set of financial returns on the salaries and wages of all those involved and the capital and recurrent costs of equipping life guards. In short, an accountancy rather than a health driven information system develops wherein there is every prospect of knowing the costs of everything (and the value of nothing) with little prospect of predicting what will be coming floating down the river next or what is occurring upstream to force people into the river in the first place. We rest our case!

The situation need not be this way however and to be fair it is not completely out of control in the NHS. There are all sorts of datasets around in one place or another and in one form or another, which are about the public health. Economic, education, social service, and criminal statistics (to name a few) from various sources and statistics from each government department (examples in figs 1 and 2) are available alongside statistics from the Department of Health and its agencies. What is most frustrating however, is that more and more time and resources have been spent on developing sickness orientated, hospital-based financial

Figure 1 Land use and live stock (source: annual statistics of agricultural departments).

Figure 2 Food consumption of households in Britain (source: annual statistics of agricultural departments).

information systems and less and less on improving the validity and scope of the health related information presently collected by the health services and relating this information to data collected by organisations outside of the health services.

It was not however always like this. In the good old days/bad old days of Victorian public health, the *Times* routinely published the death statistics and business men would time their visits to the great cities to avoid the worst hazards of the epidemics. Medical officers of health as chief officers in their local authorities and with access to the statistics from other committees besides "Health" would make what use they could of these to paint the picture of the state of health and threats to health for the local population. We suppose that part of the present problem dates from 1948 when the hospital dominated NHS was established; the situation certainly was not helped by the removal of medical officers of health from local government in 1974 and their placement within the "Health Service". The creation of all sorts of quasi-private or private bodies and agencies, often with little insight or interest in how their policies and actions affect the "Public Health" has further compounded the situation (water, food, meat hygiene to mention but three—the list is long).

So what then needs to be done? The mission of public health is to promote and protect the health of the population. Clearly however, the capacity to achieve this goal lies in its ability to

- Recognise situations that have the potential to injure the health of the population
- Identify the groups in the population that are most at risk
- Formulate interventions that have the capability for achieving the objectives that are required to secure reductions in disease incidence and prevalence and to
- Implement (or facilitate the implementation of) these interventions to an extent that they make a significant enough impact.

These principles formed the basis for most of the major successes that public health has had in the past (an appropriate example being the achievements in reducing the incidence of some of the major infectious diseases of childhood through environmental measures and immunisation) and they apply as much today as they did previously.

In this task there are many partners and there is a clear understanding that most of what needs to be done lies outside the direct sphere of influence of the NHS—it is upstream or along the river banks, perhaps hidden in the undergrowth or lurking in the woods waiting to bundle people in to the torrents. It follows then that a modern strategy for public health requires a modern strategy for public health information, one that brings together routinely and effectively the data and information that

should go to make up the intelligence to tell us what is around, what is coming, and the things that will need to be resolved. In short, an appropriate emphasis on health related data and good quality multi-agency databases. At the moment, at best, we have bits and pieces of this. With the new commitment to public health, it is time to tackle the information needs with vigour to enable us to be serious about improving and protecting the public health. Much of this information lies outside but not beyond the reach of the NHS and an appropriate way forward may be for public health professionals to initiate this process.

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- 1 The Acheson Report. *Public Health in England. The Report of The Committee of Enquiry Into The Future Development of Public Health in England.* (Cmd 289) London: HMSO, 1988.
- 2 Winslow CEA. The untilled fields of public health. *Science* 1920;51:23.1.
- 3 Ashton J, Seymour H. *The new public health.* Milton Keynes, UK: Open University Press, 1988.