Public health quintet

Public health in Europe

Martin McKee, Bobbie Jacobson

Any attempt to describe public health in Europe faces the twin problems of defining Europe and of dealing with the diversity of health and health systems it contains. Health status varies considerably between countries. In some, health is improving, with substantial decreases in heart disease in many western and central European countries. In others, especially in the former Soviet Union, there is concern about the rapid increase in tuberculosis and AIDS. A national analysis does, however, conceal a substantial variation within countries, between regions, and between social classes. The responses to these threats to health are also diverse. A few countries have developed effective mechanisms to design and implement appropriate policies but, in many countries, the public-health community is weak. In particular, public health has largely failed in its role as an advocate of the health of the population. There are, however, many encouraging signs that this may change in the future.

An exploration of public-health issues in Europe is difficult. Compared with, for example, North America, the diversity of issues is far greater. Countries and regions within countries have many languages, prevailing values, and political systems. Even the term “public health” has many different interpretations,[1] with some languages using several words, each with subtly different meanings.[2] Attempts to define the term are difficult because many of the other words required, such as environment or inequalities, are also understood in other ways in different countries.[3]

It is even difficult to agree a definition of Europe. The boundaries of Europe have perplexed generations of thinkers since the word Europe entered common usage at the end of the 18th century;[4] this is of more than just philosophical interest because the various international groupings active in the health sector in this region have borders that are the product of history and politics rather than of shared health needs.

The European Region of WHO extends from Iceland to the Pacific and includes a population of 870 million people. The European Union, however, is a much more compact grouping of western European states, complicated by the acceptance of 13 candidates for accession—each moving at different speeds—but all harmonising their laws with those of the Union.

Diversity and inequality

Within WHO’s definition of Europe, there is enormous diversity in the basic determinants of health (table 1), contributing in part to major health inequalities between countries (table 2).[5]

Whereas the inequalities are apparent at the level of global indicators—such as life expectancy—for individual causes of death the contrasts are even more stark. Deaths from injuries among children are almost five times as common in the countries of the former Soviet Union than in those of the European Union.[6] Deaths from ischaemic heart disease among men are almost four times higher in Ireland than in France.

This situation is changing as old threats to health disappear and new ones emerge, with some old diseases now reappearing. Rates of coronary heart disease are falling rapidly in countries such as Finland[7] and Poland,[8] but cases of syphilis and HIV infection are increasing exponentially in some parts of the former Soviet Union.[9]

Tuberculous—an exemplar of the challenges

Deaths from tuberculosis in Russia have risen to the level they were 20 years ago. The reasons for this reversal illustrate many of the challenges facing the public-health community in the former Soviet Union. Although the rise

	Gross national product per capita (US$)	Participation in secondary education (% of relevant age-group)	Gini index*	Motor vehicles (per 1000 population)
Bulgaria	1330	74	30·8	238
Denmark	29 890	87	24·7	388
Poland	2780	85	27·2	262
Russia	2240	NA	48·0	153
Spain	13 580	NA	32·5	472
Sweden	23 750	98	25·0	456
Turkmenistan	920	NA	35·8	NA
UK	18 700	92	32·6	415

*A measure of income inequality, in which 0=perfect equality and 100=perfect inequality. NA=not available. Source: WHO Health for All and World Bank databases.

Table 1: **Social and economic development in selected countries in the European region (latest available year)**

	Life expectancy at birth (years)			Infant mortality rate (per 1000 live births)	Probability of dying age <5 years (per 1000)
	Men	Women	Difference		
Bulgaria	67·2	74·8	7·6	15·6	20·2
Denmark	73·1	78·4	5·3	5·6	6·8
Poland	68·2	76·7	8·5	12·2	13·9
Russia	59·8	72·5	12·7	17·5	21·4
Spain	74·4	81·8	7·4	5·5	6·7
Sweden	76·7	81·8	5·1	3·8	4·6
Turkmenistan	61·5	66·6	5·1	42·9	66·9
UK	74·6	79·9	5·3	599	6·9

Source: WHO Health for All database

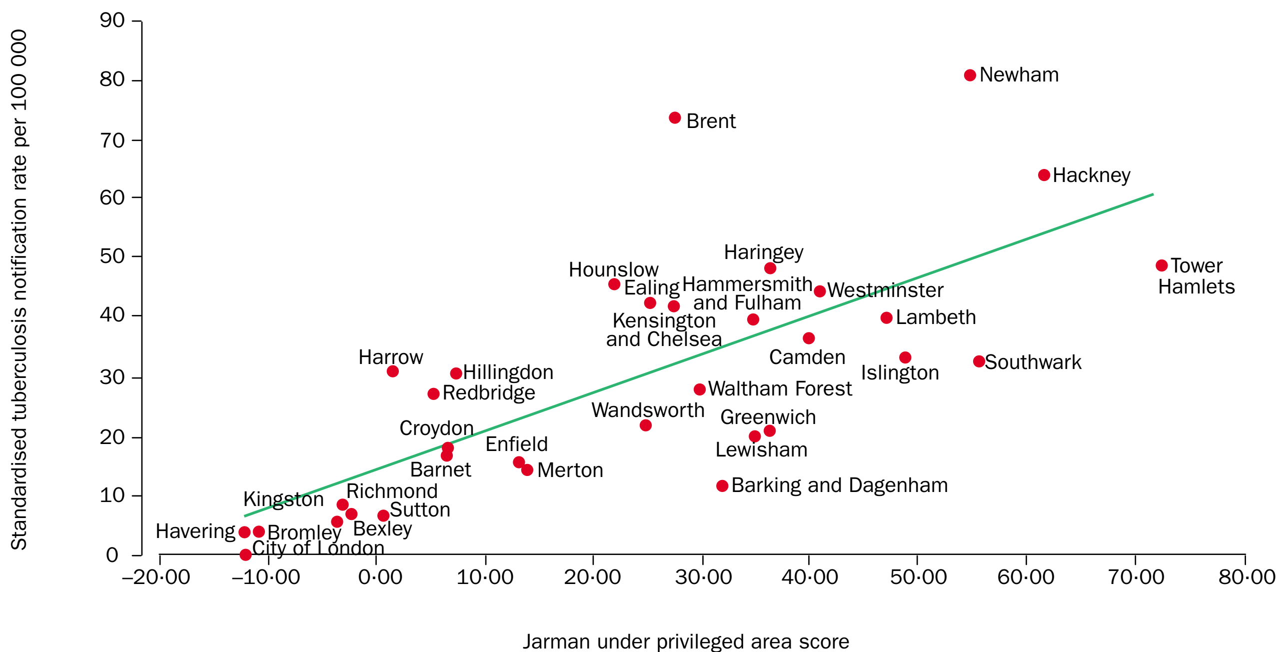
Table 2: **Vital statistics from selected countries in the European region (latest available year)**

Lancet 2000; **356:** 665–70

European Centre of Health of Societies in Transition, School of Hygiene and Tropical Medicine, Keppel Street, London WC1E 7HT, UK (Prof M McKee MD)**; and East London and City Health Authority, Aneurin Bevan House, London, UK** (B Jacobson FFPHM)

Correspondence to: Prof Martin McKee
(e-mail: Martin.McKee@lshtm.ac.uk)

For personal use only. Not to be reproduced without permission of The Lancet.



Standardised tuberculosis notification rate by deprivation score, London Boroughs, UK, 1996
The Jarman under privileged area score is a combination of several census variables and is widely used as a composite index of deprivation. Source: Health of Londoners' Project.

in tuberculosis is intimately linked with conditions in the Russian prison system, the increase is a result of failures in a range of areas.[10] The prison population has increased dramatically, to levels approaching those in the USA. This rise indicates not only increasing levels of crime but also a near collapse of the criminal justice system, with many of those who are charged spending a year or more in pretrial custody. Prison conditions, which were never good, have deteriorated further as budgets decrease.[11] The levels of overcrowding, inadequate nutrition, and poor ventilation provide ideal circumstances for transmission of tuberculosis. An increasing proportion of such infections are resistant to one or more first-line drugs, and a lack of laboratory facilities and drugs means that many prisoners are treated intermittently or, even when they receive combination therapy, their infection may be sensitive to only one of the drugs used, thus increasing the frequency of resistance. Those infected remain infectious even when on treatment with first-line drugs. As prisoners are released, multidrug-resistant tuberculosis spreads into a general population that has a rapidly increasing rate of HIV infection. This is a situation that a public-health system—struggling with inadequate budgets, obsolete technology, and a lack of appropriate skills—is poorly prepared for.

The urgent need for an effective response has been recognised by the negotiation of a large World Bank loan for control of AIDS and tuberculosis, although this action is partly to address concerns about the risk of infection spreading beyond Russia's borders. Implementation will not, however, be easy. There is a need to identify strategies that will be effective with the limited resources, both human and financial, in Russia, and which will not exacerbate the situation by, for example, leading to resistance to second-line drugs. Such strategies will require a range of coordinated policy responses, embracing major reforms of the criminal justice and health systems and appropriate actions at all levels of government.

Recrudescent tuberculosis is not confined to the former Soviet Union and this fact effectively shows how some aspects of health inequality can be hidden behind a benign average. Tuberculosis is rising in many large cities in western Europe such as London,[12] whereas this is not the case nationally. Moreover, within such cities, the incidence of tuberculosis is strongly correlated with indices of deprivation (figure).[13]

Diversity in the public-health response

Public-health responses vary enormously. The organisation of public-health activities, such as what is regarded as public health or not, and whether it is based on a predominantly medical or multidisciplinary notion or a unisectoral or intersectoral model, shows the complex mixture of cultural norms. The strong sense of individual responsibility for health in Denmark contrasts with a much greater acceptance of a role for the state in Sweden. Abuses by the prewar German public-health system[14] gave rise to the constitutional limitation on the uses of health-related data, seriously inhibiting the development of population-based registries.[15] In parts of eastern Europe the prevailing public-health model retains many features of the Soviet system.

The increasing international dimension to public health creates an added complexity. In the east, there is extensive western input into health-care reform. In the west, the European Union is an increasingly important player,[16] whether as a source of funding for international collaboration and legislation with implications for public health, or as a participant in the international exchange of information. The Commission has identified as priorities the improvement of information for the development of public health, reacting rapidly to threats to health, and tackling health determinants through health promotion and disease prevention.[17] However, there are continuing tensions about the appropriate division between supranational and national responsibility, as well as where to place responsibility for public health within the Commission.

For personal use only. Not to be reproduced without permission of The Lancet.

Such diversity may make understanding public health in Europe difficult but it also provides many opportunities. There is a growing amount of research that draws on differences between countries to identify underlying determinants of health,[18] an example being the work that led to the identification of the part played by the so-called Mediterranean diet.[19] Different policies also challenge perceptions of what is possible, with innovative ideas in one country offering lessons for others.[20]

Rather than attempting to cover all this highly complex picture in a single article, we examine, first, some of the issues relating to key public-health functions in different parts of Europe and, second, give an example of how one issue—inequalities in health—is being taken forward in the UK.

Identification of threats to health

Emerging threats to health can be acute or cumulative. The former is typified by the outbreak of communicable or foodborne disease; the second by rising cases of certain chronic diseases. The nature of outbreaks in Europe is changing, bringing new challenges for those responsible for surveillance. Infectious agents do not respect borders and the growth in international travel and trade provides many more opportunities for spread of disease. In western Europe this threat has led to the establishment of a range of surveillance systems, designed to provide rapid communication about outbreaks that have international implications. There has been lengthy debate about whether this process should develop through networks of existing national centres or be based on one European centre, similar to the US Centers for Disease Control, with the former model prevailing.[21] There are, however, widespread variations between countries in the quality of surveillance,[22] which is a cause of increasing concern.

These initiatives are being supported by a range of programmes including the European Programme for Intervention Epidemiology Training (EPIET) and the Interchange of Data between Administrations (IDA) programme. The arrangements for managing outbreaks that affect more than one European Union country have recently been assessed and recommendations made for enhanced coordination and the establishment of a capacity to cooperate in management of outbreaks outside Europe.[23]

The second set of emerging threats to health provide different challenges. During the 1970s and 1980s, the changing pattern of mortality in the former communist countries of central and eastern Europe was characterised by a rising death rate among young and middle aged men.[24] However, such changes are not confined to the east. Death rates in this group have also risen substantially in western countries such as Spain,[25] Italy,[26] and Denmark.[27]

The record of public-health responses to emerging threats to health has, however, been mixed: this is illustrated by the different ways in which countries responded to the issue of sleeping position and sudden infant death syndrome.[28] Reactions to the emergence, in the late 1980s, of evidence linking sleeping position to sudden infant death syndrome showed differences in recognition that a problem existed—in the ability to assimilate epidemiological evidence—and in the capacity to implement change. Appropriate action was not always taken and, where it was, paediatricians and non-governmental advocacy organisations were usually more important than the official public-health structures in driving initial awareness and change. Once policies had changed, however, these official structures became important for population-wide implementation. Another example is the different ways in which countries have responded to high death rates from ischaemic heart disease. Finland, for example, has adopted a wide-ranging programme of community-based interventions that have been very successful in reducing that country's high death rates.[29] By contrast, some other countries have done little.

The ability to compare trends in mortality has been made much easier by the development of WHO's Health for All database,[30] which includes a wide range of indicators covering the period from 1970 to the present for all countries in the region. The more recent development of the European Megapoles Network of Capital Cities has enabled direct comparisons of the health of major cities to be made for the first time.[31]

Design of effective interventions

Although many policies that relate to public health still bear little relation to evidence,[32] there is a growing recognition throughout Europe that policies need to change, although we accept that such policies will, inevitably, incorporate prevailing values and political decisions and should take account of the local context. The International Cochrane Collaboration,[33] in which many public-health professionals have been actively involved, has been an important driving force in this process.

There are also an increasing number of international initiatives designed to promote effective policies. Examples include the Smoke-Free Europe programme[34] and the European Charter on Alcohol.[35] The European Union has established the European Monitoring Centre for Drugs and Drug Addiction in Lisbon, which, with the Council of Europe's Pompidou Group, has greatly improved the amount of knowledge about the scale of the illicit drug problem in Europe.[36] The need for better information on what works in the health sector has been recognised by the creation of the European Observatory on Health Care Systems.[37] The International Union for Health Promotion and Education, with support from the European Commission, has published a comprehensive review of effective policies in health promotion.[38]

Implementation of policies

Within the European public-health community there is a widespread recognition of the importance of intersectoral action. There is now extensive research from WHO's healthy cities[39] and healthy regions movements, showing what can be achieved by building effective inter-sectoral partnerships.

There is also a growing amount of research on this model of working[40,41,42] that has identified critical success factors. These factors are feeding into the increasing number of integrated national-health strategies. In addition, many countries have adopted a National Environment and Health Action Plan (NEHAP), linking actions to improve the environment with the health of the population.[43]

At an international level, WHO's Health For All strategy[44] has been replaced by Health 21,[45] containing 21 targets aimed at achieving full health potential for all. In the European Union, the Amsterdam Treaty introduced a requirement that health protection be incorporated into all

For personal use only. Not to be reproduced without permission of The Lancet.

European legislation at its inception.[46] Although it remains to be seen how effective this plan will be, it has considerable potential given the increasingly wide reach of European law.[16]

Recognition of the wide range of determinants of health has stimulated interest in how the policies in areas outside health affect on health, but such policies are still at an early stage. The UK Department of Health has published guidance on how this might be undertaken[47] but the guidelines have been criticised for taking a narrow economic perspective.[48]

Tensions

In many countries in Europe there are certain unresolved tensions within public health. One is the link between practice and academe. A second emerges from the competing roles of the public-health professional as a corporate manager or an advocate.

Close links between practice and academe can bring many mutual benefits. Practitioners can contribute to setting the research agenda and researchers can ensure that their findings are translated into practice. In practice, these links are weak in many countries. One reason is the division, in some countries, between public-health training and research. In this model, research that could be regarded as addressing public-health issues is undertaken in university departments of epidemiology or social sciences, whereas training takes place in separate schools of public health, which may be under the authority of the Ministry of Health rather than the Ministry of Education.[49] Public-health practitioners may have little personal contact with the leading researchers in their countries during their training or afterwards. Increasingly, however, new structures are being established in which the two elements are combined, drawing on the experiences of countries such as Australia, New Zealand, and the UK. Examples include the new training programmes in Denmark, Germany, and Hungary. In some countries these links are being developed much further because health research is being increasingly targeted at major health issues rather than merely responding to the interests of researchers. In this model, of which the UK National Health Service Research and Development programme is an example,[50] research priorities are identified through a wide-ranging consultation exercise, the precise questions to be asked are developed by means of systematic reviews, and detailed specifications are drawn up indicating the research required.

Rights were not granted to include this image in electronic media. Please refer to the printed journal.

Down and out in Moscow, Russia

A second major tension in many countries arises from the twin public-health roles of advocate and corporate manager. Public-health professionals are expected to identify threats to health and facilitate action to keep them to a minimum. In theory, identifying threats should not be a problem. In practice, it generally means challenges to powerful vested interests in ways that may be unwelcome to governments and those managing health services who may wish to maintain the status quo or focus on other issues.[51] Action commonly requires us to challenge the rights of the individual in favour of the population. The list of examples steadily increases, with particularly infamous examples including the outbreak of bovine spongiform encephalopathy (BSE) in the UK[52] and dioxin contamination of food in Belgium. The record of public-health professionals in Europe has generally been less than satisfactory. Where action has been initiated it has generally been as a result of public and media concern, with public health following rather than leading. The approach in which public-health professionals work with campaigning non-governmental organisations, providing epidemiological input and acting as authoritative spokespersons has—by contrast with the situation in Australia[53]—been patchy. But there are important recent examples of joint advocacy, such as the campaigns against tobacco promotion[54] and in favour of fluoridation, or improved access to contraception, legislation on seatbelts, and abortion.

This tension is also seen in more routine situations. Public-health professionals in several countries now publish regular reports on the health of their populations,[55] comparing them with neighbouring regions, examining changes over time, and making recommendations for action. Such reports generally take one of two approaches. Some are used as a means of proclaiming the achievements of governments or health authorities whereas others are written from the perspective of the community, drawing attention to failings and challenging the authorities to act.[56]

Tackling inequalities in health

Health inequalities exist in every country in which they have been assessed but action to tackle them has, with a few exceptions, been conspicuous by its absence. WHO has made strenuous efforts to define the extent of inequalities,[57] but action has to be left to individual countries and governments. There are few examples of targeted policies nationally,[58] one being the Dutch govern-ment's research programme on health inequality.[59]

The UK has attracted attention because of its long and distinguished tradition of collecting data on health inequality and its determinants, but more recently because of the countries commitment to tackle health inequalities by action across government. The publication of the independent inquiry into inequalities in health[60] in 1998 emphasised the need for all policies likely to have an impact on health to be assessed in terms of their effect on health inequalities, a high priority to be given to the health of families with children, and further steps to be taken to reduce income inequalities and improve the living standards of poor households. The report has faced some criticism for underemphasising the importance of wealth inequalities, lack of specificity, and absence of costing of recommendations;[61] but this critism has been contested.[62,63] The government has responded positively to the report's recommendations,[64] although some have questioned the extent to which its emphasis on local targets to reduce

For personal use only. Not to be reproduced without permission of The Lancet.

inequalities will affect the very large disparities in health across the country.

The findings of this inquiry have been incorporated into the UK government's recent white paper, *Saving lives: our healthier nation*.[65] This is the most explicit approach so far taken by any European government to set out a strategy to address inequalities in health.[66] Moreover, the strategy has been endorsed at top level by the UK Prime Minister and 12 government departments. The strategy envisages a new "third way" which includes government creating the conditions for health, and individuals and local agencies acting to improve the health of local communities. Much of the government's rhetoric still needs translation into action. The recent downgrading of Europe's first Minister for Public Health in government—the architect of the strategy—together with little evidence of priority given by the new Secretary of State for Health to implementing a health inequalities reduction programme must leave the jury out on how committed the UK really is to action. The government and its health department have yet to show that tackling inequalities in health are as important as reducing NHS waiting lists and developing specialist care for people with cancer, heart disease, and mental illness.[67] The apparent deletion of public health as a priority for the UK NHS research and development programme lends further weight to this argument. Central to the UK government's programme of local action to tackle inequalities are several interlinked "action zones" including estates and community regeneration, education,[68] and health action zones.[69]

By contrast with the previous UK government's policy of competition for the award of zone status, the new genre of action zones have been largely selected on the basis of levels of deprivation calculated by means of accepted composite indices. This approach has resulted from thinking within a prime ministerial policy unit—the Social Exclusion Unit.[70] This policy has had the effect of concentrating several cross-government experiments—and a significant amount of additional resource—in social and health policy in the most deprived parts of the UK, and has occurred against a backdrop of little real involvement of the mainstream resource allocation process into these areas. Each of these targeted initiatives is supported by a substantial assessment programme. The health action zone initiative now covers a large population—more that 13 million people in UK—and covers 15 of the 25 most deprived health authority areas in UK.

Although it is too early to know how effective the action zone approach will be in reducing inequalities in health, it is clearly in keeping with the UK government's aim of levelling up the health of the most disadvantaged populations.

Conclusions

The full range of issues facing public health in Europe are impossible to do justice to. However, some key points emerge. The first is the huge diversity and inequality involved. Despite moves to greater European political integration, patterns of health—and responses to them—remain largely the products of national factors. There are, however, a growing number of initiatives at a European level that are helping public-health professionals to learn from each other and to develop common approaches to shared problems. This process, taken with growing collaboration between practitioners and academics, offers enormous scope to develop evidence-based policies that could improve the health of people in Europe.

References

1 McKee M, Bojan F. Reforming public health services. In: Figueras J, Saltman R (eds). Reforming public health services: critical challenges for health care reform. Milton Keynes: Open University Press, 1998: 135-54.
2 White M, Watt I, Bojan F, McKee M. Hungary: a new public health. *Lancet* 1993; **341:** 43–44.
3 Weil O, McKee M. Setting priorities for health in Europe: are we speaking the same language? *Eur J Publ Health* 1998; **8:** 256–58.
4 Davies N. Europe: a history. Oxford: Oxford University Press, 1996: 8.
5 McKee M. Does WHO have a role in Europe? There is more to "Europe" than you might think. *BMJ* 1998; **316:** 402–03.
6 European Centre on Health of Societies in Transition. Childhood injuries: a priority area for the transition countries of central and Eastern Europe and the newly independent states. London: London School of Hygiene and Tropical Medicine, 1998.
7 Vartiainen E, Puska P, Pekkanen J, Tuomilehto J, Jousilahti P. Changes in risk factors explain changes in mortality from ischaemic heart disease in Finland. *BMJ* 1994; **309:** 23–27.
8 Zatonski WA, McMichael AJ, Powles JW. Ecological study of reasons for sharp decline in mortality from ischaemic heart disease in Poland since 1991. *BMJ* 1998; **316:** 1047–51.
9 Tichonova L, Borisenko K, Ward H, Meheus A, Gromyko A, Renton A. Epidemics of syphilis in the Russian Federation: trends, origins, and priorities for control. *Lancet* 1997; **350:** 210–13.
10 Farmer PE, Kononets AS, Borisov SE, Goldfarb A, Healing T, McKee M. Recrudescent tuberculosis in the Russian Federation. In: Farmer PE, Reichman LB, Iseman MD, eds. The global impact of drug resistant tuberculosis. Boston MA: Harvard Medical School/Open Society Institute, 1999.
11 Stern V. Sentenced to die? The problem of TB in prisons in Eastern Europe and Central Asia. London: International Centre for Prison Studies, 1999.
12 Hayward A. Tuberculosis control in London—the need for change: a report for the Thames Regional Directors of Public Health. London: NHS Executive, 1998.
13 Bardsley M, Barker M, Bhan A, et al. The Health of Londoners: a public health report for London. London: Health of Londoners Project, 1998.
14 Light DW, Liebfried S, Tennstedt F. Social medicine vs professional dominance: the German experience. *Am J Publ Health* 1986; **76:** 78–83.
15 Scholten HJ, de Lepper MJ. The benefits of the application of geographical information systems in public and environmental health. *World Health Stat Q* 1991; **44:** 160–70.
16 McKee M, Mossialos E, Belcher P. The impact of European Union law on national health policy. *J Eur Soc Pol* 1996; **6:** 263–86.
17 Commission of the European Communities. Communication from the Commission on the development of public health policy in the European Community. 15.04.1998 COM 230. Brussels: Commission of the European Communities, 1998.
18 McKee M. An agenda for public health research in Europe. *Eur J Publ Health* 1998; **8:** 3–7.
19 de Lorgeril M, Renaud S, Mamelle N, et al. Mediterranean α–linoleic-acid–rich diet in secondary prevention of coronary heart disease. *Lancet* 1994; **343:** 1454–59.
20 McKee M. Sex, drugs and rock and roll: Britain can learn lessons from Europe on the health of adolescents. *BMJ* 1999; **318:** 1300–01.
21 Giesecke J, Weinberg J. A European centre for infectious disease? *Lancet* 1998; **352:** 1308.
22 Desenclos J-C, Bijkerk H, Huisman J. Variations in national infectious disease surveillance in Europe. *Lancet* 1993; **341:** 1003–06.
23 London School of Hygiene and Tropical Medicine. A scientific evaluation of the arrangements for managing an epidemiological emergency involving more than one EU member state. London: London School of Hygiene and Tropical Medicine, 2000.
24 Chenet L, McKee M, Fulop N, et al. Changing life expectancy in central Europe: is there a single reason? *J Publ Health Med* 1996; **18:** 329–36.
25 Chenet L, McKee M, Otero A, Ausin I. What happened to life expectancy in Spain in the 1980s? *J Epidemiol Community Health* 1997; **51:** 510–14.
26 Ngongo KN, Nante N, Chenet L, McKee M. What has contributed to changing life expectancy in Italy in 1980–1992? *Health Policy* 1999; **48:** 1–12.
27 Chenet L, Osler M, McKee M, Krasnik A. Changing life expectancy in the 1980s: why was Denmark different from Sweden? *J Epidemiol Comm Health* 1996; **50:** 404–07.
28 McKee M, Fulop N, Bouvier P, et al. Preventing sudden infant deaths: the slow diffusion of and idea. *Health Policy* 1996; **37:** 117–35.
29 Puska P, Vartiainen E, Tuomilehto J, Salomaa V, Nissinen A. Changes in premature deaths in Finland: successful long-term

For personal use only. Not to be reproduced without permission of The Lancet.

prevention of cardiovascular diseases. *Bull World Health Organ* 1998; **76:** 419–25.
30 WHO. Health for All database (http:www.who.dk/accessed July 12, 2000).
31 Dalziel M, Armstrong D, Hachman M, et al. Project Mégapoles promoting better health for socially disadvantaged groups across Europe. *Eur J Publ Health* (in press).
32 Ham C, Hunter DJ, Robinson R. Evidence based policy making. *BMJ* 1995; **310:** 71–72.
33 Chalmers I, Haynes B. Reporting, updating, and correcting systematic reviews of the effects of health care *BMJ* 1994; **309:** 862–65.
34 WHO. It can be done. A smoke-free Europe. Copenhagen: World Health Organization Regional Office for Europe, 1990.
35 WHO. Alcohol—less is better. Copenhagen: World Health Organization Regional Office for Europe, 1996.
36 Council of Europe/ EMCDDA. Estimating the prevalence of problem drug use in Europe. Luxembourg: Office for Official Publications of the European Communities, 1997.
37 Figueras J, Saltman RB. Building upon comparative experience of health sector reform. 1998; **8:** 99–101.
38 International Union for Health Promotion and Education. The evidence of health promotion effectiveness: shaping public health in a new Europe. Luxembourg: European Commission, 1999.
39 Ashton J. Healthy cities. Milton Keynes: Open University Press, 1992.
40 Green J. Evidence and policy in accident alliances. Final study report for NHSE North Thames Organisation and Management Group. London: HRSU, London School of Hygiene and Tropical Medicine, 1998.
41 Delaney F. Making connections: research into inter-sectoral collaboration. *Health Education J* 1994; **53:** 474–85.
42 Costongs C, Springett J. Joint working and the production of a City Health Plan: the Liverpool experience. *Health Prom Int* 1997: **12:** 9–18.
43 WHO. Implementing national environmental health action plans in partnership. Copenhagen: World Health Organization Regional Office for Europe, 1999.
44 WHO. Regional Office for Europe: targets for Health for All. Copenhagen: WHO, 1985.
45 WHO. Health 21—health for all in the 21st century. Copenhagen: WHO, 1999.
46 Mossialos E, McKee M. The Amsterdam Treaty and the future of European health policy. *J Health Serv Res Policy* 1998; **3:** 65–67.
47 Department of Health. Policy appraisal and health. London: Department of Health, 1995 (EL(95)129/CI(95)47).
48 Scott-Samuel A. Health impact assessment. *BMJ* 1996; **313:** 183–84.
49 McKee M, Clarke A, Kornitzer M, et al. Public health medicine training in the European Community: is there scope for harmonization? *Eur J Publ Health* 1992; **2:** 45–53.
50 Peckham M. Research and development for the national health service. *Lancet* 1991; **338:** 367–71.
51 Baggott R. Government-industry relations in Britain: the regulation of the tobacco industry. *Policy Politics* 1987; **15:** 137–46.
52 McKee M, Lang T, Roberts J. Deregulating health: policy lessons of the BSE affair. *J Roy Soc Med* 1996; **89:** 424–26.
53 Chapman S, Lupton D. The fight for public health. London: BMA, 1994.
54 Peto R, Lopez AD, Boreham J, Thun M, Heath C. Mortality from smoking in developed countries 1950–2000. Oxford: Oxford University Press, 1994.
55 Middleton J, Binysh K, Chisty V, Pollock G. How to do it: write the annual report of the director of public health. *BMJ* 1991; **302:** 521–24.
56 Fulop N, McKee M. What impact do annual public health reports have? *Public Health* 1996; **110:** 307–11.
57 Kunst AE, Mackenbach JP. Measuring socio-economic inequalities in health. Copenhagen: WHO, undated.
58 Whitehead M. Diffusion of ideas on social inequalities in health: a European perspective. *Milbank Q* 1998; **76:** 469–92.
59 Scientific Government Council. Socioeconomic inequity in health and health policy. The Hague: Government Printing Office, 1991.
60 Independent inquiry into inequalities in health. London: HM Stationery Office, 1998.
61 Davey Smith G, Morris JN, Shaw M. The independent inquiry into inequalities in health. *BMJ* 1998; **317:** 1465–66.
62 Ashton J. Inequalities in health. *BMJ* 1999; **318:** 601.
63 Acheson D. Inequalities in health. *BMJ* 1998; **317:** 1659.
64 Department of Health. Reducing health inequalities: an action report. London: Department of Health, 1999.
65 Department of Health. Saving lives: our healthier nation (Cm 4386). London: HM Stationery Office, 1999.
66 Fulop N, Hunter D. Saving lives or sustaining the public's health. *BMJ* 1999; **319:** 139–40.
67 Department of Health. National Priorities Guidance, HSC 1999/242/LAC(99)38. Leeds: NHS Executive, 1999.
68 Department for Education and Employment. Education Action Zones: an introduction. London: Department of Education and Employment, 1998.
69 Jacobson B, Yen L. Health action zones. *BMJ* 1998; **316:** 164.
70 Social Exclusion Unit. Bringing Britain together: a national strategy for neighbourhood renewal. London: HM Stationery Office, 1998.

For personal use only. Not to be reproduced without permission of The Lancet.