Environment—a new key area for Health of the Nation?

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Later this month the government will be consulting on whether the environment should be adopted as a new key area for their Health of the Nation strategy. It is proposing to have five topic areas and to adopt 10–15 environmental targets. This would reaffirm its commitment to linking environmental policy and health policy following publication earlier this year of its environmental health action plan. Critics may respond to the consultation document with suggestions for more far reaching targets—based, for example, on the “Health for All” targets from the World Health Organisation, or those arising out of Agenda 21 from the earth summit in Rio De Janeiro. Whatever the criticism, this move will be a chance to link environmental and health agendas at both national and local level.

Four years on, England’s health strategy the Health of the Nation has become a cornerstone of government health policy.¹ Now there are plans to expand it. Later this month the government will consult on whether the environment should be added to the strategy as a new, sixth, key area. This, at last, should address the effects that physical and social environments have on people’s health²—but will it?

In advance of publishing its consultation paper, the Department of the Environment has already outlined proposals for the key area: there will be no new policy—instead, a chance to implement existing environmental policy via the health strategy; there will be no new money—only more creative use of existing resources; and there will be no new health targets—instead, a carefully selected handful of environmental targets that relate to health. How, then, can adopting the environment as a key area add anything to what already exists? The answer must lie in the importance of linking environmental and health policy.

Linking environmental and health policy

Health has driven much of environmental policy since the work of Edwin Chadwick in the early 1840s. The first public health act was introduced in 1848 to improve housing and sanitation. Over a century later environmental health officers continue this work, with their responsibilities for environmental protection, food hygiene and safety, housing standards, and occupational health and safety. Despite huge strides since the days of the first sanitary inspector, these remain important determinants of health and yet are only indirectly part of formal health policy.

At an international level the picture is slightly different, and environmental and health policies are beginning to be linked. The environmental debate has now moved on to highlight wider risks to human health, such as global warming, reduction in the ozone layer, and depletion of biodiversity and other finite resources.³

At the earth summit in Rio De Janeiro in 1992, a plan was set for sustainable development called Agenda 21 (sustainable development being the need to secure a good, healthy quality of life for this and future generations).⁴ It places health at its centre and is being taken up by governments worldwide, including Britain, where the new wider approach to environmental health has begun to influence environmental policy and, at a local level, the work of environmental health officers.⁵ But up to now it has not had a noticeable effect on health policy.

The amount of traffic on the roads is predicted almost to double between 1994 and 2025

In Europe eight of the World Health Organisation’s “Health For All” targets relate directly to the environment. The European Charter on Environment and Health, and the European Environmental Health Action Plan are both tools to achieve the targets. Britain has agreed to meet these targets, and London will be the venue for the third Environment and Health Conference in 1999. It is also one of six pilot countries in Europe to produce a National Environmental Health Action Plan.⁶ This joint document from the Departments of the Environment and of Health, published earlier this year, sets out over 150 action points for improving environmental health in Britain. Critics, however, have pointed to the plan’s failure to produce quantifiable targets against which activity can be monitored⁷—this task has been left to the Health of the Nation strategy.

Target setting

A key feature of the Health of the Nation is the setting of specific targets to improve health. In proposing that the environment might be a key area, the government is looking to adopt 10 to 15 environmental targets covering five topics (box). The targets have not yet been

Five topics for targets

- Outdoor air quality
- Indoor air quality
- Radon concentrations
- Lead concentrations in drinking water
- Noise levels

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Table 1—Summary of proposed specific objectives for the United Kingdom national air quality strategy^a

Pollutant	Standard		Specific objective
	Concentration	Measured as:	
Benzene	5 ppb	Running annual mean	To be achieved by 2005
1,3-Butadiene	1 ppb	Running annual mean	To be achieved by 2005
Carbon monoxide	10 ppm	Running 8 hour mean	To be achieved by 2005
Lead	0.5 µg/m ³	Annual mean	To be achieved by 2005
Nitrogen dioxide	104.6 ppb (20 ppb)	1 Hour mean (annual mean)	Measured as the 99.9th centile, to be achieved by 2005*
Ozone	50 ppb	Running 8 hour mean	Measured as the 97th centile, to be achieved by 2005*
Particles PM ₁₀	50 µg/m ³	Running 24 hour mean	Measured as the 99th centile, to be achieved by 2005*
Sulphur dioxide	100 ppb	15 Minute mean	Measured as the 99.9th centile, to be achieved by 2005*

ppm = parts per million; ppb = parts per billion; PM₁₀ is gravimetric method for measuring particle size using a size selective inlet collecting 50% of 10 µm particles, less than 5% of 20 µm particles and more than 95% of 5 µm particles.

*These objectives are to be regarded as provisional.

announced, but the Department of the Environment, which is leading on this, is hoping for debate from all those who will have a part to play in their achievement.

OUTDOOR AIR QUALITY

With so much attention now focused on transport, air pollution and respiratory disease, it would be easy to set all the targets in this area. Targets for eight pollutants have already been set in the national air quality strategy, launched as a consultation document by the Department of the Environment in August.⁸ Targets would have to be met by 2005. The pollutants are benzene, 1,3-butadiene, carbon monoxide, lead, nitrogen dioxide, particles (the main cause of winter smog), ozone (the main cause of summer smog), and sulphur dioxide (table 1). Comments are still awaited, but criticism may be expected for not reducing the level for benzene (a known carcinogen) to a lower level than 1 part per billion, for allowing the targets for ozone, nitrogen dioxide, and sulphur dioxide at times to be exceeded, and for not considering a special standard for very fine particles (PM_{2.5}).

In most cases the primary source of ambient levels of the pollutants is traffic (table 2). The biggest criticism of the air quality strategy will be for not setting any specific targets for traffic, especially since the amount of traffic on the roads is predicted almost to double between 1994 and 2025.⁸ An additional target could be to reduce the level of road freight transport and increase the volume of freight carried by rail by 2005.

Table 2—Contribution from road transport to United Kingdom emissions^a

Pollutant	National emissions, 1993 (1000 tonnes)	Contribution from road transport	
		% Of national emissions	% Of national emissions in London
Benzene	39	60–70	Not available
1,3-Butadiene		77	Not available
Carbon monoxide	5641	90	99
Lead	2772	60	Not available
NO _x *	2347	49	76
Particles:			
PM ₁₀	264	25	Not available
Black smoke	Not available	Not available	94
Sulphur dioxide	3188	2	22
Volatile organic compounds	2418	34	97

*Nitrogen dioxide and nitric oxide.

INDOOR AIR QUALITY

People spend on average 90% of their time inside buildings. Like outdoor air, a cocktail of pollutants is found in indoor air. The three that pose the greatest hazard are carbon monoxide, radon, and tobacco smoke. Also of concern are nitrogen dioxide (from use of gas cookers), house dust mites, and volatile organic compounds.⁶ Unlike the other environmental targets, little information is available about the quality of indoor air, and a sampling methodology needs to be developed. A greater awareness about indoor air quality also needs to be promoted. Some joint work between the Departments of Health and the Environment is under way—for example, the distribution of leaflets about house dust mites. Cigarette smoking is already being addressed by several parts of the Health of the Nation strategy, although success has so far not been achieved in teenage smoking. A possible target could be an increased number of public places with no smoking policies, as described in the National Environmental Health Action Plan.⁶ More work is needed in primary care to inform both clinical practitioners and patients about indoor air.

RADON

The government has already set an action target for a reduction of radon in homes—an annual average air concentration of 200 Bq/m³. From 1 March 1996, offers of free measurements have been targeted at homes, mostly in the south west of England, thought to be at greatest risk of high radon concentrations. Responsibility for remedial action rests with home owners and landlords. Local authorities can give discretionary grants to help people take action against radon. However, if the government hopes to achieve a real reduction in the number of houses exceeding the maximum radon concentration by a certain date then it will have to consider further financial support. A possible target will be to identify and take remedial action in homes with radon concentrations above the action target by the year 2000.

LEAD IN DRINKING WATER

In certain parts of the country with acidic water, old lead plumbing can result in a high concentration of lead in drinking water. The government's stated aim is to replace lead service pipes and lead pipes in the home to reduce lead concentrations of tap water to not more than 25–30 µg/l by 1997.⁶ The World Health Organisation's guideline for lead, however, is 10 µg/l. Not only should Britain's target be lower but the target should also address availability of grants for those unable to afford to replace their lead piping.

NOISE

Noise affects the quality of our lives, and for some people it can destroy it. The biggest source of noise complaints is people complaining about their neighbours.⁷ Newspaper reports have highlighted instances that have led to attacks and even shootings between neighbours.⁹ A new noise act was introduced in the summer giving local authorities powers to confiscate temporarily noise making equipment and introducing a new night noise offence. A possible target would be a reduction in the number of noise complaints that fail to be resolved by local mediation. Finally, noisy neighbours are more likely to be a problem in poor quality housing with insufficient sound proofing. This target area again indirectly addresses the question of adequate housing.

ARE THESE THE RIGHT TOPIC AREAS AND TARGETS?

Should the government be casting its net wider? As Britain has already agreed to meet the World Health

Organisation's "Health for All" targets, a logical step would be to use these as the basis for the Health of the Nation. The main problem is that we are not on course to meet the World Health Organisation's targets. The environmental group Friends of the Earth has commissioned research from the South East Institute of Public Health that shows that the government is "highly unlikely" to achieve five of the environmental targets (although progress on some parts of each target is being made).¹⁰ Only two of the targets may be achieved by the deadline, 2000. A major problem is data. Martin Cranfield, assistant director of environmental research at the South East Institute of Public Health, is critical, for example, of the government's targets for recycling household waste, which, he says, are based on 10 year old data.

The institute argues that control of hazardous waste could be one of four target areas for the Health of the Nation. In a draft document it suggests that the others should be air pollution (with targets based on the national air quality targets), human ecology and settlements (with a target, for example, of a reduction in the number of unfit dwellings as a percentage of housing stock), and water pollution (with a possible target of achieving safety standards, through monitoring, for inland bathing sites).

The Agenda 21 document on sustainable development also contains objectives in its chapter on protecting and promoting human health that could be used as the basis for the Health of the Nation target areas. The World Health Organisation's "Healthy Cities Network" and "European Sustainable Cities and Towns" campaign have together produced a draft guide for planning groups on health aspects of Agenda 21. One of the objectives is to reduce health risks from environmental and pollution hazards. It recognises that pollution control and health protection measures have often not kept pace with economic development. It suggests that national programmes should include action on pesticides, solid waste, human settlements, ultraviolet radiation, and industry and energy production, in addition to the five areas already selected for the Health of the Nation.

Window dressing?

Whatever the proposed topic areas, the government may be in for some criticism. The process of target setting has become a popular activity, and the government could be accused of focusing attention on ticking boxes and not on the real issue of improving the environment. The Public Health Alliance has already commented that the initiative is merely window dressing, not a real shift in position. Air pollution is easy, but what about improving existing housing? This is not an easy question to answer as it touches on debates about cost effectiveness of interventions and public spending.

The Health of the Nation white paper recognised the contributions made to health by geographical, ethnic, social, and occupational factors. The Department of Health's report on variations in health supported this theme.² Two years on, however, the strategy was still being criticised for not addressing inequalities in health.¹¹ The environment key area must not fall into the same trap. It will only have an impact if some real effort is put behind the process of reducing environmental risk factors for health.

Role of alliances

Concerted action is needed not only at a national level. Intersectoral work will be needed at a local level between, for example, the voluntary sector, local and health authorities, and local businesses. Environmental health officers and public health doctors are well placed to coordinate this work.

Britain is one of only three countries in Europe to have environmental health officers (the others being the Republic of Ireland and, to some extent, Sweden). Working in local government means that their activities to date have been limited by the political persuasion of the council. As one environmental health officer in London said, their department had been very proactive till their funds had been "whisked away." Their work should have greater priority in future if the environment is adopted as a key area.

Public health is the other source of specialist advice. The BMA has recommended that each district health authority appoint, within five years, a consultant in public health medicine with expertise in environmental issues. This could eventually become a medical specialty of its own with approved training courses. Similarly, every hospital, health centre, or unit should appoint an environmental officer with responsibility for coordinating environmental health.

The way forward

The Health of the Nation is now an established part of the health service. If the environment were to be adopted as a sixth key area it would give it the same attention as cancers, mental illness, and the other existing key areas. It would add a new dimension to health promotion, and, most importantly, it would push environmental research up the NHS research agenda.

This is the first time another government department has taken a lead on a Health of the Nation key area. This could be the chance for the Department of the Environment to broaden the scope for raising awareness about Agenda 21 and sustainability and for environmental health officers to regain their close ties with public health. It could also be the chance, at last, for influences on health beyond the health service to be fully recognised.

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