of an environment brings benefits for drainage and water supply, ventilation, insulation, indoor climates and micro-climates, and, not least, the aesthetic appreciation of people using that environment.

Secondly, diversity and variety should be aimed at in the physical, social, and economic structuring of communities. Land uses should be mixed where this does not create hazards. Monolithic housing estates should be a thing of the past, and increasing integration between work, residence, and leisure should reduce the volume of traffic and its associated danger and pollution.

Thirdly, artificially created systems should be as closed as possible. This principle applied in environmental management would mean that human and solid waste is recycled locally wherever possible and that there is a shift towards renewable sources of water, energy, and raw materials.

Lastly, there should be an optimal balance between population and resources. Urban and population change needs to be related to the fragile state of natural systems and the environments that support them. The need for this sensitivity should be clear from looking at the effects on the infrastructure and natural environment of unplanned population movements in the south east of England and similar megalopolises where regional planning has been abandoned.

As we mark the 100th anniversary of Edwin Chadwick's death, his spiritual heirs in environmental health, public health medicine, and related occupations are faced with a challenge at least as great as that which faced him. Over many decades, the work of public health pioneers has been defined and codified, frozen in relation to another era and another way of looking at the world. Its practice now seems to have become reactive and bureaucratic, rather than proactive and innovative. Practitioners of the new public health need to have a good grounding in ecology and a vision of how to reconcile the natural and the built environments. They need to revisit all the topics of the old public health—housing, food, water,

sanitation, education, occupation, transport, genetics and microbiology, and medical and social services—and to re-examine them with ecological eyes. This has considerable implications for the education and training and for the work patterns of those who work in public health, not least for those whose roots lie in environmental health. There is, particularly, a need for new multidisciplinary initiatives in both training and working.

It remains to be seen whether the sanitarians can respond by incorporating the ecological idea into their thinking and practice and developing broad based coalitions to tackle the global and local problems that face us. Already the WHO healthy cities project and similar initiatives are providing a vehicle for the new breed of practitioners to make their mark by bringing together all those who can influence health and the environment to agree an agenda for the 1990s.

JOHN ASHTON

Senior Lecturer in Public Health,
University of Liverpool,
Liverpool L69 3BX

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Psychotropic drugs for problem children

Need specialist supervision

Are there good indications for the use of psychotropic drugs in children? Adams's retrospective study of the prescribing habits of general practitioners and consultant child psychiatrists concludes that these drugs are sometimes inappropriately used in children, may be dangerous, and should be avoided whenever possible (p 217).¹

Psychotropic drugs may interfere with a child's growth, learning, and family functioning. They may mask symptoms, and they may encourage a child to turn too readily to pills to solve personal problems rather than to seek a solution from an expanding repertoire of problem solving strategies. They may foster dependency on authority figures at the very time that adolescents should be struggling for independence.²

Research on psychopharmacology in children is in its infancy. Yet there is good evidence that some drugs are effective. Although probably overdiagnosed, the hyperkinetic syndrome is a troublesome and handicapping child psychiatric disorder which responds better if a stimulant drug, methylphenidate, is added to psychological treatments.³ Likewise, obsessional disorder, a serious emotional disorder that leads to considerable dysfunction in children and adolescents, may be considerably improved by adminis-

tering clomipramine, a tricyclic antidepressant.⁴ Tics or habit spasms, especially of the vocal kind (Gilles de la Tourette's syndrome), respond to haloperidol.⁵ Major depressive disorders in adolescents may require treatment with tricyclic antidepressants and, if bipolar, lithium carbonate.⁶ Early onset schizophrenia requires the use of phenothiazine medication as in adults, but there have been few controlled trials in children.⁷

Yet none of these conditions are those for which psychotropic drugs are commonly prescribed in childhood. Adams found that psychotropic drugs were most often used for enuresis and insomnia, two childhood problems commonly seen by general practitioners.¹ For both conditions there are effective behavioural and other treatments, so drugs should never be used as a first line of treatment because of their side effects and the danger of toxicity in overdose (either accidental or deliberate). They may, however, be effective when other treatments have failed if used as part of a comprehensive treatment plan that includes psychological treatments and limits the period of medication. Imipramine has been shown in controlled trials to have a short term benefit in nocturnal enuresis, although an enuresis alarm may be more perma-

nently successful.⁸ On the other hand, sedative antihistamines such as trimeprazine tartrate are only moderately effective in helping to re-establish a normal sleep pattern in infants and toddlers, whereas behavioural methods are highly effective.^{9,10}

The use of drugs to control physically aggressive and self mutilating behaviours, especially in mentally handicapped children, is more controversial, as is the use of psychotropic drugs to treat anxiety in children. The concern is that we will resort to drugs as a form of social control rather than attempting to alter the conditions that produce the behaviour. Few controlled trials have been conducted of drug treatments for aggressive, non-hyperactive children with conduct disorder. A recent review concluded that both haloperidol and lithium carbonate were useful in resistant cases,^{11,12} and antidepressants may be effective for any accompanying depressive symptoms. The authors emphasise that, as with all childhood psychiatric disorders, "there is virtually no situation in which an aggressive child or adolescent should be treated only pharmacologically."¹¹

Imipramine in high dosage was found to be better than placebo for school phobia in one controlled study,¹³ but a trial of clomipramine in lower dosage for the same condition found that it was effective only when depressive symptoms were present and then only for a short period.¹⁴

Emotional and conduct disorders, which between them account for 90% of the psychiatric disorders seen in childhood, are best treated by a comprehensive approach based on family and individual psychotherapy and behaviour therapy with drugs used sparingly and judiciously only as adjuncts. The authors of one recent review of drugs for problem children reinforced Eisenberg's earlier principles¹⁵ that there should be a firm indication for use, the drug should be a well tried one, its dose should be tailored for each child, and it

should be used only for a limited time with frequent monitoring.¹⁶ In our present state of knowledge psychotropic drugs should be prescribed sparingly and under the supervision of specialists. While these drugs have a definite role in treating some childhood psychiatric disorders, we need more and better quality research to break the current cycle of "limited data, limited use, potential misuse, and limited benefits."¹⁷

DORA BLACK

Consultant Child and Adolescent Psychiatrist,
Royal Free Hospital,
London NW3 2QG

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Stress: another chimera

An unreliable word best used sparingly

Doctors in all medical specialties are affected by stress to some extent: people complain of it, doctors diagnose it, medical work even seems to generate it.^{1,3} But scepticism persists about its meaning, its measurement, and its management. So what is it?

Firstly, from a general perspective stress is a fashionable term denoting usually disagreeable stimuli. It also encompasses the physiological, behavioural, and subjective responses to these stimuli: or, indeed, the whole "stressful situation." Four main, overlapping, types of stress can be recognised: acute (an assault); sequential, where one event initiates others that occur over a period (bereavement); chronic intermittent (conflicts with neighbours); and chronic (being disabled).

The more intimate the stress, such as loss of a close friend or relative, and the greater the magnitude of stress or number of stresses the more likely the occurrence of diverse ill effects. At the same time some people seem to flourish on stress. A certain amount of stress is claimed to be desirable, to provide the stimulation and motivation to overcome obstacles that may prevent us reaching our goals or to alleviate boredom.

The ability to perceive or withstand stress seems to vary widely. Warning signs that stress is getting the better of someone include irritability, changes in sleep and eating

patterns, difficulty concentrating and making decisions, and worrying or getting angry about trivia. Symptoms suggestive of disease of various organ systems may also be present. Swept along with too much to do and too little time and unable to relax, stressed people become exhausted until, failing to cope, they reach breaking point.

According to self help guides, coping with stress requires a range of personal adjustments^{4,7}: recognition of personal causes and effects of stress; regular nutrition and exercise; limitation of alcohol, tobacco, and drugs; relaxation; reduction of stress in relationships, at work, and during leisure; practical management of anxiety, time, and activities; and development of problem solving strategies and social supports.

From a more specific focus, however, stress is very ill defined. Although much scientific and medical research has been concerned with stress and stress related topics, none of this intriguing work adequately explains variability in individual responses, disease specificity, or the onset of disease.⁸⁻¹¹ Medical lexicographers have concluded that the term is clearly overstretched and should be used sparingly.¹²

One method of restricting its use within medical settings might be to confine it to categories from standard diagnostic classifications. This is by no means a perfect solution. A draft