years later. Blood levels were taken antenatally around the time of birth and at least once a year subsequently. Psychological tests were applied when the group reached four years old, and included measures of cognition, perceptual performance and memory.

Identifying confounding variables is a problem common to all studies on lead and development. For example, higher social class infants are likely to perform better at testing, and are less likely to be exposed to environmental lead. Is social class a confounding variable or is some of the difference mediated through lead exposure? The study included an assessment of all the known determinants of child development, whether or not they were likely to be associated with lead exposure.

The results showed a progressive decrease in psychological scores with increase in mean levels of lead in the blood, with no threshold established. Importantly, the blood levels seen in this study are not atypical for urban and industrial populations elsewhere. The association between lead and development in multivariate analysis was reduced by half after the effects of possible confounding variables had been included, but the association remained highly significant. As stated by the authors, this approach may underestimate the true effects of lead.

Unfortunately, the relative contribution of lead compared with other variables in child development is difficult to assess from the results. In the range of blood lead levels 0.5 to 1.5 μM differences in performance were similar to those differences associated with manual or non-manual fathers' occupation. The authors are reluctant to infer causation from their study and therefore not surprisingly make no recommendations in terms of social policy. Like the diet–heart hypothesis, action on environmental lead is likely to depend on political rather than scientific factors.

(A.W.)

Source: McMichael AJ, Baghurst PA, Wigg NR, *et al.* Port Pirie cohort study: environmental exposure to lead and children's abilities at the age of four years. *N Engl J Med* 1988; **319:** 468-475.

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INFECTIOUS DISEASES UPDATE: AIDS

HIV prevalence screening of pregnant women

The fascinating but frustrating debate continues on whether prevalence testing for the human immunodeficiency virus (HIV) should be performed with consent from participating individuals or by the screening of anonymous serum samples without consent. The working group on the monitoring and surveillance of HIV infection and the acquired immune deficiency syndrome (AIDS) has recommended antenatal testing for HIV infection on a voluntary basis (with provision for voluntary un-named testing) as a first step in the surveillance of the general population.[1] The group proposes a one-year study of three samples of 20 000–30 000 women — two groups from high risk areas in London and Scotland and one from a low risk area in England and Wales.

The group recognized the potential drawbacks of this approach, such as biased results from the refusal of some women (possibly those at greater risk of HIV infection) to take the test. However, there are considerable advantages and these include the clinical value to the pregnant woman and the ability to link basic risk group information to a test result.

However, the British Medical Association's response,[2] although generally supportive of the group's recommendations, declares its preference for involuntary unnamed testing. The association justifies this by arguing that when a sample is strictly anonymous it can no longer be said to be associated with the source in any way.

Each of these two approaches to HIV prevalence testing has significant advantages and disadvantages. Bearing in mind the importance of the spread of the epidemic, the use of both surveillance methods would possibly provide more complete and interpretable information than if either were used in isolation.

Provision of injecting equipment to drug users

Over 50% of the people in Scotland who have been tested and found to be infected with HIV are intravenous drug users; the corresponding proportion for the rest of the UK is less than 10%. As a result the Scottish Home and Health Department have issued circulars[3,4] promoting the role of the pharmacist and the general practitioner in the provision of needles and syringes for intravenous drug users in Scotland. Pharmacists are being encouraged to facilitate the sale of injecting equipment, while general practitioners are being asked to provide needles and syringes free of charge to patients who are judged to be unable or unwilling to stop injecting. In an attempt to prevent needlestick injuries it is strongly recommended that pharmacists should be assisted by health boards in providing adequate safe disposal facilities in their premises for the return of used injecting equipment.

It is estimated that between 30 000 and 44 000 new opioid misusers in England and Wales consult general practitioners each year[5] and it is likely that the level of contact with primary care in Scotland is similar. General practitioners are therefore uniquely placed to provide a service for injecting drug users and consequently are being encouraged to provide advice, guidance and support to those who are either at risk of, or who have already got HIV infection.

At present minimal scientific evidence exists concerning the effect of needle and syringe exchange/provision on the spread of HIV infection. However, two studies[6] currently being conducted in Holland and Australia have shown encouraging results. In Amsterdam where 700 000 needles and syringes were distributed to intravenous drug users in 1987, there is evidence to suggest significantly safer needle sharing behaviour among 'exchangers' than 'non exchangers'. In New South Wales, where more than 64 000 needles and syringes have been distributed to intravenous drug users from pharmacies, the percentage of HIV infection attributable to intravenous drug usage has remained constant at 7%.

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