

to Britton and Lewis and say that clinicians should be much more proactive in supporting a clinical suspicion of asthma with objective testing. We believe this should routinely include formal reversibility studies (home peak flow readings are insensitive, non-specific, and have limited value in making a diagnosis³⁻⁴), measurement of airway responsiveness, and assessment of airway inflammation, particularly using induced sputum to detect airway eosinophilia.⁵ Only in this way can clinicians distinguish between asthma and the many other conditions that have a similar clinical presentation. Diagnosing asthma on clinical grounds alone is like diagnosing colitis from a change of bowel habit or the cause of a fever by feeling the patient's brow.

A J Wardlaw Senior lecturer

I D Pavord Consultant physician

Department of Respiratory Medicine, Glenfield Hospital, Leicester LE3 9QP

- 1 Britton J, Lewis S. Objective measures and the diagnosis of asthma. *BMJ* 1998;317:227-8. (25 July)
- 2 Wardlaw AJ. *Asthma*. Oxford: Bios Scientific, 1993.
- 3 Siersted HC, Hansen HS, Hansen NG, Hyldebrandt N, Mostgaard G, Oxshøj H. Evaluation of peak expiratory flow variability in an adolescent population. *Am J Respir Crit Care Med* 1994;149:598-60.
- 4 Higgins BG, Britton JR, Chinn S, Cooper S, Burney PGJ, Tattersfield AK. Comparison of bronchial reactivity and peak expiratory flow variability for epidemiologic studies. *Am Rev Respir Dis* 1992;145:588-93.
- 5 Pavord ID, Pizzichini MMM, Pizzichini E, Hargreave FE. The use of induced sputum to measure airway inflammation. *Thorax* 1997;52:498-501.

Methods used for suicide vary between regions in the developing world

EDITOR—Eddleston et al point out that deliberate self harm and suicide are serious public health problems in developing countries.¹ We agree with their suggestions aimed at reducing the mortality associated with organophosphorus and pesticide poisonings, but it is important to note the considerable variation in the methods used for suicide between regions in the developing world, and even greater variations between people attempting and completing suicide.

In India self immolation and hanging remain the commonest methods for completed suicides, whereas poisoning is a common form of deliberate self harm. In Goa (a maritime state) drowning is another common method of suicide. The populations at risk also vary; for example, although most people who attempted suicide in Eddleston et al's report were under 30, most who complete are older. Social stressors may vary as well: in Sri Lanka the civil war is an important stressor, whereas in Goa problem drinking by male relatives, harassment of women by in-laws and husbands, and loneliness due to migration of children are important.²

While discussing prevention of deliberate self harm, the authors do not deal adequately with the recognition and management of common mental disorders, such as depression in general and primary healthcare settings. Studies from south Asia show that up to half of all adult primary care attenders have a clinically important emo-

tional disorder, most of which go undetected and treated with many drugs.^{2,3} In a recent study from India 18% of all adult attenders admitted to suicidal ideas in the week before interview but under a fifth had discussed these with their doctor.²

Public health initiatives to meet this challenge should include raising awareness in the community and among policymakers in the government and health funding agencies of the risks and treatments for depression and anxiety; training health workers in general and primary healthcare settings in communication skills and the recognition and appropriate management strategies of emotional disorders; setting up multidisciplinary teams to provide interventions at the community level; integrating mental health in the work of non-governmental organisations, which are playing an increasingly important part in providing health care in many developing countries; and closer research and service links between departments of psychiatry and community medicine.

Vikram Patel Senior lecturer

Athula Sumathipala Senior registrar

Institute of Psychiatry, London SE5 8AF
spjuats@iop.bpmf.ac.uk

- 1 Eddleston M, Rezvi Sherif M, Hawton K. Deliberate self harm in Sri Lanka: an overlooked tragedy in the developing world. *BMJ* 1998;317:133-5. (11 July)
- 2 Patel V, Pereira J, Coutinho L, Fernandes R, Fernandes J, Mann A. Poverty, psychological disorder and disability in primary care attenders in Goa, India. *Br J Psychiatry* 1998;172:533-6.
- 3 Shamasundar C, Krishna Murthy S, Prakash O, Prabhakar N, Subbakrishna D. Psychiatric morbidity in a general practice in an Indian city. *BMJ* 1986;292:1713-5.

Association between birth weight and death from heart disease

Data do not support association

EDITOR—Leon et al claim that their study is "the most persuasive evidence of a real association between size at birth and mortality from ischaemic heart disease."¹ However, the study is open to different interpretations and, in my view, inflicts a serious wound on the birth measurement and adult disease hypothesis.

Their table 3 shows that there was no significant association between birth weight and all cause mortality in either sex. Both sexes showed a positive association between birth weight and death from neoplasms and respiratory disease, though none of these were significant. The negative association between birth weight and deaths from circulatory disease was significant only in men. In women there were no significant associations between birth weight and any cause of death. Subsequently, most of the analysis concentrates on the association of death from ischaemic disease and birth measurements in men.

This study is claimed (probably correctly) to have unique features. It certainly has large numbers of deaths to analyse. Yet no significant association was found in women,

and that in men, with ischaemic heart disease, was presumably compensated for by other causes of death, which made the association with all cause mortality non-significant. Thus, of all the possible associations with birth weight, and despite the large number of deaths, only the association between birth weight and death from ischaemic heart disease in men remains significant. I do not see how these data justify the key message "adult mortality from ischaemic disease increases as size at birth declines."

There is also the question of socioeconomic confounding. Leon et al state that adjustment for socioeconomic circumstances produced only a small reduction in the strength of the association between birth weight and mortality from ischaemic heart disease. The problem of adjusting for socioeconomic factors in this context has been much debated. In this paper the adjustment brought the upper limit of the confidence intervals perilously near unity. If the precision of this measurement matched that of the others, even the single significant result might be in peril.

R J Jarrett Emeritus professor of clinical epidemiology
45 Bishopsthorpe Road, London SE26 4PA

- 1 Leon DA, O Lithell H, Vågerö D, Koupilová I, Mohsen R, Berglund L, et al. Reduced fetal growth rate and increased risk of death from ischaemic heart disease: cohort study of 15 000 Swedish men and women born 1915-29. *BMJ* 1998;317:241-5. (25 July)

Authors' reply

EDITOR—Jarrett draws attention to the intriguing positive association between birth weight and neoplasms that we observed. Interest is growing in whether risk of certain cancers is increased in individuals who are large at birth.¹ If true, this may indeed partly compensate for the negative effect of reduced size at birth on later mortality from circulatory disease. However, it is precisely the specificity² of the negative association of size at birth with mortality from ischaemic heart disease that strengthens the case for this association having a causal element. Although not reaching significance, a similar association was observed in women, with risk of death from ischaemic heart disease falling with increased size at birth. We therefore stand by our assertion that risk of death from ischaemic heart disease increases as size at birth falls.

The question of socioeconomic confounding is an important one that we addressed. Jarrett is wrong to focus on confidence intervals. The main criterion for judging the extent to which there may be inadequate adjustment for a confounder is the magnitude of the change in the estimates of effect, rather than changes in the P values or width of confidence intervals. In our case the rate ratio for ischaemic heart disease associated with a 1 kg increase in birth weight was 0.77 in the crude data and 0.82 when adjusted for socioeconomic characteristics at the birth of the subject and at two points in adult life. We believe that this shows that although a small fraction of the crude association between size at birth and ischaemic heart disease is attributable to