haematology results. Such a comparison may be invalid because of the differing viscosities of blood and semen. Unfortunately, white cell pipettes were commonly used for diluting semen specimens for counting in haemocytometers until the 1960s. Eliasson attributed imprecision in sperm concentration determinations to the use of white cell pipettes.¹ Consequently we must conclude that grounds do exist for suspecting a significant bias to methodological error during the period under consideration.

The importance of a possible secular trend in methodological error is apparent when one considers that the apparent differences in sperm concentration were found in studies before 1961 and after 1961, as shown in figure 2 in the paper.¹ Differences were not apparent from 1961 to 1991. Early studies comprised 16% of reports and 11% of subjects.

The authors are urged to establish that their comparison of historical data is free of methodological bias; perhaps a more cohesive set (or subset) in which comparable techniques were used could be considered.

Can we conclude that there is or is not a genuine decline in sperm counts? Unfortunately, comparison of historical and contemporary methods may not be reliable. The greenhouse effect, global warming, declining sperm counts—all may be true; we just do not know.

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EDITOR,—The recent meta-analysis by Elisabeth Carlsen and colleagues confirms the previously reported trend in declining sperm density over the past five decades but underestimates the potential effect on male fertility.¹ Although sperm density fell from 113 to 66 million/ml, the mean remains within normal limits. Of far more serious import is the reported fourfold increase in men with oligospermia (< 20 million/ml).

Carlsen and colleagues confined their analysis to sperm density, ignoring other changes. Our own data from partners of women undergoing gonadotrophin stimulant therapy showed that the decrease in sperm density was accompanied by increased prevalence of reduced sperm motility and of abnormal morphology.² Mean sperm density fell significantly ($p=0.0001$) over two six year periods (1977-83 and 1983-9) from 101 million/ml to 96 million/ml and the proportion of men with low sperm density (< 40 million/ml) increased from 5.8% to 16.3%. At the same time the proportion of our population with reduced sperm motility (< 50%) increased from 20.7% to 34.4%. Most striking of all was the 12-fold increase in the prevalence of abnormal morphology (> 50% on light microscopy), from 1.0% to 12.3%. Thus it would seem that there is a much greater deterioration in semen quality than is apparent from the data based on sperm density alone provided by Carlsen. Moreover our finding of a 5% fall in sperm density between 1977 and 1989 indicates that the downward trend is continuing unabated.

The reasons for this decline both in sperm

density and quality are not known. We too raised the possibility of an environmental factor,² but the nature of this remains obscure and will not be elucidated by further meta-analysis.

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Resettling long stay psychiatric patients in the community

EDITOR,—David Dayson and colleagues' review of patients discharged from long term care in psychiatric hospitals contains a horrifying paragraph detailing some of the acts of violence committed by a minority of patients after discharge.¹ This indicates how important it is to assess critically the current fashion for providing community care for the mentally ill. In medical terms community care is largely general practice care. The role of general practitioners was not mentioned once in Dayson and colleagues' two articles,^{1,2} which in this respect were typical of many others written on the subject. For the past four years I have acted as medical officer to a psychiatric nursing home with nearly 40 residents with major mental illness. During this time I have never once been contacted by a psychiatrist to discuss a patient before his or her discharge. The patients are simply discharged on the assumption that a general practitioner will take on their medical care, without any thought being given to whether the general practitioner is willing or able to do this.

Community care is not a panacea. In recent years the value of care in a humane asylum has been underestimated. But most general practitioners are keen to help make a success of community care, especially if we help choose the patients for whom it is most appropriate. We would be keener still if our role wasn't undervalued or ignored. "The community" is, after all, our field of expertise.

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Mental health services for children

EDITOR,—Dora Black makes no mention of the contribution made by general and community paediatricians in treating children with behavioural and emotional disorders.¹ Studies of case mix in general paediatric clinics show that 3-4% of new referrals are for behaviour disorders.^{2,3} In one study nearly 12% of all referrals were from clinical medical officers, but none referred a child with a behaviour disorder.² This finding is significant in the current climate, when general practitioners are replacing clinical medical officers in child health surveillance programmes.

A one year audit of behaviour disorders that I

saw in a community "patch" in south Sefton, Merseyside, yielded the following data. Twenty-three children were referred to me with behaviour and conduct disorders (excluding enuresis) from a total child population of 5300 (4.3 referrals per thousand). Referrals included seven from health visitors or school nurses, six direct from schools, four from educational psychologists, three during Education Act assessments, two each from general practitioners and education welfare officers, and one each from a parent and a hospital paediatrician. Only one of these children was referred on to a child psychiatrist and none to a general paediatrician. Six children were, however, referred to a community clinical nurse specialist in behaviour disorders, and one to the educational psychologist. Three others, whose deteriorating behaviour was related to developmental disorders, were referred to the child development centre. Follow up showed that, although seven children defaulted, 12 had improved and another two needed no intervention after the initial consultation.

Many clinical medical officers currently feel threatened by the changes occurring in community services. Their considerable expertise in both child development and behaviour management, together with their extensive networking with other agencies, places them in an ideal position to provide a secondary referral service to general practitioners for children with behaviour disorders. This would release more specialist child psychiatry time for those with more intractable or complex disorders, which should in turn improve the quality of service for both groups of children. Those with simple problems get a local, easily accessible service and those in most need get the specialist attention they require.

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Mouse model for cystic fibrosis research

EDITOR,—Steve Connor's report on the first genetically engineered cystic fibrosis "mouse" which apparently "died soon after birth" and "was not considered to be of any practical use" is inaccurate.¹ In fact the "mouse" represents an expanding population of breeding heterozygote rodents carrying cystic fibrosis whose homozygote offspring have been and will continue to be studied enthusiastically in laboratories across North America. These mice show the defect in ion transport thought to be central to the pathogenesis of pulmonary cystic fibrosis (chlorine ion conductance activated by cyclic AMP) and, unlike the more recently reported mouse in Edinburgh, a proportion of the American mice show a clinical syndrome similar to meconium ileus seen in infants with cystic fibrosis.^{2,3}

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