nately and postnatally. In their absence, the strong available evidence supporting this concept is by no means invalidated by Professor Dobbing's criticism based on inconsistent interpretation of unsuitable data.

A BRIEND

ORSTOM,
Nutrition Section,
Dakar, Senegal

D G ALTMAN

Division of Computing
and Statistics,
MRC Clinical Research Centre,
Harrow, Middx HA1 3UJ

¹ Dobbing, J, and Sands, J, *Early Human Development*, 1978, 2, 81.

² Gairdner, D, and Pearson, J, *Archives of Disease in Childhood*, 1971, 46, 783.

³ Dobbing, J, and Sands, J, *Archives of Disease in Childhood*, 1973, 48, 757.

⁴ Campbell, S, and Newman, G B, *Journal of Obstetrics and Gynaecology of the British Commonwealth*, 1971, 78, 513.

The premature breech

SIR,—Mr St C Hopper (27 October, p 1074) and Mr J P Calvert (28 July, p 274), both advocate midline uterine incisions to avoid trauma to the head by the contracting thick uterine wall at caesarean section.

I would suggest that the administration of halothane will abolish uterine contractions and make the abdominal delivery of the premature fetus easier, especially when there is no liquor. Halothane is routinely used during caesarean section at this hospital and uterine haemorrhage is not a problem and when it occurs it responds to oxytocics. Halothane depresses the fetus but this is always temporary and responds to the usual remedies.

M J JOHNSTONE

St Mary's Hospital,
Manchester M13 0JH

Stress and premature labour

SIR,—We feel that the article by Dr Richard W Newton and others (18 August, p 411) is, because of methodological problems discussed below, unable to substantiate the claim made in it "that pregnancies resulting in premature labour are far more likely to have been stressful."

Many women after giving birth prematurely, especially those with very low birthweight infants or infants in special care, feel that the birth has been precipitated by something they themselves did, or omitted, or by something unpleasant that happened during pregnancy. In this situation then both their recall and their interpretation of life events in pregnancy are likely to be very different from those of the woman about to leave hospital with a healthy full-term infant. The "control" group could be the mothers excluded from consideration because they had "obstetric" causes of premature labour. These at least are in the same crisis of premature birth. If the obstetric cause is known to them, however, they may well feel less guilt and anxiety.

The paper does not report how many women were excluded because of obstetric causes for premature labour, nor what the causes were. It is not easy, however, to distinguish the group of women with idiopathic preterm labour. Rigorous definition of this group would require extensive investigation—for example, to exclude uterine abnormality. Another important question in

an investigation where the two extreme groups only differed by four weeks' gestation is how was gestation assessed and confirmed? How many women were excluded because of induction or communication problems to give an improbable incidence of 37% for all premature labours?

We heartily agree with the authors that antenatal care often leaves much to be desired in relation to the psychosocial needs of pregnant women, but we doubt whether it is easy in reality to provide "financial and emotional support" for women in need.

JUDITH LUMLEY

ROBIN BELL

Department of Obstetrics and Gynaecology,
Queen Victoria Hospital,
Melbourne

Reproductive mortality

SIR,—It is not often that one finds an arresting new thought in a medical journal nowadays. When the idea is also simple and could lead to a better understanding of the health of a lot of people, the author deserves congratulation. Dr Valerie Beral's contribution to the interpretation of mortality data of young women does all that in her new index of reproductive mortality (15 September, p 632). By combining maternal mortality including that from abortion and deaths associated with contraception Dr Beral is aiming at a measure of several events surrounding reproduction using a firm outcome—death. It is a similar concept to that of perinatal mortality which takes all stillbirths and the neonatal deaths of the first week as a measure of obstetrical events. That index had its doubters in the early days for it was a mixture of divergently derived data but it has survived to be a useful basis of more refined analyses and standardisation. Some parts of the new index of reproductive mortality will be easier to collect than others and information may be less complete on deaths associated with contraception but this new idea deserves to be tried widely to assess its usefulness and correlation with other measures of health.

GEOFFREY CHAMBERLAIN

Queen Charlotte's Hospital for Women,
London W6 0XG

Abnormal smears in pregnancy

SIR,—Dr J Elizabeth MacGregor's letter (20 October, p 1002) augments the conservative attitude to the pregnant patient with an abnormal cervical smear encouraged by your leading article (29 September, p 753).

To reduce the number of cone biopsies performed on pregnant patients it is reasonable to delay treatment until the postnatal period of those cervixes with cytological abnormality but normal appearance. I differ in the opinion that colposcopy should be deferred until the postnatal period, for who would be considered better qualified to judge whether a cervix appears non-malignant or otherwise than the experienced colposcopist?

Dr MacGregor is right to propose that cervical smears should be taken antenatally and any practitioner who has witnessed the tragedy of invasive disease in pregnancy would find this difficult to dispute. She is better qualified to argue that cost-effectiveness of cytological screening than I, but the proposal that for

economy's sake only those patients epidemiologically at risk should be screened antenatally would be most difficult to implement effectively. The only way we may safely economise would be to exclude from antenatal screening those women with recent normal cervical cytology. Patients may have had smears taken at a variety of institutions and clinics, and in larger cities these are often reported from more than one laboratory. The general practitioner's records are the sole source of ready access to this information, so perhaps if the result of the patient's last cervical smear could be included in the antenatal referral by the conscientious family doctor we might then achieve some economy in eliminating unnecessary duplication.

ANDREW CURTAIN

Department of Obstetrics
and Gynaecology,
Hammersmith Hospital,
London W12 0HS

Pregnancy in patients presenting with hyperprolactinaemia

SIR,—We read with interest the paper by Dr M O Thorner and others (29 September, p 771), in which the role of prophylactic external irradiation of the pituitary was discussed. A preliminary report from our group was cited,¹ and since we have just published² our most recent figures we would like to draw attention to these.

We observed 41 pregnancies in 27 patients who initially had infertility and raised serum prolactin concentrations. Associated symptoms were secondary amenorrhoea (81%) and galactorrhoea (81%); 19 patients (70%) had radiological evidence of pituitary tumours.³ Our policy is to implant the pituitary with yttrium-90 rods where there is a definite pituitary tumour, and we have stated our selection criteria.⁴ So far, 15 patients have had 21 pregnancies after such interstitial irradiation; 14 patients have had 20 pregnancies without prior pituitary implantation or any other attempt to prevent tumour expansion. Tumour expansion, as shown by diminished visual acuity, visual field defects, severe headaches, diabetes insipidus, and radiological changes, occurred in three of the 14 patients who had not had pituitary implants, but in none who had been treated by interstitial irradiation. Two patients who became pregnant both before and after pituitary implantation suffered tumour expansion in their pregnancies before the yttrium implants, but not when pregnant after the operation. From our literature survey² we found an incidence of tumour expansion during pregnancy of about 20% in those patients with definite (but untreated) pituitary tumours, and that significant further expansion of the pituitary was unlikely where radiological examination had been normal before the pregnancy. We also gave details of how fertility was achieved, and we can confirm that in our experience bromocriptine does not lead to multiple pregnancy, and is not teratogenic. There was no morbidity, whether surgical or endocrine, in our treated series. It will be of great interest to hear the results of endocrine testing in the series of Dr Thorner and his colleagues when the major effect of the irradiation has had time—say five years—to appear.

Thus, in general, our findings are in agreement with those of Thorner *et al*: we