that follows must be an awful experience for any youngster and a pinhole meatus can be a real danger to micturition. The main difficulty arises because as the child reaches adolescence nobody looks at the foreskin and few children will be so enlightened that they will seek aid themselves before complications arise. There are many young adults with non-retractile foreskins who first seek aid when sexual intercourse starts, and presumably many who undertake sexual intercourse without skin retraction; but worst of all is the danger of carcinoma of the penis. I have seen four cases in eight years, the youngest in his 40's with regional nodes invaded. All had foreskins and three were unable to retract them.

There is at present absolutely no publicity warning of the dangers engendered by a non-retractile foreskin and unless we, as doctors, start such a programme, we shall be storing up a dreadful heritage for our male children.

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Pregnancy hazards and the child's charter

SIR,—In this International Year of the Child we, as a doctor and a lawyer respectively, would submit to our professions that further consideration be given to the child's charter.

We propose the examination of the possibility of the extension of human rights to the *babe en ventre sa mere*, and to the minor. In our permissive society, as custodians of the law and medicine, we may not be sufficiently mindful of the potential damage to our progeny, and the weakening of the strain of future generations, which could result from our efforts or omissions. Ignorance of the law in civil courts is no excuse, and best intentions for our offspring's health and welfare are no excuse for any maiming, mental or physical, which therapy to mother or child may produce as a side effect.

Ability of a child to sue "by his next friend" was extended in 1976 by the passing of the Congenital Disabilities (Civil Liability) Act 1976, which implemented the Law Commissioners' report of 1974 on injury to the unborn child. The basic principle of liability introduced by the Act is that a child who is born alive but disabled has a cause of action for damage in respect of his disability as if they were personal injuries suffered immediately after birth (see Section IV (iii)), provided that they were caused by either (a) an occurrence which affected one or other of the parents in his or her ability to have a normal child, or (b) an occurrence which affected the mother during her pregnancy or affected her or the child in the course of the birth so that the child is born with disability which would otherwise not be present.

This principle is subject to the qualification that a professional man (for example, a doctor) is not liable in respect of anything he does or omits to do in giving either treatment or advice according to the prevailing professional standard of care (Section I (v)). Equally there is no liability for preconceptional events if before conception the parents knew and accepted the particular risks (Section I (vii)). The question of liability for side effects of a vaccine administered after recommendation by the State (that is, by the DHSS) has not been defined clearly.

It would be no mitigation to claim concern

over the population explosion as an excuse if it were proved that high intake of oestrogen by the mother prior to starting a family resulted in earlier incidence of genital-tract carcinoma in her eventual female progeny.

The child with congenital abnormalities may not condone its mother's complete disregard for immunisation against rubella when she was fully conversant with the dangers of this viral infection in the first trimester of her pregnancy, although the child cannot sue as the law now stands.

History has recorded several examples of deprivation in childhood being the spur to fame in adult life. But it is when we dare to interfere we must be careful. The Congenital Disabilities (Civil Liability) Act demonstrated unquestionably that there are areas in which we must interfere by applying legal remedies to cure the existing maladies. The child has the legal status and the cause of action, albeit essentially retrospective. Should the law interfere a stage further and legislate for a register of progeny at potential risk? Should such progeny be so informed?

Society as a whole and our professions in particular have an obligation to ensure that, so far as possible, a new baby is given a fair chance of survival as a mentally and physically normal person in a stable family environment. Procreation without regard for parental age, family history, and the behavioural pattern in pregnancy is irresponsible and could create suffering and cause inordinate demand on so many resources: indeed a condemnation of our day and generation.

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No raw deal for breast-fed babies

SIR,—Dr Phyllis Cully and others (13 October, p 891) favour early suckling followed by demand feeding in maternity hospitals. While we wholeheartedly support this conclusion we feel that certain points in their paper call for comment.

The formula-fed babies in their study took 160 ml/kg weight feed on the fifth day after birth, compared with 130 ml/kg weight in the breast-fed group. The authors assumed that this lower milk intake in the breast-fed group related to their rigid "clock-feeding" regimen and proposed that the volume of breast milk taken might be improved by instituting demand feeding. Yet the intakes of breast-fed babies in the first five days are still substantially lower than those in bottle-fed infants even in a unit which specifically encourages demand feeding (our own unpublished data). In any case, since it is established that the sucking response of babies given formula milk is different from those given human milk (even with the container standardised¹), surely it is invalid to extrapolate from what a formula-fed baby will take to what a breast-fed baby should take on any specific day post partum.

Why were the breast-fed babies offered 5% dextrose for their midnight feeds? This practice is not welcomed by most mothers (perhaps with the exception of the first night post partum) and must suboptimise the stimulus to lactation. No study of milk flow or weight gain is necessary to support the argument that breast-fed babies should suck at the breast at all feeds. All that is needed is for

mothers to be reassured that it is physiological for lactation to take a few days to become established.

Finally, without suggesting that the formula group were overfed, their pattern of weight gain in the first week (and afterwards for that matter) cannot be taken as reference growth data applicable to breast-fed babies. Everything about the physiology of the two modes of feeding is different, and there is certainly no evidence to suggest that the rapid weight gain of bottle-fed infants in the first days post partum is a good thing.

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¹ Johnson, P, and Salisbury, D M, in *Parent-Infant Interaction*, Ciba Foundation Symposium 33, p 119. Amsterdam, Elsevier, Excerpta Medica, 1975.

Fetal malnutrition—the price of upright posture?

SIR,—In his second contribution to this debate, Professor John Dobbing has repeated his assertion (13 October, p 934) that brain growth accelerates at the end of intrauterine life. This is unsubstantiated by his references and is in disagreement with ultrasonic data.

His own findings on brain weight¹ are based on necropsy data, which are surely very poor material for discussing normal fetal growth however "carefully selected" they are. Further, only about half a dozen of his observations related to the last month of pregnancy. This is far too few to give any precise answer to the question being debated. In any case, neither his scatter diagram nor the undefined superimposed curve supports his assertion. The mathematical transformation of biparietal diameter he uses to prove his point has no value. Firstly, it assumes that brain weight is proportional to the cube of the head circumference minus an amount inversely proportional to it. This model (which, despite his denial, is a fourth-degree relationship) defies any rational explanation. Secondly, the coefficients of his equation were estimated from totally unsatisfactory data. After careful examination of his paper we have come to the conclusion that apparently he did not measure the head circumference of his own subjects but estimated them in some way from the standards of Gairdner and Pearson,² which themselves rely on two different sources. At all events, there is no mention of any such measurements in either of the papers he cites.^{1,3} There also appear to be discrepancies between his figures, his mathematical transformation, and details given in the text.¹

The assertion that the faltering of the biparietal diameter curve would be removed by conversion to volume is not supported by available data. Since the volume of a solid is proportional to the cube of any of its linear measurements, the cube of the biparietal diameter gives an indication of brain volume variation—on the assumption that there is no great change in head morphology. By using the standards of Campbell and Newman,⁴ whose data we agree to be of high quality, it is easy to verify that this indicator is increasing more slowly (that is, decelerating) towards term.

The basic idea (4 August, p 317) that there is an irregularity of growth in the perinatal period will be really proved only by longitudinal measurements of the same variable pre-

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.

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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.

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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.

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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.

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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.

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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