and severe mental subnormality could probably be. The connexion of consanguinity with the high incidence of milder subnormality is less certain. Possibly it simply reflected a lower level of intelligence in the parents. In the American series, however, I.Q. scores and social class levels were available for the mothers, and most of them were intellectually normal. This suggests that the milder subnormality too may be due in part to the deleterious effect of inbreeding.

The degree of consanguinity is one part of the evidence that will have to be considered under the new Abortion Act when the mother wants to have her pregnancy terminated owing to the risk of her child's being born seriously handicapped. With respect to adoption there is perhaps much to be said for delaying the confirmation of the adoption order until the child has had a thorough medical examination at the age of 6 months or even 1 year. Alternatively, long-term fostering may provide the best solution.

New Problems of Myelomeningocele

Myelomeningocele with its multiple complications, besides being one of the commonest congenital abnormalities, also necessitates admission to hospital for an exceptionally long period. The introduction of an efficient valve drainage system to control the accompanying hydrocephalus led to a fresh attack on the treatment of the primary lesion in the spinal canal. New orthopaedic procedures to treat paralysed lower limbs were also devised, and it has been estimated that for every early closure of myelomeningocele an average of seven or eight orthopaedic operations will be required—though some patients will require no operation. More than half the patients will require a shunt operation connecting cerebral ventricle to cardiac atrium by a tube to control their hydrocephalus, and for every 100 shunts inserted about 150 revisions will be required in four years.

The problems of the paralysed lower limbs and the circulation of the cerebrospinal fluid become obvious in the early months of the child's life; so also, in many cases, do abnormalities in the urinary system. But renal damage, insidious and progressive, may follow, so that whereas mortality in the first year of life is mainly due to meningitis thereafter renal failure becomes the commonest cause of death. It is brought about by progressive destruction of renal tissues, which in turn is likely to be the result of a combination of obstruction and infection. If these can be avoided, then, just as in neurogenic bladder due to spinal injury, the renal tissue can be preserved. If the child who is going to develop stasis and infection could be recognized early in life vigorous treatment to achieve free urinary drainage would be justified so that his urinary tract could be kept free of infection from the beginning. But the complexities of the motor and sensory innervation of the bladder are so great that no satisfactory correlation has been shown between the size and spinal level of the myelomeningocele and the function of the bladder.

In the United Kingdom at least 1,750 children are born alive with myelomeningocele each year, and of these it is likely that at least half will live beyond the age at which they can continue to attend a children's hospital. As surgical and medical care improves the number will increase, and as the survivors grow older new problems are likely to emerge. For instance, already some children are hypertensive as a result of their chronic renal disease. An international symposium was held recently at Sheffield University on the neuromusculature of the bladder and ureter, and, if it gave no clear clue to the early recognition of the child who is going to develop severe bladder dysfunction, it did at least show that specialists in a variety of subjects have a contribution to make to it. Some thought must certainly be given to the care of children with myelomeningocele as they pass out of childhood into adolescence.

Planned Family Planning

There is little point in offering contraceptive advice to a woman who is pregnant. Yet in any population there is a group of women who repeatedly start another pregnancy shortly after having each baby. The usual sort of family planning programme for underdeveloped countries classifies such women as "currently pregnant" and so "ineligible." In 1966 the Population Council decided to organize and support a series of studies in 14 countries designed to solve this problem by giving contraceptive advice in the post-partum period. The studies were carried out on women of low socio-economic class in underdeveloped countries in Asia, America, and northern Pacific areas. Twenty-five hospitals took part, and the Council has now presented a report[1] on its first year's work.

Ideally every obstetric hospital should provide advice on contraception, and this is particularly important in underdeveloped countries. When large sections of the population are uneducated and poor it is less likely that women will seek advice, but this report shows how contact can be made. Once the offer of advice is made at a time when women can easily accept it they are only too willing to do so. As a direct result of the programme in the wards and clinics of these 25 hospitals 55,883 patients accepted advice on contraception—and, perhaps just as important, 46,142 non-pregnant women friends of the patients came and asked for advice also.

Intrauterine devices (I.U.D.s) are widely used in programmes of this kind. The report includes an intensive study of ten of the hospitals, in which a group of 12,611 women had an I.U.D. inserted—10,949 immediately after delivery and 1,662 immediately after an abortion. Scrutiny of these cases showed that if the I.U.D. was inserted within the first 48 hours the expulsion rate was much higher than if it was delayed until at least the fourth post-partum day. Though the overall expulsion rate was as high as 23.4%, after re-insertion the rate was comparable with the figures recorded by other authors. The post-abortal insertions were found to have a considerably smaller expulsion rate. The incidence of removal of the device because of menorrhagia or uterine infection was very low, and the pregnancy rate was extremely small at only 0.51% (3–18 months following insertion). A sample group of patients from 12 of the hospitals was followed up to see what happened after the patient had left hospital. As many as 88% were still using the original method of contraception after six months and a further 5% had changed their technique, making a total of 93% who were taking active measures to avoid further pregnancies. Overall, I.U.D.s and oral contraceptives were being used most widely (77%), and only 10% of patients had been sterilized.

Organized family planning programmes are now widely accepted nationally and internationally as an essential service for every community. Studies of this kind are valuable in showing the ways in which scarce resources of doctors and nurses can be used to the greatest effect.

[1] *Studies in Family Planning, No. 22.* Population Council, 1967.