

## A. The Hazardous "Miracle of Birth"

40. We have considered some of the hazards that confront the fetus *in utero*. As it approaches the time of birth it is faced with new and equally dangerous risks which may affect its developing brain and have far-reaching effects on its behaviour during childhood and adult life.

41. At birth the brain is anatomically and functionally incomplete. Because it is undergoing rapid change and growth it is highly susceptible to permanent damage at this time. Interruption of the essential supply of oxygen to the fetus during birth may damage the developing brain. Lack of oxygen and birth trauma are the processes underlying most neonatal neuropathological cases.<sup>2</sup> In the brain exposed to insufficient oxygen, the damage may be extensive but is more frequently limited, often remaining latent. The common occurrence of minimal brain damage is not generally realized.<sup>3</sup>

42. Serious problems may arise during the birth process from long or difficult labour, from natural disorders as when the cord is around the neck of the infant, and also from the misuse of drugs or forceps, or from attempting to speed or delay birth. Anything which might interfere with the respiratory mechanism of the infant involves the risk of brain damage occurring. "Traumata that contribute to such damage are breech delivery, and precipitous delivery."<sup>4</sup>

43. Many drugs are prescribed routinely for the pregnant woman during labour. It is not known to what extent these drugs may permanently affect the mental and neurological development of the child. There are, however, serious grounds for suspicion and anxiety concerning their use. Some of the risks to the infant of insufficient oxygen during birth have already been described. Clearly, one danger presented by the use of drugs at this time is that "excessive anesthesia may deprive the infant of needed oxygen during the crucial moments of delivery. If a prolonged lack of oxygen causes the death of brain cells, the child can suffer some degree of mental deficiency . . . . Subtle damage may become apparent only later . . . the child may be hyperkinetic — that is, exhibit impulse hyper-activity quite resistant to social control."<sup>5</sup>

44. Lack of oxygen is only one of several possible causes of brain damage in newborns. Another is damage to the head during delivery. It would appear from the evidence that there is room for improvement in those medical practices which sometimes result in such brain damage. The manipulation of labour with drugs may deny the baby an adequate supply of oxygen:

"The baby, before and after delivery, is critically dependent on an adequate oxygen supply. Almost all drugs which abolish pain effectively also depress respiration, both of the mother and the child. The use