

Briefing

PERINATAL MORTALITY IN BRITAIN— A QUESTION OF CLASS

In recent years Britain's record in the field of maternity care and infant and child health has come under considerable criticism. For example, Figure 1 is an updated version of a diagram prepared jointly by the UK Health Departments and published in a government document entitled 'Reducing the Risk' (DHSS 1977 a). It shows that throughout the 1950s and 1960s infant mortality (deaths under one year expressed as a rate per 1000 live births) in England, Scotland and Wales fell more slowly than in countries like France, Japan, Sweden and Finland.

This has been widely interpreted as indicative of failings in the quality of care offered to pregnant mothers and their babies by the NHS. A number of authorities have also related Britain's relatively high perinatal mortality (deaths from the 28th week of pregnancy – i.e. stillbirths – plus those in the first week) to the occurrence of childhood impairment and disability (Loring and Holland 1978, Wynn and Wynn 1979 a). It has been suggested that were Britain to enjoy the low perinatal mortality rate currently attained in Sweden there would not merely be an annual saving of some 3,000 infant lives. The incidence of conditions like cerebral palsy might also be almost halved.

However, such claims are not fully proven. Nor should it be assumed that the NHS is responsible for Britain's apparent failure. Broad cultural and economic factors quite outside the sphere of direct medical intervention may be significant. These range from the persistence or exacerbation of poor dietary habits or smoking in pregnancy to the influence of possible genetically linked vulnerabilities to, say, neural tube defects. The economic and social issues related to the continuing disparities between the experiences of people in different social classes are of considerable importance.

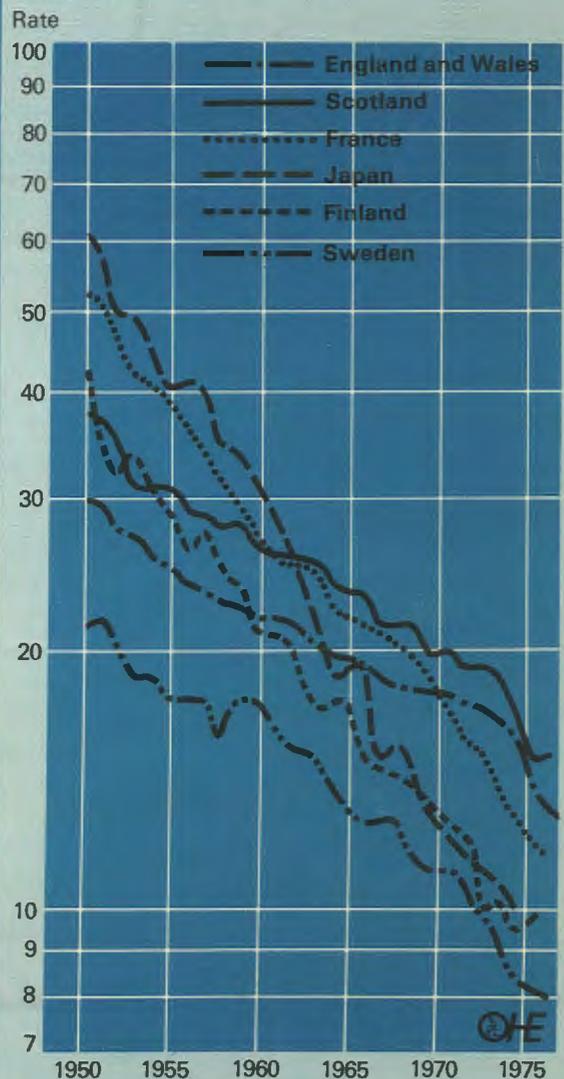
This *OHE Briefing* illustrates some of the difficulties inherent in making accurate international and intranational comparisons with regard to perinatal mortality, the most sensitive widely collected measure of fetal and maternal wellbeing. It also discusses some of the phenomena which cause, or are closely associated with, danger to life and/or health before and shortly after birth.

Its objective is to help generate a balanced view of this country's problems and achievements in this field of health care and to highlight those areas where better information or identifiable service improvements are needed.

Britain's performance – an historical perspective

Figure 2 presents data on the falls in infant and perinatal mortality which have taken place in England and Wales since the start of the twentieth century. The pattern which emerges is rather different from that displayed by the changes in early childhood mortality, particularly during

Figure 1 Infant mortality in selected countries 1950-1978



Note: Log scale

Source: DHSS 1977a

the latter part of the nineteenth century and in the last few years. As Figure 1 shows the rapid advances made since the mid 1970s brought the UK rate of progress into line with the most successful foreign reports.

In the last decades of Victorian England the entire population was probably enjoying improved nutrition and living standards. The reasons why infant (and presumably perinatal) mortality failed to respond to such changes are uncertain, although several forces may have been influential. One was very probably the early adoption of family planning techniques by the more advantaged sections of the population. This skewed the class specific birth rates which, as is demonstrated later in this paper, would have tended to keep infant mortality high.

Other likely factors include improved birth and death reporting and a decline in infanticide amongst the most deprived sections of the population. The latter would again tend to force up apparent death rates through the selective entry of recorded lives into the most disadvantaged groups. Thus babies which in 1850 or 1860 might have ended their existence by surreptitious means had by 1900 more chance of a natural death in their first year, and also of entry into the Registrar General's statistics.

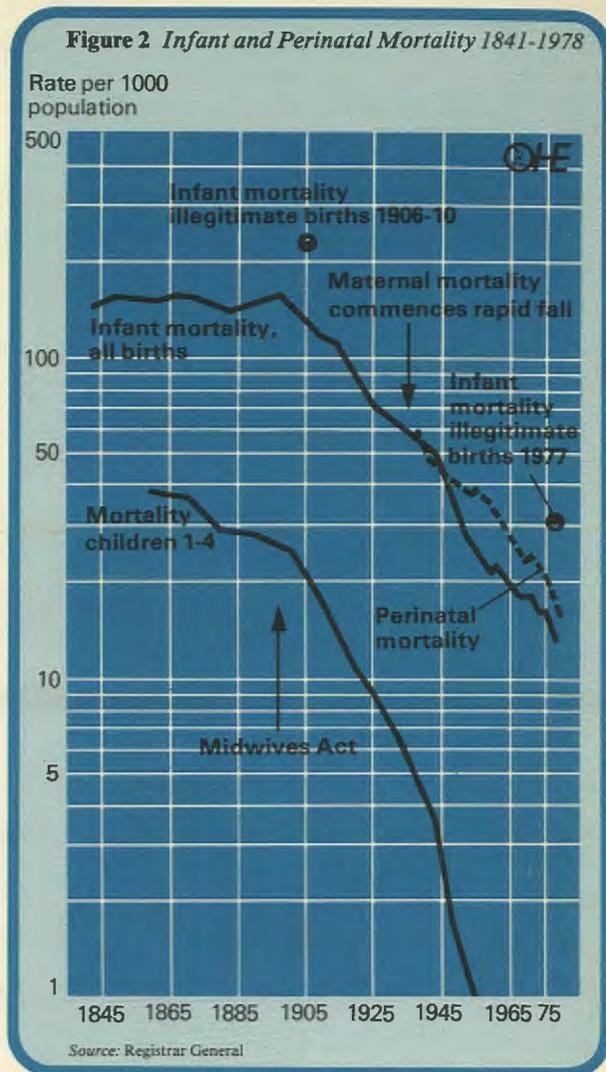
At the turn of the century the passing of the 1902 Midwives Act triggered the decline in infant mortality which has since continued unabated throughout this century. The initial mechanism was almost certainly restriction of the hazardous interventions sometimes made by unqualified midwives. It was several years before the implementation of the Act started to contribute to extended professional care.

In the period that followed the first world war the introduction of antibiotics in the 1930s helped cut significantly child mortality and, even more dramatically, maternal mortality. Infant deaths were seemingly less affected. It could have been more due to better nutritional standards, as for example illustrated by the steady cohort by cohort increase in the average height of the mature female population between 1900 and the present day, that perinatal mortality continued its downward trend. Mothers who are small because of inadequate diet as opposed to genetic characteristics are known to be at increased risk of losing their babies.

Recent technological innovations may have helped to reduce stillbirths and infant deaths still further. Improved fetal observation and monitoring based on ultra-sound and advanced electronics have, for instance, opened up new opportunities for the identification of a wide range of conditions.

The 12 fold fall in British infant mortality between the late 1890s and 1978 is by any standards an impressive achievement. So too is the 4 fold English perinatal death rate decline observable between the start of comprehensive records in the 1930s and the present day.

But breakdowns of the national figures continue to reveal disturbing variations between localities and more



importantly between social classes. When the Registrar General first employed the now familiar five division occupational breakdown (ranging from I – professionals – to V – unskilled manual workers) in 1911 it was found that the wives of men in low status occupations were about twice as likely to lose their babies in their first year as were those in the class I. Table 1 shows that similar disparities still exist with regard to perinatal and infant

Table 1 Perinatal and Infant Mortality Rates. Scotland, Wales and England (with selected regions) 1977

	Total	Legitimate	Illegitimate	Age of Mother						Parity*					Social class*				
				16	16-19	20-24	25-29	30-34	35-	0	1	2	3	4+	I	II	III	IV	V
ENGLAND																			
perinatal	17	16	23	34	22	17	15	16	24	18	13	16	19	28	11	13	16	19	22
infant	14	13	20	25	21	15	12	11	15	12	12	14	14	19	9	10	12	15	20
WALES																			
perinatal	18	17	28	33	26	18	15	17	22	20	14	15	20	30	16	16	17	17	20
infant	13	13	20	11	23	15	11	9	10	13	13	11	16	14	10	11	12	14	16
SCOTLAND																			
perinatal	18	17	na	20	24	17	16	17	29	19	13	15	25	39	11	14	18	19	23.5
infant	16	15	na	10	23	17	13	13	20	14	15	14	19.5	25.5	9	13	14	15	21.5
EAST ANGLIA																			
perinatal	13	12	21	—	17	12	13	10	20	14	10	12	17	31	9	9	12	16	27
infant	11	10	18	—	14	14	10	6	14	11	10	11	11	14	5	8	9	14	16
MERSEY																			
perinatal	19	18	29	33	24	18	17	19	28	21	14	15	19	30	11	14	19	20	17
infant	15	14	21	50	19	16	12	13	19	14	13	12	17	23	9	11	14	18	13

*England and Wales legitimate births only. Source: OPCS 1979 b

deaths. Yet it should be stressed that social development has during the twentieth century led both to falls in the proportion of the total population in classes IV and V and to major declines in the absolute difference between their mortality experience and that of classes I and II.

At a sub-regional level areas like Suffolk in East Anglia have perinatal mortalities around half those of the more disadvantaged urban parts of England, Scotland and Northern Ireland. As Table 1 suggests large elements of this difference reflect the varying social class make ups of local populations. Indeed, class related behavioural variations to an extent underly the risk shifts indicated with both increasing parity and maternal age. The government prepared statistics shown are based on a simple cross sectional analysis which fails to adjust for the fact that high parity, for instance, is linked with low social class. Examination of individual records actually indicates falling risk with increasing numbers of children, at least up to a total family size of 5 (Bakkeiteig and Hoffman 1979).

The central importance of class is also emphasised by the fact that Britain's improved rate of fetal and neonatal survival in the early seventies was in part linked to class specific changes in fertility. In the period 1970-75 legitimate births to women with husbands in classes I and II stayed approximately stable. By contrast there was a birth rate decrease of around one third in social classes IV and V (DHSS 1977 b).

Comparisons with other countries

Figure 3 shows the trends in perinatal mortality recorded in selected advanced countries since the mid 1960s. Once again Britain at first sight appears to have a somewhat disappointing record although the advances of the past 4-5 years are encouraging. However, this observation should be balanced by a number of caveats.

Even using the figures reported to the WHO (which are not entirely comparable) it is clear that the NHS's achievements are not as limited as is sometimes suggested. Richer nations like West Germany and the United States, both of which have large privately run maternity care sectors,¹ have perinatal mortalities above those of England and Wales. Inadequate use of specialist referral centres for high risk cases, perhaps associated with fears of lost fees, could be one explanation for American failings (Robert Wood Johnson Foundation 1978). At the other end of the spectrum the Soviet Union has, despite its centrally organised health care system, apparently been suffering increasing rates of infant and perhaps perinatal death in recent years. That nation, of course, has special difficulties related to its very large and economically less developed regions in central Asia. This may account for the fact that the overall infant mortality in Russia approaches twice that of the UK.

1 Even within the UK there is some evidence that private sector performance in this area of health care is disappointing when contrasted to that of the NHS (Richards 1979). In the United States perinatal mortality hazards in the richest section of the population are raised as compared with that immediately 'below' it, indicating either poor handling of high risk patients in smaller private nursing homes or raised rates of hazardous interventions in more sophisticated facilities.

Table 2 Perinatal Mortality 1973, Various countries

	Per cent Low weight births (less than 2,500 gms) among total births	Total perinatal mortality rate	
		All Birthweights	Standardised*
Hungary	10.8	29.1	16.6
Cuba	10.8	26.9	20.1
Austria	5.7	21.4	18.2
Japan	5.3	17.0	18.9
New Zealand	5.2	17.3	17.3
Sweden	3.9	12.6	14.5
England†	7.0	20.7	

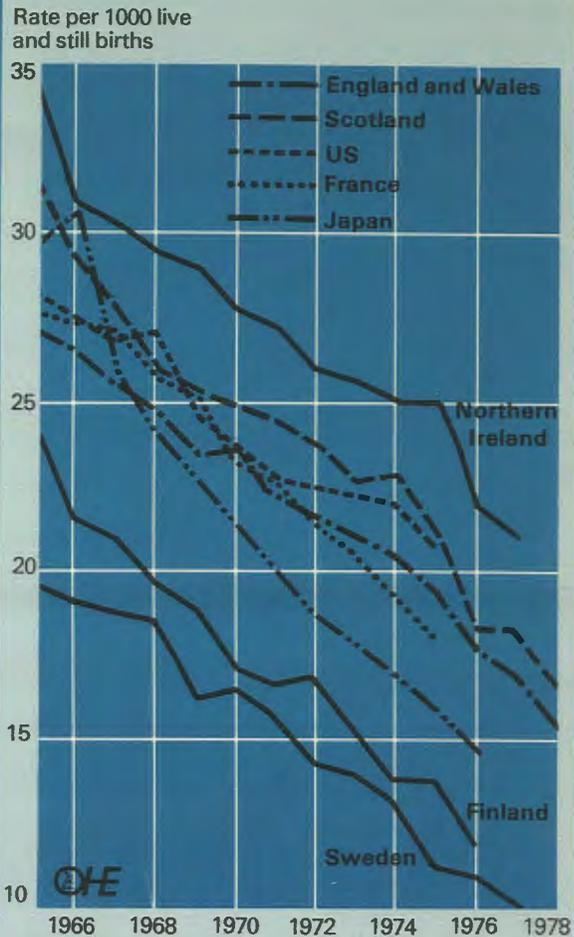
*To the NZ distribution of births by birthweight.

†Birth weight data not available for 'normal' births.

Source WHO special study 1976.

Note Within the UK there are marked discrepancies in the distribution of low birth weight children on a geographic and presumably also a class basis. On a regional level only about 5 per cent of births in East Anglia weigh under 2,500 gms whereas in the North West 7 per cent do so. In some poor urban localities the population may be as high as 15 per cent.

Figure 3 Perinatal mortality 1965 onwards, selected nations



Source: WHO

Turning to those countries which genuinely appear to have achieved better rates of progress than Great Britain, their advantage may sometimes have been exaggerated. For instance, France has frequently been favourably compared to Britain. But in fact its reported 1975 perinatal mortality rate was, as Figure 3 shows, slightly above that for England and Wales in 1976.

Further, the rapid decline of perinatal mortality in much of Western Europe and Japan after World War II in part reflects recovery from very high rates resulting from the deprivations of that conflict. In this country (where careful food rationing and the emergency hospital service actually helped to improve mother and infant health in poor sections of the population in the war years) the starting base in the early 1950s was lower. Hence the expectation of progress was less urgent. Relevant cultural tendencies may thus have been created or strengthened.

For example, Japan's strong economic growth has gone hand in hand with impressive declines in perinatal mortality. Late demographic transition (meaning a small proportion of elderly people requiring health and welfare resources) and relatively free access to abortion for much of the post war period may have been advantageous, as too may have been the discipline of its population. The fact that only about 1 per cent of Japanese births are registered as illegitimate, as opposed to nearer 10 per cent in this country, is an indicator of relatively reduced numbers of young, unsupported mothers. This group is known to be at particular risk of losing their babies in the UK.

Thus only the Scandinavian nations, and in particular Sweden, unquestionably stand out as having a record consistently better than Britain. Their lead can be traced back throughout the twentieth and nineteenth centuries. The reasons for this long term discrepancy are complex and may relate to factors as disparate as the genetic stock of the population, nutritional standards and the specific patterns of agrarian and industrial development experienced by the people. Unravelling the separate

influences of each would be an extremely difficult task.² But with regard to the present day situation a number of straightforward observations can usefully be made.

One is that amongst low birthweight children (who suffer some two thirds of the total perinatal mortality in the UK) recorded survival in this country is about as good as that in Sweden (Pharoah 1976, Holland 1979). And as Figure 4 shows the trend of recent years has been one of steady improvement. The problem lies in the fact that, as Table 2 indicates, Britain suffers a much greater proportion of low weight births than does Sweden. Also stillbirths and infant deaths associated with the neural tube defects anencephaly and spina bifida are high here. Figure 5 emphasises the extent of the UK burden in this context and shows that Northern Ireland and Scotland are particularly affected, suffering a rate of first year spina bifida deaths almost ten times the reported West European average.

This pattern is not indicative of major failings in the provision of health care, at least as it can affect the immediate processes of birth and neonatal survival. (Which is not to say, of course, that relevant services cannot or should not be improved). But it does suggest that those factors which affect foetal development at earlier stages are of key importance.

Turning once again to the example of Scandinavia our social class I and II perinatal mortality rates compare well with the Swedish overall average. It is thus apparent that influences particularly affecting women in the less advantaged occupational groups throughout their pregnancies should be of special interest to those wishing to raise the British performance level.

The Causes

A booklet produced by the Children's Committee, the body established by the government in response to the recommendations of the Court Report (HMSO 1976) stated that 'three principal causes . . . account for 70-80 per cent of all (perinatal) deaths: low birth weight, congenital malformations and hypoxia (lack of oxygen).'

2. For instance, Britain's wealth in the nineteenth century led to a very widespread use by the middle classes of domestic staff for cooking. By contrast in many European countries like France and Sweden middle class women were usually directly involved in preparing their families' food. It has been argued that in Britain one long term social effect of this pattern was a denigration of culinary skills generally and the consequent removal of a potentially powerful motor for nutritional improvement amongst the aspiring sections of the population in the first half of the twentieth century.

Figure 4 Low birthweight and mortality 1954-77
England and Wales

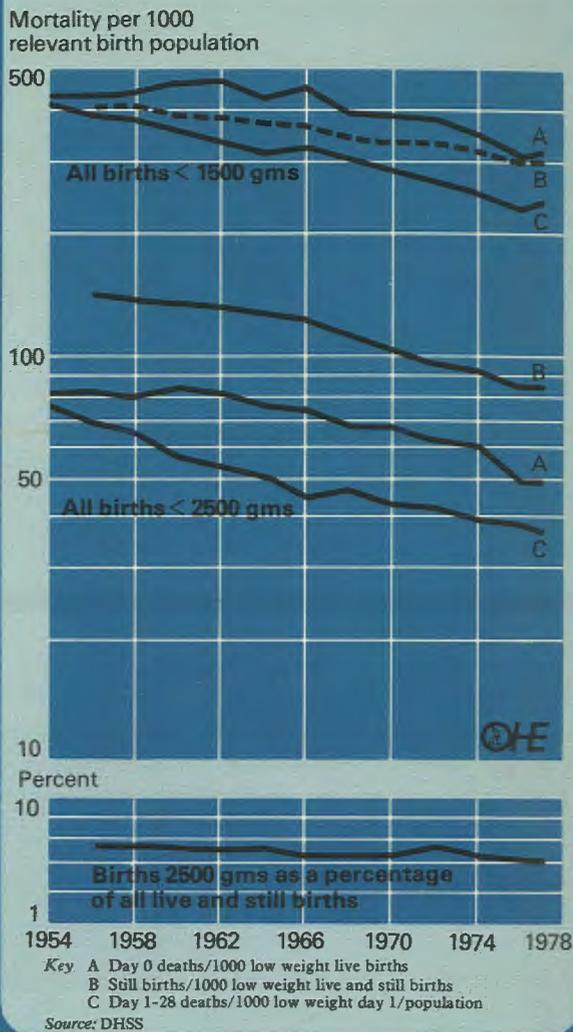
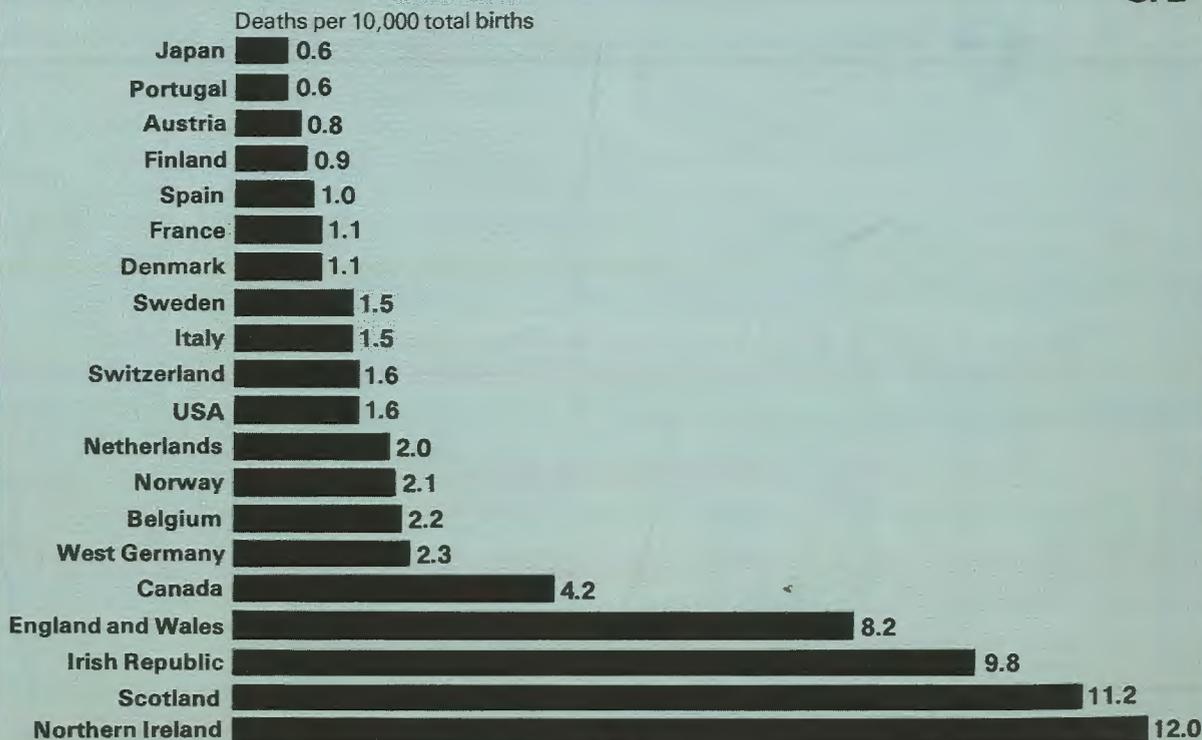


Figure 5 Deaths from spina bifida in first year, 1973



Source: Wynn and Wynn 1979 a

(Children's Committee 1979). Most of the remainder are linked to infections,³ haemolytic disease of the newborn and birth injuries.

This simple description somewhat belies the complexities of the situation. For instance, low birthweight may be associated with vulnerability of the fetus or newborn baby for a wide variety of reasons. Some relate to its rate of growth and others (not necessarily independently) to whether or not it is born prematurely. Similarly, the *British Medical Journal* commented in a leading article that 'the extent of our ignorance of perinatal pathology is epitomised by the discussion document's statement that lack of oxygen is a major cause of death' (BMJ 1979). However, for the purpose of general debate the Children's Committee publication introduces the main issues adequately.

Of the three areas mentioned the most controversial is the first, that of low birthweight and the role of health services in reducing its prevalence. Figure 6 links data on birthweight and estimated gestational age, showing that perinatal risks vary as a function of both measures. The broken lines mark percentile distributions of birthweight by week of gestation. The Figure shows that they are not reliable guides to the degree of hazard that a given baby is subject to.

Commentators like Margaret and Arthur Wynn (Wynn and Wynn 1977, 1979 a, 1979 b, 1979 c) have argued that better antenatal services designed to identify and help high risk mothers coupled with the use of drugs and minor surgery designed to prevent pre-term labour could dramatically reduce the number of low birthweight babies in the UK. This, they believe, will cut both handicap and perinatal mortality rates. Together with organisations like the Spastics Society they have called into question the quality of some aspects of NHS care.

The examples of multiple and breech births fit their case well. For instance, with regard to the former the 1970 British Births survey showed that twins were about five times more likely to die in the perinatal period than singletons (Chamberlain et al 1975). Cerebral palsy incidence is similarly raised. But more recent Scandinavian data shows a mortality for twins similar to or below that for single babies in Britain in 1970 (Persson et al 1979). Earlier identification of those at risk followed by effective care and support appear to be responsible for these superior results.

But against this bodies like the National Perinatal Epidemiology Unit have questioned the accuracy with which the UK and other countries can be compared and have pointed to possible dangers in too ready an acceptance of some foreign findings (see Chalmers 1979). Amongst the points that such critics put forward is the view that the pharmacological and other techniques used to delay premature birth are not of proven value and can have unwanted, even fatal, side effects. Also pressures which force areas with high perinatal rates to try urgently to improve their performance can result in inappropriate development.

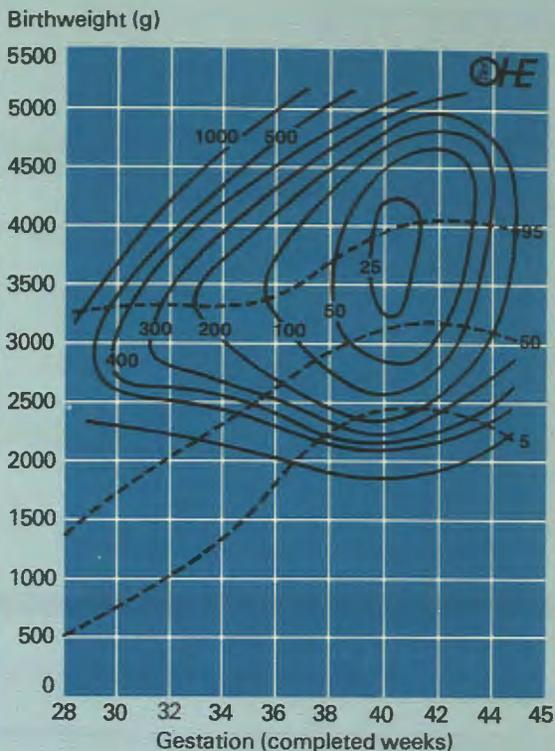
Poor localities such as those found in parts of the Midlands and the North of England may actually benefit most from better antenatal services and community oriented care or even from investment in areas outside health. But quick results may be sought in high technology answers like more electronic fetal monitoring and intensive care units for frail newborn infants. These can undoubtedly generate desirable results (Reynolds and Stewart 1979) but at the possible cost of perpetuating inappropriate care patterns and even helping to extend some hazardous or otherwise possibly questionable practices in given localities.⁴

Today, for instance, some 6.5 per cent of deliveries in England are with caesarian section, twice the level of the early 1960s. In relation to many cases this upward trend may have been entirely justified. But there is, nevertheless, some ground for fearing avoidable intervention (Chalmers and Richards 1977). Similarly, in 1970 23 per cent of births in England and Wales were induced. By 1976 the English

3 The best known of which is rubella (German measles), a condition for which immunisation is now available. However, other infectious agents, notably cytomegalovirus, may be similarly significant causes of impairment and cannot as yet be controlled.

4 Knox (1979) has pointed to the considerable difficulties involved in identifying with any degree of statistical confidence the effect of care changes at a local level.

Figure 6 Birthweight, gestational age and perinatal mortality



Contours of perinatal mortality risk by birthweight and gestation length. Average rate = 100. Broken lines are the 5th, 50th, and 95th percentiles of the birthweight distribution for each week of gestation. (The apparently anomalous behaviour of the 95th percentile for short gestational lengths seems to be due to some misreporting of gestational length). Derived from WHO special study (1976) data on Sweden, New Zealand and Cuba.

Source: Hellier and Goldstein 1979

figure was 37 per cent and the Welsh 47 per cent⁵ (OPCS 1979).

Finally, it cannot be assumed that a fall in perinatal mortality will be consistently associated with a decline in birth impairments. Even in the case of cerebral palsy, one of the better documented areas, international experience is to a degree ambiguous (Chalmers and Macfarlane 1979).

The pressures of public debate

It may thus appear that there is a direct conflict between those who advocate improved NHS services and authorities who emphasise the role of class related variables in perinatal mortality. For example, under the headline 'Poverty prime cause of baby deaths' a leading national newspaper recently reported that there is 'no evidence' that better maternity care or services would save to a significant degree infant lives and/or handicaps (Guardian 1979). This according to the National Perinatal Epidemiology Unit is a highly questionable view although Figures 7a and 7b do little to suggest that overall spending on health care or the numbers of doctors per capita are good guides to a nation's infant health. Cochrane⁶ (1979) has shown that the level of GNP and perinatal mortality correlate more closely.

It is true that debate on this topic grew dramatically at about the time that the DHSS first advocated reductions in spending on hospital maternity care (DHSS 1976). Some of the reaction may have been motivated by career related personal anxieties and ambitions rather than by objective analysis of the best interests of those groups of women

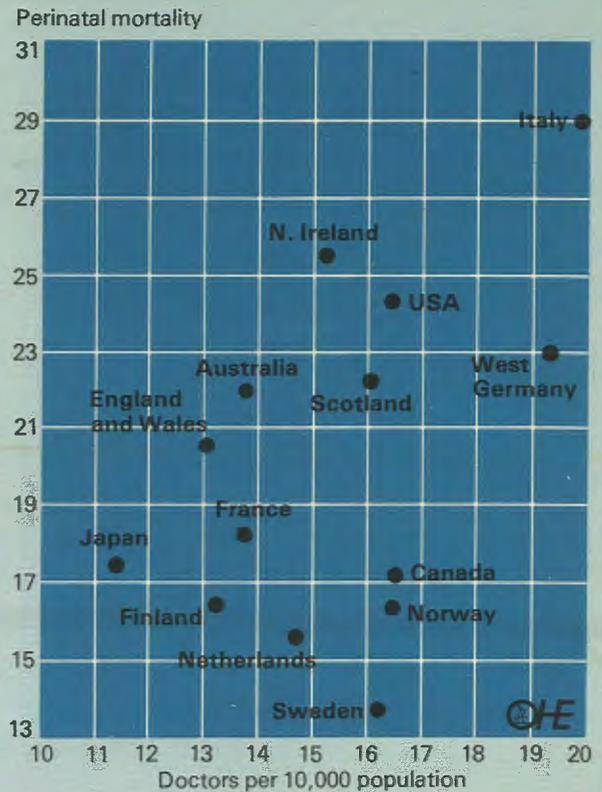
5 Births in this country show a marked fluctuation during the week. The rate on Saturdays and Sundays is 20 per cent below that on weekdays, although the perinatal mortality associated with the former is raised by well over 10 per cent (Macfarlane 1978).

6 Cochrane and his colleagues in fact found a consistent negative relationship for developed countries between doctors per capita and perinatal mortality, although this weakened when narrowed to consideration of the numbers specifically concerned with maternity and allied care. Smoking levels and sugar consumption were also negatively linked.

Figure 7a Per capita health expenditure and perinatal mortality



Figure 7b Doctors per 10,000 population and perinatal mortality



Source: Royal Commission on the NHS

most in danger of losing their babies. However, it would seem needlessly cynical to suggest that the former were the only factors underlying professional workers' expressed concerns. And needlessly destructive to try to exaggerate the points of difference between individuals and organisations sincerely attempting to understand and ultimately reduce perinatal death in the UK.

A more balanced view should recognise that questions of 'class' and 'care' are inextricably intertwined. For example, the propensity of a population to gain access to early antenatal care is known to be closely related to social background. Mothers from disadvantaged sections of the population may either lack competence in or information about obtaining care or have particular problems in terms of transport or domestic obligations. Finding a fare or someone to look after the children can be an insuperable problem (Graham 1978). Similarly, class related variables very probably underlie the fact that the 1970 British births survey found that substantial numbers of women in low risk categories were delivered in consultant obstetric units whilst well over a tenth of very high risk individuals were not.

Figure 8, derived from a special OPCS study, illustrates the 1970 maternal age distributions for married women in social classes I and V. The high proportion of mothers in the 'lower' class is partly indicative of high numbers of conceptions out of wedlock and casts some light on the make-up of the population of unmarried mothers who carry their babies through to term.

The existence of such major differences in behaviour between groups, which have an important influence on maternal and fetal wellbeing indicators, cannot be unilaterally explained by references to either 'poverty' or 'inadequate' NHS services. Obviously issues like the availability of contraception and/or abortion are important, as are factors like variations in ethnic groupings' within social classes. But in addition a whole

range of much more complicated and diffuse variables are involved.

With regard to class linked contrasts in the nature of marital relationships, for example, research has indicated (perhaps not unexpectedly) that women exposed to stressful life events who do not have a close supportive relationship with their husbands are more likely to become depressed (Brown and Harris 1978). Working class women with children at home are at high risk, a factor which may particularly affect the emotional lives of young children in larger families. But it has also recently been tentatively suggested that a tendency towards preterm birth could be similarly induced by such factors (Newton et al 1979). This may in part help to explain risk differentials between sections of the population with varying proportions of 'forced' marriages and/or illegitimate births.

Implications for policy

The above analysis implies that there is a need for improved information before wholesale changes in current NHS policy can be confidently advocated. However, in a time of tight expenditure limitations such an awareness should not be used as an excuse for inaction. Rather a pragmatic combination of relatively low cost regional experimentation coupled with national monitoring of results would appear desirable. Such an approach involves a shift away from the major research initiatives of 1946, 1958 and 1970 in which large national samples of children were followed through birth and childhood.

Areas where effort could usefully be concentrated include: the improvement of routine statistical collection; an examination of the financial support of mothers and the possible effects of cash incentives on their behaviour; investigation into the provision of antenatal care with special reference to the services needed by the most 'at risk' women; the possibility of regional confidential enquiries into perinatal deaths (and handicaps?) along the line of the national investigations into maternal mortality; and research into the most efficient organisation of services around the time of and immediately after birth.

With regard to the first of these the inability of English authorities to provide adequate weight data across the entire range of births stands out internationally as a surprising fault, although information is available for Scotland. Such figures could be matched against class and

7 The Children's Committee (1979) commented, on the basis of 1970 findings to the effect that perinatal mortality amongst immigrant mothers was approximately equal to that of the rest of the population, that Britain's problems were endogenous. This is doubtless largely true. But at the same time it should not be assumed that West Indian and Asian populations in the UK do not have special problems, nor that if they do they are confined to those mothers born outside the UK (a classification which of course includes many whites). The impact of the Irish population on British data may also be appreciable.

other maternal variables and might also be usefully related to data on the occurrence of physical and mental impairments. At present the picture available of disability in the child population is somewhat vague, and international examples like the Danish cerebral palsy register warrant careful examination.

In the second field, that of economic support and incentive, recent public debate has centred on the question of whether or not payments contingent on attendance for early antenatal care would help to ensure 'patient' compliance. Yet an obvious danger is that such a system could serve to further deprive the deprived. Much less attention has been paid to the overall adequacy of maternity benefits and the problem that those women most at risk appear to be those least likely to qualify for national insurance contribution related payments. The relationship between maternal economic hardship and perinatal mortality needs special attention as it relates to nutrition, general living standards and patterns of activity during pregnancy.

Following on from this, antenatal advice and support designed for the poorest and most isolated mothers-to-be should be easily accessible, both physically and psychologically. Local facilities with domiciliary backing are clearly desirable. The contributions of specially trained nurses, health visitors and midwives are considerable in the successful Scandinavian countries and it may be that they are needed in this country. Although family doctors will continue to play a valuable part in the antenatal support of many women, the care of those at raised hazard should be shared not simply with hospital specialists but also with appropriately qualified community workers. Present payment structures coupled with the fact that the entire concept of the 'family' doctor may have little appeal for socially disadvantaged, perhaps unmarried women can make GPs an inefficient 'gateway' to early antenatal care.

Several regions have already instigated confidential enquiries into perinatal deaths. They should help to create a more precise awareness of the underlying social and economic factors which contribute to such events as well as pinpointing specific care deficiencies. Because of the relatively large number of cases it is more appropriate that this type of investigation should be on a sub-national scale. Also those taking part may feel more certain that confidentiality will be protected. This is an important issue, especially because some professional staff judge it inappropriate to make every possible effort to save the life of a severely impaired baby.

Finally, the organisation of obstetric and allied hospital services could benefit from research in several contexts. One relates to how best to see that mothers and babies most in need of expert help are cared for and delivered in the most appropriate specialist units. Another centres on

the question of the optimal size of catchment areas and the number of cases per year needed to ensure that obstetric and neonatal caring skills are preserved and/or built up. A third involves evaluating the costs and benefits of intensive neonatal care in terms of subsequent child handicap amongst survivors, a topic about which there has been some controversy (Jones et al 1979). And a fourth revolves round the subjective experience of mothers themselves. Sociologists and other 'human scientists' can contribute understandings about consumer satisfaction and the techniques by which individual security and personal communication can be fostered even within the relatively large units where at risk mothers can best be cared for.

This last point is of vital interest in relation to the differing experiences between people of 'high' and 'low' social class who receive maternity care. In the past concern about consumer wellbeing has tended to fix on issues like the 'right' of mothers to home deliveries. There can be little doubt that for low risk patients with good housing facilities such care can be desirable. Indeed, perinatal and maternal mortality in relation to such cases is low, in part perhaps because of reduced risk of cross infection.

But for the section of the population service planners should now be most concerned with, home or near-to-home antenatal care is the more important issue. Attempts to gauge consumer satisfaction frequently tend to be biased in favour of the views of the able and the articulate. If avoiding needless deaths and impairments, so saving national resources and opening the way to future health creation, is the role of the NHS in the late twentieth century this danger should be recognised and avoided.

Conclusions

The data presented in this *Briefing* shows that perinatal mortality levels are a function of both the quality and efficiency of health and welfare services and the social and economic structure of the community. Questions of class permeate the two areas, bonding them together in such a way as to make understanding of one frequently dependent on insight into the other. However, awareness of this should not lead those involved in health and allied services to the pessimistic conclusion that improvements in the UK record must await 'fundamental changes in the nature of society'. Rather, a realistic approach is to as far as possible gear services to fit existing needs, so helping to create a more healthy future population.

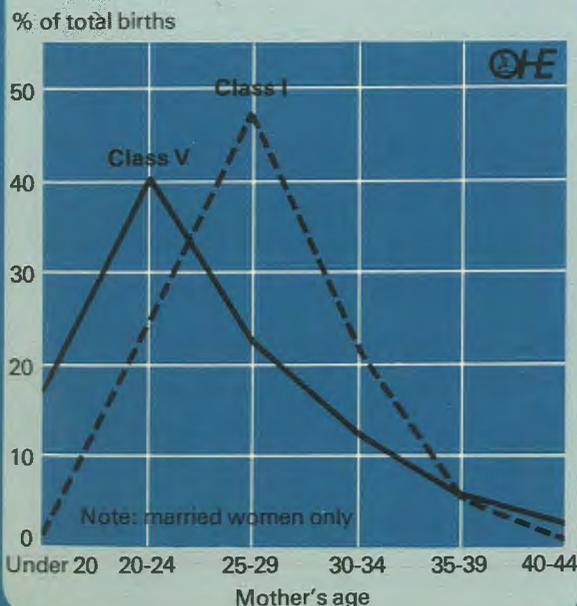
There can be little doubt that improvements in the organisation of care could make significant inroads into even today's reduced levels of perinatal mortality. The work of Marsh (1977), a GP obstetrician in Stockton-on-Tees who with the help of primary health and hospital colleagues has reduced perinatal mortality to under half the national average rate in a poor area, demonstrates the potential value of flexible local initiatives focussed on providing individual solutions to individual problems. In Marsh's practice there is a special emphasis on caring for and supporting class IV and V mothers and a relatively liberal policy on abortion. Under five per cent of total births are below 2500 gms.

Similarly extended screening programmes for neural tube defects and Down's Syndrome have the potential to prevent a significant number of stillbirths, early infant deaths and child handicaps. This of course depends on the population finding the abortion of impaired fetuses acceptable, an attitude only a small step away from supporting the termination of unwanted pregnancies for 'social' reasons. The available evidence suggests that babies of unsupported single mothers and those born to young women from disadvantaged backgrounds who marry during pregnancy are at very high risk of perinatal death or impairment.

Recognition of the value of improved medical and allied technical intervention does not, of course, imply any questioning of the worth of other attempts to improve collective wellbeing. Efforts designed to maintain the incomes of women in pregnancy through, for example, guaranteeing those at work the opportunity to attend antenatal clinics without loss of income, provide an illustration of potential social reforms which might well help to cut the toll of perinatal death and handicap.

And nor should recognition of the need for both 'care' and 'class' oriented initiatives in maternity and baby services in modern Britain be allowed to generate disillusion with the past achievements of the NHS. Any suggestion that this country has fallen markedly behind the rest of the world because of easily avoidable health service

Figure 8 Births in social classes I and V by mother's age, 1970-72



failures is misleading, both because our figures in fact compare quite well with international standards and because this country may face special difficulties. These include limited economic growth and larger scale population movements from areas like Southern Ireland and the New Commonwealth than have been experienced in Japan, Scandinavia and other parts of Northern Europe.

Such observations counsel caution. If reformist zeal leads advocates of particular programmes into conflict with others concerned with improving Britain's performance the result could well merely be a specialist debate which only serves to draw attention away from the needs of the poorest and most vulnerable in our society. And similarly exaggerated criticisms of the NHS could in the long term serve only to damage the morale of the service and perhaps to undermine further the financial base of what remains one of the more successful (and probably the most cost effective) health care systems in the industrialised world.

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