MEDICAL PRACTICE

*What I would say to the Royal Commission***Maternal and neonatal health—a priority**

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The setting up of a Royal Commission to look at "the best use and management of the financial and manpower resources of

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the National Health Services" comes at a particularly opportune time, coinciding with an internal crisis of confidence within the NHS and the publication of the DHSS consultative document outlining future priorities for health and social services. Although the Royal Commission and the DHSS publication have separate origins, they relate very much to the same problem. If the members of the Royal Commission are to recommend on the best use to which the diminished

financial and manpower resources of the NHS are to be put, it is to the DHSS document they must look first.

Maternity services—key to the future

As an obstetrician it is impossible to look with anything but disbelief on the plan to cut back the maternity services so drastically. How is it that, after years of encouragement to

Annual current expenditure in £m at present (1973/74) and projected (1979/80) (from Annex 2, Table 1, p 82 of Priorities for Health and Personal Social Services in England—a Consultative Document, DHSS)

	1973/74	1979/80	Percentage change
Geriatric services	512	673	+ 31
Mentally ill	470	555	+ 18
Maternity	136	133	- 1.8
Midwives	26	26	0

improve the care of the mother and her baby so that the future of the next generation was assured, there can be such an abrupt change in thinking? Why should maternity and midwifery services be singled out as the only sector of the NHS to have a negative or zero growth rate over the next five years (see table)? There is no disputing that, with increasing longevity, provision should be made for the elderly, but should it be made at the expense of the service that looks after the welfare of the next generation? The argument by the DHSS that this move is justified by a fall in the birthrate of 27% over the last five years when, on their own forecast, the birthrate will rise by almost as much in the next five years, is unconvincing.

The importance of maternity care is difficult to assess when doing a medical audit. People who are ill, or who are incapacitated have an obvious right to make demands on the service which can be measured, whereas the needs of pregnant women are less easy to define. They are generally young and healthy and the problem is not as safe for the baby as it is for the mother: babies continue to die from avoidable causes. It could be argued that a baby who dies can be replaced, but unfortunately there is no such easy solution. Quite apart from the fact that every baby is important to his mother, we know that for every baby that dies before birth some are born in a damaged condition who survive. It is difficult to be sure of the extent to which the subsequent development of these babies is affected. Some have major mental or physical handicaps, but most, after a stormy first few weeks of life, appear

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to recover. All that one can say is that it is likely that many fail to achieve their full potential in adult life. Recent studies have shown that concentration of care on labour and the first weeks of life, which are the most dangerous times in the life of the baby, has paid dividends. By using continuous monitoring for all women, fetal death during labour can be eliminated. Equally, the provision of intensive care for sick babies immediately after birth has resulted in a dramatic improvement in their prognosis. Recognition of these facts has persuaded countries such as France to introduce comprehensive programmes for perinatal care. It seems a tragedy that a country like Britain that has led the world in perinatal research should now decide to cut back on her maternity services. Surely the health of mothers and babies should be one of our major priorities.

Better use of resources

Just as there is a need to ensure that advances in the care of mothers and babies are maintained, so there is room for making better use of available resources. The progressive improvement in the socioeconomic status and health of the community has been reflected in a change in obstetric practice. Not only are pregnant women healthier but their obstetric performance has improved—they have shorter labours and fewer complications during pregnancy. This should imply that their need for hospital care is less but while recognising that hospital remains the safest place to have a baby, it is now no longer necessary for a mother to stay there for up to 10 days after the delivery.

Experience from units with a high patient-bed ratio has shown that many women with good home circumstances can leave hospital within a few hours of delivery. Although the system requires adequate domiciliary midwifery service backup, it is not only cost-effective (when obstetric beds cost about £20 a day), but it is also desired by modern women.

Five minutes as a witness

It would be unrealistic to suggest that, after initial savings achieved by such measures, further economic cutbacks are likely to result in anything but a serious decline in the quality of obstetric care. The question we must ask is whether we are wise, as a nation, to give way to the demands of social and political expediency by investing so completely in a policy for improving the lot of the physically and mentally handicapped, yet apparently neglecting the needs of the next generation. The contribution that the NHS will make to the future welfare of the country depends on the selection of the right order of priorities for the next 10 years. Thus it is reasonable to propose that setting up in-depth review of the maternity services should be within the remit of the Royal Commission.

The DHSS has made a start on this important exercise but their proposals need to be examined more critically and in detail. Maternity and midwifery are examples of services that, in recent years, have made valuable contributions to the health of the country and, as such, do not merit the lowest position on the list of priorities.

Statistics at Square One

XVIII—Correlation

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When two or more series of observations are made it is often found that the observations in one series vary correspondingly with those in the other. The two may increase in parallel, for instance, or decrease in parallel, or as one goes up the other may go down proportionally. This relationship is called correlation. We would say, for example, that the height of children is on the average correlated with age. Since one increases with the other the correlation is called positive. In contrast there is a negative correlation, on the average, between the age of adults and the speed at which they run 100 metres.

The words "on the average" should be noted. In biology we rarely meet examples of perfect correlation, because the sources of the observations, living organisms and their products, vary from one to another and from time to time. Consequently, when we measure the degree of correlation between two sets of

observations, we generally find that part of the relationship consists in a true correlation and part consists in random variation due to a multitude of indeterminate causes.

Correlation coefficient

The symbol used to denote the coefficient of correlation, as it is called, is r . The correlation to be discussed here, and to which this coefficient applies, is limited to what is called "straight line" correlation. This means that the relationship between the two variables can be expressed graphically by a straight line. Fortunately this is a common feature of correlation in biology. If a curved line is needed to express the relationship, other and more complicated measures of the correlation must be used.

The correlation coefficient is measured on a scale that varies from +1 through 0 to -1. Complete correlation between two variables is expressed by 1. When one variable increases as the other increases the correlation is positive; when one decreases as the other increases it is negative. Complete absence of correlation is represented by 0. Fig 18.1 gives some graphical representations of correlation.