low perinatal mortality rate, whereas in fact it had been shown that "those parts of Holland with the highest incidence of hospital confinement have the lowest perinatal mortality rates."

Secondly, they appear to suggest that the physical safety of mother and baby measured in terms of mortality and morbidity should not be the overriding preoccupation. What more important considerations are conceivable? It is surely a truism to state that it is better that the mother and child should be delivered in an efficient maternity unit where unpredictable emergencies can be rapidly treated (although they occur with comparative infrequency) rather than in an inevitably improvised fashion in the patient's own home. I believe that a great majority of doctors think hospitals could be made more friendly and less impersonal with obvious benefit to patients and indeed to themselves. Nevertheless, the prime objective of safety to mother and infant should not be obscured by more nebulous factors such as those mentioned in the study group's letter.

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SIR,—I read with interest the correspondence (31 January, p 279) on the question of domiciliary or hospital confinement. This is a matter which is rightly generating concern in both public and professional quarters since it is increasingly clear that the research which has led to major advances in clinical obstetric practice has not been adequately matched by research into childbirth as a social experience. Undoubtedly, the technical quality of modern obstetric care is a great source of pride to its practitioners, but it is also apparent that it leaves many patients cold and is responsible for the sort of nostalgia about which Professor A G M Campbell is rightly sceptical. It is a matter for regret that the policy of 100% hospital confinement has been pushed through without adequate public, as opposed to professional, debate, but I think it is unrealistic to suppose this can be easily reversed or would be clinically desirable. What should be a matter of concern, though, is the social climate of our maternity hospitals which allows so many women to feel so unhappy about their experiences in them.

Both Professor Campbell and the National Childbirth Trust group agree on the need to involve patients and their families more closely in clinical decision-making. I would not wish to decry this, but I would suspect that the changes which are needed must be both deeper and more extensive. Such a question, however, could be settled only by a thorough review of the social aspects of maternity care, examining the social interactions which take place between the various parties who are involved with the service—obstetricians, midwives, social workers, health visitors, ancillary staff, patients and their friends and kinfolk. The maternity hospital is a social organisation through which people come to make sense of a biological event and to respond to it on the basis of that interpretation.

In the past there has been a shortage of interested medical sociologists with the relevant theoretical and methodological training to carry out ethnographic studies of maternity services grounded in precise and detailed observations of their social life. There has, too, been a certain reluctance to commit research funds and for obstetricians to extend the sort of access which such investigations require. This situation is changing slowly, but such work as is being done is somewhat partial and fragmentary, although useful both intrinsically and in persuading maternity staff that they have no grounds for feeling threatened by the presence of adequately trained observers in their workplaces. It is perhaps now time to consider whether a more systematic and comprehensive programme of studies should not be set up. This should be able to compare practices in both high- and low-technology settings, in teaching, non-teaching, and GP units, and in domiciliary practice. It could provide some solid evidence for a debate which is so far founded largely on assertion. In this it represents a challenge to both the "back to nature" and the "forward with technology" lobbies. If each is genuinely worried about the activities of the other, then they should welcome such inquiries into their own practice.

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Immunisation against whooping cough

SIR,—Professor G T Stewart (10 January, p 93) regrets the sharp decline in childhood immunisations which has followed the 1974 adverse publicity and which results from "continuing doubts . . . about the safety and efficacy" of pertussis vaccine. Regarding safety, why was there no reply to last year's letter from Dr A H Griffith (8 November, p 347)? What *is* the evidence, if any, that pertussis vaccine may be too dangerous to use? Regarding efficacy, there was no reply to a letter published last May[1] which showed that current vaccine was highly effective in the 1970-1 and 1974-5 outbreaks and which called for "evidence that it does not protect."

Professor Stewart (31 January, p 283) provides no such evidence, either in your correspondence columns or in the raw data that he has kindly sent me, but makes misleading deductions from articles by Dr Christine L Miller and Mr W B Fletcher (17 January, p 117) and Dr N D Noah (p 128). He asks, "What kind of epidemiology is this which advocates immunisation by excluding . . . factors other than immunisation?" He may be right that "immunisation schedules are often better maintained . . . where socioeconomic conditions are favourable"; but this does not justify his deduction that "association between protection and immunisation could be an expression of better social conditions and child care." In both the 1970-1 and 1974-5 outbreaks,[2 3] pre-1967 vaccine was associated with poor protection and current vaccine with good protection. What evidence is there that social conditions suddenly improved at precisely the time when the vaccine was modified?

Moreover, we must ask, what kind of epidemiology is *his* which equates actual cases of pertussis infection (bacteriologically confirmed) with mere notifications, based on clinical diagnosis, of varied accuracy? At least, Drs Miller and Fletcher were aware of the difference: "The survey was limited . . . by its dependence on notified cases"; and so was Dr Noah: "Some of the cases notified are probably due to organisms other than *Bordetella pertussis*, against which whooping-cough vaccine would provide no protection."

Again, Professor Stewart says, "There is no evidence . . . that immunisation of older children protects younger ones." It "leaves those . . . below 6 months of age unprotected." Is this true? There is, at least, a "widely held belief"—to use his own phrase—that whooping cough is taken home by a child of school age; and several family infections in the 1974-5 outbreak illustrated such transmission. Is there any evidence that immunity of older children does *not* protect their younger siblings?

To conclude, Professor Stewart's misleading letters could undermine the confidence in current vaccine which you so rightly encouraged last year (25 October, p 186). Hence the urgent need to provide this antidote, pending completion of my analysis of the 1974-5 outbreak. Suffice it to say at present, for the immediate guidance of those still unsure that the trend, which was reported[3] after a study of only 37 children, has now been amply confirmed by data from nearly 400 bacteriologically confirmed cases. Current pertussis vaccine does give good protection.

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[1] Preston, N W, and Stanbridge, T N, *Lancet*, 1975, **1**, 1089.
[2] Preston, N W, and Stanbridge, T N, *British Medical Journal*, 1972, **3**, 448.
[3] Preston, N W, *Lancet*, 1974, **2**, 1138.

SIR,—The report "Severity of notified whooping cough" by Dr Christine L Miller and Mr W B Fletcher (17 January, p 117) was, as its title implies, concerned solely with the severity of *notified* cases of whooping cough and under these circumstances severity was found to be related to both age and previous immunisation. Because of the current schedule there were no fully immunised children under six months, but from the age of one year the proportion of vaccinated children admitted to hospital and severely ill at home was less at all ages than the proportion unvaccinated. The conclusion that previous vaccination reduced the severity of the disease seems perfectly reasonable and Professor Stewart's criticisms do nothing to invalidate it.

This report was, as it clearly stated, not concerned with *prevention* of the disease by vaccination and Professor Stewart is mistaken in inferring that the relative proportion of vaccinated and unvaccinated cases which he quotes from it can provide any such evidence. An assessment of the efficacy of the vaccine requires a comparison of the attack rates in vaccinated and unvaccinated children and Dr N D Noah's report (17 January, p 128) was concerned with this aspect. His findings were indeed combined in a single table—for the sake of brevity—but as clearly stated in the text "for children born after 1969 the whooping-cough notification rates were invariably greater in unimmunised children in every period and every age group."

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It's a baby!

SIR,—I recently had the opportunity of seeing Henry Kemp's untitled film depicting several mothers' reactions to the birth of their babies. As seen on the film, and from my own experience, it is common practice to declare the