polio, and therefore possibly increase the protection against pertussis too.

Unfortunately, with the third dose not due until 13-14 months, many children did not complete the course and were inadequately protected. The situation has been made worse since 1974 by what appear increasingly to be unfounded assertions that pertussis vaccine causes brain damage. Mass hysteria, fanned irresponsibly by television and the press, resulted in such low vaccination rates that small babies were no longer being protected indirectly by vaccinated older siblings; and this occurred in spite of the resolute advice of the DHSS.

It is therefore prudent, now, to vaccinate as soon as the child can respond satisfactorilythat is, at 3 months.2 The intervals between doses are of much less consequence, the "delayed" schedule showing no obvious advantage over the "early" one as far as the pertussis response is concerned.3 My own preference is for the "early" one—to protect against whooping cough as soon as possible, and to complete the full course before the parents' enthusiasm wanes. This too is what the DHSS now offers as an alternative course when whooping cough is prevalent; and, thanks to the adverse publicity of the mid-1970s, the present epidemic situation is likely to persist for many years—until a steady vaccination rate of over 80% has been re-established.

One lesson that we can all learn from whooping-cough in the 1970s is that preventive medicine often consists of measures that cannot be switched on and off as danger threatens and recedes. Advances may be dramatic; but without eternal vigilance and steady consolidation, unspectacular and mundane though these may seem, the whole front retreats in disarray.

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Clofibrate

SIR,-My colleagues and I1 in 1973 showed that 33 consecutive patients with serum cholesterol levels over 7.8 mmol/l (300 mg/ 100 ml) and thyroid antibodies had a mean serum cholesterol of 9.5 mmol/l (366.8 mg/ 100 ml) (SD ± 1.7) before treatment with clofibrate and 6.2 mmol/l (293.4 mg/100 ml) $(SD \pm 0.9)$ after treatment. The reduction of 39.5% in our group of patients compares with 9% reported from the multicentre trial of clofibrate.2 About the time that we wrote our paper Krasno and Kidera³ showed that 30% of all patients with hypercholesterolaemia failed to respond significantly to clofibrate. We subsequently found that the reduction of the hypercholestoleraemia by clofibrate in patients with autoimmune thyroiditis is so constant that failure of the serum cholesterol concentration to fall suggests that the abnormal lipid pattern is not associated with thyroid disease.4 We have used clofibrate to lower the serum cholesterol concentration patients with angina complicating myxoedema who could not tolerate full doses of L-thyroxine despite β-adrenergic blockade. Baschieri and his colleagues⁵ have shown that

a third of patients with hypercholesterolaemia have an abnormal pituitary thyroid axis.

If a trial on the use of digitalis in heart disease were set up with the skill and care that Oliver and his team have shown in this trial on clofibrate, it might provoke similar comments to those of your leading article (9 December, p 1585). Discrimination is needed in the use of clofibrate as with most other drugs. It is to be hoped that reports in the Financial Times⁶ that the drug may be banned in West Germany are premature. Such a panic move at this time smacks of totalitarian medicine.

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- 5 Baschieri, L, et al, Française d'endocrinologie clinique, nutrition et métabolisme, 1975, 16, 211. 6 Financial Times 21 December 1978.

Return of whooping cough

SIR,—In writing about the return of whooping cough (9 December, p 1639) Mr Roger D Stracham contends that the increased incidence must be due to the decline in immunisation, which in turn was largely caused by adverse publicity in recent years.

The evidence to test these assumptions exists wherever reasonable immunisation registers are kept. For instance, data from Hertfordshire1 clearly show that whooping cough attack rates in non-immunised children (841/100 000) are more than 10 times greater than those in the immunised (80/100 000). The non-immunised comprised 37% of children under 5 years.

Since whooping-cough immunisation is an automatic component of DPT vaccine, the decision to exclude it shows a definite change in behaviour. This began to occur in 1974, as seen in the figure, which shows the monthly whooping-cough immunisations given in Hertfordshire as a percentage of all primary immunisations including diphtheria, tetanus, or whooping-cough vaccine. Not only is the fall-off of whooping-cough immunisation clearly shown but so also is the association with the major events in the media (arrowed) which featured the whooping cough controversy during that period.

The whooping cough controversy is a good example of the problem of behaviour and risk. Lord Rothschild, in his recent Richard Dimbleby lecture on risk,2 suggested that "What we need . . . is a list or index of risks and some guidance as to when to flap and when not"; for "there is no such thing as a risk-free society." Furthermore, "we are much more conscious of risks today . . . not only because we are better educated . . . but also because the media . . . bring to your notice infinitely more information."

I think that the medical profession needs to respond to this challenge and produce an index of health risks, meaningfully related and straightforwardly stated. The whooping cough controversy and its consequences is a clear example for the need of such an index.

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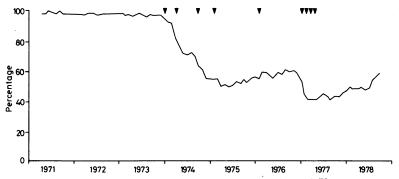
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Motorcycle and bicycle accidents

SIR,—As a recently retired surgeon who has returned to cycling after 50 years, I read the informative article "Motor cycle and bicycle accidents" by a special correspondent (6 January, p 39) with considerable interest. After having cared for many patients with head injury in my wards (frequently motorcyclists, with fewer cyclists), I now find myself in a reversed situation, being at risk as a cyclist on the roads.

There are several points of importance as regards cyclists which were not mentioned in the article. It struck me very soon that good hearing is almost as important as good eyesight when cycling. Normal hearing has often made me aware of the approach of a heavy goods vehicle from the rear and enabled me to take evasive action. This is especially so in the country roads. Apart from the dangers of heavy articulated vehicles and the sudden opening of stationary car doors, cars towing caravans can be a menace. Some car drivers



Monthly whooping-cough immunisations given in Hertfordshire 1971-78, as a percentage of primary immunisations including diphtheria, tetanus, or whooping-cough vaccine. Arrows indicate media events which featured the whooping cough controversy, as follows:

1. January 1974: television programme—Nationwide; 2. March 1974: TV programme -news; 3. September 1974: TV programme-Aspel and Co; 4. February 1975: TV —news; 3. September 1974: 1 v programme—Nationwide; 5. May 1976: articles in the Sunday Times and the Guardian; 6. January 1977: TV programme—Pebble Mill at One; 7 February 1977: TV programme—Nationwide; 8. March 1977: TV programme—Pebble Mill at One; 9. April 1977: TV programme—Inside Medicine.