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CORRESPONDENCE

We may return unduly long letters to the author for shortening so that we can offer readers as wide a selection as possible. We receive so many letters each week that we have to omit some of them. Letters must be signed personally by all their authors. We cannot acknowledge their receipt unless a stamped addressed envelope or an international reply coupon is enclosed.

Measles again

SIR,—We take strong issue with several of the opinions expressed by Dr Hillis Smith regarding the control and elimination of measles (15 March, p 766). These opinions ignore the achievements of organised measles control programmes such as the United States' effort to eliminate measles. Reported measles activity during 1979 (13 448 cases provisional total) is the lowest ever reported in the United States, representing a decrease of 50% from the 1978 total and a 97% decrease from the total in 1962, the year before measles vaccine was licensed.

Dr Smith's argument for a selective immunisation policy is in part based on the belief that there has been a major increase in cases among adults. It is true that a larger proportion of measles cases occur in adolescents and young adults now than was the case before vaccine was available. However, this is a result of more striking decreases in incidence for younger age groups. All age groups have had significant declines in incidence: if we compare the period 1960-4 with 1976-8, there has been a 94% decline in reported incidence for those under 10 years of age, a 55% decline for those aged 10-14 years, and a 40% decline for those 15 years of age and older. Dr Smith also argues that there is waning immunity to measles for older age groups. However, published data show that the live measles virus vaccines induce excellent levels of haemagglutination-inhibition antibody, which persist at least 14 years after vaccination[1] and that protection from exposure to measles does not wane significantly with time.[2 3] Although cases of measles do occur in persons who have been vaccinated, investigation usually reveals that the majority of these persons were vaccinated before 1 year of age or received killed virus vaccine.

Dr Smith cites one investigation which describes adverse reactions experienced by adult vaccine recipients.[4] A major limitation of this study is the lack of a control group, a problem acknowledged by one of the investigators.[5] Moreover, in two studies of adult vaccinees which did include controls, there was no significant difference between vaccinees and controls in the incidence of serious reactions after measles vaccination.[6 7]

Finally, we believe that it is important to emphasise the shortcomings of Dr Smith's proposal for a programme of "selective immunisation." Although such a programme might give protection to a limited number of children with certain underlying illnesses it ignores the serious complications of measles, for which susceptible healthy children are still at risk. These complications, which may be either immediate (for example, pneumonia, encephalitis) or delayed (for example, subacute sclerosing panencephalitis), can be prevented by vaccination.[8] Moreover, it is unlikely that a selective programme would have a major impact on measles-associated mortality in England and Wales, which experienced an annual average of 25·6 such deaths from 1970 to 1977.[9] In contrast, the annual average number of deaths attributed to measles in the United States in the same period was 36·6, even though the US population is more than four times greater than that of England and Wales.

In conclusion, we believe the progress to date proves that a plan to eliminate measles from the United States cannot be dismissed as merely a "Utopian ideal." Measles elimination is a realistic, safe, and humanitarian goal.

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SIR,—Dr Hillas Smith (15 March, p 766), impressed by the US reports on adult measles, suggests that in developed countries where acceptance of measles vaccine is insufficient to achieve near-eradication of the disease it might be better to vaccinate only children at special risk, who admittedly will be difficult to select.

This view could be a matter of consideration if there was proof that live vaccine-acquired protection does wane after a number of years; but, 17 years after the beginning of routine immunisation in the United States, there is no such proof. All cases of measles in the United States can be explained by lack of vaccination, by vaccination with killed vaccine, or by failure of live vaccine to take. This occurs in less than 10% under normal conditions, and at a higher percentage when the vaccine has been improperly handled or has been given in the presence of maternal antibody or with immune serum globulin. The excellent persistence of antibody titre after 10 years in individuals who seroconverted after live measles vaccine[1] further increases the prospect that protection against clinical disease will be as long lived after successful vaccination as following natural infection.

The decrease of measles virus circulation due to mass vaccination may have caused a