Timing the Second Dose of Measles Vaccine

After going through the latest issue of *Indian Pediatrics*, I was wondering whether a single recommendation can hold true to the vast and varied country like India? Do we know the age related magnitude of the problem? On one hand, in a metro like Delhi, where the coverage of the measles vaccination is so good that we hardly see any measles epidemics; there is a possibility that there may be some areas where the Pakistan like situation could be conducive to cause even the under 9 months measles epidemic. Even in the absence of credible reporting, one thing is certain that the disease has shifted the age group from early childhood to the school age group.

Now measles vaccine (a good immunogenic viral vaccine) is given thrice - at 9 and 15 monhs (MMR) and after 5 years (2nd MMR); but those, who are not given MMR (obviously underprivileged and high-risk ones), receive only single dose at 9 months. In the case of non availability of MMR, or while preponing the measles vaccine below 9 months in the epidemic, can the high-risk children receive a dose of measles along with 1st and 2nd booster DPT or at any other age? And if the vaccine is so good, why is being given thrice? Or, are we revising our opinion about the viral vaccines because the 2nd dose of Chicken pox is also in vogue?

**Reply**

We appreciate Dr Sharma’s concerns regarding the uneven playing field of measles prevention and control in different States in India. For assured prevention of measles in the individual child, no matter in which State, 2 doses of a measles-containing vaccine is necessary. The Delhi measles epidemiology of no more outbreaks but age shifted upwards in sporadic cases - is not confined to Delhi, but occurs in some other States such as Kerala(1), Tamil Nadu etc. Unfortunately, as long as measles virus survives in the community (as evidenced by sporadic cases) there remains the probability that outbreaks will occur. Outbreaks will affect susceptible older children and also susceptible young children including infants below 9 months. The only way to prevent future outbreaks is by not allowing measles virus to continue to circulate – by excellent degree of control.

For control of measles in the community, again 2 doses are needed. Thus, in spite of being a highly immunogenic live virus vaccine, a second dose of measles vaccine is essential to immunize those who had failed to respond to the first dose. At 9 months, up to 15% infants may fail to respond; even at 12 months up to 5% may fail. At 15-18 months also a small proportion may not respond adequately. Once the age