unaffordable or choose to find the vaccine cost-ineffective in their own circumstances.

To get around this problem as well as the generally low immunization rates in American children, why not at long last institute universal, publicly financed immunizations at easily accessible public clinics and in schools? Immunization rates are social indicators no less valid than crime, poverty, and literacy rates. Let's raise all of them.

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REFERENCE

To the Editor.—

I read with interest Dr Stanley Plotkin's commentary on varicella vaccine in the February 1996 issue of Pediatrics. A lot of his points are very good.

My main concern is the long-term immunity.

As a "local medical doctor," chickenpox is seen as an irritating but generally mild disease. Complications can occur, but I don't see them often. In 11 plus years of general pediatric practice, I have admitted two patients for chickenpox complications; one had cerebellar ataxia and vomiting, and the other had a cellulitis.

I can see where an infectious disease specialist in a tertiary care referral center who sees all the patients with serious complications from a wide geographic area would have an entirely different perspective on the disease.

My concern is if the vaccine loses its immunity, we could be creating a population of susceptible adults 30 or more years down the road. Chickenpox is much more serious in adults. Boosters could be given, but I'd be willing to bet that adults as a group are much worse than kids in keeping up with boosters. I wonder what percentage of adults, excluding folks in medicine, have had a tetanus shot in the last 10 years.

If the chickenpox vaccine has lifelong immunity, it is a great addition.

I don't know how to weigh the ifs.

At present, if I have a pre-teen/teenager, or if I have a child with risk factors such as an asthmatic who is on steroids, I wholeheartedly recommend the vaccine. If I have a younger child, I present the information about the vaccine to parents, tell them I am "on the fence" and why, and let them decide. I have yet to give the vaccine to my 4-year-old son.

As a final commentary on the state of medicine in the United States, I suspect that litigation concerns, more than anything, will probably push me to give the vaccine. I'm not sure this is the best way to practice medicine.

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REFERENCE

In Reply.—

I am pleased that my commentary evoked such a response, even if critical, as the attitude of pediatricians towards varicella vaccine is key to its use. Rather than reply to each letter individually, I will group the criticisms as follows:

1. Varicella is not a serious disease. The same mail that brought the letters also brought a journal containing a paper that reports 24 cases of invasive group A streptococcal infections observed in Los Angeles over a 3-month period among children with varicella, which is not unusual. The complication rate of 1 in 600 for varicella is not different than the rate for invasive disease after Haemophilus influenzae type b (Hib) infection. Admittedly, Hib complications are usually more serious, but complication rates must be considered from an epidemiologic viewpoint as well as from the experience of the individual physician. Moreover, varicella is unpleasant for children, disrupting their lives and the lives of their families.

2. The epidemiology of varicella will change. As stated in my article, a change is indeed inevitable. As also stated and referenced, the change is likely to be fewer cases in both children and adults, although the relative incidence among adults may increase. The most risky scenario would be sporadic vaccination of children, which could diminish the circulation of wild varicella virus without providing protection for all and thus augment the risk of disease later in life.

3. Immunity to the varicella vaccine may not last. This fear was raised for many vaccines in the past. Empirical data referenced in the article show persistence of immunity after this particular live virus vaccine. Replication of the attenuated vaccine virus in the child should sensitize his or her lymphocytes for life, permitting a rapid response on exposure to wild virus with suppression or modification of disease, as observed thus far in practice.

4. The vaccine is too expensive. The wholesale cost of varicella vaccine is $39. If pediatricians are charging substantially more, that is an issue between them and their patients' families. I am pleased that my commentary evoked such a response, even if critical, as the attitude of pediatricians towards varicella vaccine is key to its use. Rather than reply to each letter individually, I will group the criticisms as follows:

4. The vaccine is too expensive. The wholesale cost of varicella vaccine is $39. If pediatricians are charging substantially more, that is an issue between them and their patients' families. Recent cost-effectiveness study showed that $5.40 would be saved for every dollar spent if the cost of the varicella vaccine were $35 or less. Even if the cost of vaccine and its administration were $70, the balance is still favorable to society.

5. The academic community has never met a vaccine they didn't like. Although this is not literally true, as there have been a few exceptions when side effects outweighed benefits, personally I plead guilty to this accusation. However, there may be some excuse for recommending biologicals that decrease mortality and morbidity, consistent with what are usually considered the goals of medicine.

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REFERENCES
# Questions About Varicella Vaccine

CHARLES LALLIER

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