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Measles: back to the bad old days

The disease's comeback under circumstances of nutrition and sanitary collapse, not just the number of cases, is causing alarm.

A major outbreak of measles in the state of Maryland "feasibly could reach epidemic proportions," according to a health department spokesman quoted in the June 15, 1985 *Washington Post*. Sixty-four cases of measles, 55 of them in Prince Georges county, have been reported in the state this year, compared to a total of 22 cases in 1984, and 12 in 1983.

This jump is especially alarming when one considers that the number of measles cases in the United States in 1984 rose 69% over 1983. This indicates that measles, which affected 400,000 to 800,000 children a year in the period from 1950 to 1962, prior to the development of an effective vaccine, could make a comeback.

Of paricular concern is the fact that the disease is affecting young children, under 15 months of age, in whom the incidence of side effects is greater. These children, especially those under nine months of age, do not develop an optimal response to vaccination, and a high level of immunity in the population tends to protect them from exposure until they can be vaccinated.

Measles is a viral disease characterized by fever, cough, a blotchy rash, and conjunctivitis. Complications include pneumonia, otitis media (inflammation of the middle ear), and encephalitis (inflammation of the brain).

Mortality from measles is rare in the United States—approximately 0.02% of cases—but measles is a major cause of death in Third World children, ranging from 5% to 10%.

In the present African famine, the death rate from measles has increased to 50% to 70% of affected children.

Licensing of a measles vaccine in 1964 led to a dramatic decline in cases, and sequelae, in the United States (see graph). Recent anti-vaccination campaigns have resulted in the development of a large non-immune population and led to major outbreaks.

According to knowledgeable sources, the level of vaccination for the major childhood diseases, diphtheria, tetanus, and whooping cough, has dropped to less than 30% in the Baltimore area. This is a direct result of anti-vaccination campaigns and lawsuits by the ACLU. It is reasonable to assume that a similar situation obtains in regard to measles vaccination, and, conversely, that the present measles outbreak indicates a potential for outbreaks of these diseases.

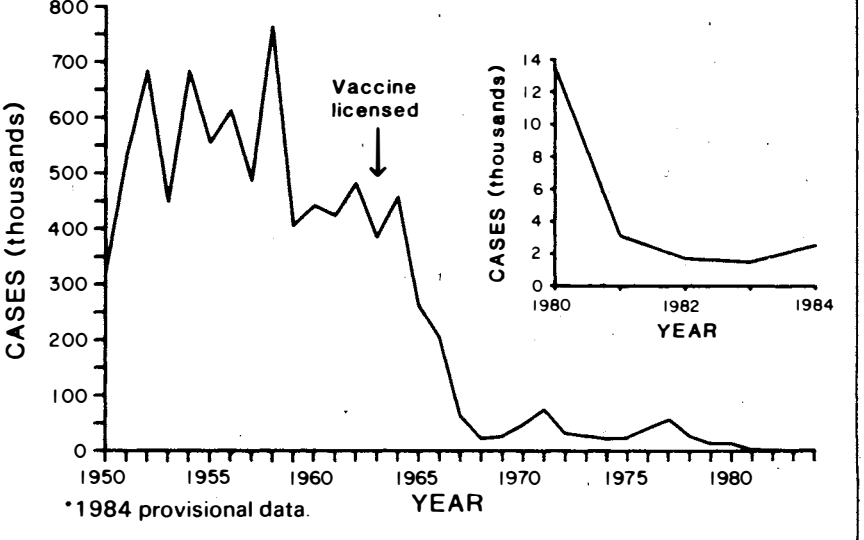
Measles is spread by infected nose and throat secretions, and its introduction into susceptible populations, under conditions of crowding and sanitary breakdown, can result in devastating epidemics with a high fatality rate. All persons who have not been vaccinated are susceptible to infection by measles virus, although previous infection generally confers life-long immunity.

The virus is spread by aerosol droplets of secretions from infected individuals, and hence its high communicability in crowded areas.

It has been estimated that the total cost of vaccination, including syringes, needles, and vaccine (assuming 50% wastage of vaccine) is 45¢ per child. If the fatality rate from the disease is 1%, then it would cost $45 per life saved.

Poor nutrition impairs the response to vaccination in terms of strength and duration of immunity. In addition, the severe effects of the disease are more common in the malnourished. It is the increase of the disease under circumstances of nutrition and sanitary collapse, and not the absolute number of cases, which is causing alarm among health officials.

FIGURE 1. Reported measles cases — United States, 1950-1984*



*1984 provisional data.