

The most dramatic declines in disease incidence achieved through the use of vaccines occurred during the 1960's and 1970's. During the 1980's, there was difficulty in maintaining immunization efforts. In recent years, various barriers have arisen that make it difficult for the United States to realize its goal of achieving full benefits from existing vaccines (Freeman, Johnson, and Babcock, 1993). The principal barriers are:

- Decreasing parental awareness of diseases reduces the demand for immunization.
- The greatest risk of disease has shifted to preschool children, a group that is difficult to reach.
- Adding new vaccines to the immunization schedule can complicate delivery.
- Significantly more children live in poverty and at risk of underimmunization.
- Changes in vaccination schedules, such as the need for additional doses, can complicate the tasks of parents and health care providers.
- Reducing the threat of diseases by immunization increases parental concern about adverse reactions.
- Fear of adverse reactions may deter providers from promoting immunization.
- Misunderstanding, by providers and the public, of liability protection and compensation available under the vaccine injury law may lead to avoidance of vaccination.
- Rising costs of vaccines and vaccine administration may pose a barrier to receiving vaccinations.
- Impediments to immunization result from the fragmentation of the U.S. health care system and its financing.
- State and local laws, policies, or practices may pose impediments to vaccination.

Weaknesses in the national vaccination system were dramatically revealed by the measles epidemics of 1989-91 (figure 8). Measles cases rose sharply in those years, which were marked by an approximately 10-fold increase over the annual average of the prior years. During the 1989-91 period, there were more than 55,000 cases, 11,000 hospitalizations (for a total of 44,000 hospital-days), and 136 deaths. Almost one-half of the cases occurred in unvaccinated preschool children, mostly minorities (see appendix 8). Emergency vaccination efforts contained the epidemics, but only after they had caused considerable avoidable suffering.

In response to the measles epidemics, the National Vaccine Advisory Committee (NVAC) assessed the lessons to be learned from this experience in "The Measles Epidemic: Problems, Barriers, Recommendations" (National Vaccine Advisory Committee, 1991),