

# Council of State and Territorial Epidemiologists Position Statement

## **02-ID-06**

**Committee:** Infectious Disease

**Title:** Varicella Surveillance

### **Statement of the Problem:**

Varicella vaccine was licensed in March 1995. By mid-1996, routine vaccination of infants at 12-18 months of age was recommended by the ACIP and shortly thereafter, vaccine became widely available through the Vaccines for Children Program. Since then, among children 19 to 35 months, national vaccine coverage gradually rose to 75% by the first and second quarters of 2001 and continues to increase.

Based on data from funded active surveillance systems in three counties, the epidemiology of varicella is changing dramatically. With vaccination rates of 85% in 2 year olds, decreased circulation of varicella zoster virus has been observed with a 75-85% decrease in varicella cases and hospitalizations in all age groups including adults. In addition, age-specific incidence is now highest among children 5-10 years of age.

Currently, despite the public health commitment to a routine national varicella vaccination strategy, the US lacks a national surveillance system for monitoring varicella morbidity and most states do not have systematic surveillance to evaluate the ongoing impact of vaccination on varicella morbidity. A major reason for this is that the large number of varicella cases in the pre- and early vaccination era made it not feasible to do individual case reporting with limited resources in most states. Recognizing the need for state and national surveillance data in the vaccine era, in 1998, CSTE adopted a position on varicella surveillance that encouraged states to eventually establish individual case reporting systems when it became operationally feasible and/or when incidence dropped. It further encouraged CDC-NIP in collaboration with CSTE to develop varicella surveillance guidelines for the implementation of individual case reporting and to identify associated funding needs. Now, 6 years into the implementation of the national varicella vaccination strategy with rapidly falling incidence, a national reporting system has become feasible.

### **Desired Actions to be taken:**

CSTE recommends that:

1. Starting in 2003, varicella be included in NNDSS. The objectives of surveillance at both the state and national levels are:
  - a. Monitor the epidemiology of varicella by age, place and over time.
  - b. Monitor the impact of widespread and increasing immunization on the epidemiology of varicella.
  - c. Provide data to guide future immunization policy.
  - d. To allow the prompt implementation of disease control measures
2. The National Immunization Program (NIP) - Centers for Disease Control and Prevention (CDC) strongly encourage all states as part of their core federal immunization funding, to conduct ongoing varicella surveillance to monitor the impact of the varicella vaccination program on varicella morbidity. States are encouraged to establish individual case reporting systems; however, other forms of surveillance such as aggregate case reporting or sentinel systems (e.g., physicians/health maintenance or managed care organizations/school systems) categorized by age groups of diagnosis will be acceptable, as an interim step to expand to state-wide individual case reporting by 2005.
3. CDC-NIP work with CSTE to develop varicella surveillance guidelines for the progressive implementation of individual case reporting by states.

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## **Background and Justification:**

In March 1998, CDC sponsored a meeting on varicella surveillance to describe its current status and future directions. Consensus was reached that since federally funded varicella vaccine is being provided to all states for universal immunization of infants and susceptible children through adolescence, each state should be accountable for monitoring the impact of the vaccine on varicella morbidity. There was also consensus that there should be national surveillance to monitor vaccination impact on morbidity and that varicella should be made nationally notifiable in the near future. Now, 6 years into implementation of the varicella vaccination program, disease has declined approximately 80% and there is evidence that the epidemiology of varicella is changing. Case-based surveillance by age is needed to monitor the vaccination program and to advise on vaccine policy as needed. In addition since states are at different levels in implementing the varicella vaccination program with vaccination coverage by age 2 years ranging from 38-85% in 2000, it is crucial to have state specific data on the impact of the varicella vaccination program. Furthermore, funding requirements for active varicella surveillance are high; CDC will not be able to continue funding support indefinitely and although these sites have provided crucial data on the impact of the vaccination program, the data are neither state-wide nor national in scope.

As of 2002, only 13 states are reporting cases to NNDSS. Currently, most states that report varicella cases report aggregate varicella cases without any information on age. However, in 2001, two states instituted case-based varicella surveillance. In these states, the resources needed to implement a case-based reporting system have been able to be readily developed using cooperative agreement funding without compromising other surveillance activities.

The national VZV laboratory at CDC, in concert with the Association of Public Health Laboratories (APHL), has developed the appropriate national laboratory capacity to support present and future surveillance and diagnostic needs including support of outbreak investigations, development and standardization of sensitive screening tests for immunity, development and support of molecular epidemiologic methods and their application to support national surveillance needs. Training for state health laboratories in DFA, PCR and serology techniques is planned in the latter half of 2002.

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