

## **Summary of Vaccine Preventable Diseases Reported to the Michigan Department of Community Health, 1997**

This report summarizes the occurrence of vaccine-preventable diseases in Michigan in 1997. Features of the descriptive epidemiology of the diseases are provided. Report totals are given in Table 1, below.

**Congenital Rubella** - No cases of congenital rubella were reported in 1997 (one case was reported in 1996).

**Diphtheria** - No cases of diphtheria were reported in 1997 (last Michigan case reported in 1980).

***Haemophilus influenzae* invasive disease** - A total of 15 cases of *H. influenzae* invasive disease were reported in 1997. Three were identified as serotype b. Two of these cases occurred in children under 5 years (the third case was a forty year old male): a 3 month old who had a history of 1 dose of Hib vaccine, and a 6 month-old who also had a history of 1 dose of Hib vaccine.

Overall, serotype was identified or determined untypeable for 6 of the 15 (40%). Among 4 cases occurring in children under 5 years of age, serotype was identified or determined untypeable for all 4, compared to 2 of 11 (18%) for cases in those 5 years or older (these ranged in age from 38 years to 76 years).

**Measles** - Two cases of measles were reported in 1997, fewer than any other year (3 were reported in 1996). Both cases occurred as the result of exposure outside of the U.S.; both were serologically confirmed. Case 1 was a 16 year-old exposed while visiting Japan. He had never been immunized against measles due to a religious exemption. No secondary cases were identified.

Case 2 involved a 17 year-old citizen of Germany whose rash onset occurred 10 days after arriving in Michigan from Germany to reside with her father; her immunization history was uncertain. No secondary cases were identified.

**Mumps** - A total of 28 mumps cases were reported in 1997, representing a 41% decline in reported cases from 1996. All were reported as sporadic cases, no outbreaks were identified. Serologic tests were part of the diagnostic work-up for only 3 (11%); all others were diagnosed and reported on the basis of a physician's clinical impression. Of the three, one had serologic evidence of a recent or current infection (the other two had indeterminate results). Cases ranged in age from 1 to 36 years, with a median of 10 years. Twenty-three (82%) were age 19 years or less, and 12 (43%) were under age 10 years. Of the 23 cases age 19 years or younger, 14 (61%) had a history of mumps immunization on or after the 1st birthday (11 had a history of 2 doses). The one serologically-confirmed case (by commercial mumps IgM antibody test) had a history of 2 doses of mumps vaccine.

**Pertussis** - Seventy-one cases of pertussis were reported from 23 local health jurisdictions in 1997, a 20% increase in cases from the 59 reported in 1996. Six jurisdictions reported 5 or more cases. Clusters of cases occurred in Amish communities in both Mecosta and St. Joseph counties. Females outnumbered males by a 1.2:1 ratio.

Cases ranged in age from 1 month to 77 years, with a median age of 6 months. Over 78% of reported cases were 4 years of age or younger.

Immunization history was available for 64 (90%). Of these, 29 (45%) were immunized with the appropriate number of doses for their age. Levels of age-appropriate number of vaccine doses were highest for under-1-year-olds (27/41 or 66%) and lowest for 5 - 9 year olds (0/3). Hospitalization was reported for 39 cases (56%). Pneumonia (confirmed by chest x-ray) was reported for 9 (13%) cases. There were no reported seizure or encephalopathy complications reported among cases, and there were no reported deaths.

**Rubella** - There were no reported cases of rubella in 1997, the first such occurrence in Michigan since rubella has been a reportable disease.

**Tetanus** - There were no reported cases of tetanus in 1997.

**Table 1 - Number of reported cases of vaccine preventable diseases, Michigan, 1996-1997**

Disease	Total Cases 1997	Total Cases 1996	Cases < 5 y.o. 1997	Cases < 5 y.o. 1996
Congenital Rubella	0	1	0	1
Diphtheria	0	0	0	0
<i>H. influenzae</i> invasive	15	12	4	5
Hepatitis B	458	416	15	14
Measles	2	3	0	1
Mumps	28	60	6	11
Pertussis	71	59	56	47
Poliomyelitis	0	0	0	0
Rubella	0	2	0	0
Tetanus	0	1	0	0