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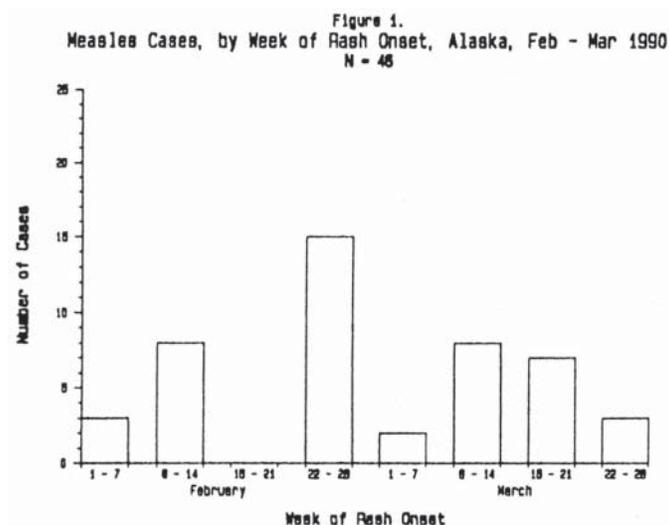
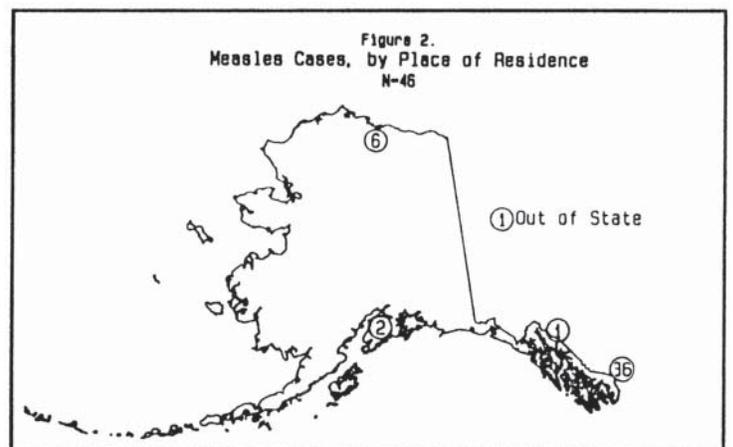
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Bulletin No. 9 April 6, 1990

Measles (Rubeola) Outbreak Update

Alaska is currently in the midst of its largest measles (rubeola) outbreak since 1977. As of March 29, a total of 46 cases had been reported to the Section of Epidemiology (Figure 1). Of these, twenty-eight (61%) were serologically confirmed. The remaining 19 cases were related epidemiologically to confirmed cases and met the clinical case definition (generalized rash lasting 3 or more days; temperature $>101^{\circ}\text{F}$, if measured; and cough, coryza, or conjunctivitis).

Although the outbreak originated in Southeast Alaska (37 cases), measles has now been diagnosed in 2 residents of Southcentral Alaska and in 6 North Slope Borough villagers (Figure 2). Facilitated by air travel, this dispersion of cases from Southeast Alaska to the Arctic Slope occurred in less than 3 weeks. However, it must be emphasized that, to date, transmission is known to have occurred only in Southeast Alaska (Ketchikan, Metlakatla, Craig, Klawock), in Anchorage (at a single hospital), and in Nuiqsut (150 miles southeast of Barrow). There have been at least 4 generations of measles cases in the city of Ketchikan, site of the most intense transmission. Transmission in Southeast Alaska appears now to be declining.

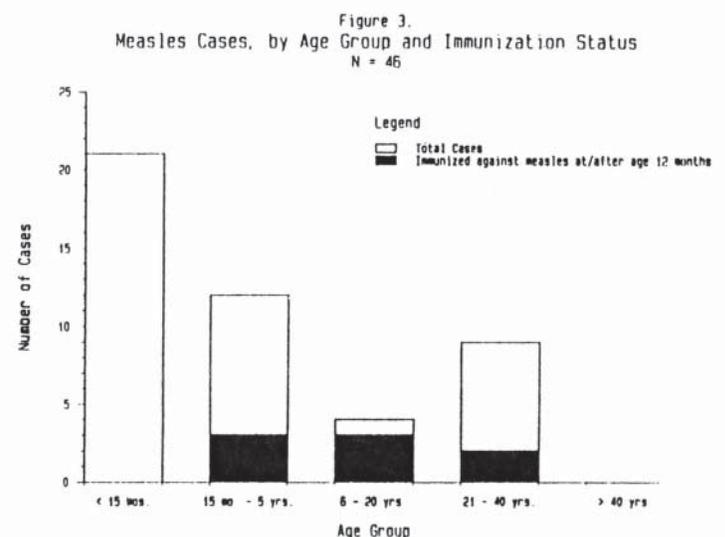


Cases ranged in age from 3 months to 38 years. Twenty-one (46%) of the cases were unimmunized children under the age of 15 months. Three (25%) of 12 cases aged 15 months to 5 years and three (75%) of 4 cases aged 6-20 years had been immunized against measles at or after 12 months of age. Two (22%) of 9 adults in the 21- to 40-year age group had been immunized (Figure 3). There have been no cases of measles among Ketchikan schoolchildren. In each of three villages (Metlakatla, Craig, Nuiqsut), a school-aged child has developed measles.

Our investigation of this outbreak has yielded much information and a number of insights regarding immunization of school children and transmission of measles in Alaska:

1. Some schools have admitted students who do not have documentation of immunizations as required by Alaska law (4 AAC 06.055). Unimmunized schoolchildren constitute a pool of susceptible persons who could sustain an outbreak in a school population. Except in communities where regular medical services are not available on at least a weekly basis, provisional admittance of school children without immunization records should not be allowed.

2. In this outbreak, measles transmission has been facilitated by hospitalization of cases (resulting in transmission to staff, patients, visitors) and by movement of infected persons from one city to another. Persons with suspected measles should not routinely be hospitalized. Those requiring in-patient care (for dehydration, pneumonia, etc.) should be admitted under strict respiratory isolation. Section of Epidemiology staff will gladly assist with the diagnosis of febrile rash illnesses.
3. Several measles cases have been persons immunized under 15 months of age, a period during which measles vaccination may be less effective. Parents of children immunized before 15 months of age should be urged to have their children receive another dose of MMR vaccine.
4. The Section of Epidemiology does not endorse or encourage routine revaccination with MMR vaccine. The two-dose measles vaccination policy (currently recommended by the American Academy of Pediatrics and the Advisory Committee of Immunization Practices) would not have prevented the current measles outbreak in Alaska and would have had little, if any, impact on transmission. We believe that a measles revaccination program, at an estimated cost of \$170,000 per year, would provide no health benefits to Alaskans beyond those already conferred by the present single-dose vaccination regimen.
5. In discrete populations (such as day-care centers) and in villages in which a measles case is identified, we are recommending MMR vaccine for all children 6 months of age or older. All children 15 months of age or older are eligible for MMR vaccination and should be immunized.



Suspected measles cases should be reported immediately to Section of Epidemiology staff at 561-4406.