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Hepatitis A - Update and Investigation Results

Since our last report on hepatitis A (January 15, 1988, Bulletin #1), the Section of Epidemiology has continued to receive and evaluate case reports. During the first four months of this year, 96 cases of hepatitis A were reported from 10 villages. Six of these villages had not previously reported hepatitis A and 5 of the 6 were in the Yukon-Kuskokwim (Y-K) Delta. Ages of cases ranged from 2 to 41 years.

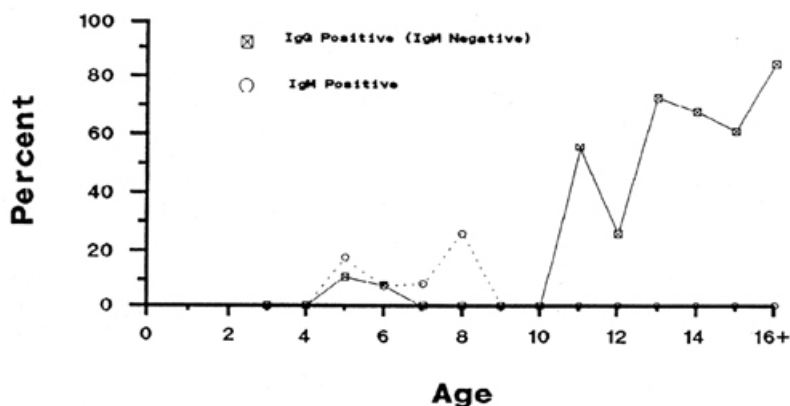
On March 23 and 24, staff from the Section of Epidemiology visited Chevak in the Y-K Delta region and conducted a serosurvey for hepatitis A antibodies in children. This village (1980 population: 466) had eight cases of hepatitis A reported between December, 1987 and March 23, 1988.

One Hundred and fifty-one blood specimens were collected, 140 from children and 11 from adults. Of the 151 specimens, seven (all from children, ages 5-9) were positive for hepatitis A IgM. Three of the IgM positive sera were from children who had previously been reported to us as symptomatic cases; thus four new asymptomatic cases were identified, bringing the total case count to 12.

Of the 12 cases, 7 (58%) were male. Onsets were between December 22, 1987 and March 24, 1988, the date we identified the asymptomatic cases. Age ranged from 2 to 41 years. Of the 12 cases, 9 (75%) were 5-9 years old, 1 (8%) was 2 years old, and 2 (17%) were adults, ages 20 and 41.

Individuals were also screened for past hepatitis A infection (IgG positive). Of the 144 IgM negative individuals, 38 (26%) were IgG positive. For the 72 IgM negative children under age 10, 2 (3%) were IgG positive. Of the 61 IgM negative villagers between ages 10 and 19 who were screened, 27 (44%) were IgG positive. Of the 11 adults over age 19, 9 (82%) were IgG positive (Figure 1).

Figure 1. Prevalence of Hepatitis A Antibodies
Chevak AK, March 1988



The outbreak of hepatitis A now occurring in Chevak follows a pattern similar to that occurring in other rural villages. The outbreak is largely in young children, and disease spread appears to be from person-to-person primarily among the children. Many cases are asymptomatic. In the population older than age 10, over half are immune, and for adults older than 19 years, the level of immunity reaches 80%.

The age-specific rates of HAV-IgG positivity for Chevak are similar to the pattern found in the 1987 investigation in Newtok, Toksook Bay, Nightmute, and Tununak in which most individuals under age 10 were susceptible while those older were immune. At this time, there is no evidence that the hepatitis A outbreak in the Y-K Delta has begun to wane. Most children under age 10 are still susceptible and capable of sustaining the outbreak.

It is important for physicians and other health care providers to continue to report suspected or confirmed cases of hepatitis A to the Section of Epidemiology. Testing for hepatitis A is free through the Northern Regional Laboratory, Alaska Division of Public Health, in Fairbanks.

(Thanks to Susan Martin, Regional Nurse Manager, Bethel; Stella Lake, Community Health Aide, Chevak; and especially the residents of Chevak for their help with this investigation.)