

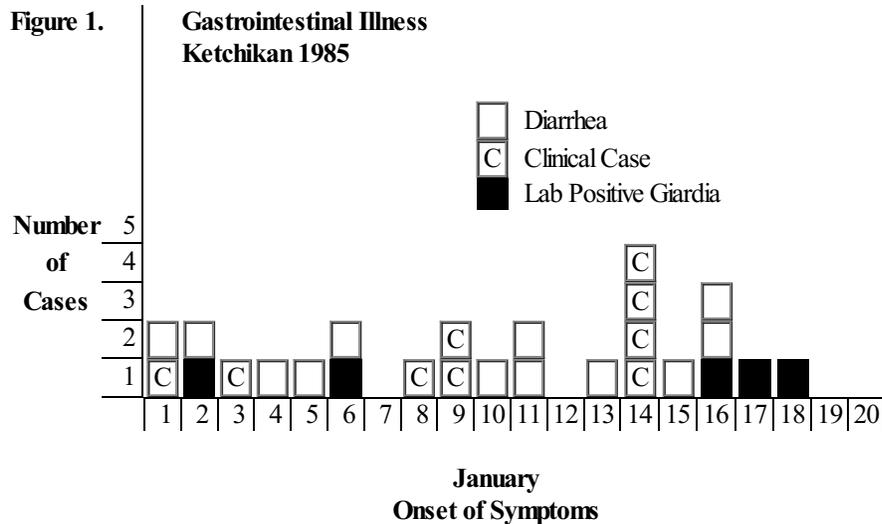


Bulletin No. 5

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Follow-up Investigation Allays Fears of Second
Ketchikan Water System Outbreak

Figure 1.



In November 1984, the Epidemiology Office investigated an outbreak of giardia associated with the Ketchikan municipal water system (Epidemiology *Bulletin* Number 20, Week Ending November 30, 1984). After recommending control measures, we instituted an intensive surveillance system to monitor gastrointestinal illness and giardia in Ketchikan. Through this system, we found 54 additional cases of gastrointestinal illness between December 1, 1984 and mid-January, 1985.

Of 47 individuals we interviewed, 21 were ill prior to January 1, 1985, and 26 had onset of symptoms after January 1, including 1 asymptomatic child who was laboratory positive for giardia. Between December 1-January 18, 14 individuals were positive for giardia; 9 of the 14 were ill prior to January 1.

Of the 26 individuals sick after January 1, 11 met a clinical case definition of giardiasis (diarrhea, abdominal cramping, and gas for at least five days). After January 1, giardia was found in 2 individuals who met our case definition and 3 individuals who did not meet our case definition, including an asymptomatic child who was lab positive on January 18. Four clinical cases who were tested were laboratory negative for giardia. Illnesses among the 12 individuals who did not meet our case definition were characterized by symptoms that were unlikely to have been due to giardia such as fever, diarrhea of brief duration (<24 hour), vomiting, and sore throat (figure 1).

Of the 21 individuals ill prior to January 1, 1984, 9 were laboratory confirmed for giardia. Of these 9, 3 had onset of illness in October or November during the giardia outbreak. Giardiasis was also found in a 3-year-old whose mother was laboratory positive after January 1. This family's cat was also laboratory positive for giardia. *Clostridium perfringens* was isolated from one individual who reported diarrheal illness for several months; all other enteric stools were negative. Viral cultures are pending.

Investigation of gastrointestinal illness during the first three weeks of January in Ketchikan provided no evidence that a new waterborne outbreak was occurring. Among 25 cases of illness identified beginning after January 1, only 11 met a clinical case definition for possible giardia, and of these 11, only 2 were lab positive. Only 5 laboratory confirmed cases were found, and investigation failed to implicate a waterborne source. Several individuals who had mild diarrheal illnesses were negative for giardia, suggesting other etiologic agents. Continued surveillance and reporting in the Ketchikan community is essential in order to permit rapid investigation of cases of gastrointestinal illness.

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