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*Bulletin No. 9*  
*July 17, 1989*

## INFLUENZA IN ALASKA - 1988-1989

Alaska experienced substantial influenza morbidity during the 1988-89 influenza season. Reported outbreaks in schools and a nursing home were confirmed as influenza by means of viral cultures. Influenza virus isolates in Alaska included all three viral strains that were contained the 1988-89 vaccine (A/Taiwan/1/86, A/Sichuan/2/87, and B/Victoria/2/87), plus B/Yamagata/16/88.

Alaska's 1988-89 influenza season was typical except for its relatively late onset and its persistence into mid-April.

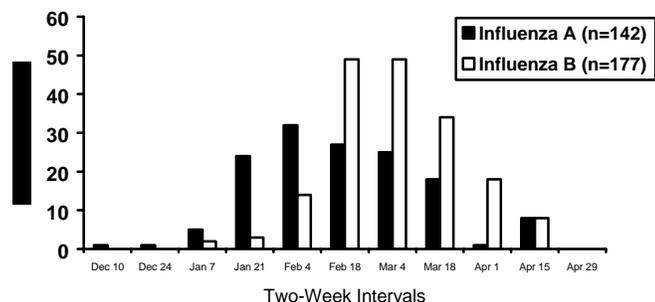
On April 7, Don Ritter, State Public Health Laboratory - Fairbanks, notified our office of an influenza virus isolate which resembled a new strain of influenza, B/Yamagata/16/88. The isolate was obtained from a specimen taken from a nine-year-old Fairbanks resident who developed a fever, cough, and eye pain on February 27. He had received a dose of the current (1989-89) influenza vaccine on 10/17/88. One week prior to this patient's illness, both his father and older brother were ill with similar symptoms. Throat swabs obtained from these family members yielded influenza isolates most closely resembling B/Victoria/2/87. Neither individual had received the influenza vaccine. The patient's mother, who reported no illness, had received influenza along with her son in October. This family had not recently been outside Alaska and had not had visitors from outside Alaska.

Subsequently, the Northern Regional Lab reported two more influenza isolates resembling B/Yamagata from two Delta residents. Ferret serum containing strain-specific antibodies against B/Yamagata/16/88, obtained from the Centers for Disease Control, was used to confirm the identity of the three isolates as B/Yamagata/16/88.

These three isolates of influenza B/Yamagata/16/88 obtained from residents of Fairbanks and Delta represent the first isolates of this influenza strain in the United States. This strain was first seen in the People's Republic of China in 1987 and circulated in Japan, Hong Kong, Singapore, Taiwan, and Thailand from February 1988 to January 1989. The antibody induced by the current B/Victoria/2/87 vaccine component is poorly reactive with the B/Yamagata/16/88 strain. In anticipation of the introduction of B/Yamagata/16/88 into the United States, the B/Victoria component of the 1989-90 influenza vaccine will be replaced by a B/Yamagata/16/88 component.

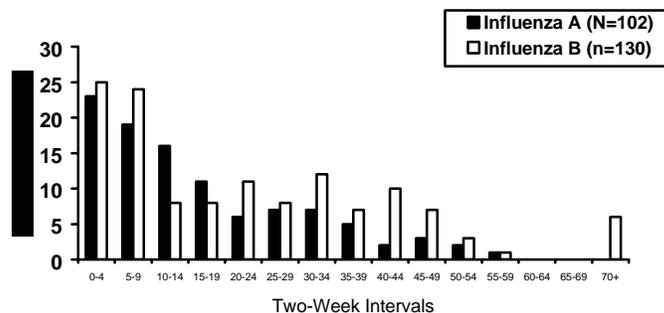
**Because a new strain of influenza type B (B/Yamagata/16/88) was isolated in Alaska in 1989, we anticipate substantial illness during our next influenza season (1989-1990). Physicians and other health care providers should plan to offer the new 1989-90 vaccine to individuals in high risk groups early in the fall as soon as the vaccine is available.**

**Figure 1**  
**Influenza Cases in Alaska, Dec 1988 - Apr 1989**  
**by Date of Onset or Report**  
**N = 319**



- Influenza A appeared in mid-December, peaked in early February and disappeared by mid-April. Influenza B was first identified in early January, and peaked in February (Figure 1).
- No culture-confirmed cases of influenza were identified after April 15 (Figure 1).

**Figure 2**  
**Influenza Cases in Alaska,**  
**Dec 1988 - Apr 1989**  
**N = 232\***



- \*Ages of 87 Cases Unknown
- Of 319 culture-confirmed cases, ages were known on 232 (73%). Cases ranged in age from four months to 93 years. Six cases of influenza B were identified in adults more than 70-years-old. For influenza B, (57%) of 102 cases were less than 15-years-old. For influenza B, 57 (44%) of 130 cases were less than 15-years-old (Figure 2).

We thank all physicians and other health care providers who reported clusters of influenza and who obtained throat swabs for viral culture during this influenza season. Reported by Don Ritter, Microbiologist, State Public Health Laboratory-Fairbanks.