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Alaska's TB Morbidity Drops--But the Battle is Far From Over

During 1992, tuberculosis (TB) was diagnosed in 57 Alaskans, an incidence of 9.7 cases per 100,000 residents (Figure) -- the 15th highest rate among the 50 states. Fewer TB cases have been reported in Alaska only once, in 1988, when there were 51 cases. For the first time, Alaska's annual TB morbidity rate has fallen below the U.S. rate, which was 10.5 per 100,000 last year.

The ages of the 57 case-patients ranged from 1 to 88 years (mean, 39.6 years; median, 36 years); four children, all <6 years old, were affected. Males accounted for 38 cases (67%).

Twenty-nine cases (51%) occurred among Alaska Natives/American Indians--a rate of 31.7 per 10⁵, or about half the rates reported for 1990 and 1991. Asians/Pacific Islanders accounted for 20 cases (35%), a rate of 94.7 cases per 10⁵, more than twice the rates for 1990 and 1991. Six case-patients (11%) were White; two (3%) were Black.

Seventeen (30%) of all TB cases in 1992 occurred among foreign-born persons. Sixteen originated from Asia (Philippines, 8; South Korea, 3; Vietnam, 3; India, 1; Cambodia, 1); one was from Central America. Of the 17, 11 had entered the U.S. within the past 5 years.

Twenty-nine TB cases (51%) occurred in Southcentral Alaska; 13 (23%), in Northwest Alaska; seven (12%), in Interior Alaska; six (11%), in Southeast Alaska; and two (3%), in Southwest Alaska. Clusters of related TB cases occurred in Kiana (3) and Homer (2).

Forty-two case-patients (74%) had pulmonary TB; seven (12%) had lymphatic TB; and four (7%) had pleural TB. TB meningitis and TB osteomyelitis (Pott's disease) were diagnosed in one person each. Eight case-patients (14%) had recurrent TB, occurring an average of 15.6 years after a previous diagnosis of TB (range: 5-34 years).

Forty-seven cases (82%) were confirmed by mycobacterial culture. Of 46 *M. tuberculosis* isolates for which antibiotic susceptibility information was available, four (8.7%) were drug-resistant. Two were resistant to isoniazid alone; a third was resistant to isoniazid and rifampin; the fourth was resistant to isoniazid and pyrazinamide. Two of the case-patients were Asian immigrants, one of whom had had prior anti-TB therapy; a third person may have been infected during a 1989 village-based outbreak of isoniazid-resistant TB.

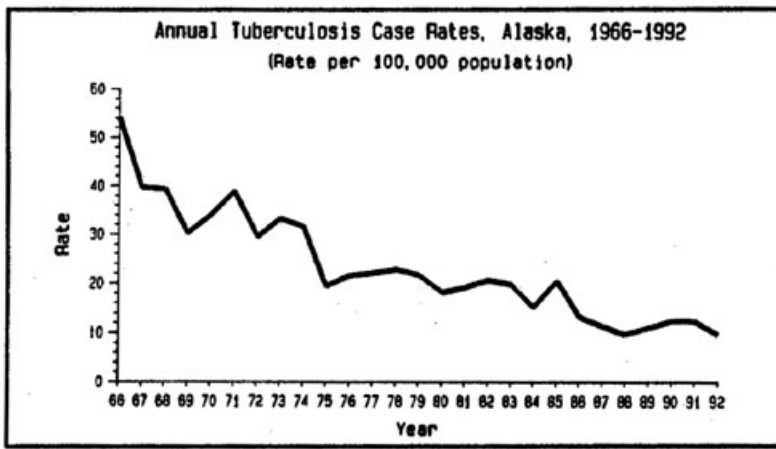
Three case-patients were inmates in correctional facilities; three were nursing home residents. No other cases of TB disease were detected at these facilities.

Two persons with concomitant AIDS and TB disease were reported in 1992. One was an Alaska Native; neither had drug-resistant TB. Only four other Alaskans with AIDS/TB had been reported prior to 1992.

Recommendations

1. The proportion of antibiotic-resistant *M. tuberculosis* isolates was slightly higher in 1992 (8.7%) higher than the average annual proportion during 1986-91 (5.7%). **Health-care providers should strongly consider adding ethambutol to initial drug regimens for treatment of active TB disease**, until results of susceptibility tests are known. Persons most likely to have drug-resistant TB (DRTB) are: (a) immigrants from Asia, Central & South America, and Africa; (b) persons previously treated for TB; and (c) persons presumably infected by a DRTB case.
2. Whenever possible, **patients with active TB disease should receive all doses of anti-TB therapy under the direct observation of a health-care provider or outreach worker**. Patients with a current history of substance abuse are the most likely to fail to complete therapy. The TB Control Program can provide financial support for directly-observed therapy.
3. Co-infection with human immunodeficiency virus (HIV) and TB may have devastating consequences for affected patients and their contacts. Fortunately, the occurrence of TB disease in persons with AIDS is still uncommon in Alaska. We continue to recommend, as detailed in the Bulletin of 9/2/92 (no. 20), that **patients with TB infection (and risk factors for HIV infection) or with TB disease should be evaluated for evidence of HIV infection, and that HIV-infected patients should be evaluated for evidence of TB infection**.

Although TB morbidity was relatively low in 1992, the many Alaskans who are TB-infected are at risk of reactivation, and TB outbreaks can occur anywhere. The battle against TB in Alaska is far from over! Call the Section of Epidemiology at 561-4406 to report suspected or confirmed cases of TB disease or to discuss questions about TB.



(Contributed by Michael Jones, MD, Section of Epidemiology)