

Medicine by John Grauerholz, M.D.

TB begins predicted comeback

The outbreak of drug-resistant TB among homeless in Boston heralds a return of the disease in urban areas.

The current edition of the *Morbidity and Mortality Weekly Report* of the Centers for Disease Control (Vol. 34/No. 28) leads off with an article entitled: "Drug-Resistant Tuberculosis among the Homeless—Boston."

The article reports that between February 1984 and March 1985, 26 cases of tuberculosis were reported among homeless people in three large shelters in Boston.

Nineteen of these cases occurred in 1984, representing an incidence of 316.7 per 100,000, which is a sixfold increase over the incidence in this same population in 1983.

The most ominous facet of these particular cases was that the outbreak was initially recognized because the organisms were resistant to multiple anti-tuberculosis drugs. Identification of these cases led to a screening program which detected the remainder of the 26 cases, all multiply drug-resistant.

A subsequent screening program, now being introduced at all Boston shelters, detected tuberculous infection in 13 of 84 staff members at one 350-bed shelter. Preventive therapy is being initiated in this group.

While high rates of tuberculosis have been previously documented in homeless populations, this is the largest such outbreak so far reported.

Homeless populations are generally at high risk due to factors such as

stress, alcoholism, drug addiction, and malnutrition, which are common among the homeless.

When these people are crowded together in shelters, infections can spread rapidly. In addition, because of the transient nature of these populations, it is difficult to ensure adequate treatment of these cases.

Inadequate treatment results in continuing infection, and the development of drug-resistant strains.

The development of tuberculosis strains resistant to Isoniazid (INH) is a particularly worrisome problem, since INH is the only drug of proven value in preventing tuberculosis. The widespread dissemination of INH-resistant organisms among the nutritionally and immunologically compromised populations of our central cities is a real biological time bomb.

To understand the full implications of this, it is useful to read the rest of this issue of *Morbidity and Mortality Weekly Report*, particularly the weekly statistical reports.

Here we learn that as of July 14, 1984, 11,203 cases of tuberculosis had been reported in the United States, and, as of July 13, 1985, 11,031 cases have been reported.

This amounts to a decline of only 172 cases, or about 1.5%. This is a significant leveling off in the previous decline of 6 to 7% a year.

Closer examination reveals a much

more interesting trend, which is a steady decline in incidence of tuberculosis in most rural areas combined with sharp increases in major urban areas such as Boston and New York City.

New York City has reported 1,014 cases so far this year, compared to 826 last year, for an increase of 22.7%. The same obtains in the sunbelt state of California which reported 1,802 cases so far this year, as opposed to 1,789 last year. That gives an overall increase of 0.7%, within which are contained markedly sharper increases in cities such as Los Angeles and San Francisco.

Absolute increases in number of cases are being reported from:

- New England, with 367 cases so far this year, an increase of 16.8%;
- West-South Central (Arkansas, Louisiana, Oklahoma, Texas) with 1,325 cases so far, representing a rise of 2.6%;
- the Pacific (Washington, Oregon, California, Alaska, and Hawaii) with 2,172 cases, representing an increase of 1.8%.

Previous articles in this publication have stressed the potential for the return of tuberculosis as a major cause of death and disability in urban areas of the United States. This potential is now being actualized with the additional factor of widespread development of organisms resistant to the only drug presently known to prevent TB.

In this context, the U.S. Congress in Washington, D.C.—a city which has reported 98 cases of tuberculosis so far this year compared to 88 last year in the same period, an increase of 11.3%—is pushing a budget which is guaranteed to ensure that basic health and sanitation will be further depreciated, and that tuberculosis will make its comeback as a big time killer in the very near future.