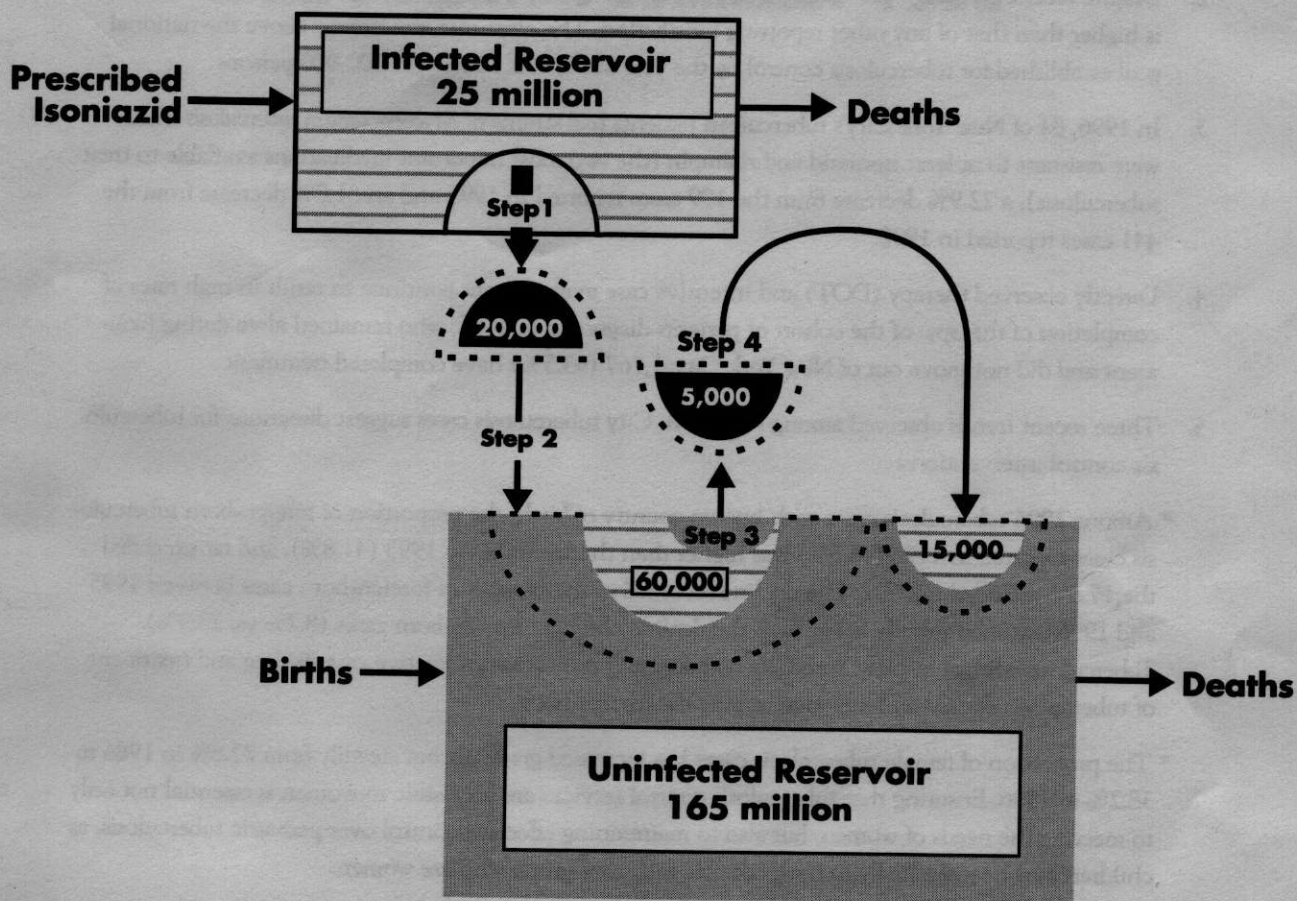


BUREAU OF TUBERCULOSIS CONTROL NEW YORK CITY DEPARTMENT OF HEALTH INFORMATION SUMMARY 1996

TB CONTROL WITH ISONIAZID PREVENTIVE THERAPY



Infection
 Active Disease

- - - - Amount of infection or disease there would be without isoniazid therapy

*Adapted from SH Ferebee. An epidemiological model of tuberculosis in the United States
Natl Tb Assoc Bull 1967;53:4-7.

The figure illustrates a model of the annual cycle of tuberculosis infection and disease in the United States and the impact of using isoniazid preventive therapy. Reducing transmission of tuberculosis requires not only curing individuals with tuberculosis disease but giving preventive therapy to those with tuberculosis infection, especially to those who are HIV-infected, close contacts of cases of active disease, and from areas of the world where tuberculosis is widespread. (See section entitled *Prevention of Future Tuberculosis Disease* in text, page 21.)

HIGHLIGHTS

1. In 1996, 2,053 new cases of tuberculosis were reported in New York City, a 16.0% decrease from the 2,445 cases reported in 1995 and a 46.1% decrease from the 3,811 cases reported in 1992, the peak of the current epidemic. New York City's tuberculosis rate in 1996 was 28.0 cases per 100,000 persons, compared with 33.4 in 1995 and 52.0 in 1992.
2. Despite recent progress, New York City's 1996 tuberculosis rate is still 3.5 times the national rate, and is higher than that of any other reporting jurisdiction. The city's rate remains far above the national goal established for tuberculosis control by the year 2000, of 3.5 cases per 100,000 persons.
3. In 1996, 84 of New York City's tuberculosis patients had strains of *Mycobacterium tuberculosis* which were resistant to at least isoniazid and rifampin (the two most important medications available to treat tuberculosis), a 22.9% decrease from the 109 cases reported in 1995 and an 81.0% decrease from the 441 cases reported in 1992.
4. Directly observed therapy (DOT) and intensive case management continue to result in high rates of completion of therapy: of the cohort of patients diagnosed in 1995, who remained alive during treatment and did not move out of New York City, 1,767 (93.5%) have completed treatment.
5. Three recent trends observed among New York City tuberculosis cases suggest directions for tuberculosis control interventions:
 - * Among 1996 tuberculosis cases with known country of birth, the proportion of foreign-born tuberculosis cases reported in 1996 (46.5%) was higher than that recorded in 1995 (41.8%), and far exceeded the 17.8% recorded in 1992. The decline recorded in the number of foreign-born cases between 1995 and 1996 was substantially lower than the decline observed for US-born cases (8.2% vs. 23.9%). Tuberculosis control in New York City will depend on increasing effective case finding and treatment of tuberculosis disease and infection among the foreign-born.
 - * The proportion of female tuberculosis cases has increased gradually but steadily from 27.8% in 1986 to 38.2% in 1996. Ensuring that tuberculosis control services are accessible to women is essential not only to meeting the needs of women, but also to maintaining effective control over pediatric tuberculosis, as children may be more likely to have contact with care-givers who are women.
 - * The proportion of tuberculosis cases who are infected with HIV has remained relatively constant over the period when information about HIV status has been collected for tuberculosis cases (1992-1996), ranging between a high of 33.8% in 1994 and a low of 30.8% in 1996. Even after more intensive efforts on the part of Bureau of Tuberculosis Control staff to collect information about the HIV status of tuberculosis patients, HIV status was unknown for 31.0% of cases counted in 1996. Because of the interaction between HIV infection and tuberculosis, efforts to increase reporting of information about HIV status to the Bureau of Tuberculosis Control must continue. All medical providers should ensure that patients with tuberculosis are offered voluntary HIV counseling and testing.
6. To reduce the burden of tuberculosis on future generations of New Yorkers, the Department of Health and the medical community must place greater emphasis on ensuring that persons infected with *Mycobacterium tuberculosis* complete a course of preventive therapy, especially if they are recently infected contacts to active cases or otherwise at high risk of progression to active disease. In 1996, 13,450 individuals started taking preventive therapy; 11,355 (84.5%) individuals received some or all of their preventive therapy from Department of Health chest clinics.

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