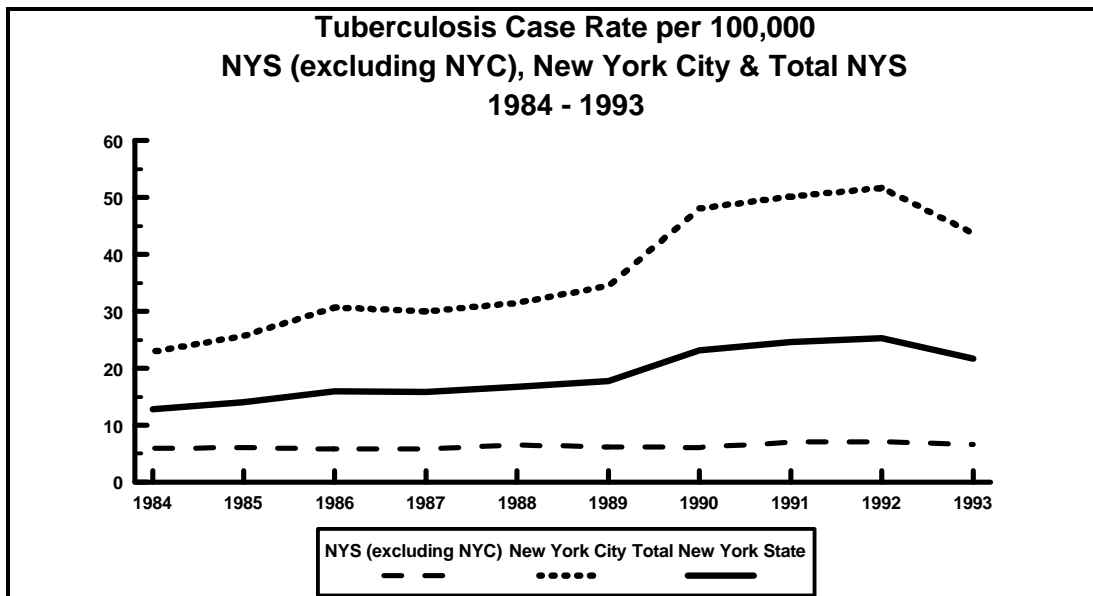
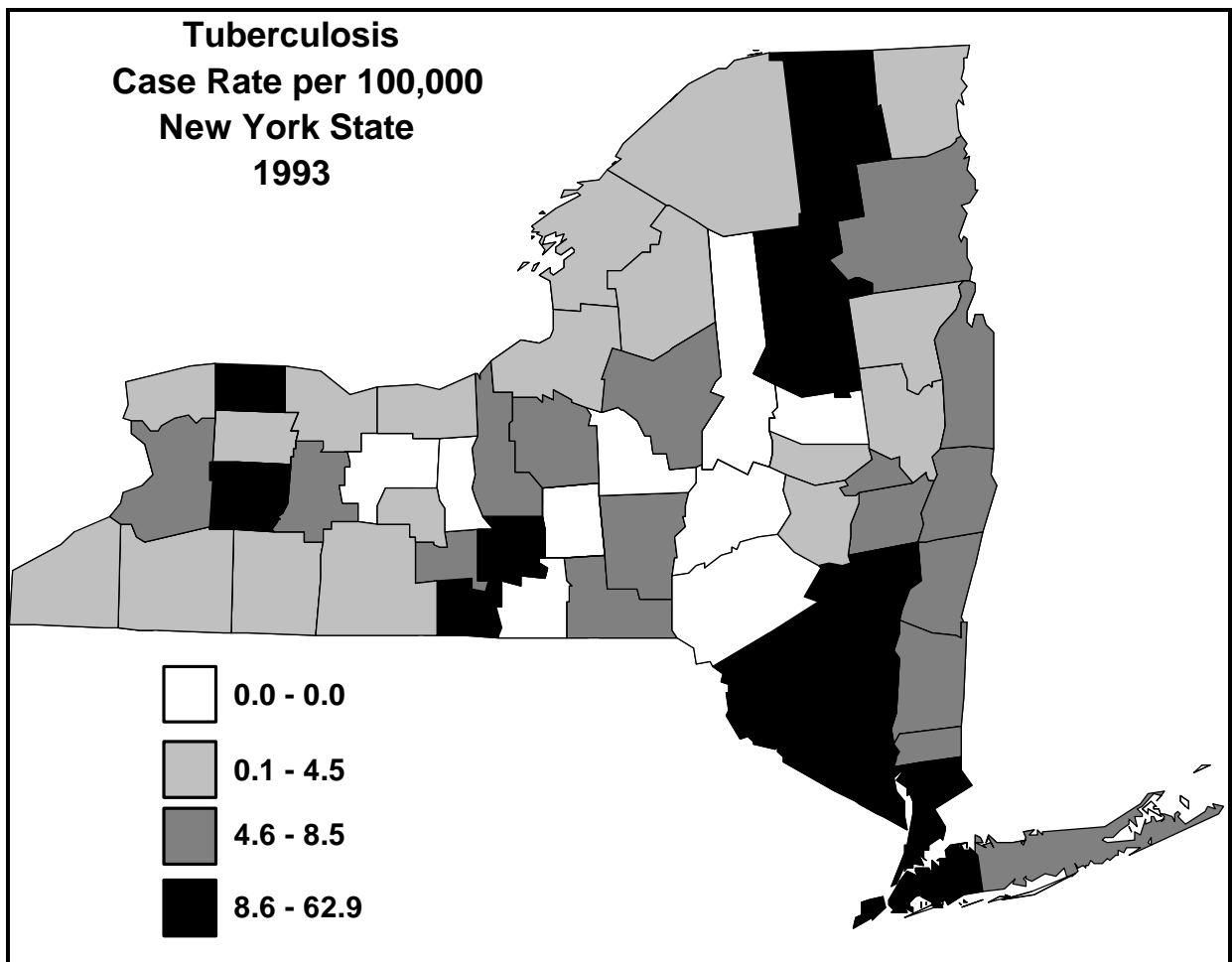


TUBERCULOSIS

In New York State 3,952 cases of tuberculosis were reported in 1993. Morbidity attributable to TB declined throughout the first three-quarters of this century, leveled off and then increased through the 1980s and peaked again in 1992. A number of reasons have been suggested to explain the resurgence of TB including immigration from high prevalence countries, coinfection with HIV, outbreaks of multiple drug resistant TB in congregate settings, inadequate implementation of preventive measures and inconsistent follow-up of cases. The first decline in New York State in 10 years was seen in 1993, when 13.6 percent fewer cases were reported compared to the previous year. Areas of high morbidity continue to be New York City and adjacent counties, along with metropolitan counties in New York State excluding New York City. High morbidity in some New York State counties outside New York City is due to TB disease among inmates in state prisons.



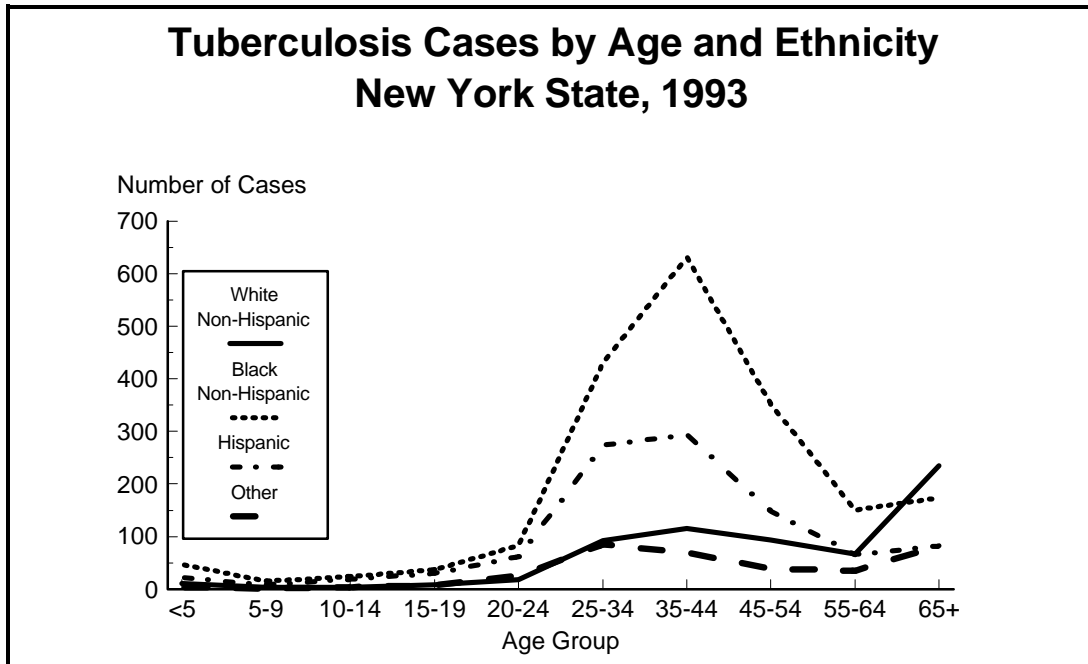


Caution must be used in assessing the 1993 reduction in reported morbidity as a single year decline is insufficient to establish a trend, nonetheless, similar declines were seen throughout the country. Nationally, the total of 25,313 cases reported in 1993 was 5.1 percent lower than the previous year. New York State has implemented a number of initiatives aimed at reducing the incidence of TB. Policies have been developed and distributed targeting infection control practices in acute care and other settings; extensive programs have been presented to educate physicians, nurses, other health care professionals and the general public; state funding has been allocated to city and county health departments to rebuild TB control program infrastructures and develop model county TB control programs providing comprehensive medical and social services.

Tuberculosis Case Rates Per 100,000 New York State and United States 1984-1993				
Year	New York State		United States	
1984	2,246	12.7	22,255	9.4
1985	2,481	13.9	22,201	9.3
1986	2,838	15.9	22,768	9.4
1987	2,812	15.7	22,517	9.3
1988	3,005	16.8	21,244	9.1
1989	3,202	17.8	23,495	9.5
1990	4,176	23.2	25,701	10.3
1991	4,421	24.6	26,283	10.4
1992	4,574	25.4	26,673	10.5
1993	3,952	22.0	25,313	9.8

CDC has suggested two factors potentially confounding the decline in reported TB morbidity: (1) delayed reporting caused by the use of a new TB surveillance reporting system and, (2) underreporting because of the modification of the AIDS case definition in January 1993. Within New York State, active surveillance makes delayed reporting an unlikely issue. The impact of making TB an AIDS defining condition, and the potential failure to report AIDS/TB comorbidity to the TB program could have had an effect, and is currently under review.

The profile of the TB patient has changed in the past decade. No longer just a disease of older persons, TB now occurs in the early and middle adult years, coinciding with the age group at risk for HIV, affecting males twice as often as females. Disease patterns differ by race/ethnicity. Individuals identifying themselves black or Hispanic have a remarkably different age distribution when compared to non-Hispanic whites. In recent years, the number of cases among children under age 15 is double that of the mid 1980s.



Drug resistance, while it has always existed, reached unprecedented levels in the 1990s. A national survey in the first quarter of 1991 found 14.2 percent of reported culture confirmed cases were resistant to one or more antituberculosis drugs. A New York City prevalence study conducted on culture confirmed cases in April 1991 found 33 percent of cases had isolates resistant to one or more antituberculosis drugs, and incident surveillance data on culture confirmed cases reported in New York State outside New York City in 1993 found 14.3 percent were resistant to one or more drugs in the general population (exclusive of prisoners).

Drug Resistance Patterns For Tuberculosis Cases In The General Population New York State (excluding New York City), 1993		
Drugs	Number	Percent of Cases (N=420)
INH only	13	3.1
RIF only	2	0.5
Strep only	10	2.4
Other mono	9	2.1
INH and RIF	9	2.1
Other Combinations	17	4.0
TOTAL	60	14.3
INH and/or RIF (alone or in combination)	38	9.0

Due to the high levels of drug resistance seen in the state, initial treatment with four drugs has been adopted as the standard of care. Further, all patients should be placed on directly observed therapy to ensure compliance, and thus reduce the risk of developing drug resistance due to incomplete therapy.

The availability of "FastTrack" systems from the State TB Laboratory for species identification and susceptibility testing has shortened the time necessary to confirm a case of TB and determine appropriate therapeutic regimens. Additionally, the availability of DNA fingerprinting using the RFLP (restricted fragment length polymorphism) technique will enhance the ability to identify related/clustered TB cases.