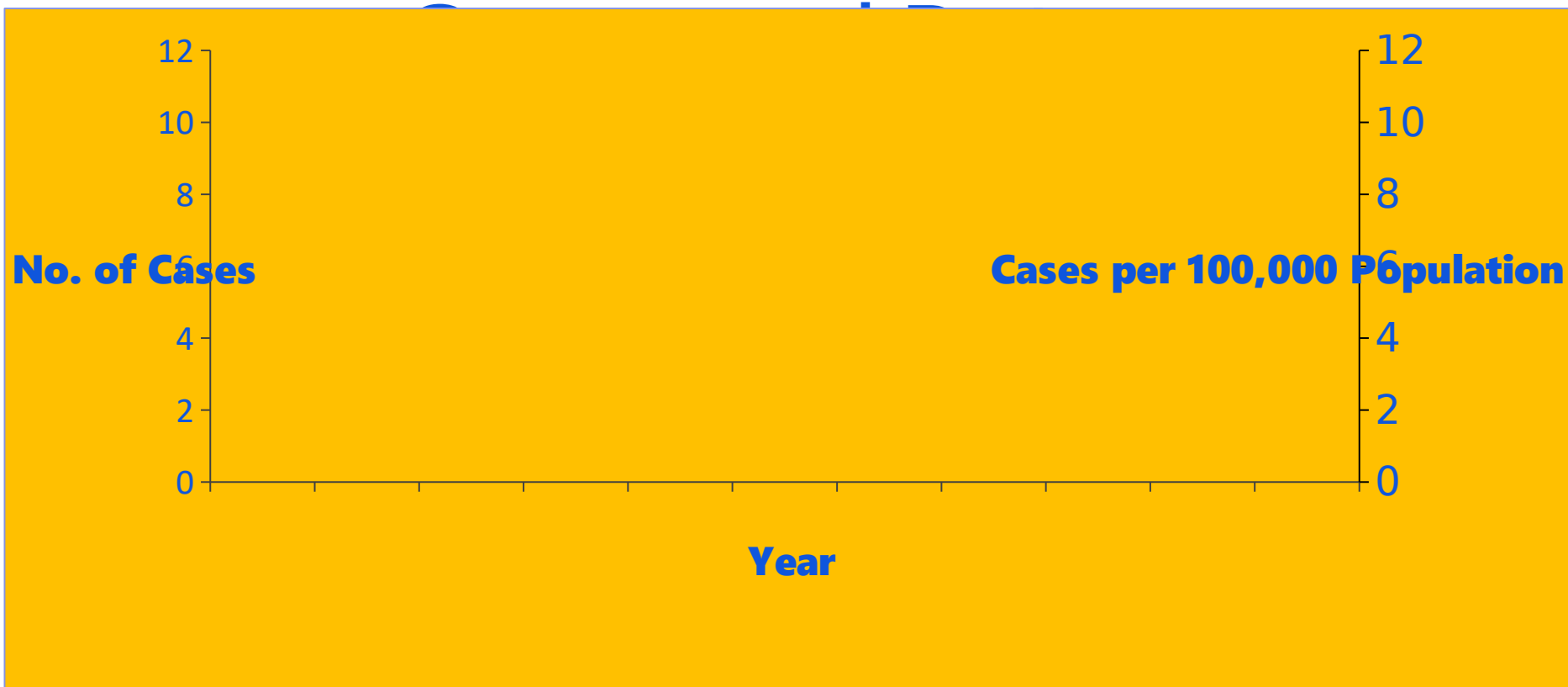


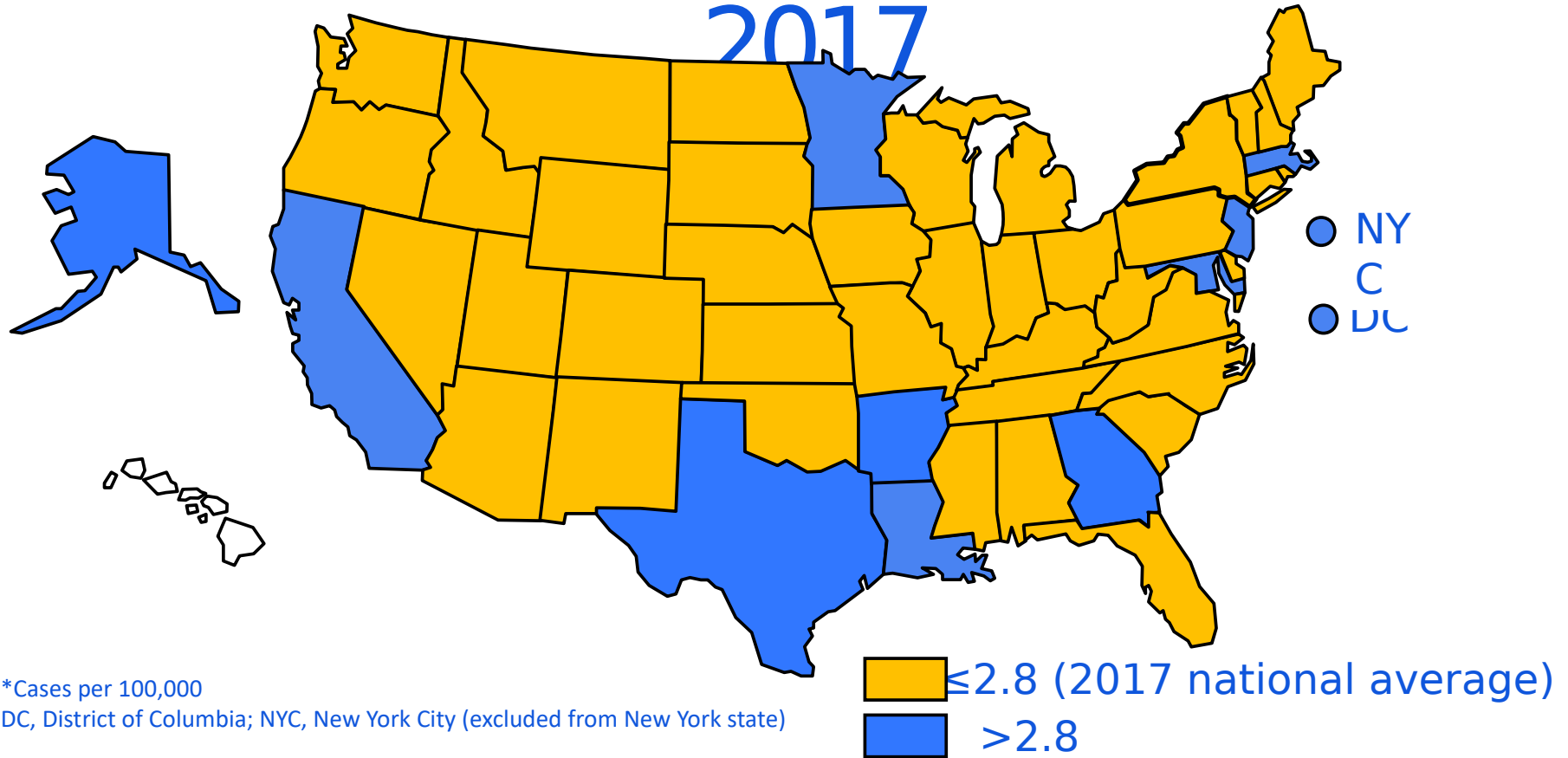
Tuberculosis in the United States 1993–2017

- National Tuberculosis Surveillance
System

Reported Tuberculosis (TB)



TB Case Rates,* United States, 2017



Cases per 100,000 population

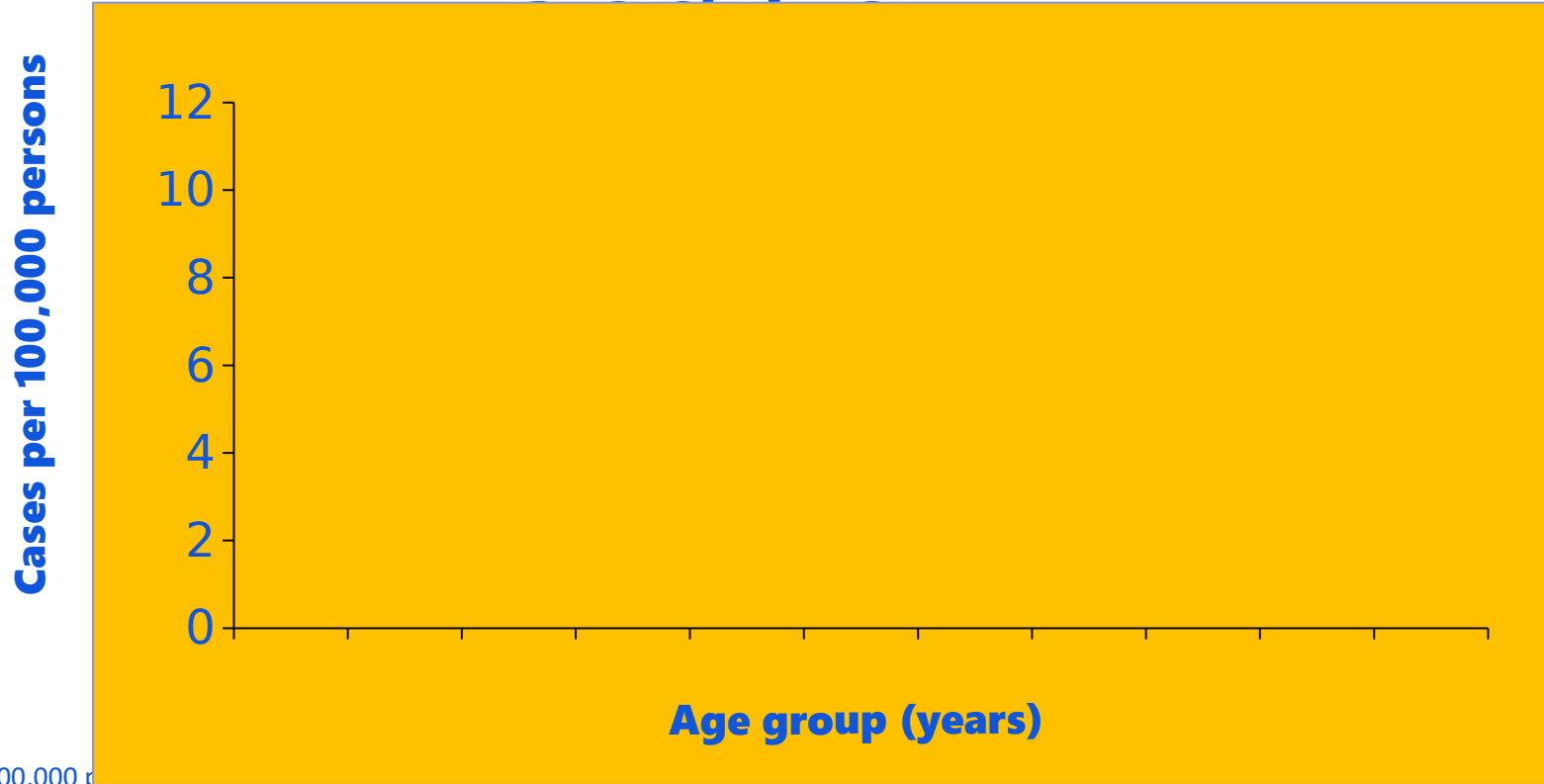
TB Case Rates* by Age Group, Age (yrs.) United States, 1993–2017

*Cases per 100,000 population

Reported TB Cases by Age Group, United States, 2017

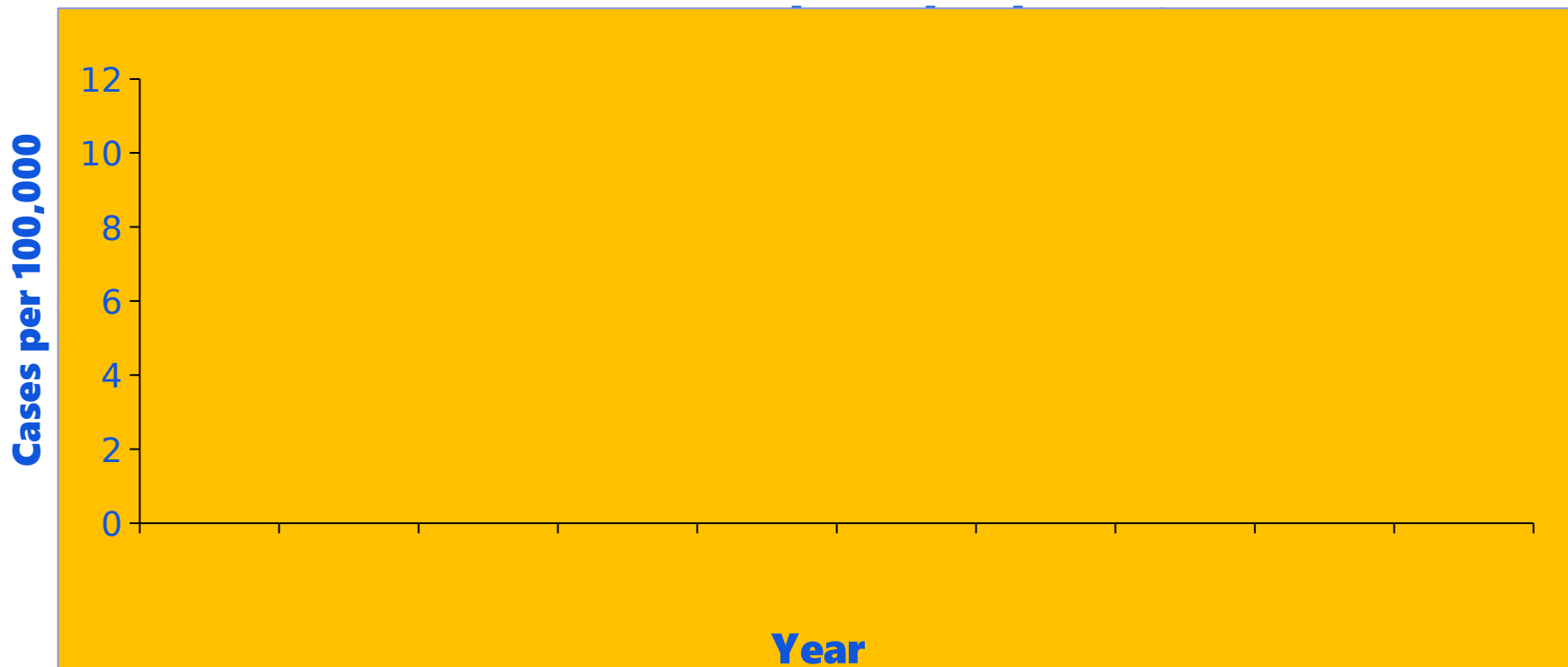


TB Case Rates by Age Group



*Cases per 100,000 persons

TB Case Rates by



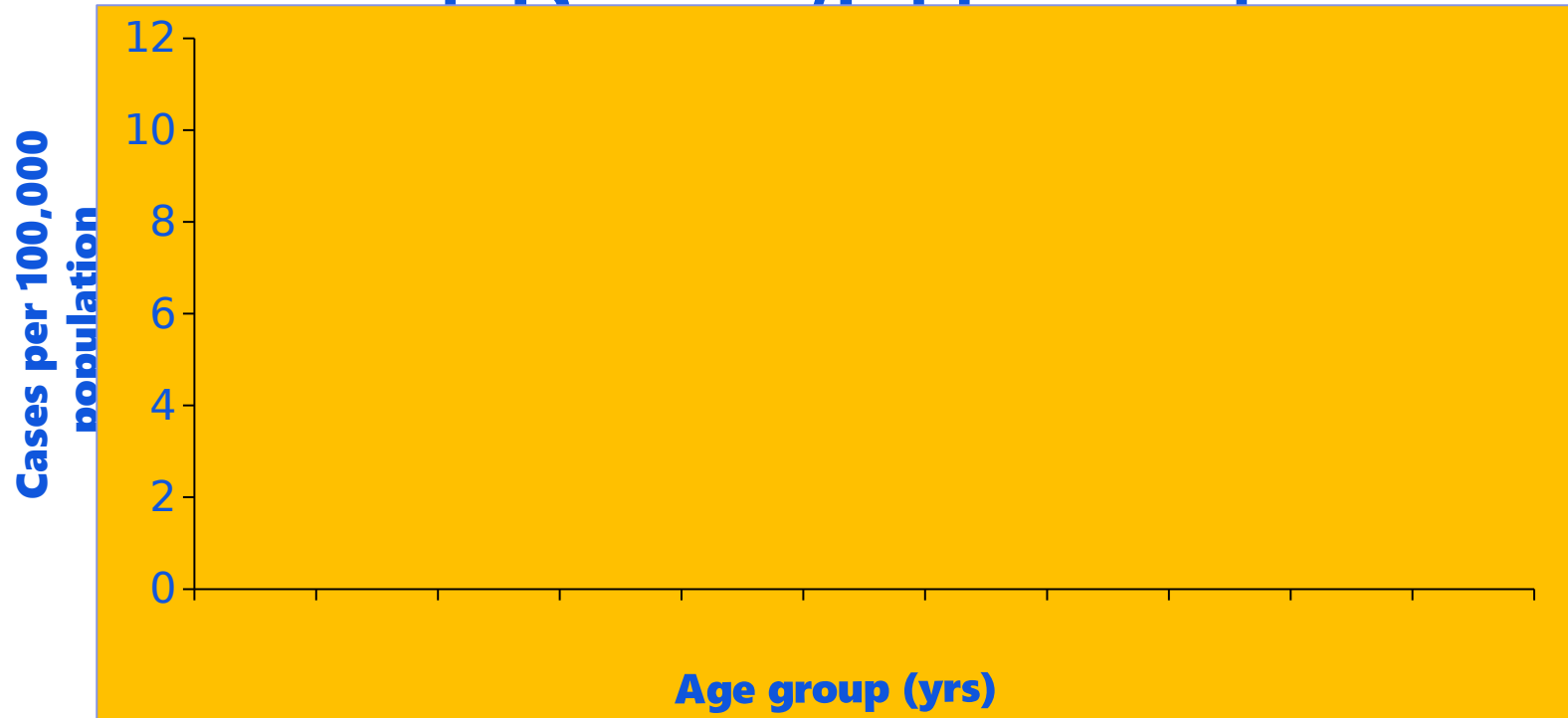
* All races are non-Hispanic; † Multiple race indicates two or more races reported for a person, but does not include persons of Hispanic/Latino origin.

† Asian race category reporting includes Pacific Islander from 1993–2002; Native Hawaiian/Other Pacific Islander race first reported separately in

2003.

† Multiple race category first reported in 2003.

TB Case Rates by Age Group



* All races are non-Hispanic; multiple race indicates two or more races reported for a person, but does not include persons of Hispanic/Latino origin.

Reported TB Cases by Race/Ethnicity,* United States, 2017†

Hispanic/Latino

28%

Multiple race

1%

American Indian/Alaska Native

1%

White 12%

Native Hawaiian/Pacific Islander

1%

Black/African American

21%

Asian 36%

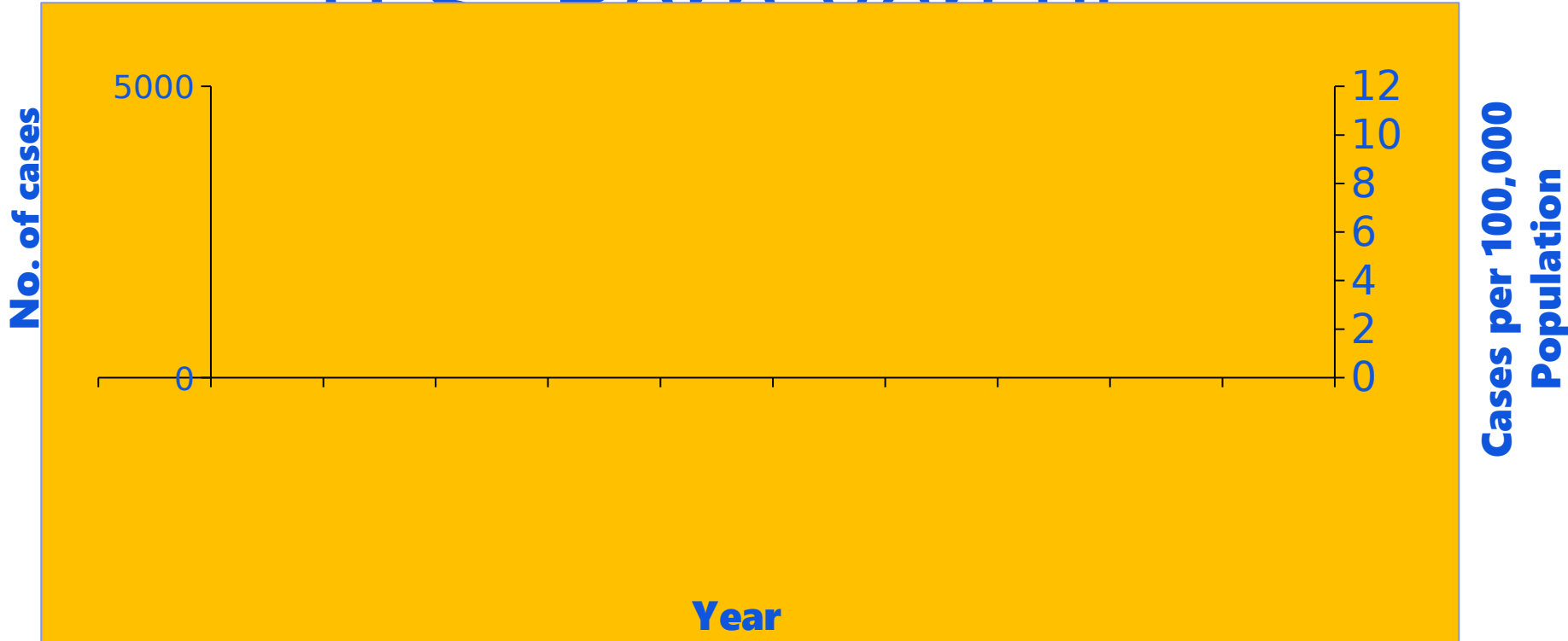
*

All races are non-Hispanic; multiple race indicates two or more races reported for a person, but does not include persons of Hispanic/Latino origin.

†

Percentages are rounded.

TB Cases and Rates Among U.S. Born versus



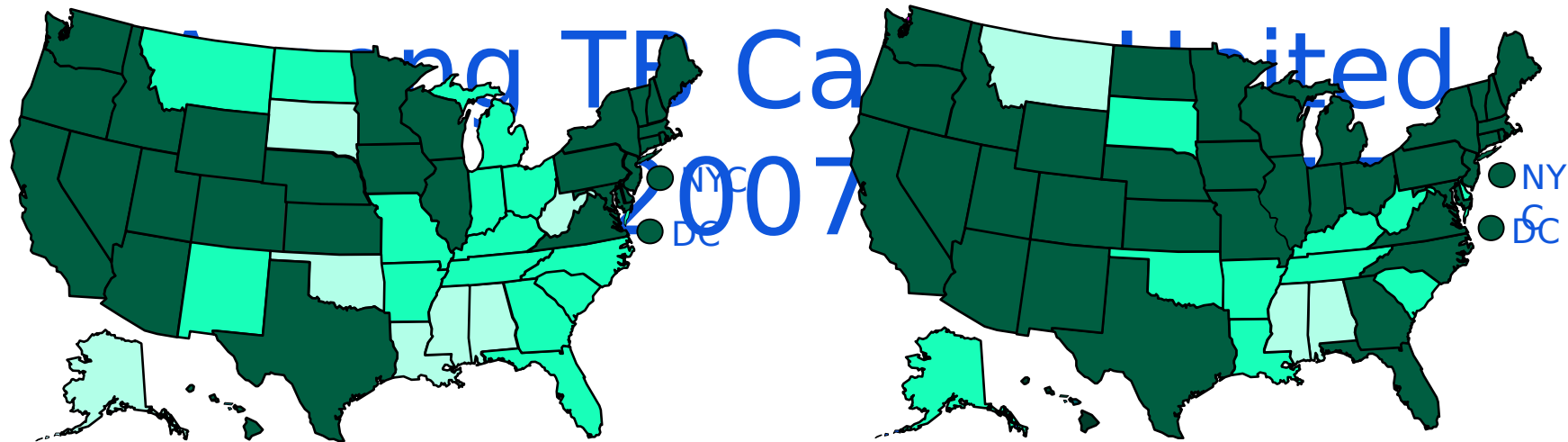
Reported TB Cases by Origin and Race/Ethnicity*, United States, 2017†

U.S.-born persons

Non-U.S.-born persons§

- * All races are non-Hispanic; multiple race indicates two or more races reported for a person, but does not include persons of Hispanic/Latino origin.
- † Percentages are rounded.
- § American Indian/Alaska Native accounted for <1% of cases among non-U.S.-born persons and are not shown

Percentage of Non-U.S.- 2007 Born Persons 2017



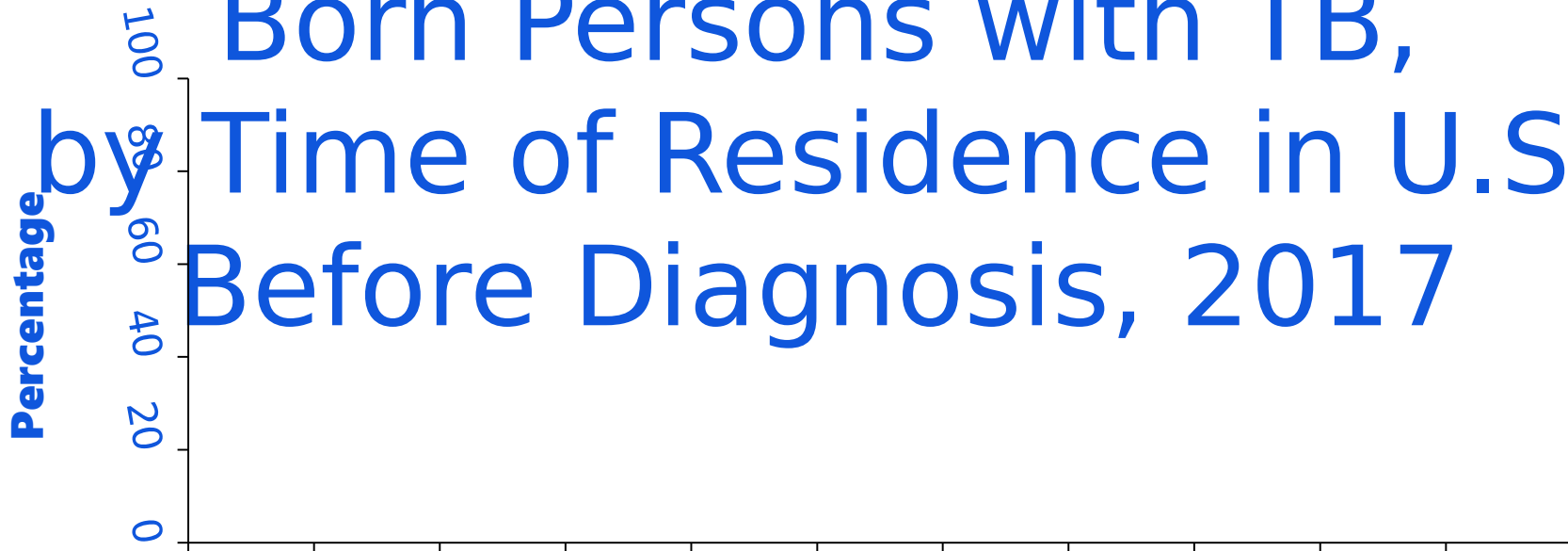
DC, District of Columbia
NYC, New York City (excluded from New York state)

Countries of Birth Among Non-U.S.-Born Persons Reported with TB, United States, 2017

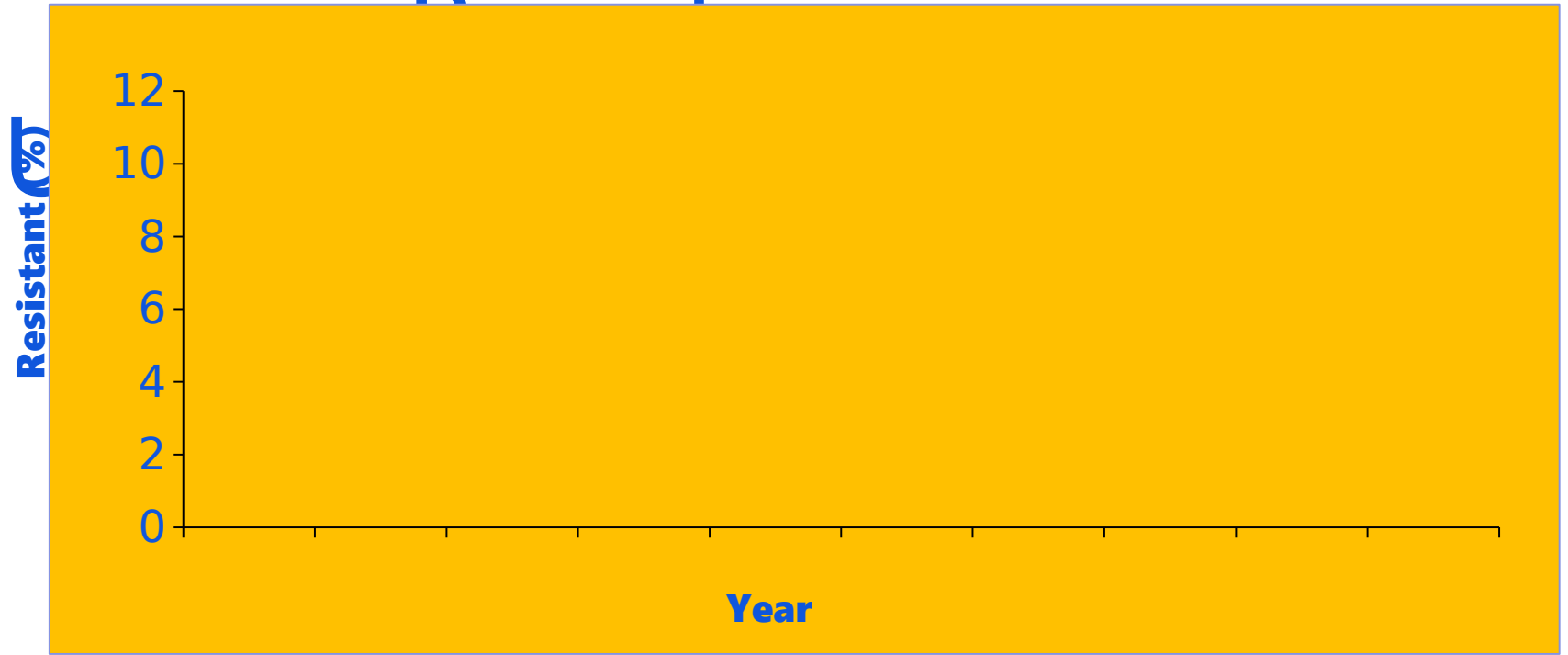
*Percentages are rounded.

A decorative horizontal bar at the bottom of the slide, composed of several colored rectangular segments in teal, purple, red, light blue, orange, and dark blue.

Percentage of Non-U.S.- Born Persons with TB, by Time of Residence in U.S. Before Diagnosis, 2017



Primary Anti-TB Drug

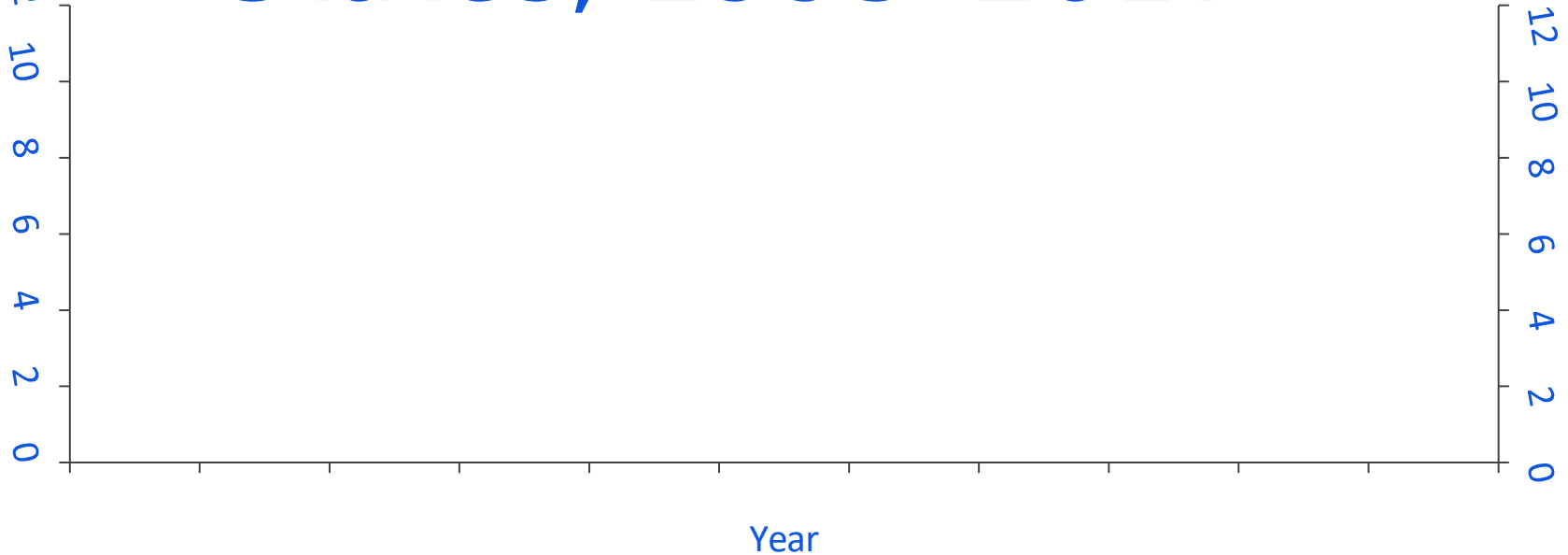


* Based on initial isolates from persons with no prior history of TB; multidrug-resistant TB (MDR TB) is defined as resistance to at least isoniazid and rifampin.

Primary MDR TB, United States, 1993–2017*

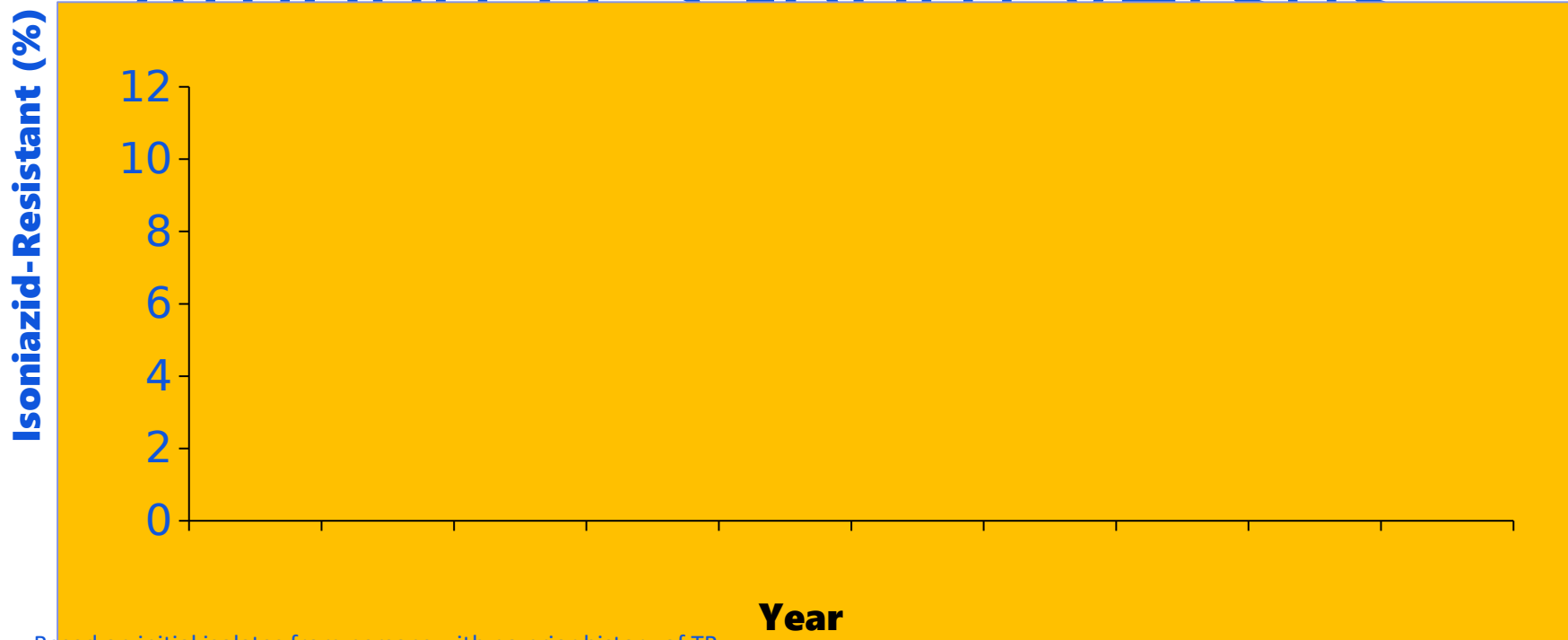
No. of cases

Percentage



* Based on initial isolates from persons with no prior history of TB; multidrug-resistant TB (MDR TB) is defined as resistance to at least isoniazid and rifampin.

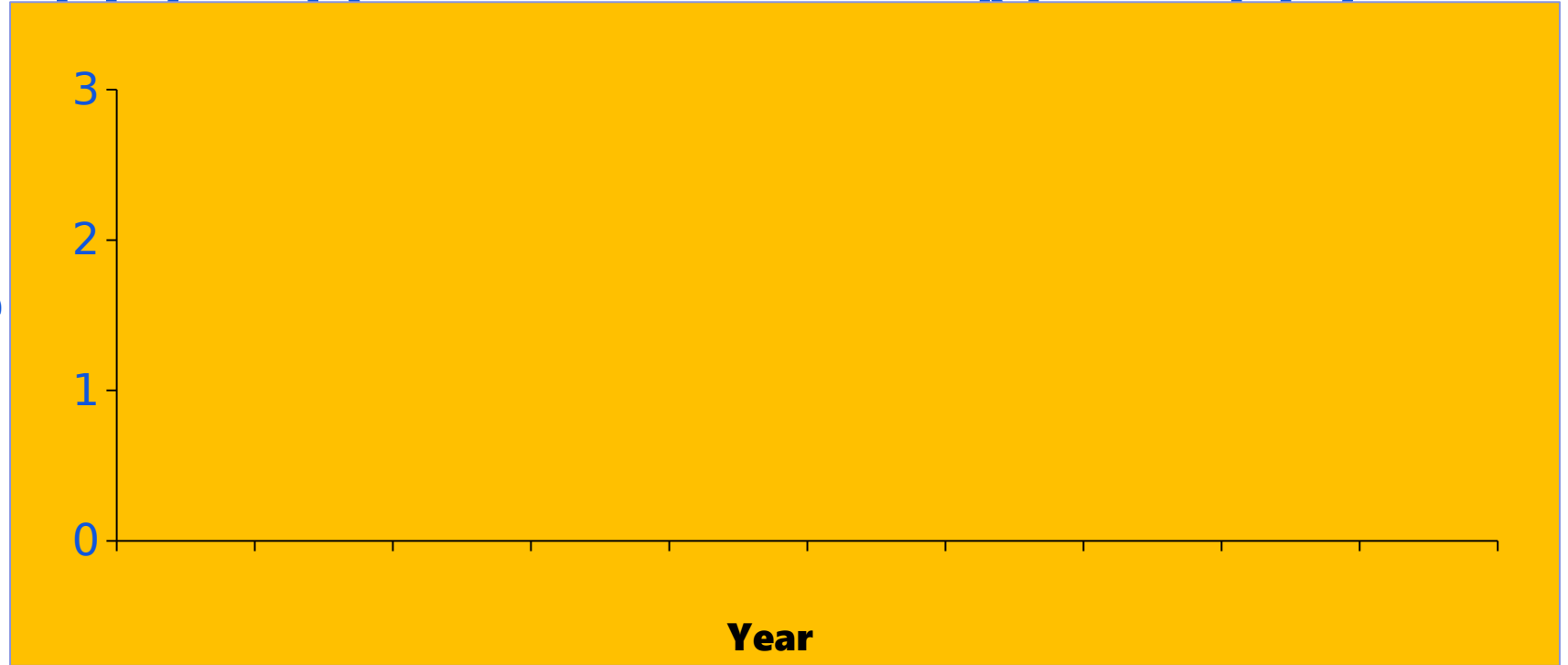
Primary Isoniazid Resistance Among U.S.-Born versus



* Based on initial isolates from persons with no prior history of TB.

Primary MDR TB Among

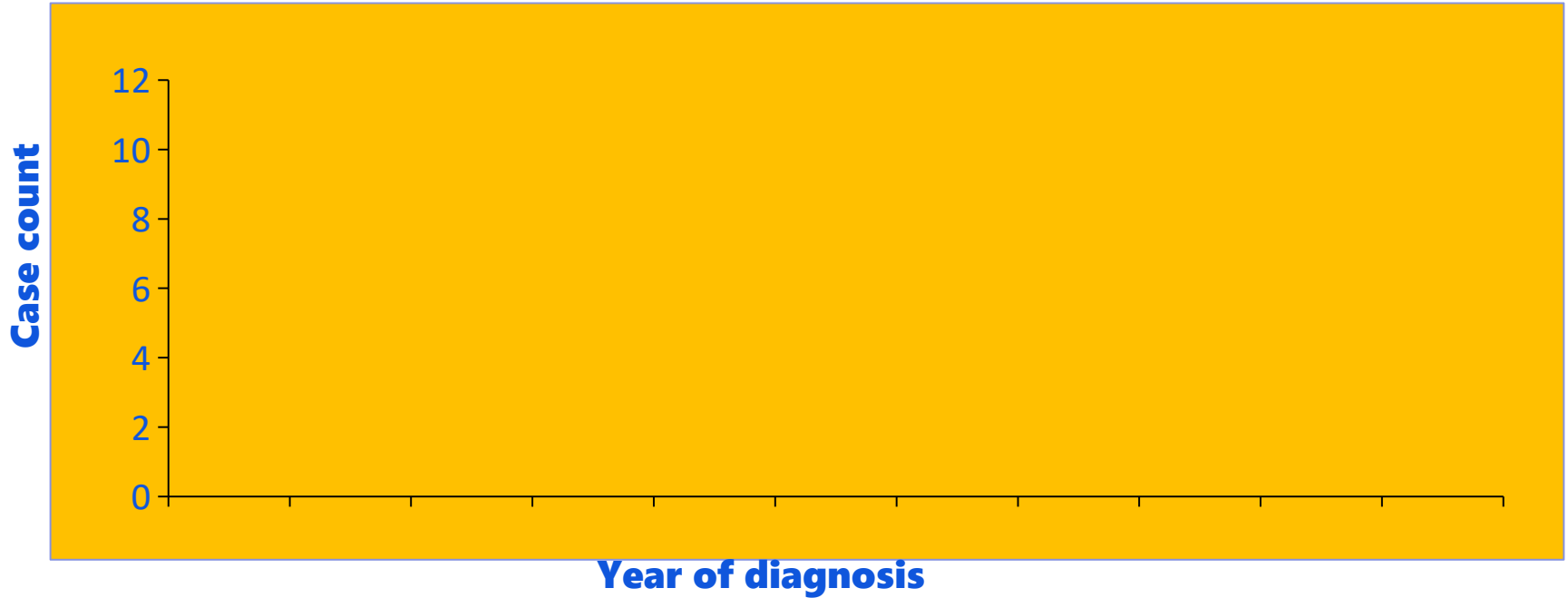
Multidrug-Resistant (%)



Year

* Based on initial isolates from persons with no prior history of TB; multidrug-resistant TB (MDR TB) is defined as resistance to at least isoniazid and rifampin.

XDR TB* Case Count,

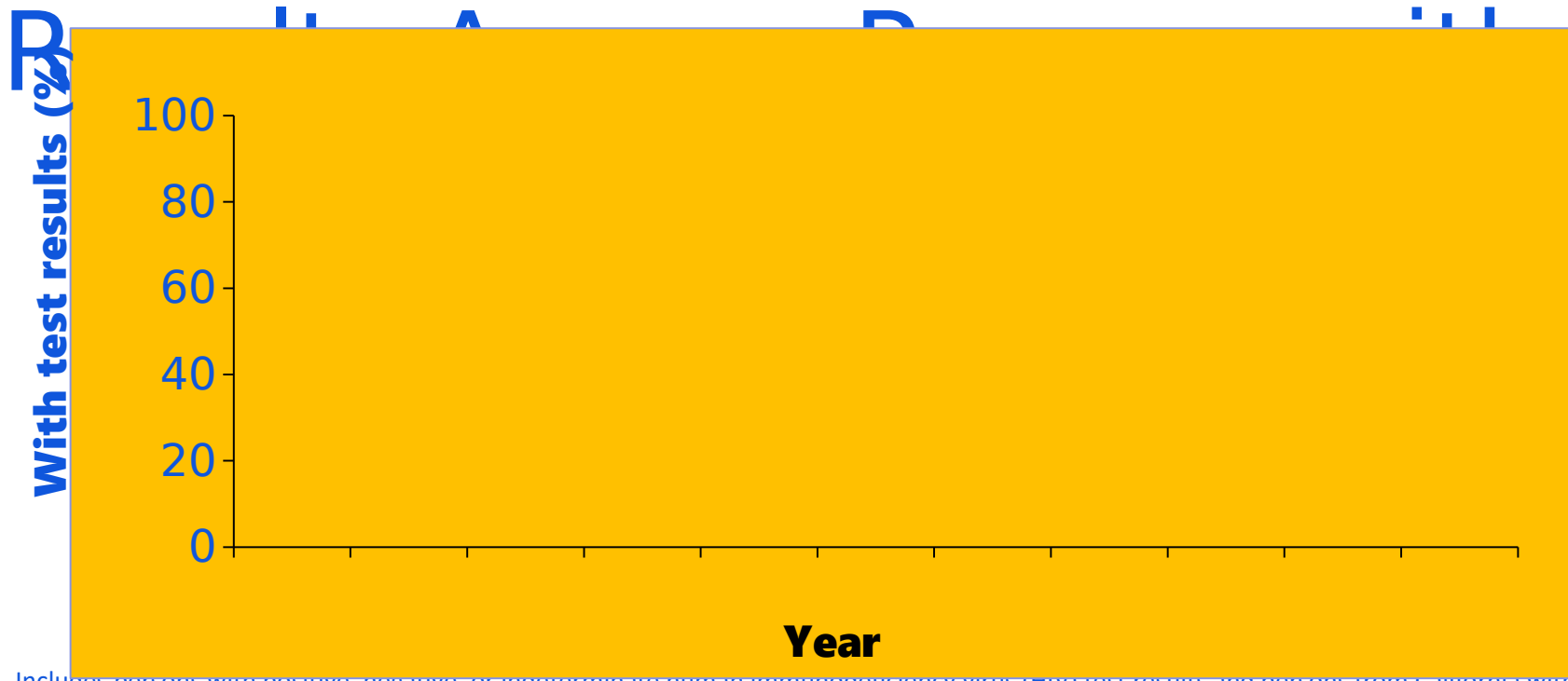


* XDR TB, extensively drug-resistant TB.

† DST, drug susceptibility test.

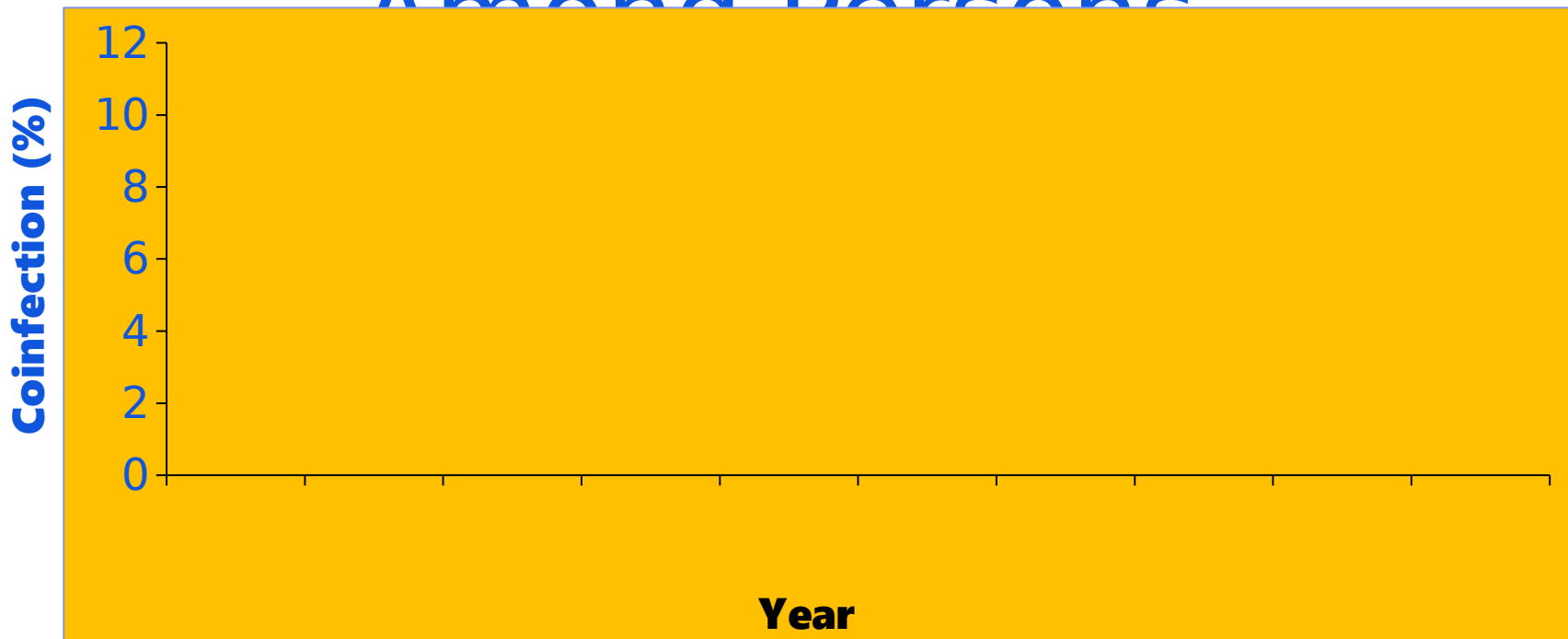
§ XDR TB is defined as resistance to isoniazid and rifampin, plus resistance to any fluoroquinolone and at least one of three injectable second-line anti-TB drugs.

Reporting of HIV Test



* Includes persons with positive, negative, or indeterminate human immunodeficiency virus (HIV) test results and persons from California with co-diagnosis of TB and acquired immunodeficiency syndrome (AIDS) (co-diagnosis with AIDS in California was only for a period ending in 2004). Rhode Island did not report HIV test results for years 1993–1997. HIV test results for Vermont are not included for years 2007–2013. HIV test results for California are not included for years 2005–2010.

Estimated HIV Coinfection Among Persons



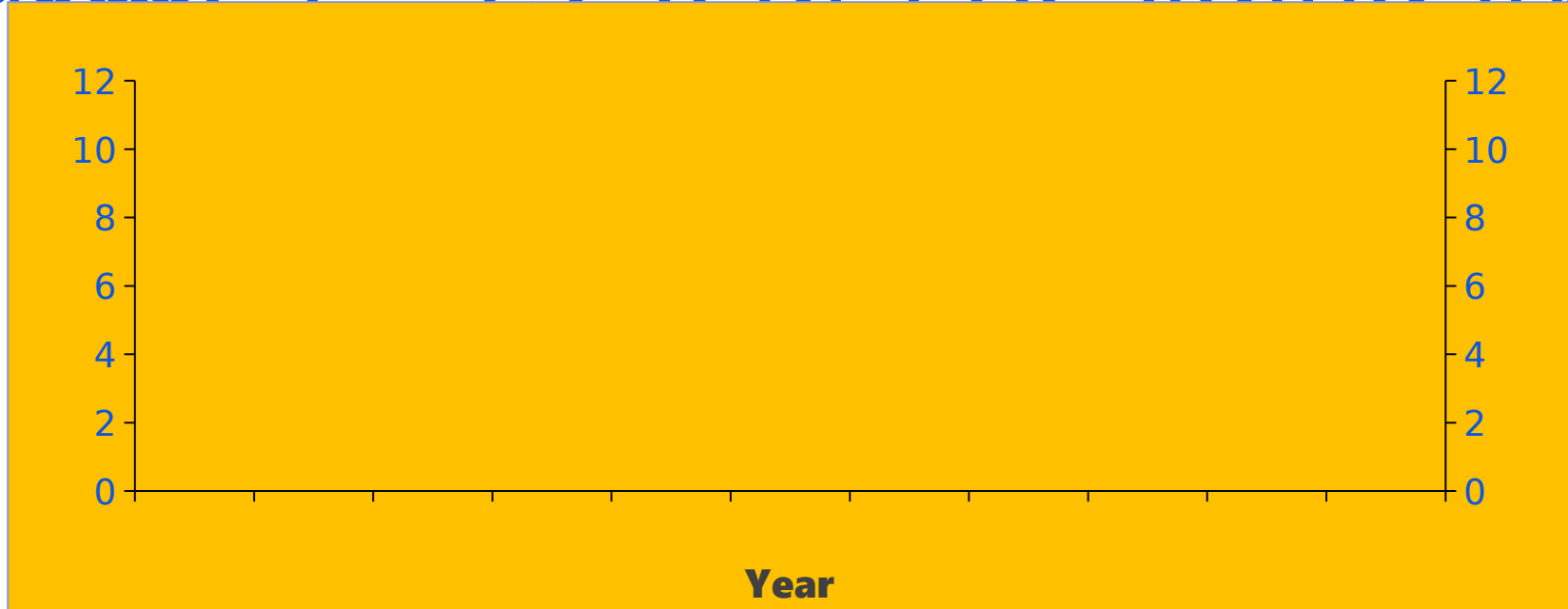
* Minimum estimates are based on reported HIV-positive status among all TB patients in the age group.

TB Cases Among Persons

Ages >15 Years Residing in

No. of cases

Percentage

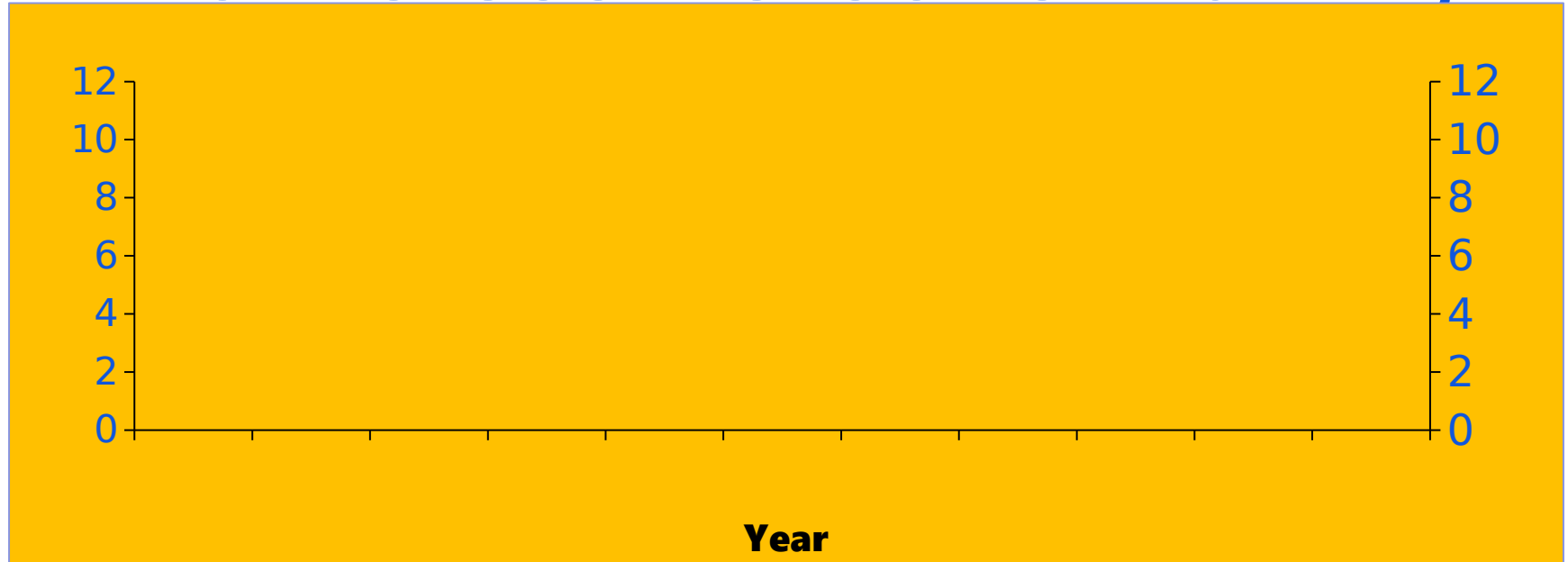


* Resident of correctional facility at time of TB diagnosis.

TB Cases Reported Among Homeless Persons During

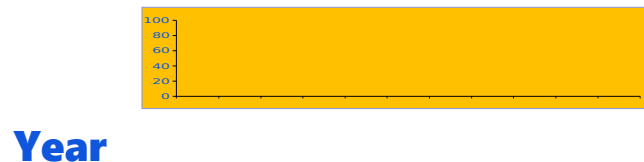
No. of cases

Percentage



* Homeless during the 12 months before TB diagnosis.

Mode of Treatment Administration Among Persons Reported with TB, United States, 1993–2015*



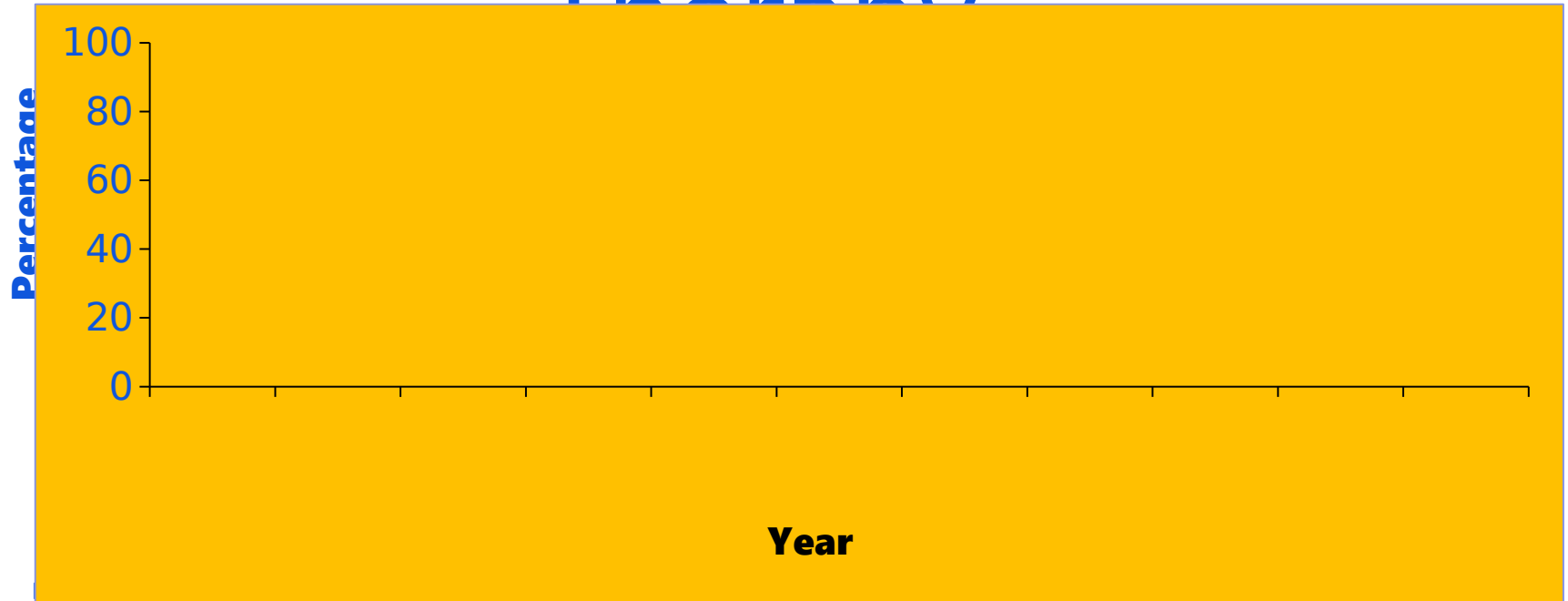
DOT, directly observed therapy; SA, self-administered therapy.

* Data available through 2015 only.

† Percentage of total cases among persons alive at diagnosis, with an initial regimen of one or more drugs prescribed and excluding cases with unknown mode of treatment administration.

Completion of TB Treatment

Therapy



*

Note: Includes persons alive at diagnosis, with initial drug regimen of one or more drugs prescribed, who did not die within one year of initiating treatment; excludes persons with initial rifampin-resistant isolate, patients with bone and joint disease, meningeal disease, or disease of the central nervous system, or pediatric patients (ages 0–14 years) with miliary disease or positive blood culture or a positive nucleic acid amplification test on a blood specimen, and those who moved out of the country within one year of initiating treatment.

Definition for Tuberculosis Genotyping in the United States

Spoligotype:
0000000000003771

Initial 12-locus MIRU-VNTR*:
223325173533

Sequentially assigned for
each unique spoligotype
and initial 12-locus MIRU-
VNTR combination

**PCRTYPE:
PCR00002**

+

**Additional 12-locus
MIRU-VNTR (MIRU2):
444534423428†**

Sequentially assigned for each
unique spoligotype and 24-locus
MIRU-VNTR combination

**GENTYPE:
G00010**

* Mycobacterial interspersed repetitive unit–variable number tandem repeat.

† The complete set of 24 loci is referred to as 24-locus MIRU-VNTR and is used for GENTYPE designation for genotype in the United States.

Proportion of culture confirmed TB cases genotyped

100 90 80 70 60 50 40 30 20 10 0

National Tuberculosis Genotyping Surveillance Coverage* by Year: United States†, 2004–2017

National
Goal,
94%§

* The proportion of positive cultures with at least one genotyped isolate.

† Includes 50 states and the District of Columbia.

§ For the year 2020, the national goal for TB genotyping surveillance coverage will change to 100%.

Number of County-based Tuberculosis Genotype Clusters* by Cluster Size, United States, 2015–2017

Number of clusters

0

Number of Persons in Cluster

*Genotype cluster is defined as two or more cases with matching spoligotype and 24-locus MIRU-VNTR (GENType) within a county during the specified 3-year time period.

Tuberculosis Genotype Clusters by TB GIMS* Alert Level†, United States, 2015–2017

*Tuberculosis Genotyping Information Management System

†Alert level is determined by the log likelihood ratio statistic (LLR) for a given cluster, identifying higher than expected geospatial concentrations for a TB genotype cluster in a specific county, compared to the national distribution of that genotype; TB GIMS generates alert level notifications based on this statistic: “No alert” is indicated if LLR is between 0 – <5, “medium” is for LLR of 5 – <10 and “high” alert is for clusters with LLR ≥ 10.

Division of Tuberculosis Elimination

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Atlanta, GA 30329

Phone: 404-639-8120

Internet Address: <http://www.cdc.gov/tb/>

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

