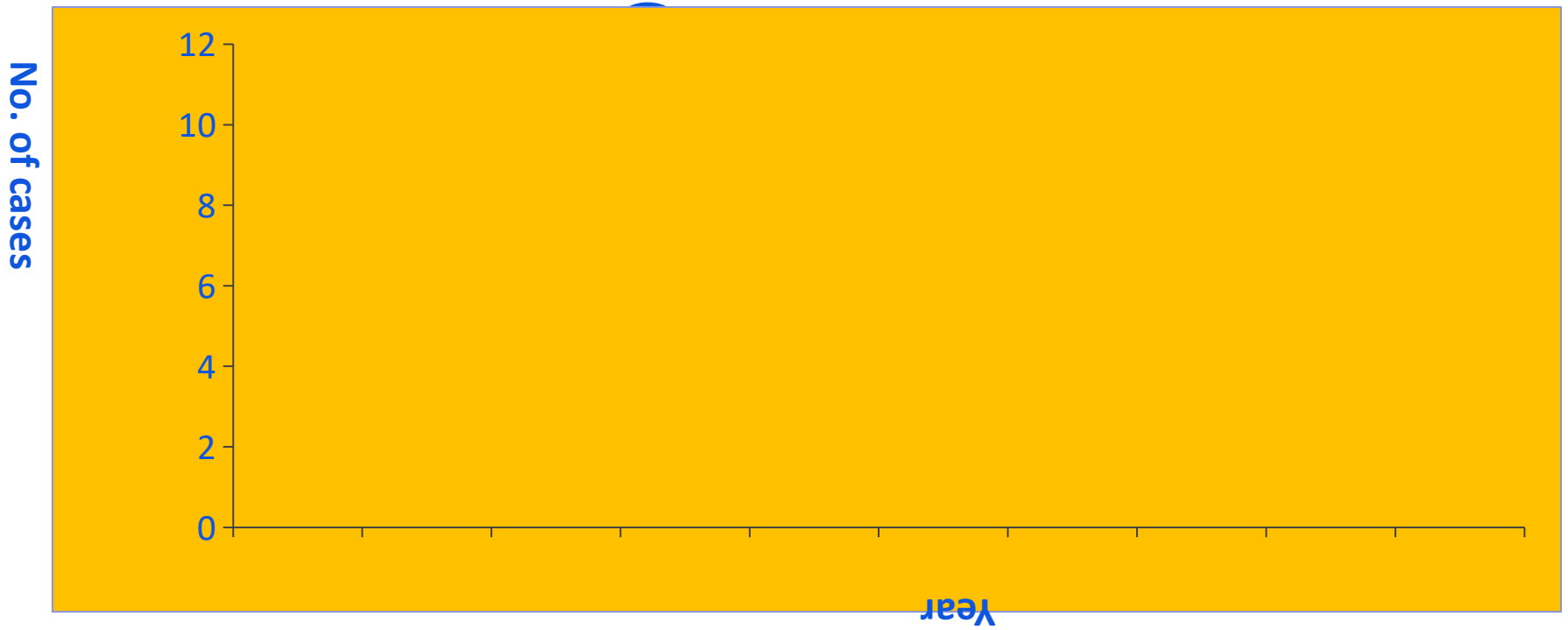
Tuberculosis in the United States

- National Tuberculosis Surveillance System
  Highlights from 2016

Reported Tuberculosis (TB)



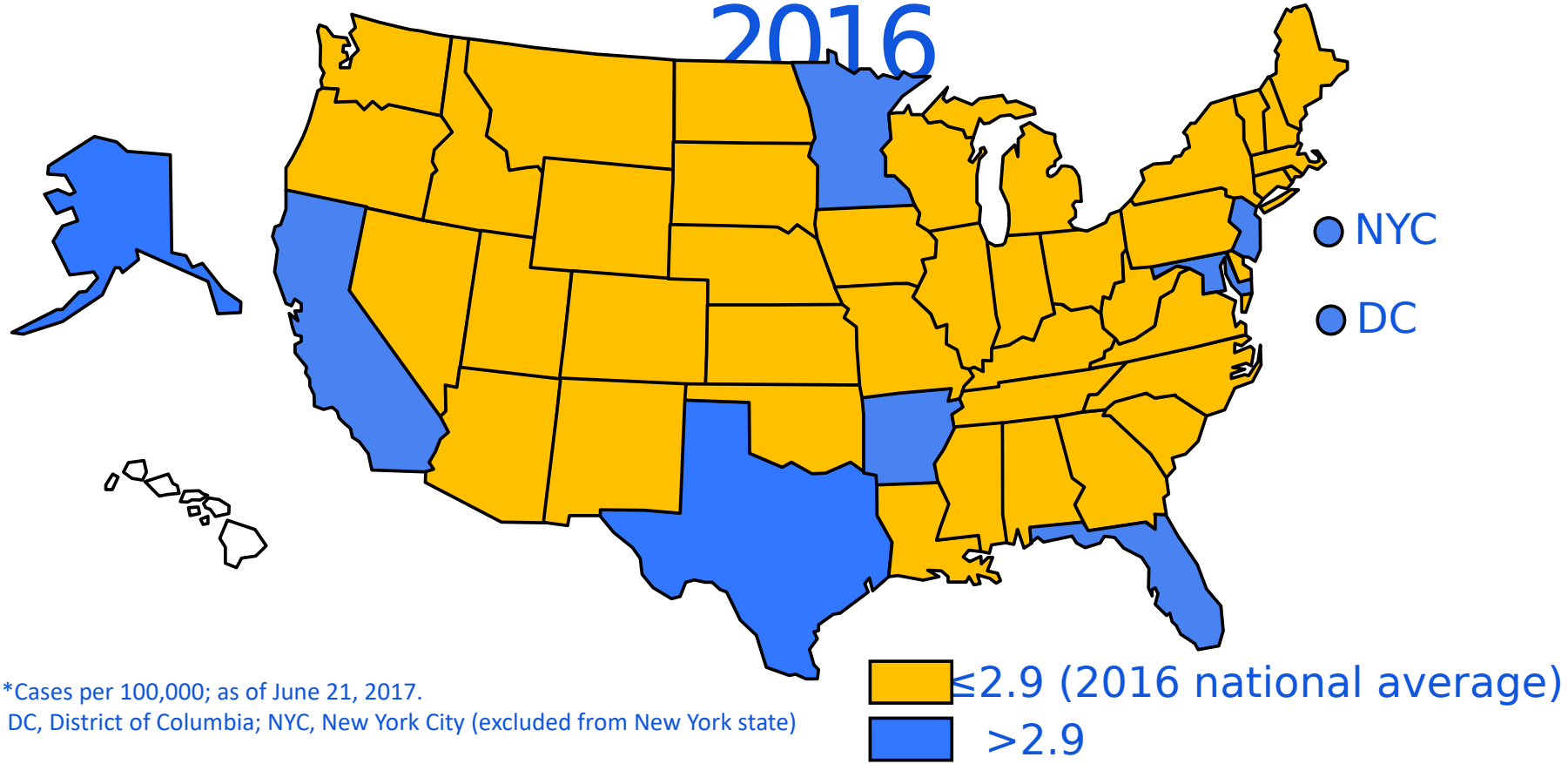
*As of June 21, 2017.

TB Morbidity United States, 2011–2016

Year	No.	Rate*
2011	10,509	3.4
2012	9,940	3.2
2013	9,561	3.0
2014	9,398	3.0
2015	9,547	3.0
2016	9,272	2.9

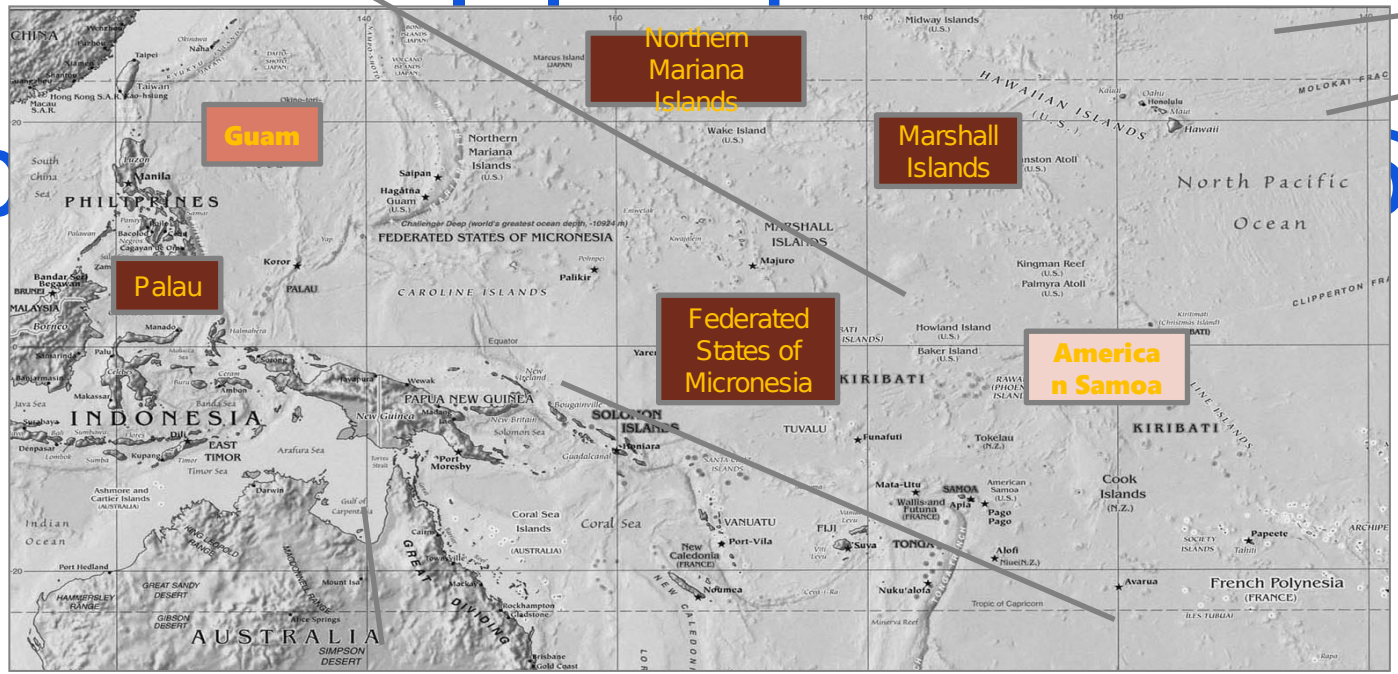
* Cases per 100,000 population; as of June 21, 2017.

TB Case Rates,* United States, 2016



*Cases per 100,000; as of June 21, 2017.
DC, District of Columbia; NYC, New York City (excluded from New York state)

Map of U.S.-Affiliated Pacific



*Cases per 100,000 population; as of June 21, 2017.

TB Case Rates,* U.S.-Affiliated Pacific Islands

*Cases per 100,000 population; as of June 21, 2017.

TB Case Rates* by Age Group, United States, 1993–2016

Age (yrs.)

Cases per 100,000 population

*Cases per 100,000 population; as of June 21, 2017.

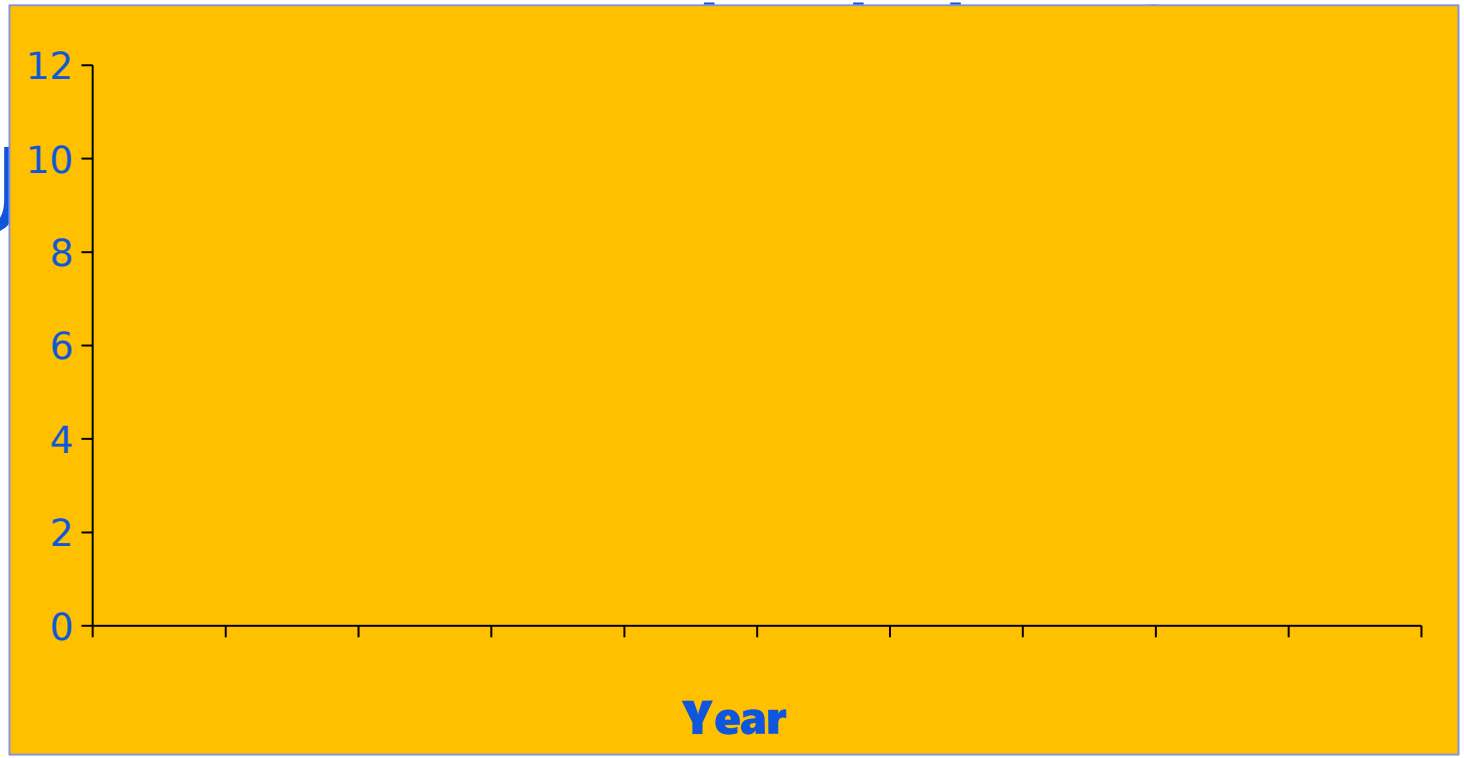
Reported TB Cases by Age Group, United States, 2016*

*Cases per 100,000 population; as of June 21, 2017.

TB Case Rates by Age Group

*Cases per 100,000 p

TB Case Rates by

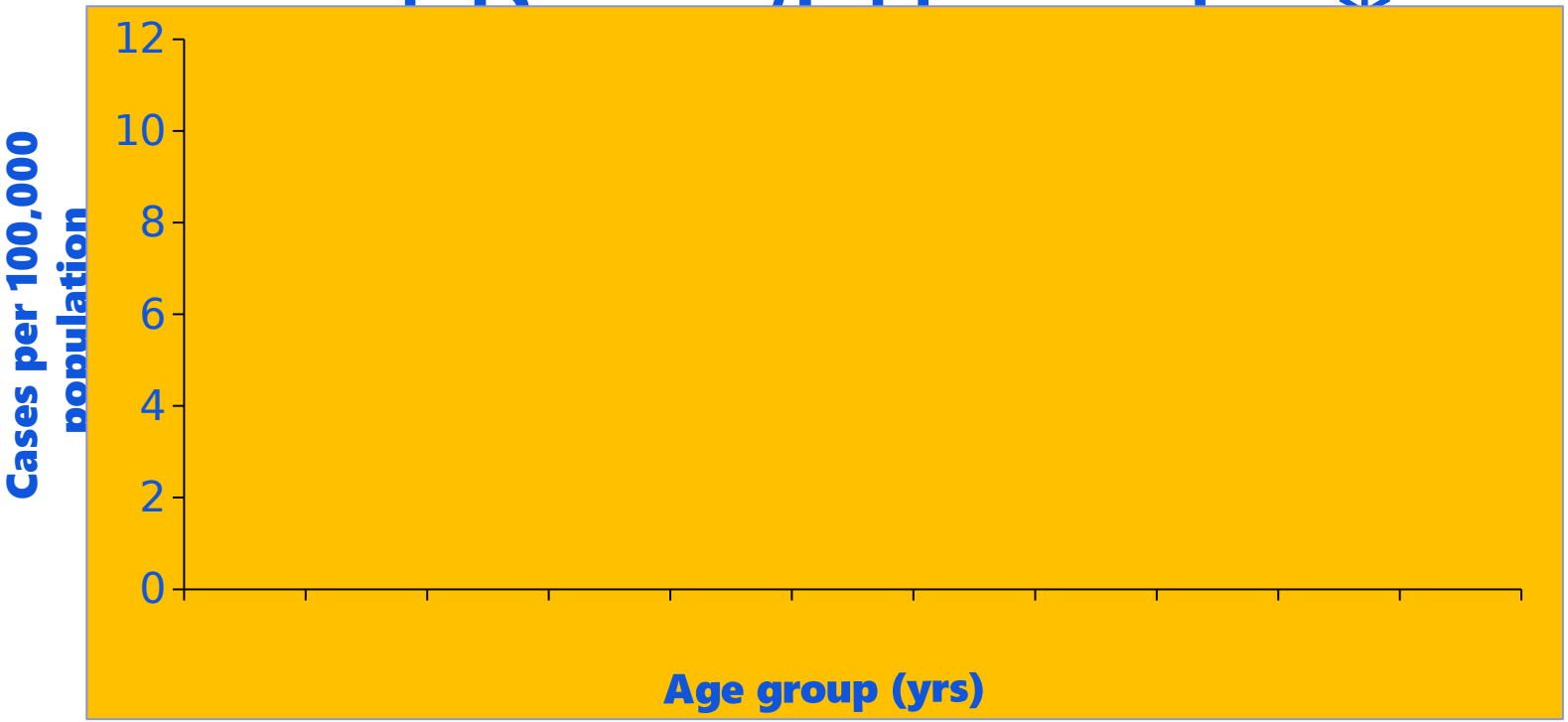


†

* 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.

† As of June 21, 2017.

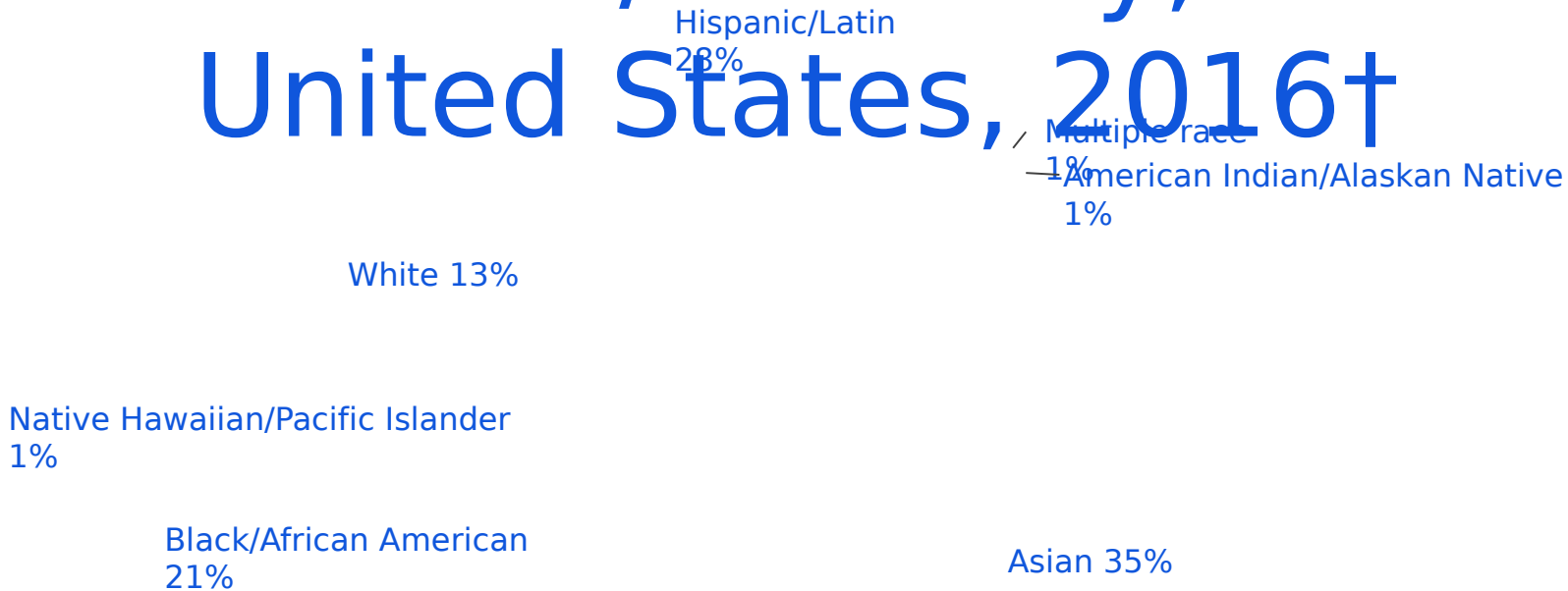
TB Case Rates by Age Group



* 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.

† As of June 21, 2017.

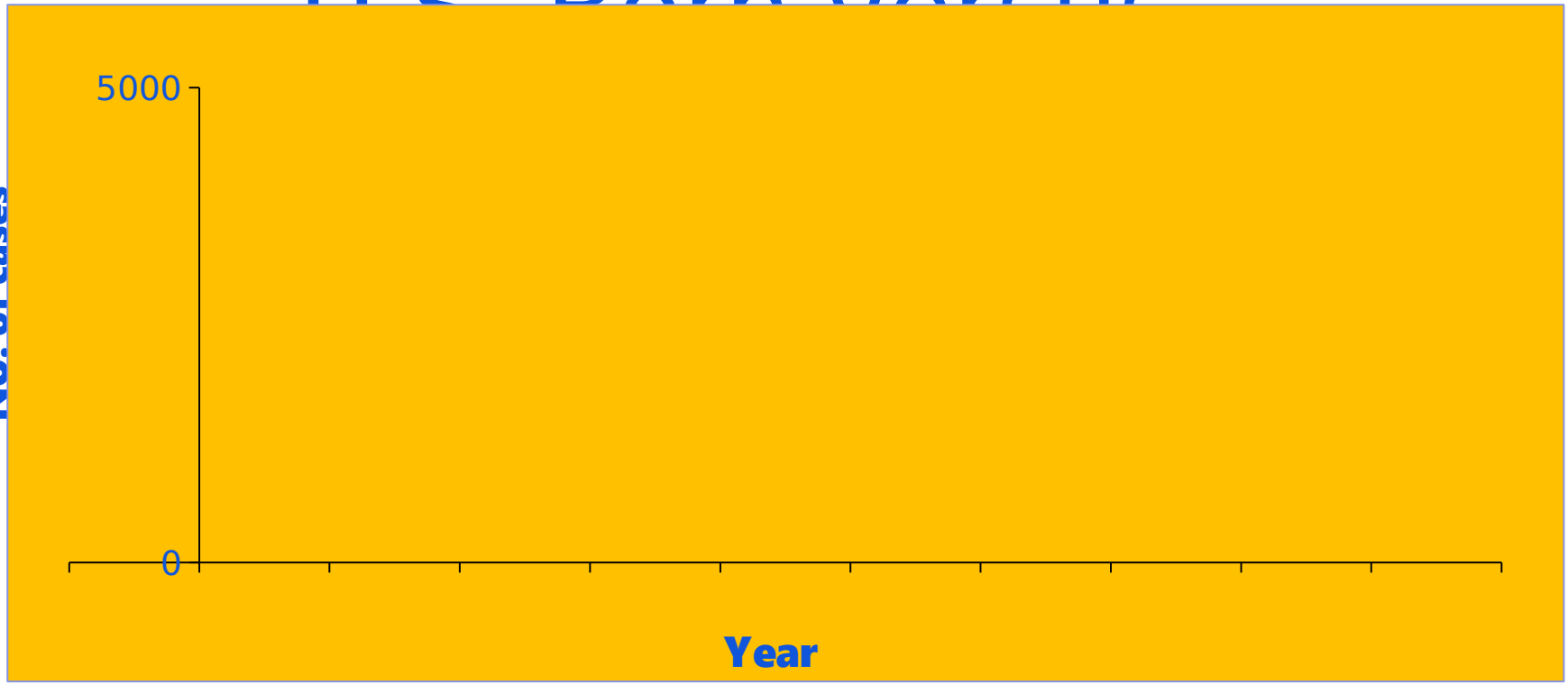
Reported TB Cases by Race/Ethnicity,* United States, 2016†



* 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.

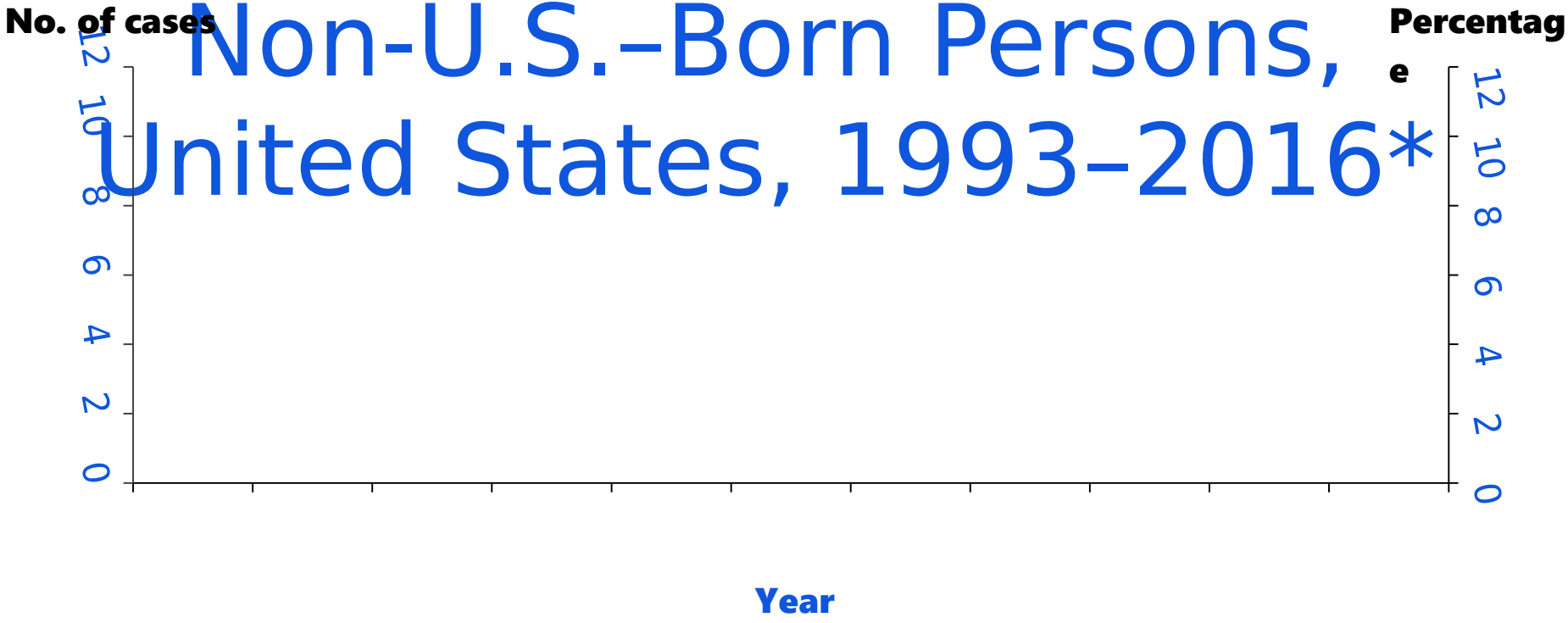
† Percentages are rounded; as of June 21, 2017.

Number of TB Cases Among U.S.-Born versus



*As of June 21, 2017.

Trends in TB Cases Among Non-U.S.–Born Persons, United States, 1993–2016*



*As of June 21, 2017.

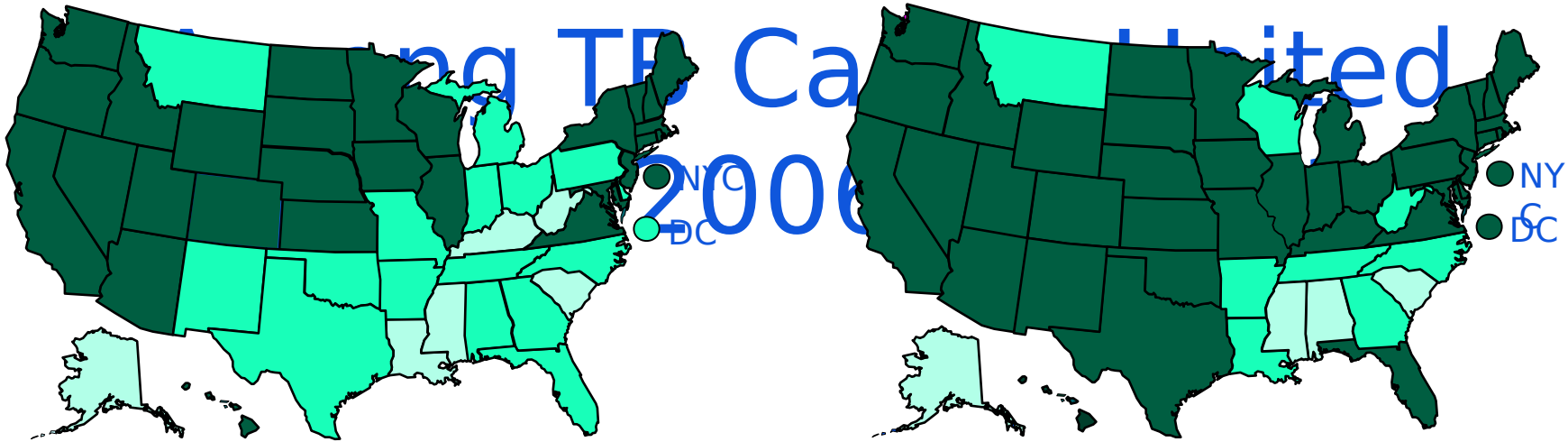
Reported TB Cases by Origin and Race/Ethnicity*, United States, 2016†

* 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; as of June 21, 2017.

§ American Indian/Alaska Native accounted for <1% of cases among non-U.S.–born persons and are not shown.

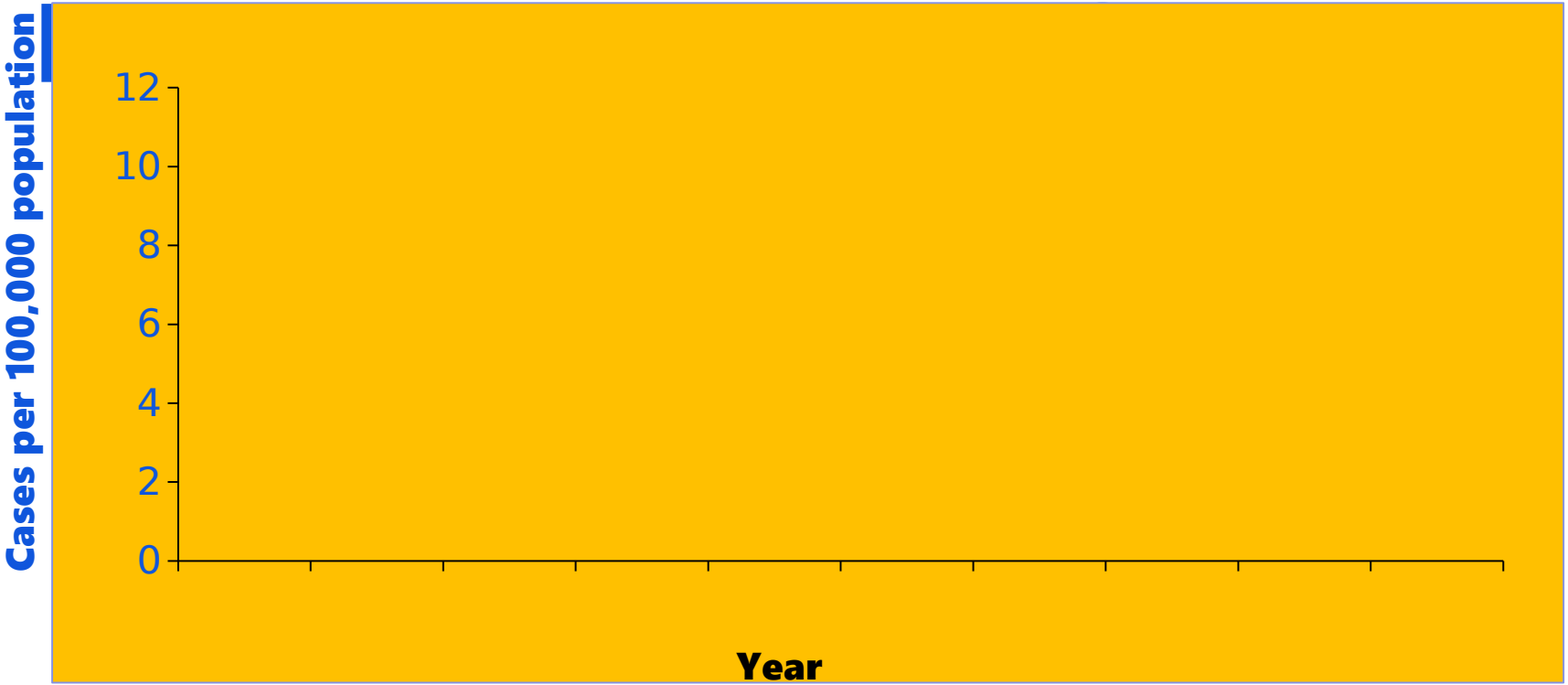
Percentage of Non-U.S.–Born Persons Reporting TB Cases in the United States, 2006 and 2016*



*As of June 21, 2017.

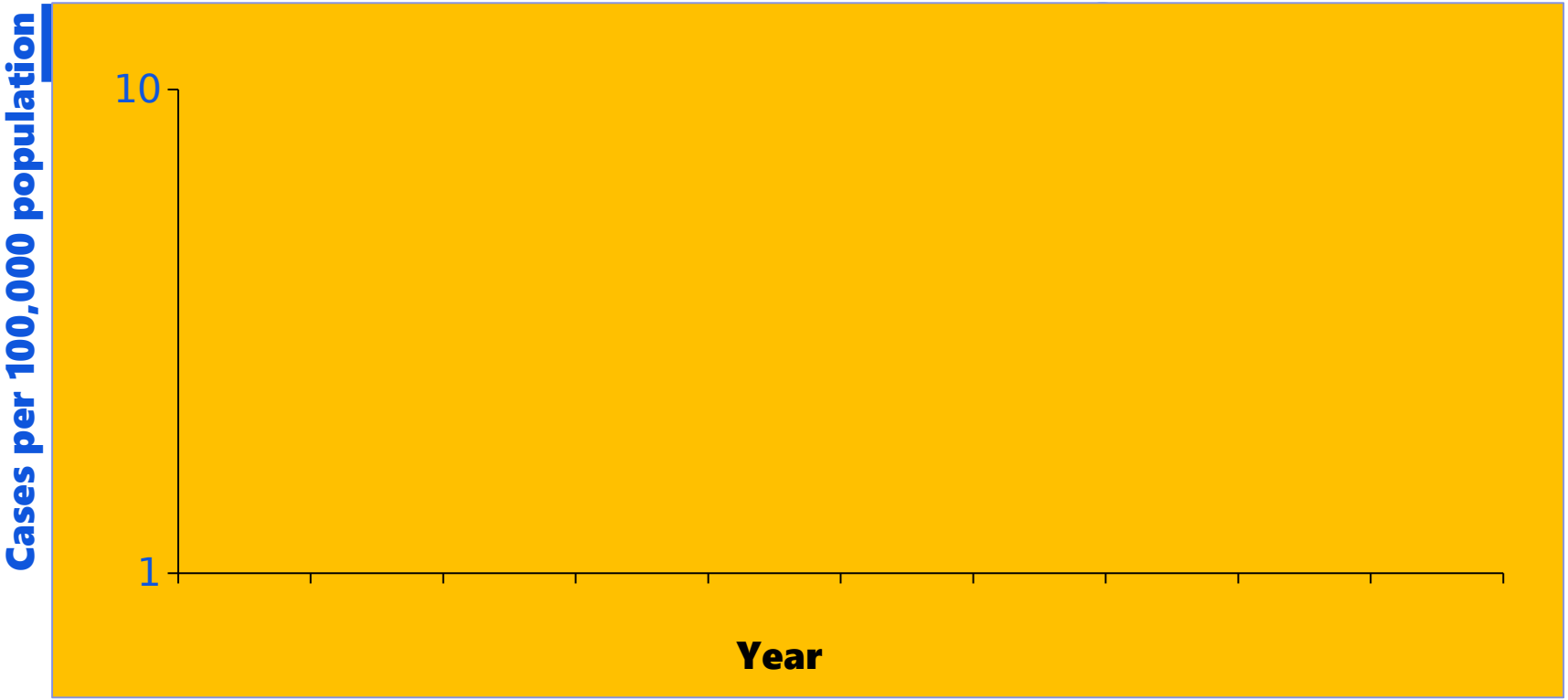
DC, District of Columbia; NYC, New York City (excluded from New York state)

TB Case Rates Among U.S.-



*As of June 21, 2017.

TB Case Rates Among U.S.-



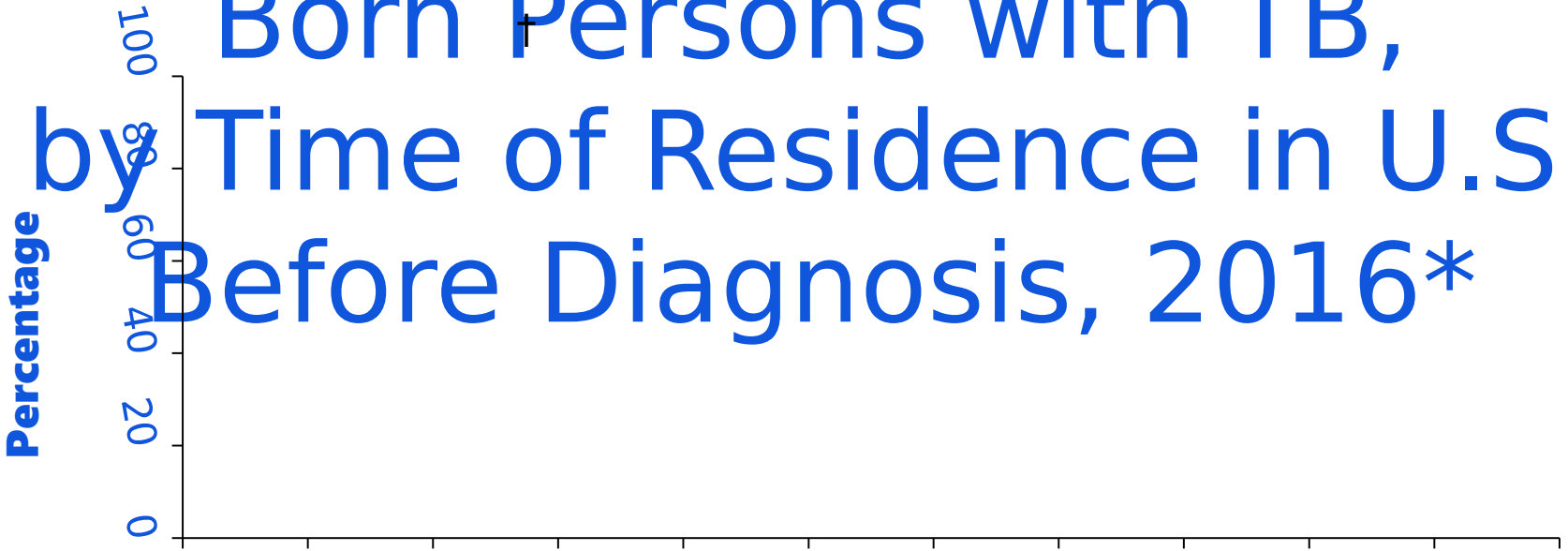
* Includes the same data as previous slide, but rates are presented on a logarithmic scale.

† As of June 21, 2017.

Countries of Birth Among Non-U.S.–Born Persons Reported with TB, United States, 2016

*Percentages are rounded; as of June 21, 2017.

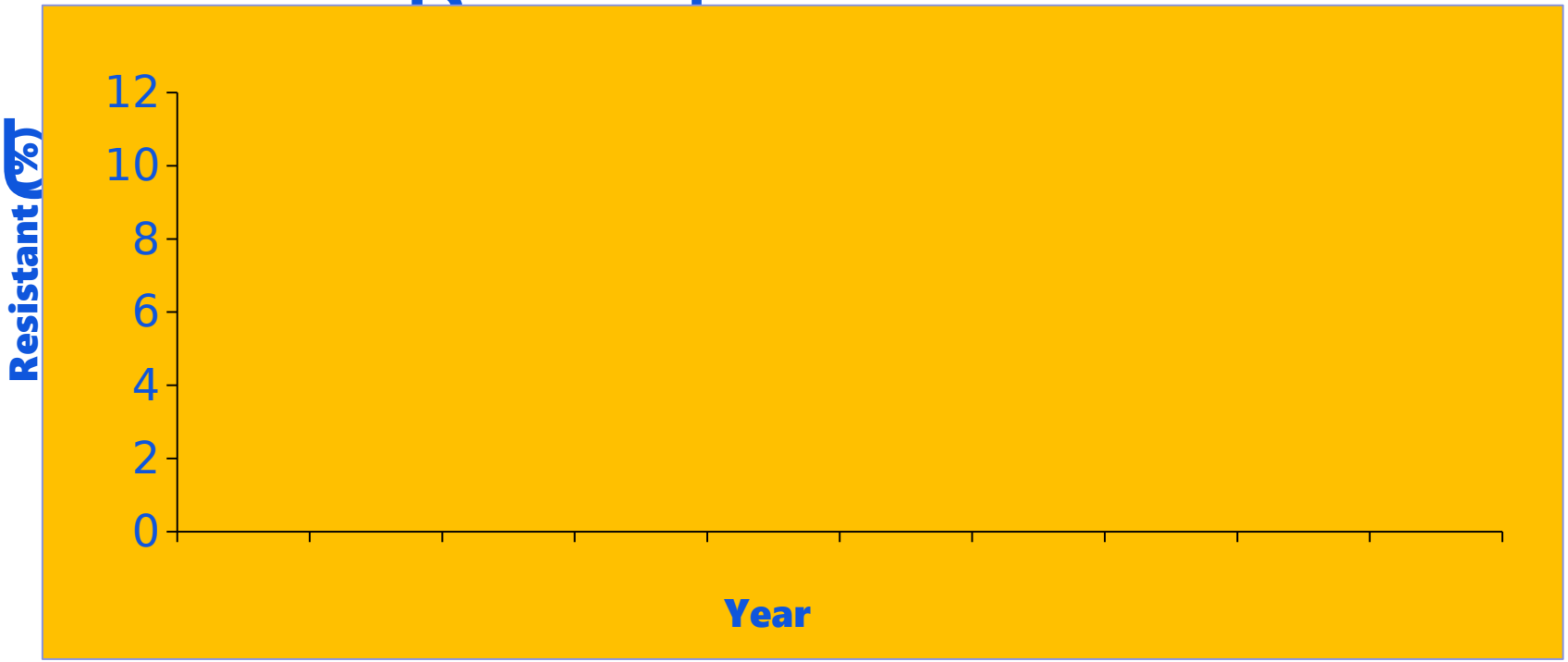
Percentage of Non-U.S.–Born Persons with TB, by Time of Residence in U.S. Before Diagnosis, 2016*



* As of June 21, 2017.

† Non-U.S.–born persons for whom information on length of residence in the United States before diagnosis is unknown or missing.

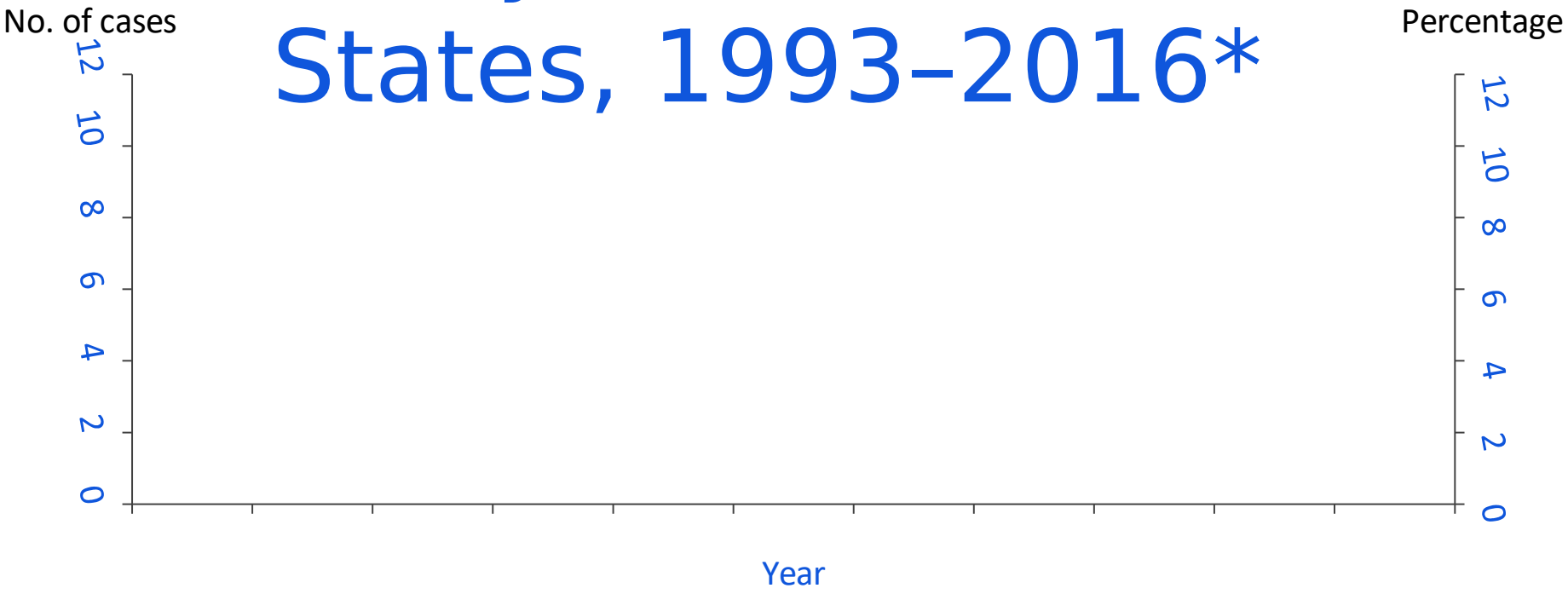
Primary Anti-TB Drug



* As of June 21, 2017.

Note: 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, 1993–2016*



* As of June 21, 2017.

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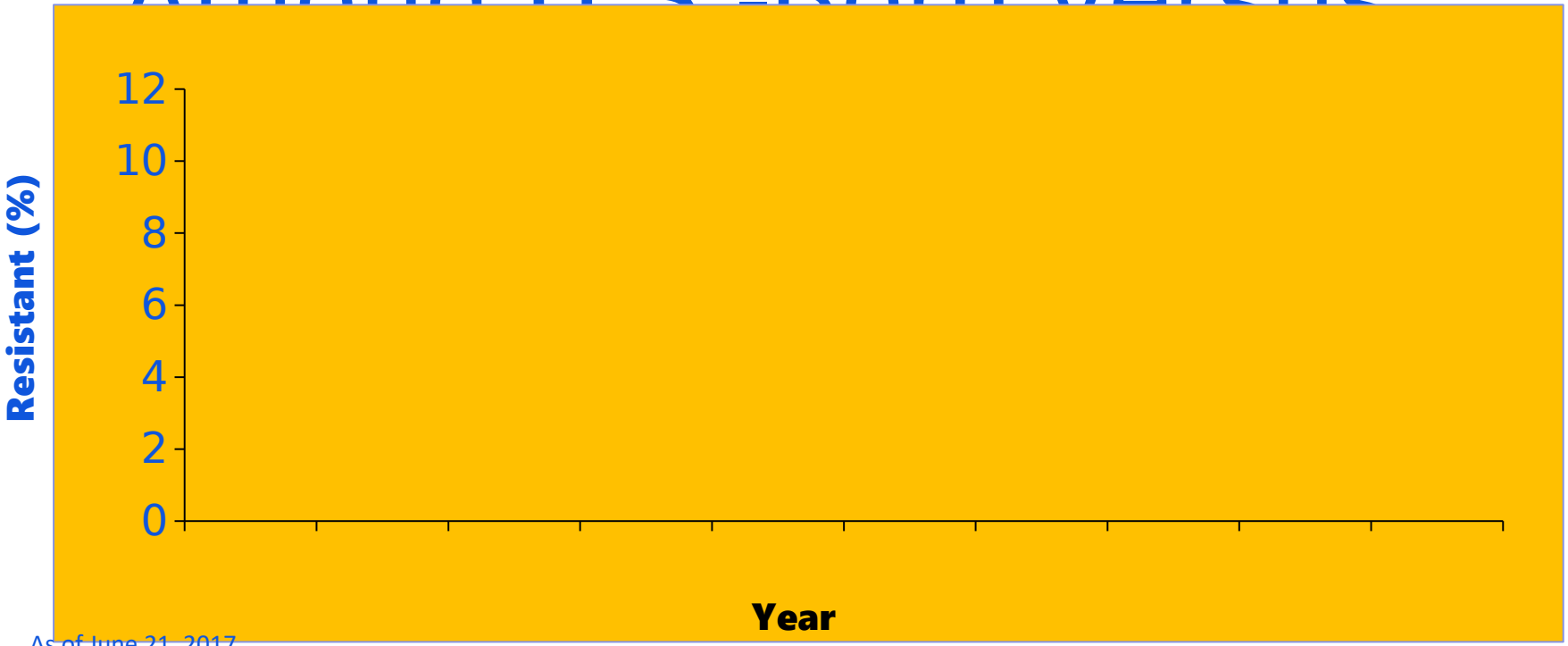
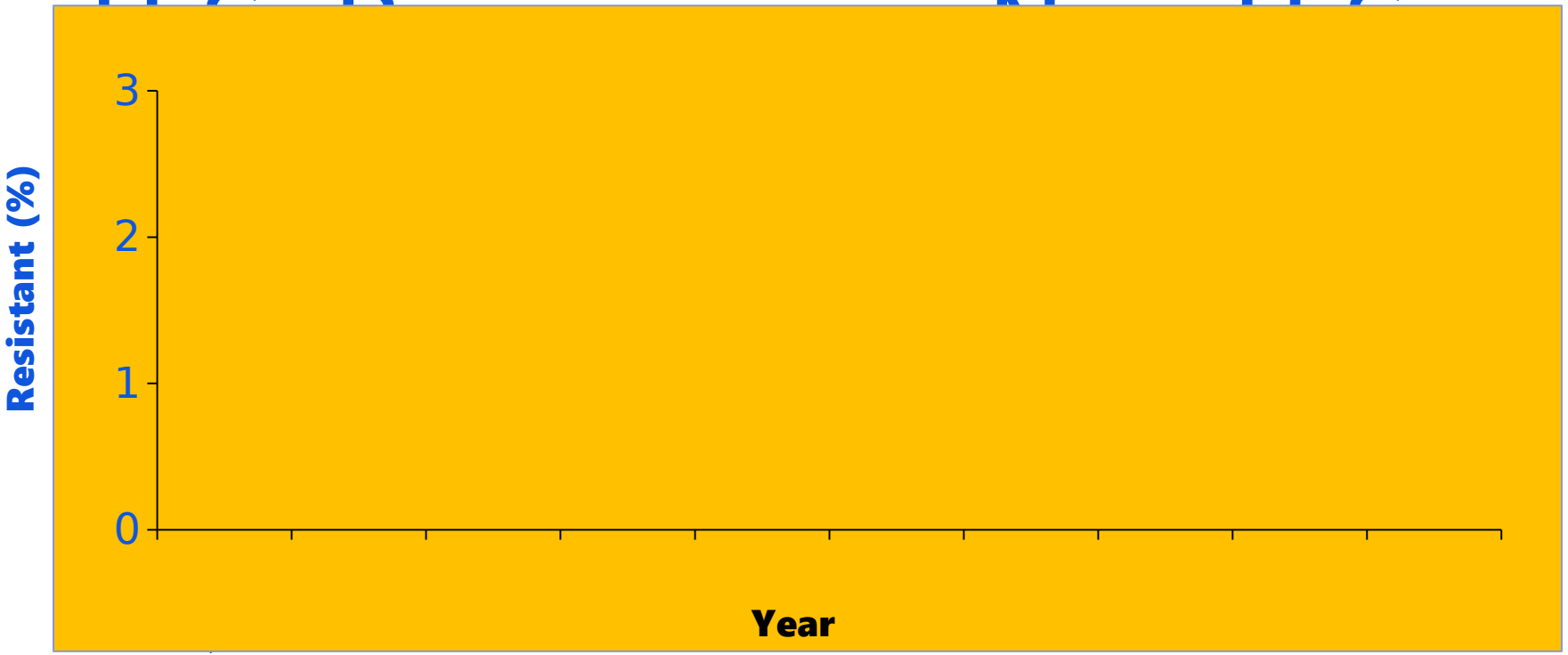
Primary Isoniazid Resistance Among U.S.-Born versus



* As of June 21, 2017.

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

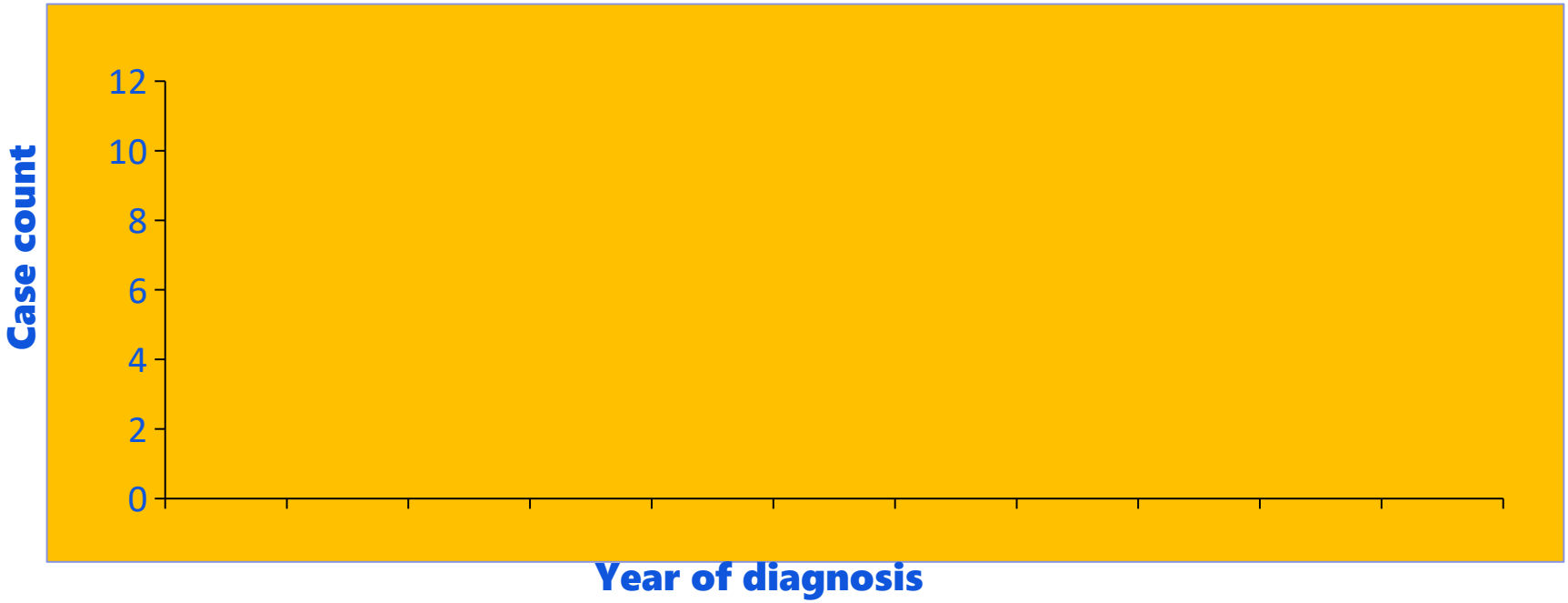
Primary MDR-TB Among



*

Note: 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,



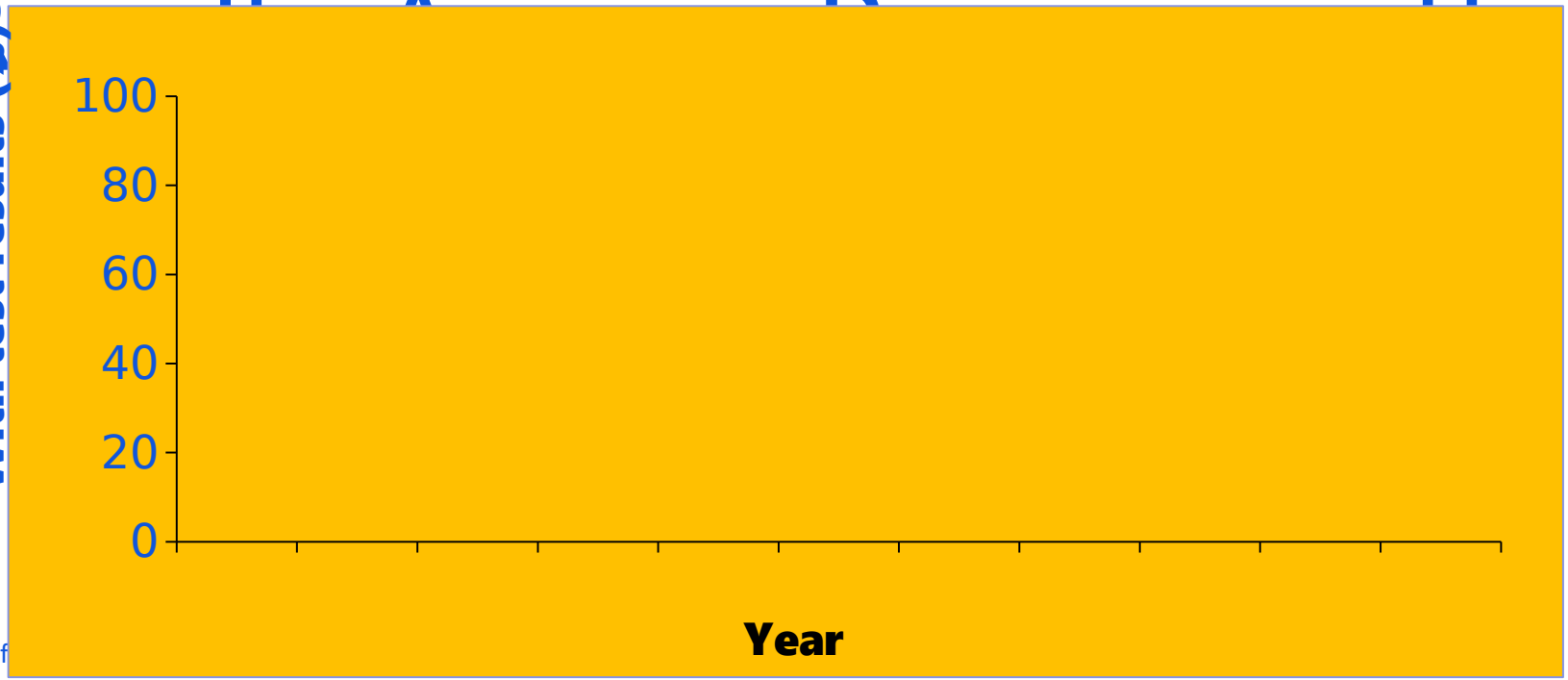
* XDR-TB , extensively drug-resistant TB.

† DST, drug susceptibility test.

§ As of June 21, 2017.

Note: 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

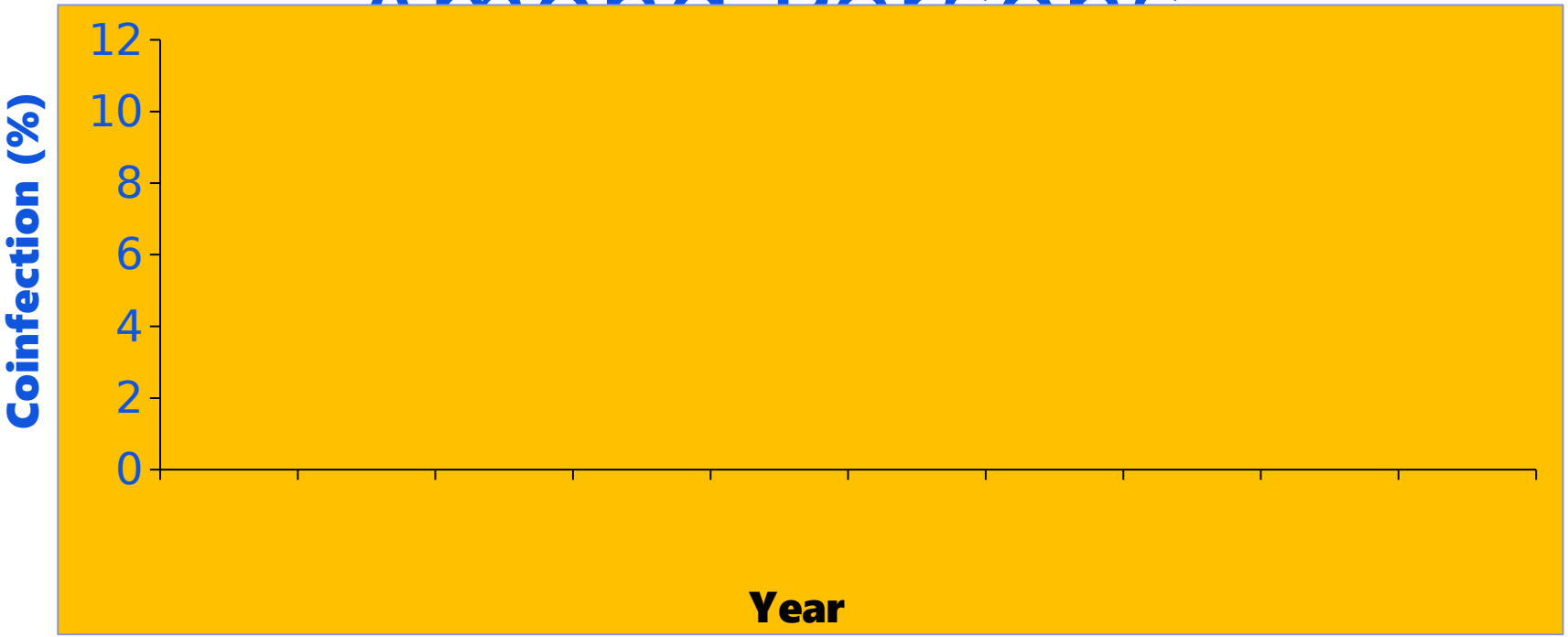
Reporting of HIV Test



* As of

Note: 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). 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.

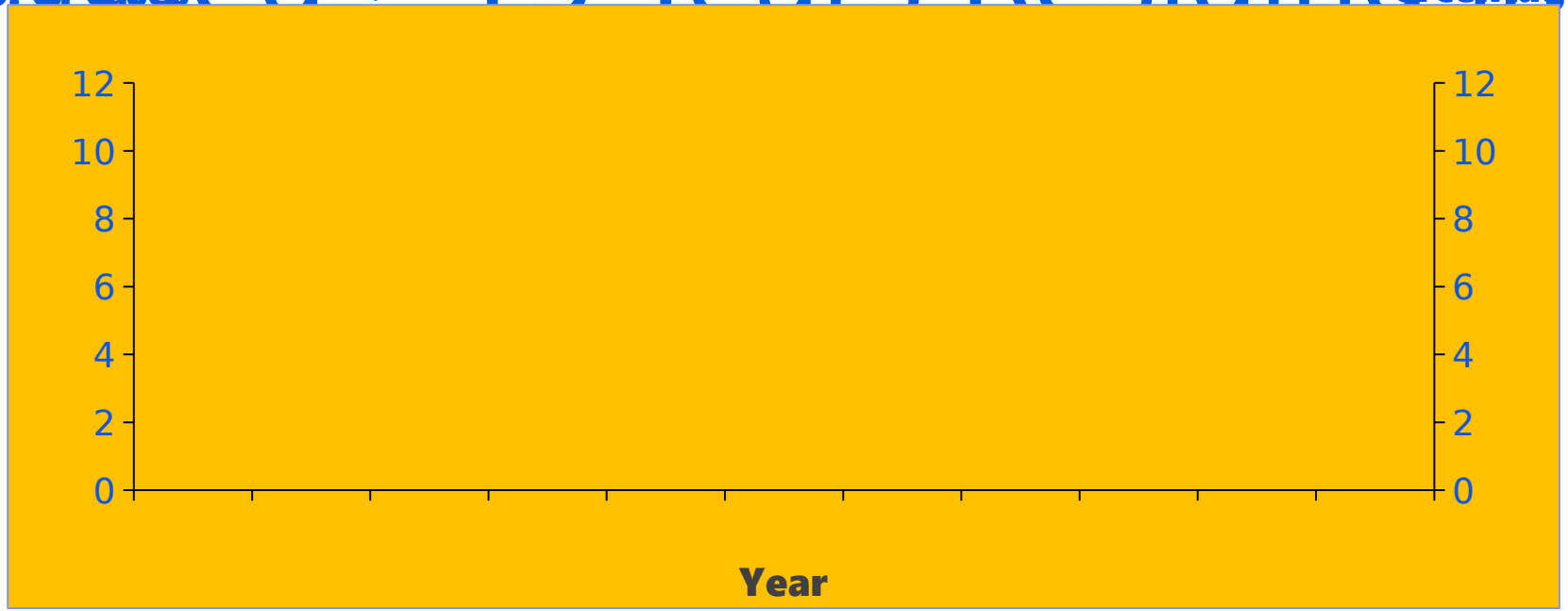
Estimated HIV Coinfection Among Persons



* As of June 21, 2017.

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

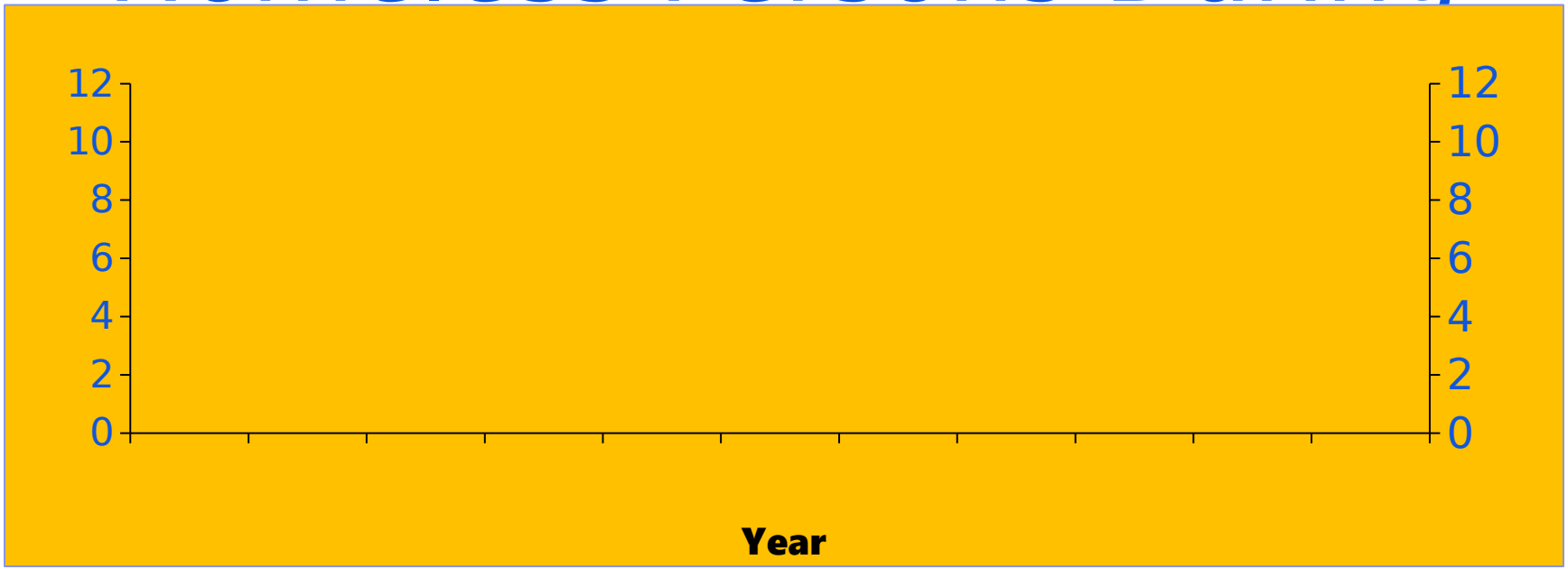
TB Cases Among Persons Aged >15 Years Residing in



* As of June 21, 2017.

Note: Resident of correctional facility at time of TB diagnosis.

TB Cases Reported Among Homeless Persons During

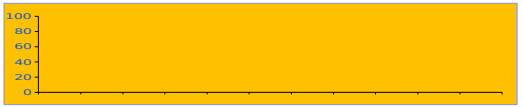


* As of June 21, 2017.

Note: Homeless during the 12 months before TB diagnosis.

Mode of Treatment Administration Among Persons Reported with TB, United States, 1993–2014*

Percentage†



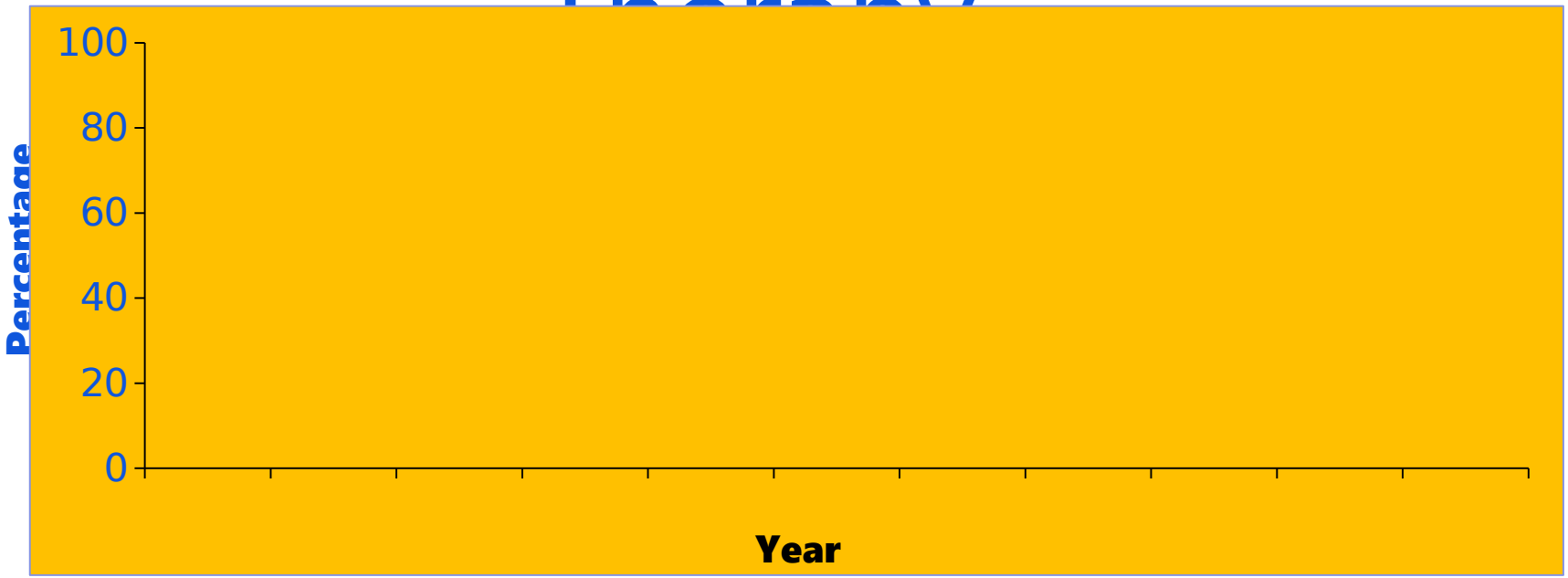
Year

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

* As of June 21, 2017; data available through 2014 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



* As of June 21, 2017; data available through 2014 only.

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:
000000000003771

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†

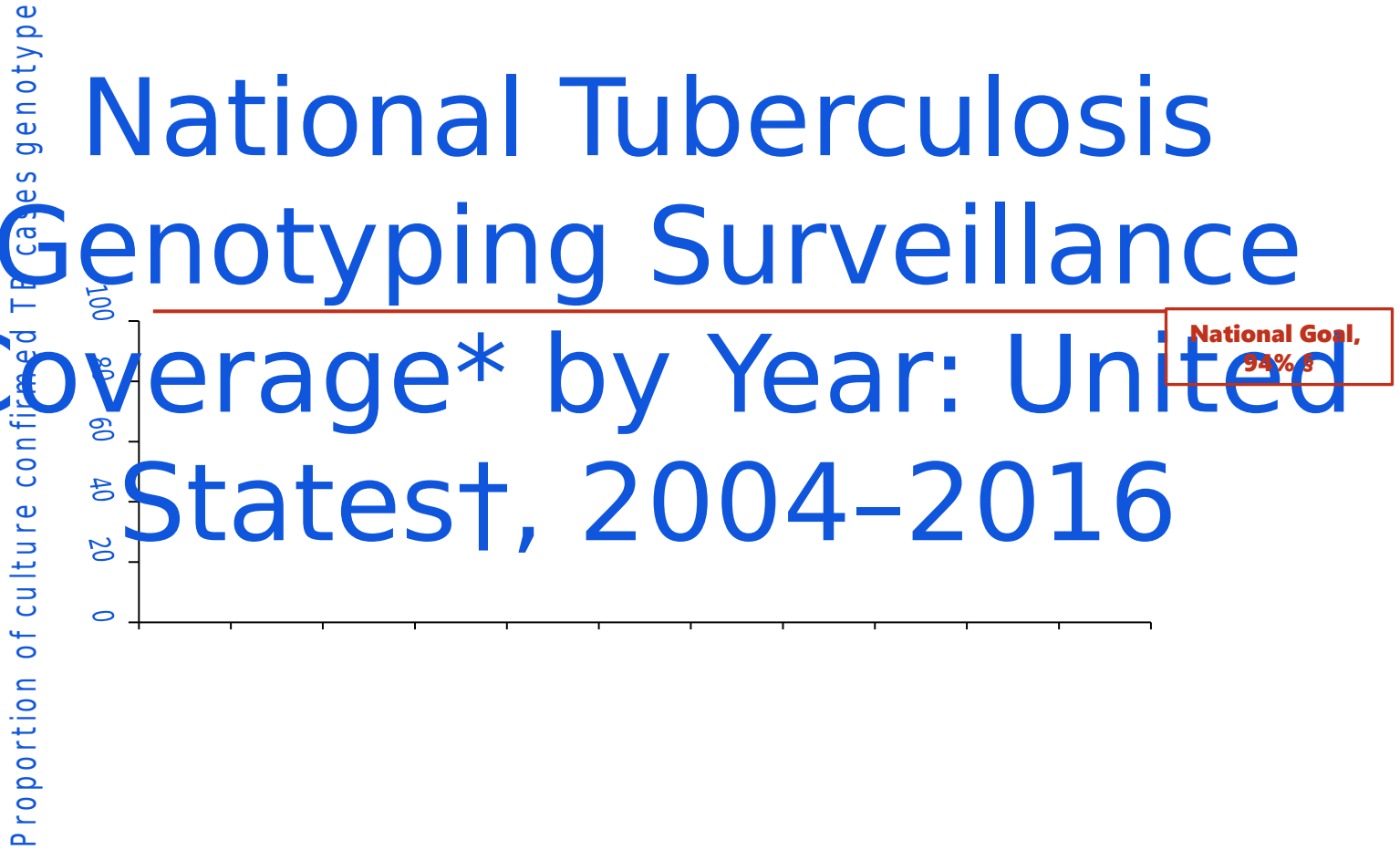
Sequentially assigned for each unique spoligotype and 24-locus MIRU-VNTR combination

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.

National Tuberculosis Genotyping Surveillance Coverage* by Year: United States†, 2004–2016



* 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, 2014–2016

* 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 Levels†, United States, 2014-2016

* 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.

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