THE STATE OF TUBERCULOSIS IN NEW YORK CITY: THE 2017 DATA

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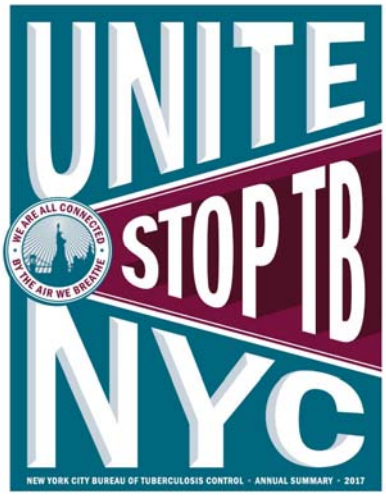
ABOUT THE ANNUAL TB SUMMARY, 2017



- Summarizes TB surveillance data for 2017
  - Reflects the most complete information available as of January 22, 2018
- Includes summary of key bureau activities and highlights from the year
- Report is used:
  - To share data with internal and external stakeholders
  - For provider and community outreach
  - For program planning

NYC BUREAU OF TUBERCULOSIS CONTROL KEY ACTIVITIES OVERVIEW

MISSION: The Bureau of Tuberculosis Control (BTBC) aims to prevent the spread of tuberculosis (TB) and eliminate it as a public health problem in New York City (NYC)

GOALS

1

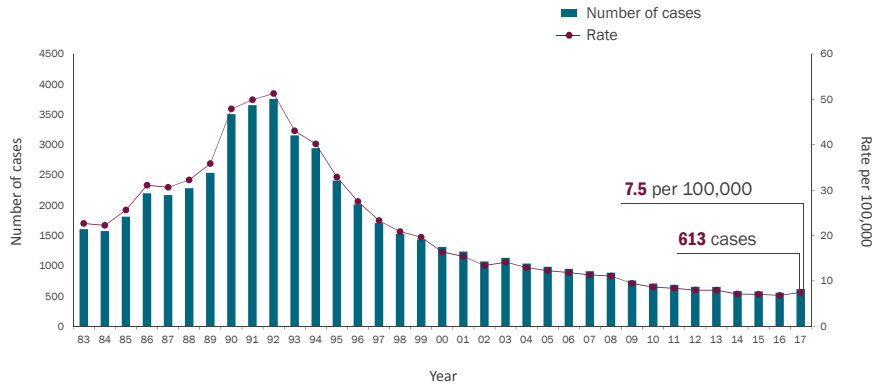
2

ACTIVITIES

- Surveillance
- Clinical care
- Case management and medical consultation
- Contact investigation
- Genotyping and drug susceptibility testing
- Cluster investigation and outbreak detection/response
- Data analysis, program evaluation and research
- Outreach
- Support advocacy

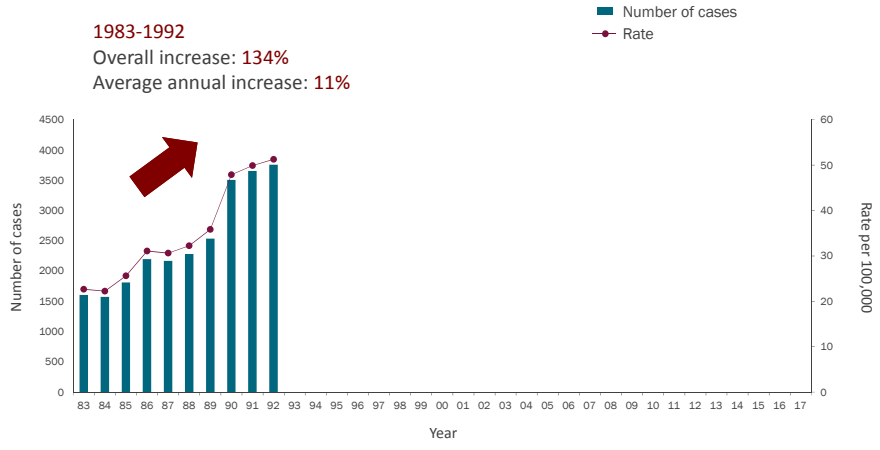
PRELIMINARY 2017 DATA

TUBERCULOSIS CASES AND RATES,[1] NEW YORK CITY, 1983-2017



1. Rates are based on decennial Census data

TUBERCULOSIS CASES AND RATES,[1] NEW YORK CITY, 1983-2017



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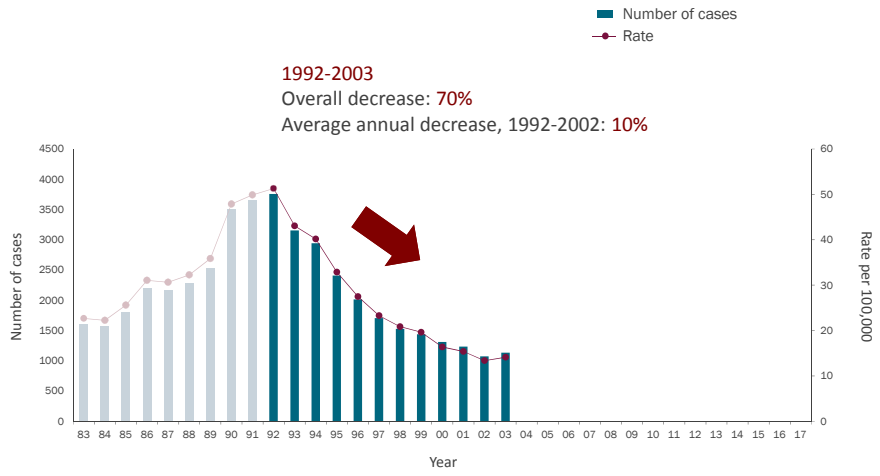

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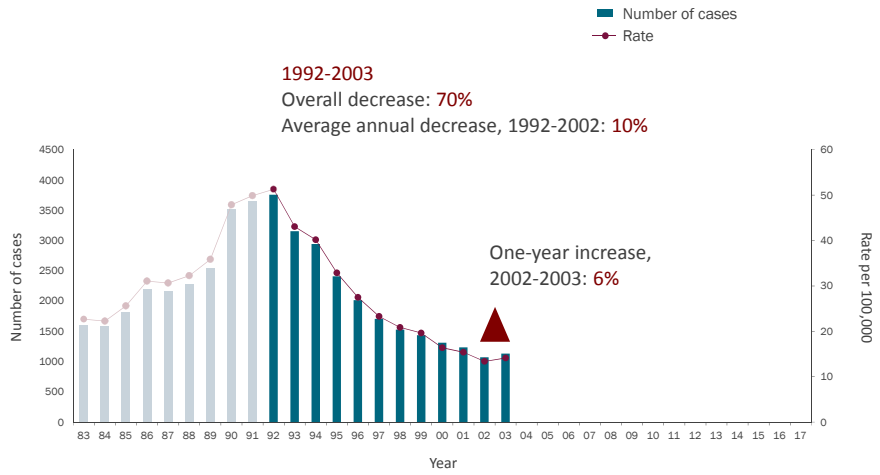

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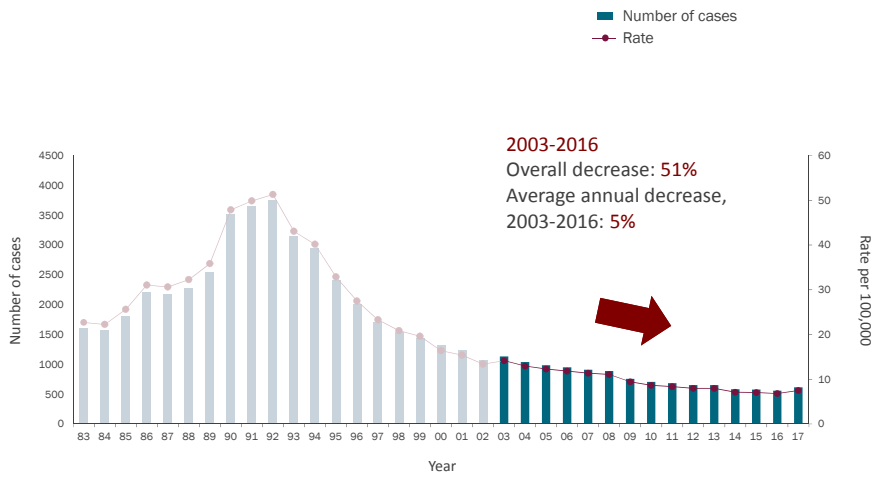

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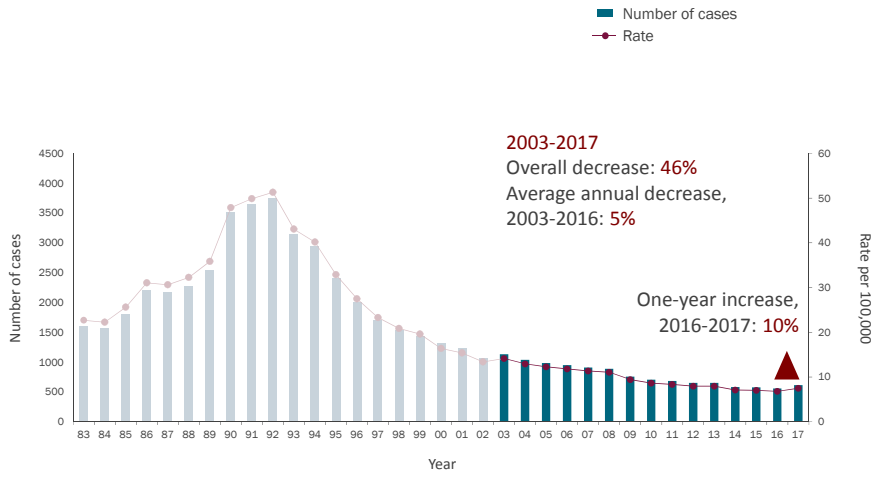

1. Rates are based on decennial Census data

A CLOSER LOOK AT THE INCREASE

REPORTED 6% INCREASE FROM 2002-2003

I. Executive Summary

New York City (NYC) has made enormous strides in tuberculosis control: the number of tuberculosis cases has declined by 70% since 1992. However, in 2003, the number of tuberculosis cases increased slightly for the first time in over 10 years, with 1,140 tuberculosis cases and a rate of 14.2 per 100,000. Despite the overall 10-year decreasing trend in tuberculosis in New York City, the rate of tuberculosis is 2.8 times higher than the national rate of 5.1 per 100,000 and 14 times higher than the Healthy People 2010 Objective of 1.0 per 100,000.

The increase in tuberculosis cases represents an excess of 56 cases over the number in 2002. This increase is partially the result of a change in case counting methods that occurred at the end of 2002, immigration from countries with high prevalence of tuberculosis and increased transmission of tuberculosis, in residences for homeless individuals.

Profile of Tuberculosis Cases

- Most tuberculosis patients were aged 20 to 64 years,


PERCENT CHANGE IN PROPORTION FOR SELECT CHARACTERISTICS AMONG TUBERCULOSIS CASES, 2016 TO 2017
AGE GROUP (YEARS)
0-17
-1%
18-44
-2%
+2%
65+
SEX
Female
-2%
+2%
Male
BIRTH IN THE U.S.
U.S.-born
-1%
+1%
Non-U.S.-born
RACE/ETHNICITY[1]
Non-Hispanic White
-1%
Non-Hispanic Black
-2%
Asian
-6%
+6%
Hispanic
+3%
Multiple/Other
BOROUGH OF RESIDENCE
Manhattan
-2%
+3%
Bronx
Queens
-3%
+1%
Brooklyn
CLINICAL AND SOCIAL CHARACTERISTICS
Pulmonary site only
-2%
Extrapulmonary site only
-1%
+2%
Both
+2%
Culture positive
+1%
Multidrug resistant TB[2]
+1%
History of homelessness[3]
NO CHANGE among patients 45-64 years of age, patients living in Staten Island at time of TB diagnosis or patients with HIV infection.
Change in clustering proportion could not be assessed due to a change in genotyping and clustering methods.
1. Race/ethnicity is among patients born in the U.S. 2. MDR TB is defined as resistance to at least isoniazid and rifampin.
3. In the 12 months before TB diagnosis.
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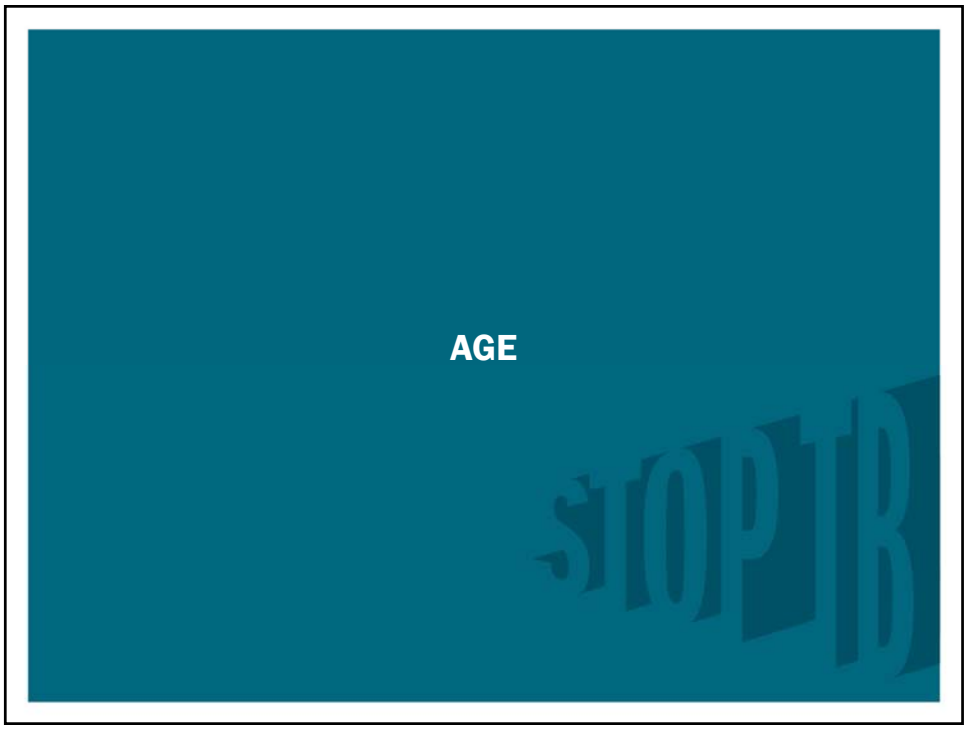
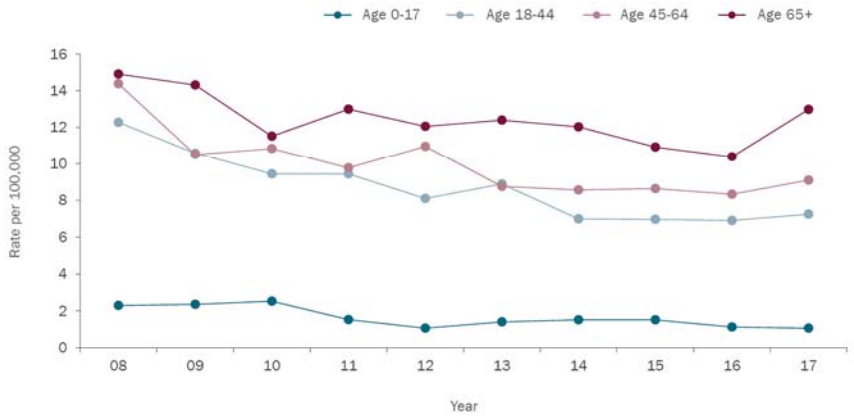
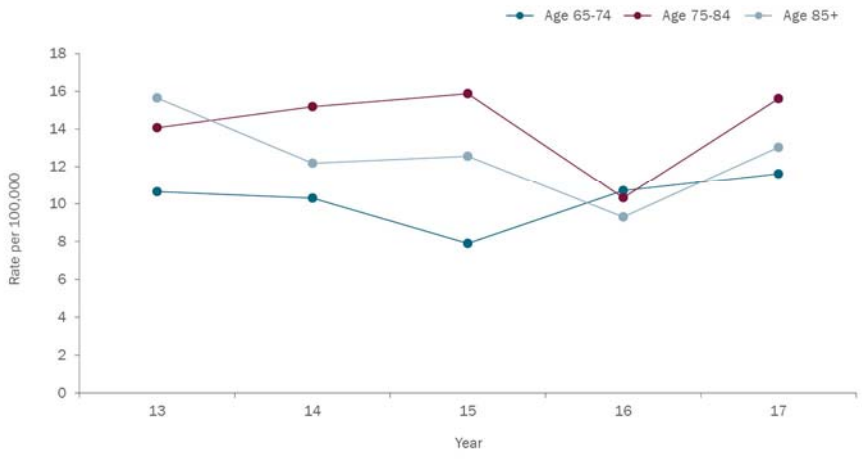

AGE
STOP TB

TUBERCULOSIS RATES[1] BY AGE GROUP IN YEARS, NEW YORK CITY, 2008-2017



1. Rates are based on New York City Health Department population estimates, modified from U.S. Census Bureau interpolated intercensal population estimates, 2000-2016. Updated September 2017.

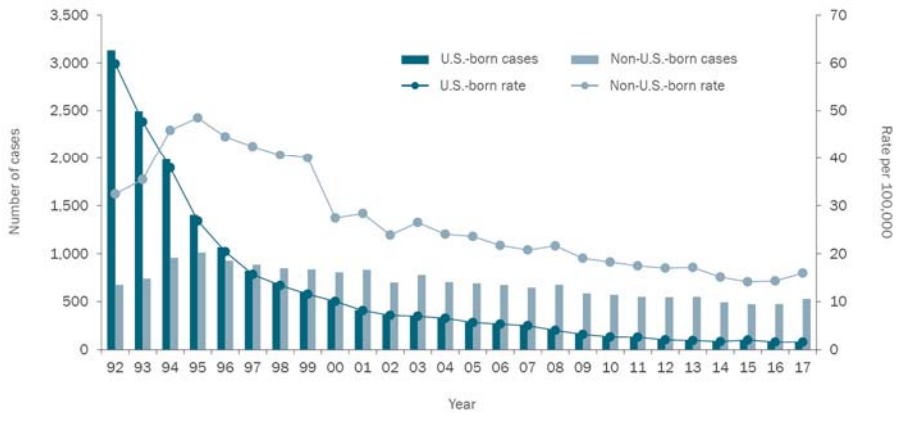
TUBERCULOSIS RATES[1] AMONG ADULTS OLDER THAN 65 BY AGE GROUP IN YEARS, NEW YORK CITY, 2013-2017



1. Rates are based on New York City Health Department population estimates, modified from U.S. Census Bureau interpolated intercensal population estimates, 2000-2016. Updated September 2017.

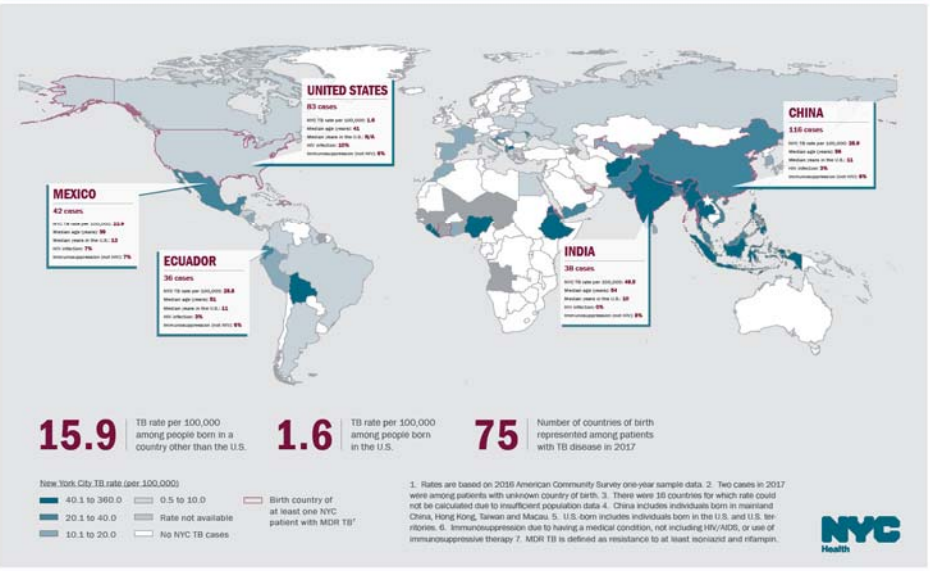
COUNTRY OF BIRTH

TUBERCULOSIS CASES AND RATES[1] BY BIRTH IN THE UNITED STATES (U.S.),[2] NEW YORK CITY, 1992-2017



1. Rates prior to 2000 are based on 1990 U.S. Census data. Rates for 2000-2005 are based on 2000 U.S. Census data. Rates after 2005 are based on one-year American Community Survey data for the given year or the most recent available data. 2. U.S.-born includes individuals born in the U.S. and U.S. territories. 3. Excludes cases with unknown country of birth.

TUBERCULOSIS CASES, RATES[1] AND SELECT CHARACTERISTICS BY PATIENT COUNTRY OF BIRTH, NEW YORK CITY, 2017



TOP TEN COUNTRIES OF BIRTH BY TUBERCULOSIS BURDEN AND INCIDENCE IN NEW YORK CITY,[1,2,3] 2017

COUNTRY OF BIRTH	# OF NYC TB CASES
China[4]	116
United States[5]	83
Mexico	42
India	38
Ecuador	36
Dominican Republic	31
Bangladesh	27
Philippines	25
Haiti	19
Nigeria	15

COUNTRY OF BIRTH	NYC TB RATE (PER 100,000)[1]
Eritrea	360
Sierra Leone	225
Bolivia	130
Burma	118
Indonesia	112
Ethiopia	93
Nepal	86
Liberia	78
Afghanistan	66
Nigeria	57

1. Rates are based on 2016 American Community Survey one-year sample data. 2. Two cases in 2017 were among patients with unknown country of birth. 3. There were 16 countries for which rate could not be calculated due to insufficient population data. 4. China includes individuals born in mainland China, Hong Kong, Taiwan and Macau. 5. U.S.-born includes individuals born in the U.S. and U.S. territories.

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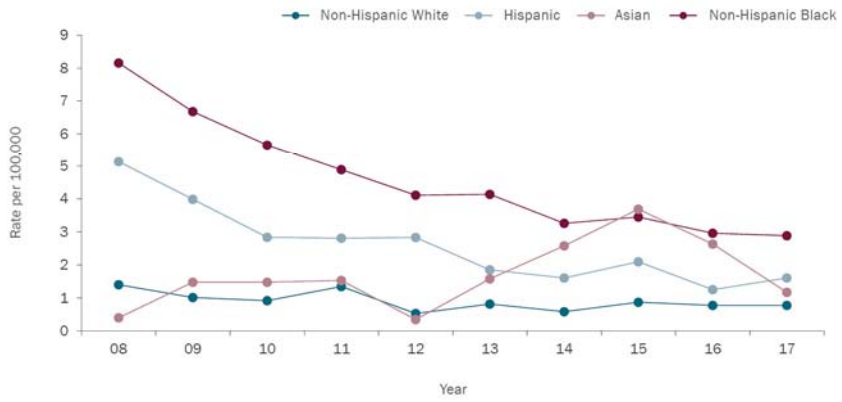
TUBERCULOSIS RATES[1] AMONG PEOPLE BORN IN THE UNITED STATES (U.S.)[2] BY RACE/ETHNICITY, NEW YORK CITY, 2008-2017



1. Rates are based on one-year American Community Survey Public Use Microdata Sample data for the given year or the most recent available data. 2. Data shown does not include patients with multiple, other, or unknown race/ethnicity. 3. U.S.-born includes individuals born in the U.S. and U.S. territories. 4. Excludes cases with unknown country of birth.

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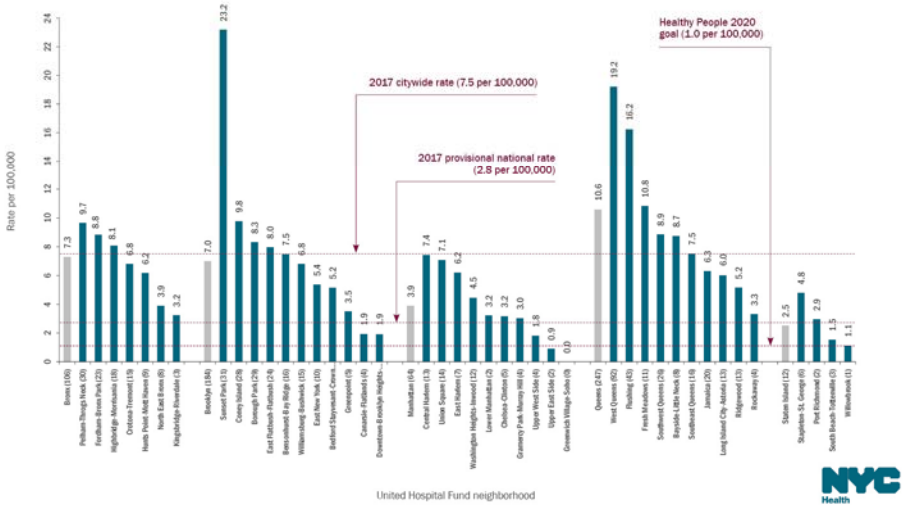
NEW YORK CITY NEIGHBORHOODS

TUBERCULOSIS RATES[1] BY NEW YORK CITY NEIGHBORHOOD, NEW YORK CITY, 2017

1. Parentheses indicate the number of TB cases residing in each neighborhood at time of TB diagnosis. 2. Rates are based on New York City Health Department population estimates, modified from U.S. Census Bureau interpolated intercensal population estimates, 2000-2016. Updated September 2017.



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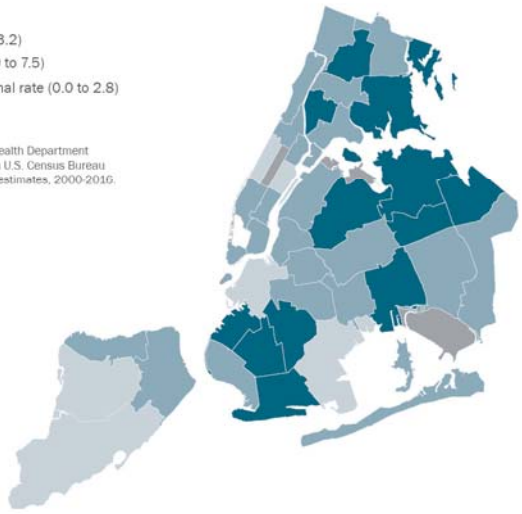
TUBERCULOSIS RATES[1] BY NEW YORK CITY NEIGHBORHOOD, NEW YORK CITY, 2017

Rate per 100,000

- Above citywide rate (7.6 to 23.2)
- At or below citywide rate (2.9 to 7.5)
- At or below provisional national rate (0.0 to 2.8)
- No NYC TB cases

1. Rates are based on New York City Health Department population estimates, modified from U.S. Census Bureau interpolated intercensal population estimates, 2000-2016. Updated September 2017.



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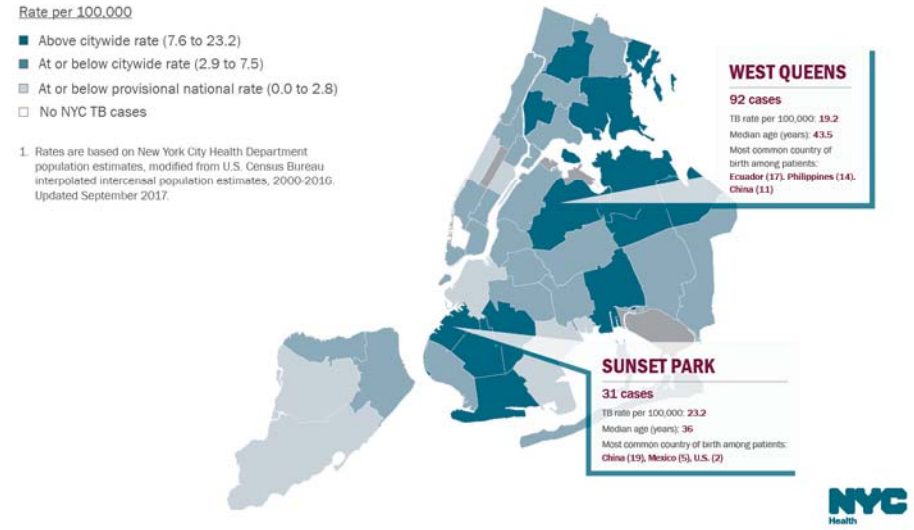
TUBERCULOSIS RATES[1] BY NEW YORK CITY NEIGHBORHOOD, NEW YORK CITY, 2017



CLINICAL CHARACTERISTICS

TUBERCULOSIS CASES BY DISEASE SITE, NEW YORK CITY, 2017 (N=613)

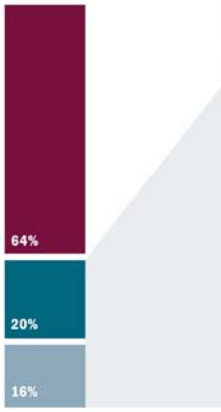


TABLE: Disease site among tuberculosis cases with extrapulmonary disease,[1] New York City, 2017 (n=224)

Disease site	Number of cases	Percent
Any extrapulmonary site	224	
Lymphatic	88	39
Pleural	58	26
Bone/Joint	25	11
Meningeal	15	7
Genitourinary	11	5
Peritoneal	17	8
Laryngeal	2	1
Other	45	20

1. Categories are not mutually exclusive.

Pulmonary disease only Extrapulmonary disease only Both pulmonary and extrapulmonary disease sites

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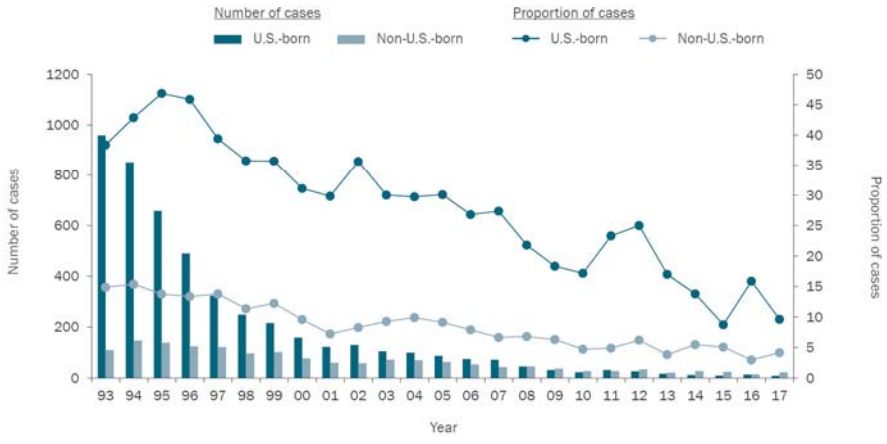
HIV INFECTION AMONG TUBERCULOSIS CASES BY BIRTH IN THE UNITED STATES (U.S.), NEW YORK CITY, 1993-2017



1. Excludes cases with unknown country of birth. 2. U.S.-born includes individuals born in the U.S. and U.S. territories. 3. 110 patients in 2017 had an unknown HIV status.

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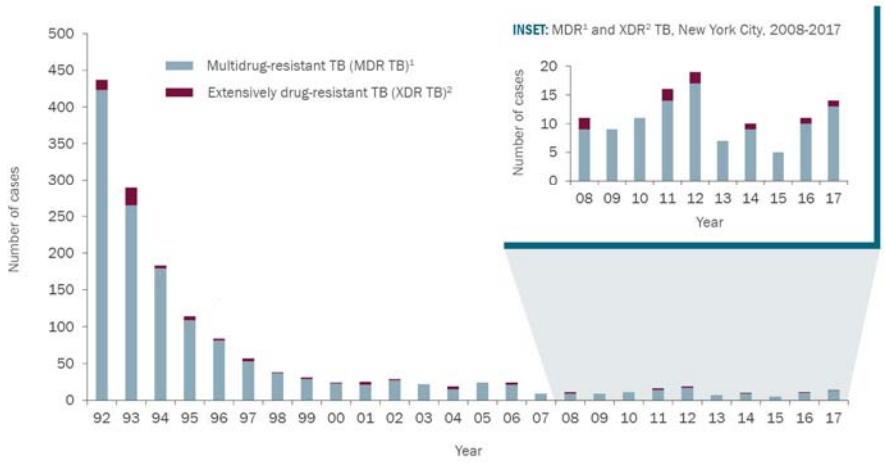
MULTIDRUG RESISTANCE

MULTIDRUG RESISTANCE[1] AMONG TUBERCULOSIS CASES, NEW YORK CITY, 1992-2017



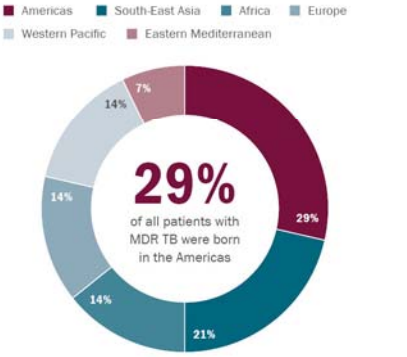
1. MDR TB is defined as resistance to at least isoniazid and rifampin. 2. XDR TB is defined as resistance to at least isoniazid and rifampin plus a fluoroquinolone and a second-line injectable anti-TB medication.

SELECT CHARACTERISTICS AMONG PATIENTS DIAGNOSED WITH MULTIDRUG-RESISTANT[1] TUBERCULOSIS, NEW YORK CITY, 2017 (N=14)

Characteristics	
Median age (range)	41 (19-80)
Number born outside of the United States (U.S.) (%)	12 (86%)
Years in the U.S. among non-U.S.-born patients (%)	
< 5 years	5 (42%)
5-10 years	4 (33%)
> 10 years	3 (25%)
Pulmonary site of disease (%)	12 (86%)
Median number of drugs to which there was known resistance among MDR TB cases[2] (range)	7 (3-12)
Median number of contacts identified around patients with MDR TB (range)	3 (0-155)

1. MDR TB is defined as resistance to at least isoniazid and rifampin.
2. Resistance to any fluoroquinolone was counted once

FIGURE: Region of birth[1] among patients diagnosed with multidrug-resistant tuberculosis, New York City, 2017 (n=14)



1. Based on World Health Organization regional defintions

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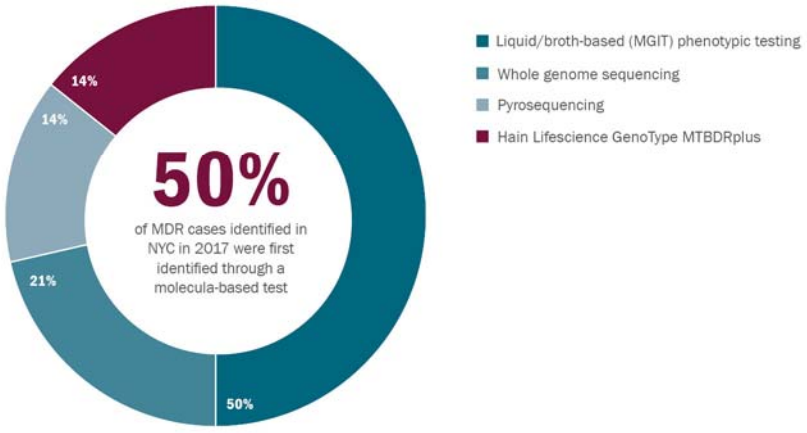
LABORATORY METHOD USED TO FIRST IDENTIFY RESISTANCE TO BOTH ISONIAZID AND RIFAMPIN AMONG CASES WITH A MULTIDRUG-RESISTANT TUBERCULOSIS STRAIN, NEW YORK CITY, 2017 (N=14)



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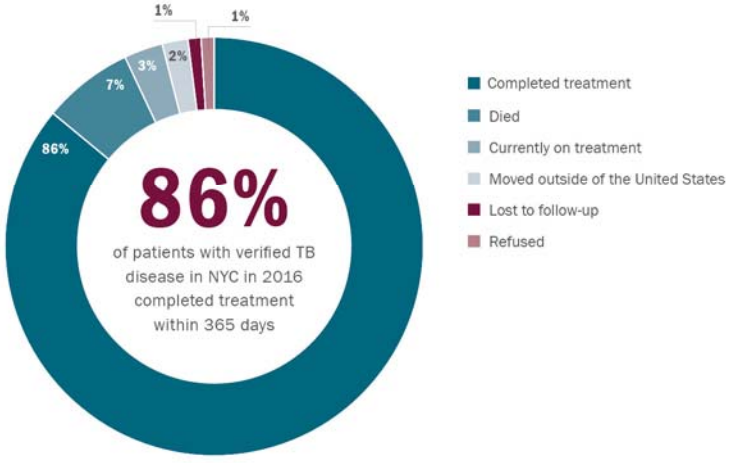
TREATMENT OUTCOMES

TREATMENT OUTCOMES FOR TUBERCULOSIS CASES COUNTED IN 2016[1] WHO WERE ELIGIBLE TO COMPLETE TREATMENT WITHIN 365 DAYS, NEW YORK CITY (N=556)



1. Treatment outcomes are not reported for the current year to allow sufficient time for follow-up.

NUMBER AND PROPORTION OF PATIENTS WITH TUBERCULOSIS WHO DIED BEFORE OR DURING TREATMENT, NEW YORK CITY, 2008-2017

1. A death is defined as any patient who died prior to or during TB treatment, regardless of the cause of death. This excludes any patient who died after the completion of TB treatment.

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EPIDEMIOLOGIC INVESTIGATIONS AND GENOTYPING

CONTACT INVESTIGATIONS IN NON-HOUSEHOLD SETTINGS[1] BY SITE TYPE, NEW YORK CITY, 2017 (N=69)

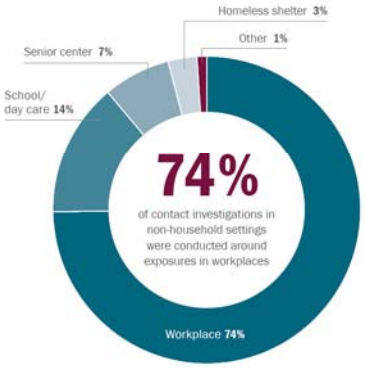

TABLE: Contact investigation outcomes in non-household settings[1] by number of exposed contacts, New York City, 2017 (n=69)

	≥ 15 exposed contacts	< 15 exposed contacts	Total
	n (%)	n (%)	n (%)
Number of sites	28	41	69
Likely transmission[2]	8 (31%)	7 (19%)	15 (24%)
Transmisison could not be assessed	2 (7%)	5 (12%)	7 (10%)
Total number of contacts	849	249	1,098
Median contacts per site (range)	25 (15-89)	6 (1-14)	10 (1-89)
Contacts eligible for testing[3]	810 (95%)	233 (94%)	1,043 (95%)
Contacts tested	709 (88%)	207 (89%)	916 (88%)
Contacts with a positive TB test result	75 (11%)	28 (14%)	103 (11%)

1. Excludes health care-associated investigations (n=153)
2. Proportion calculated among investigations where transmission could be assessed
3. Contacts eligible for testing are defined as contacts without a known history of TB disease or documented positive test for TB infection who were alive subsequent to the diagnosis of the infectious TB case to whom they were exposed

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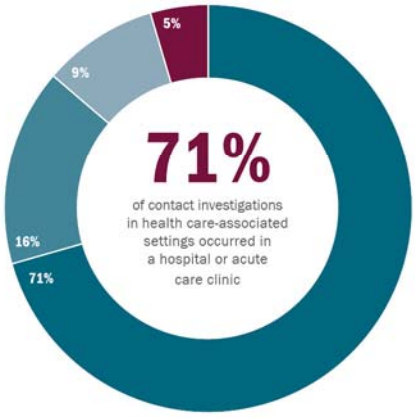
CONTACT INVESTIGATIONS IN HEALTHCARE-ASSOCIATED SETTINGS BY SITE TYPE, NEW YORK CITY, 2017 (N=153)



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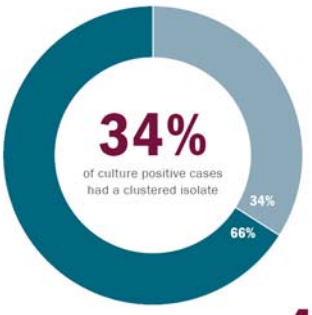
PROPORTION CLUSTERED[1] AMONG TUBERCULOSIS CASES WITH A COMPLETE GENOTYPE[2] BY SELECT PATIENT CHARACTERISTICS, NEW YORK CITY, 2017 (N=440)



AGE GROUP:

	Clustered	Not clustered
0-17 years	70%	30%
18-44 years	34%	66%
45-64 years	32%	68%
65 and older	34%	66%

BIRTH IN THE UNITED STATES (U.S.):[3]

	Clustered	Not clustered
U.S.-born	51%	49%
Non-U.S.-born	31%	69%

RACE/ETHNICITY:[4,5]

	Clustered	Not clustered
Non-Hispanic Black	57%	43%
Non-Hispanic White	20%	80%
Hispanic	63%	37%
Asian	25%	75%

TIME IN THE U.S.:[4,7]

	Clustered	Not clustered
< 1 year	29%	71%
1-5 years	20%	80%
> 5 years	37%	63%

OTHER:

	Clustered	Not clustered
Any pulmonary disease	35%	65%
Extrapulmonary disease only	27%	73%
History of homelessness[8]	47%	53%
Drug or excessive alcohol use[8]	44%	56%

47% Proportion of cases among patients younger than 18 with no obtainable genotype

92% Proportion of culture positive cases with WGS results available

1. Defined as a case with an isolate that has exact-matching 24-loci mycobacterial interspersed repetitive unit–variable number tandem repeat (MIRU) results and spacer oligonucleotide typing (spoligotyping) results to another NYC case verified since January 1, 2009. 2. Having both spoligotype and MIRU results; 440 (87%) cases verified in 2017 had a complete genotype as of January 22, 2018. 3. U.S.-born includes individuals born in the U.S. and U.S. territories; two cases had unknown country of birth. 4. Among patients born in the U.S. 5. Excludes four patients with unknown or multiple race/ethnicity. 6. Among patients born outside the U.S. 7. Time in the U.S. is not available for all patients. 8. In the 12 months before TB diagnosis.

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CHARACTERISTICS OF SELECT HIGH-PRIORITY[1] TUBERCULOSIS (TB) CLUSTERS,[2] NEW YORK CITY, 2017

	Cluster A	Cluster B[3]	Cluster C	Cluster D	Cluster E	Cluster F
Number of cases identified from January 1, 2015 to December 31, 2017	11	8	7	6	6	5
Proportion of cases among males[4]	64%	75%	71%	83%	83%	80%
Proportion of patients born in the United States (U.S.)[4,5]	27%	88%	14%	17%	100%	60%
Median patient age in years (range)[4]	30 (20-70)	31 (16-59)	27 (17-40)	29 (19-38)	35 (24-65)	40 (18-53)
Most common borough of residence at time of TB diagnosis (%)[4]	Queens (55%)	Manhattan (63%)	Brooklyn (86%)	Brooklyn (100%)	Bronx (100%)	Manhattan (40%) Brooklyn (40%)
Proportion of patients reporting history of homelessness[4,6]	9%	0%	0%	0%	0%	20%
Proportion of patients reporting history of drug use or excessive alcohol use[4,6]	18%	50%	14%	17%	83%	20%
Proportion of patients with pulmonary disease[4]	82%	88%	100%	83%	100%	60%
Clusters in which patients reported history of transient work[4,6]			✓	✓		✓
Clusters in which social network links were identified among patients[4]	✓	✓	✓	✓	✓	✓
Clusters in which patients were linked to the same geographically-concentrated area[4,7]		✓	✓	✓		

1. Includes clusters with five or more cases identified in three years and evidence of recent, local TB transmission 2. Clusters include cases whose isolate has exact-match or similar spacer oligonucleotide typing and 24-loci mycobacterial interspersed repetitive unit–variable number tandem repeat results. 3. Includes one case counted outside of NYC with matching genotype results and epidemiologic links to other patients in the cluster. 4. Among cluster cases identified between January 1, 2015 and December 31, 2017. 5. U.S.-born includes individuals born in the U.S. and U.S. territories. 6. In the 12 months before TB diagnosis. 7. Within a 10-block radius or less

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Median patient age in years (range)[4]	30 (20-70)	31 (16-59)	27 (17-40)	29 (19-38)	35 (24-65)	40 (18-53)
Most common borough of residence at time of TB diagnosis (%)[4]	Queens (55%)	Manhattan (63%)	Brooklyn (86%)	Brooklyn (100%)	Bronx (100%)	Manhattan (40%) Brooklyn (40%)
Proportion of patients reporting history of homelessness[4,6]	9%	0%	0%	0%	0%	20%
Proportion of patients reporting history of drug use or excessive alcohol use[4,6]	18%	50%	14%	17%	83%	20%
Proportion of patients with pulmonary disease[4]	82%	88%	100%	83%	100%	60%
Clusters in which patients reported history of transient work[4,6]			✓	✓		✓
Clusters in which social network links were identified among patients[4]	✓	✓	✓	✓	✓	✓
Clusters in which patients were linked to the same geographically-concentrated area[4,7]		✓	✓	✓		

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NYC Health

CHARACTERISTICS OF SELECT HIGH-PRIORITY[1] TUBERCULOSIS (TB) CLUSTERS,[2] NEW YORK CITY, 2017

	Cluster A	Cluster B[3]	Cluster C	Cluster D	Cluster E	Cluster F
Number of cases identified from January 1, 2015 to December 31, 2017	11	8	7	6	6	5
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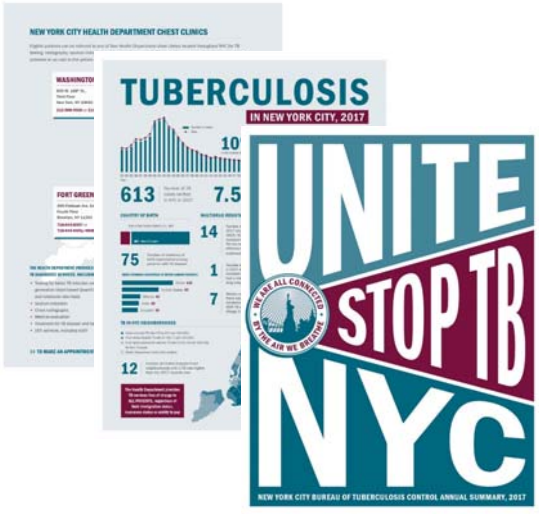
INFOGRAPHICS, MAPS, AND HARD COPIES OF THE ANNUAL TB SUMMARY ARE AVAILABLE



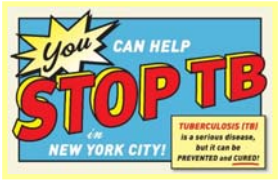
Online:
nyc.gov/health/tb

Hard copies:
Email tb-epi@health.nyc.gov

ACKNOWLEDGEMENTS

- **THE ANNUAL REPORT TEAM**
  - **Jeanne Sullivan Meissner, MPH and Lisa Trieu, MPH**
  - Shama Ahuja, PhD, MPH; April Cobos, BA, BS; Jillian Knorr, MPH; Muriel Silin, MPH; Yelena Shuster, BS; Jyotsna Ramachandran, MPH
- **PROGRAM CONTENT PROVIDED BY:**
  - Martha Alexander, MHS; Joseph Burzynski, MD, MPH; Christine Chuck, MPA; Michelle Macaraig, DrPH, MPH; Mary Masterson, MPA; Herns Modestil, BS; Farah Parvez, MD, MPH; Shaila Rao, EdD, MPH; Errol Robinson, MPA
- **ADDITIONAL THANKS**
  - Arthur Suleymanov and the DOHMH Print Shop
  - Carley Perez and Dr. Hannah Jordan
  - Dr. Demetre Daskalakis, Dr. Mary Bassett and DOHMH Communications
  - All of the BTBC staff that contribute to this report by working with our patients and collecting the data included in the report

WORKING TOGETHER TO BEND THE CURVE: A CALL TO ACTION

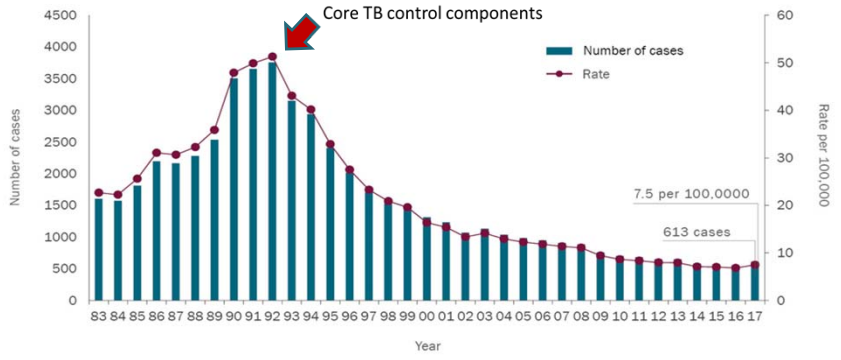


Joseph N. Burzynski, MD, MPH

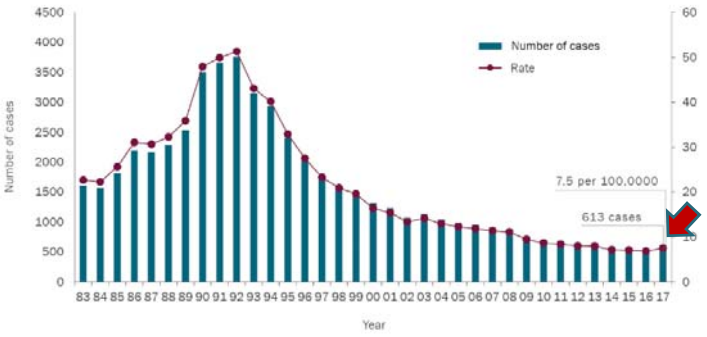
Director, Bureau of Tuberculosis Control

New York City Department of Health and Mental Hygiene

Essential Core TB Control Components Work



In 2017, largest increase in TB rates since 1992



613
TB cases reported in NYC in 2017

7.5
NYC citywide TB rate in 2017 per 100,000 people

1. Rates are based on decennial census data

TB NOW: 2017 - 2018

HUFFPOST

HEALTH

U.S. Tuberculosis Cases Are The Lowest In Years, But It's Still A Threat

The treatable and curable disease is on the rise in New York City, and an alarming number of latent cases are lurking.

By Lauren Weber

CDC Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

Tuberculosis continues to decline in the U.S., but progress toward elimination is slowing

Press Release

For immediate release: March 22, 2018

Daily Mail .com

Panic as TB is on the rise in New York for the first time since the early 1990s

- There was a 6.3% increase in tuberculosis in New York between 2016 and 2017
- It's the first time the state has seen an increase in over 25 years
- Nearly three-quarters of the state's TB cases are in New York City
- The city's funding for TB has been cut by more than half since 2007
- TB is the number one infectious killer in the world, claiming the lives of more than 1.7 million people each year

By MEGAN SHEETS FOR DAILYMAIL.COM
PUBLISHED: 17:24 EDT, 22 March 2018 | UPDATED: 22:18 EDT, 22 March 2018

BuzzFeed News Videos Quizzes Tasty As/Is More

Community

10 reasons why 2018 could be the year we turn the tide on the world's deadliest infectious disease

Tuberculosis is the world's deadliest infectious disease, outpacing HIV/AIDS and malaria. On World TB Day, here's 10 reasons why 2018 could be the year we turn the tide on the epidemic.

Posted on March 20, 2018, at 2:41 p.m.

世界日報 World Journal

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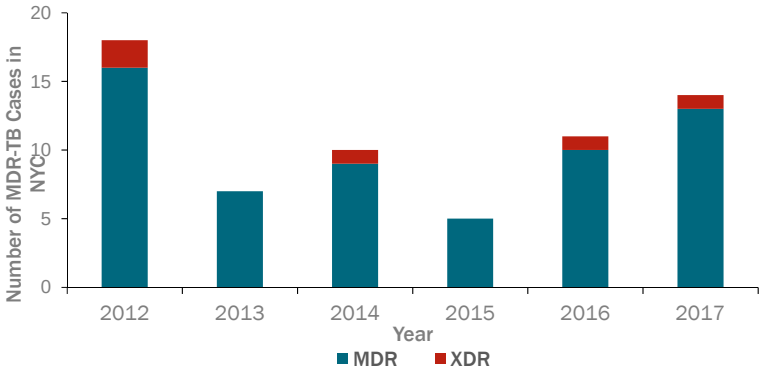
DAILY NEWS | OPINION

Tuberculosis could come back

NYC Health

Since 2015, MDR-TB is on the Rise in NYC



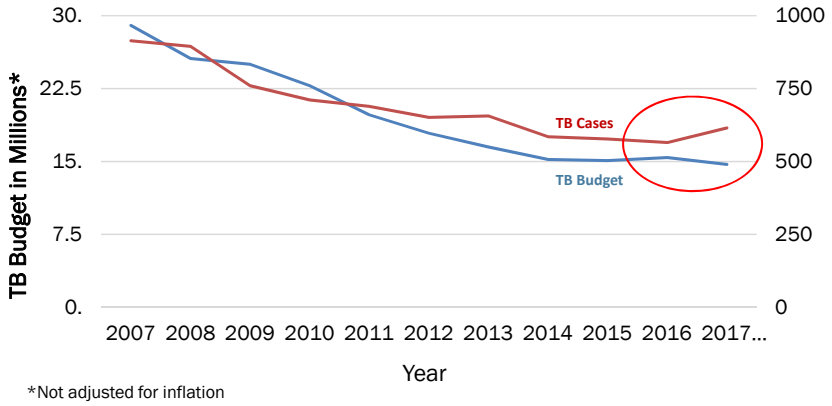
13
MDR-TB Cases in 2017

1
XDR-TB Case in 2017

MDR: multidrug-resistant
XDR: extensively drug-resistant

NYC Health

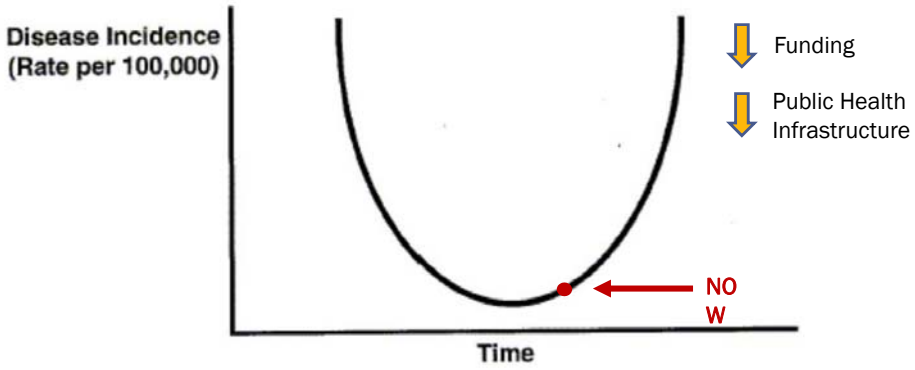
Bureau of TB Control Budget and Number of NYC TB cases, 2007-2017



*Not adjusted for inflation

U - Shaped Curve of Concern

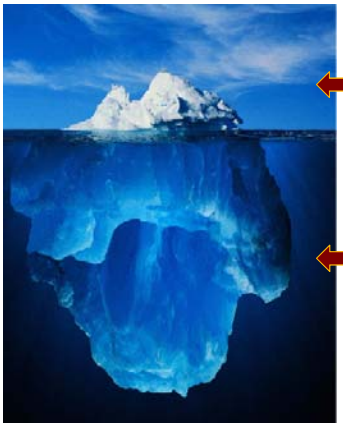
Dr. Reichman will expand on this later



Source: Reichman, L. B. (1991). The U-shaped Curve of Concern. American Review of Respiratory Disease, 144(4), 741-742.

Bend it like Frieden

Taking a Dual Approach



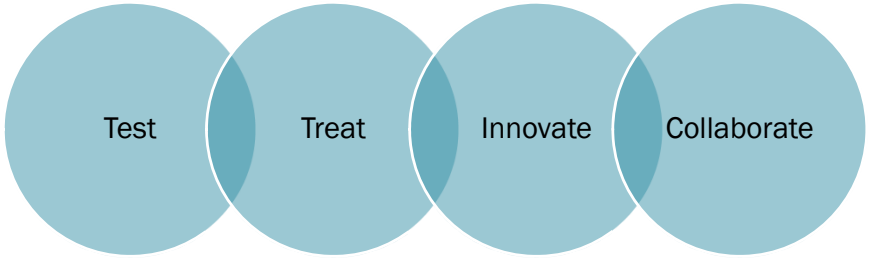
Active TB Disease

Latent TB Infection

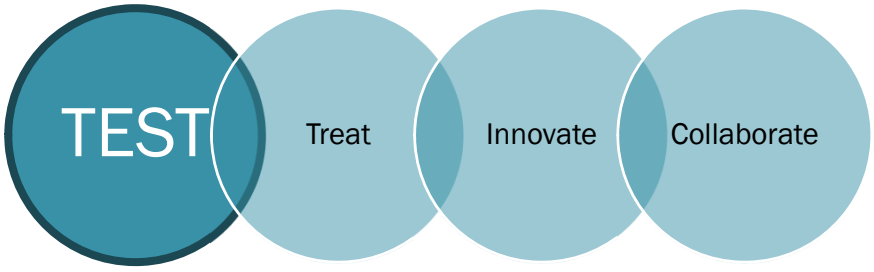
Prevalence estimates in NYC are between 670,000 - 1.7 million*

*LTBI prevalence estimates based on clinic data and NHANES

Approach to Bending the Curve



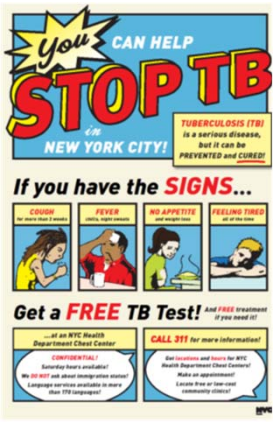
Approach to Bending the Curve



TEST - TB Disease

"Think TB"

- Know TB signs and symptoms
- Know local epidemiology
  - 86% among non-U.S.-born persons
  - Nearly ¼ among persons 65 years and older
  - Majority >5 years after entry to the U.S.



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TEST - TB Disease

Use newer tests for diagnosing TB

- Nucleic acid amplification (NAA)
  - Genotype MTBDRplus (Hain Lifesciences)
  - Xpert MTB/RIF (Cepheid)
- Pyrosequencing
- Whole Genome Sequencing

= Shorter time to diagnosis

= Determine drug resistance quicker to inform treatment

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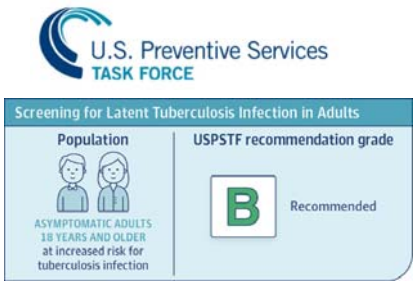
TEST - TB Infection

- Conduct TB risk assessment
  - Contacts to active TB patients
  - Born in, resided in, or travelled (>1 month) to countries with high incidence of TB
  - Have HIV or other immunosuppression due to conditions (*e.g. cancers*) or medications (*e.g. TNF-α antagonists*)
- Screen all persons who are pregnant

TEST - TB Infection

- Now more insurance coverage for testing
  - U.S. Preventive Service Task Force (USPSTF) recommendation



TEST - TB Infection

Health Code Change for children <5 years of age [NEW!]

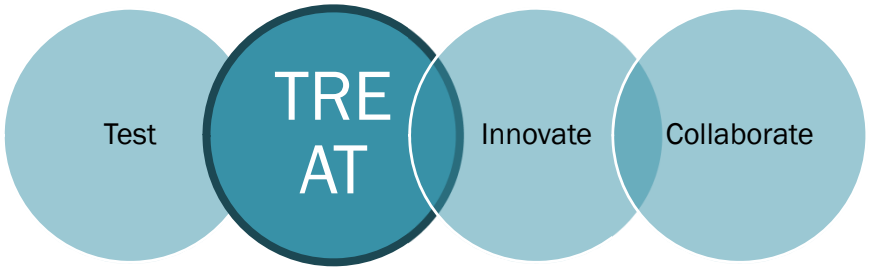
- Report all children <5 years of age with a positive test for TB infection within 24 hours
  - Qualitative and quantitative interferon gamma release assay (IGRA) or tuberculin skin test (TST) results
- Report subsequent evaluation to rule out TB disease
  - All radiographic/diagnostic imaging (e.g., chest x-rays, CT scans, and MRI)
  - TB infection treatment regimen and start date

TEST - TB Infection

Use IGRAs

- Preferred test
- Can be used for persons ≥ 2 years of age
  - New 2018 AAP Red Book recommendations
- Eliminates Bacille-Calmette Guérin (BCG) vaccination as confounder
- IGRAs available:
  - T-SPOT.TB
  - QuantiFERON®-TB Gold In-Tube / QuantiFERON®-TB Gold Plus [NEW!]

Approach to Bending the Curve



TREAT - TB Disease

- Utilize infection control practices
  - Prevent nosocomial, community, or household transmission
  - Discharge patient as quickly as clinically appropriate
  - Determine patient infectiousness
    - *Dr. Nardell to speak on this later*
- Develop patient discharge plan in collaboration with DOHMH
  - Medical consultant and field staff

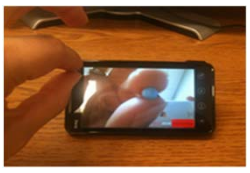
TREAT - TB Disease

- Partner to manage patients with drug-resistant TB
  - DOHMH offers expert consultation in MDR-TB treatment
  - DOHMH can help access newer MDR-TB drugs (e.g., delaminid, bedaquiline)
  - New shorter, treatment regimens for MDR-TB
    - *Dr. Daly to speak on this later*

TREAT - TB Disease

Increase treatment adherence and completion

- Enroll patients in Directly Observed Therapy (DOT)
  - In-Person DOT is offered in clinical and field settings
  - Video DOT (VDOT)
    - Live (synchronous)
    - Recorded (asynchronous)

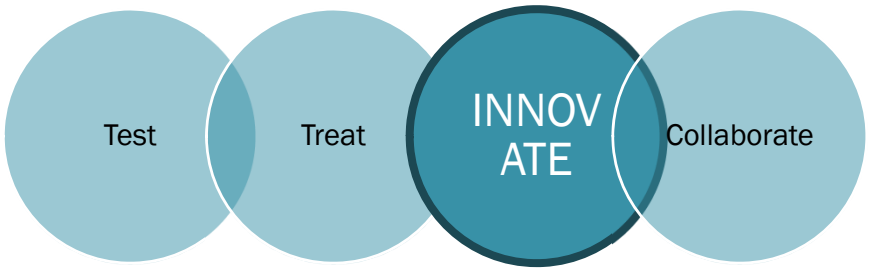


TREAT - TB Infection

- Treat individuals with TB infection
- Use shorter treatment regimens
  - Isoniazid and **rifapentine** (3HP)
    - Once weekly (x12 weeks)
    - VDOT / self-administered [new!]
  - Rifampin (4R)
    - Daily (x4 months)
    - Self-administered

Completing LTBI treatment can reduce the chance of developing TB disease by 90%

Approach to Bending the Curve



INNOVATE

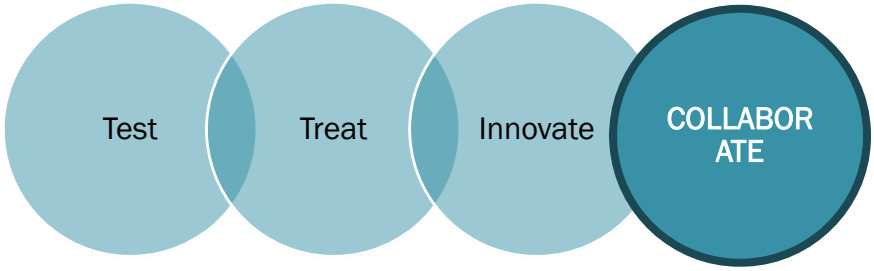
Embrace new tools and technology

- Rapid diagnostics
  - Whole Genome Sequencing
    - Faster turnaround time (~1 week)
    - More comprehensive results
    - Cost-effective
- Use Regional Health Information Organizations to enhance case management

INNOVATE

- Research/Clinical trials
  - VDOT study (TB disease)
  - Trials Consortium
  - Academic collaborations
  - TB Drug Pipeline *(Dr. Li to speak more on this later)*

Approach to Bending the Curve



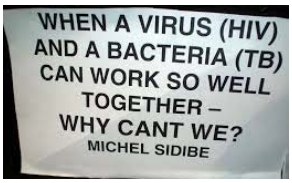
COLLABORATE

Promote TB Awareness, Advocacy, and Action

- TB patient advocates *(Ms. O'Brien and Mr. Rana to share their personal stories later)*
- Health care providers
- Global and community-based groups
  - African Services Committee
  - Federation of Protestant Welfare Agencies
  - Hispanic Federation
  - Housing Works
  - Latino Commission on AIDS, Hispanic Health Network
  - Mayor's Office of Immigrant Affairs
  - National Tuberculosis Controllers Association
  - New York Immigration Coalition
  - New York State Department of Health
  - RESULTS
  - TB Alliance
  - The International Union of Tuberculosis and Lung Disease
  - Treatment Action Group
- Many dedicated individuals…

COLLABORATE

- Engage high TB burden communities
  - Partner with elected officials and community leaders
  - Targeted testing (e.g., mobile vans, health fairs) and linkage to care
- TB Summit - June 2018
- BTBC Program Manual [Coming soon!]



UNAIDS Executive Director

COLLABORATE

DOHMH Resources

1 TB Hotline
Medical consultation

2 CLINIC
Four clinics – *free*, do not ask about immigration status

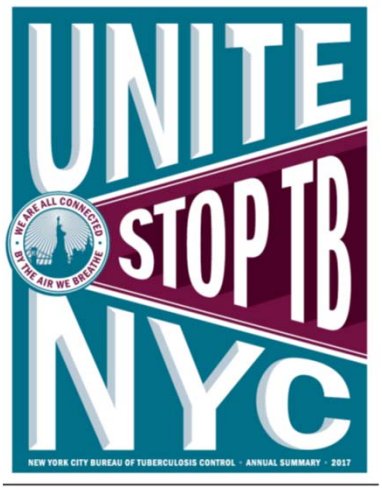
3 

Multilingual educational materials

4 DOT
Case Management

5 TB presentations
(e.g. medical grand rounds)

THANK YOU!



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