

TB Update



Frank Romano, MPH
Senior Public Health Advisor
Division of HIV, STD, and TB Services
New Jersey Department of Health

Current Events

- Humanitarian parolees seeking asylum in the US
 - Ukraine (April 21, 2022)
 - Ceiling: 100,000
 - Venezuela (Oct 12, 2022)
 - Ceiling: 24,000
 - Nicaragua, Haiti, and Cuba (Jan 5, 2023)
 - Ceiling: 30,000 per month
 - Require TB testing with IGRA within 90 days of arrival



Uniting for Ukraine TB Testing in New Jersey (updated Sep 11, 2023)

Tests initiated to date: **N= 2,756**

Total Positive to date: n= 152 (5.5%)

Total Negative to date: n= 2,495 (90.5%)

Total Borderline to date: n= 73 (2.6%)

Total Test Not Performed: n= 31 (1.1%)

Total Test Invalid: n= 05 (< 1%)

Median age: 32 (Range: 02–97)

Sex

- Female: n= 1,531 (55.6%)
 - Median age: 33 (Range: 02–97)
- Male: n= 1,225 (44.4%)
 - Median age: 32 (Range: 02–85)

Children aged 0–4: n= 98 (3.6%)

Children aged 5–14: n= 414 (15.0%)

Test Type

- T-Spot TB: n= 2,598 (94.3%)
- QFT-G: n= 156 (5.6%)
- TST: n= 02 (< 1%)

Persons diagnosed with TB disease: n= 01 (< 1%) note: MDR TB diagnosed overseas



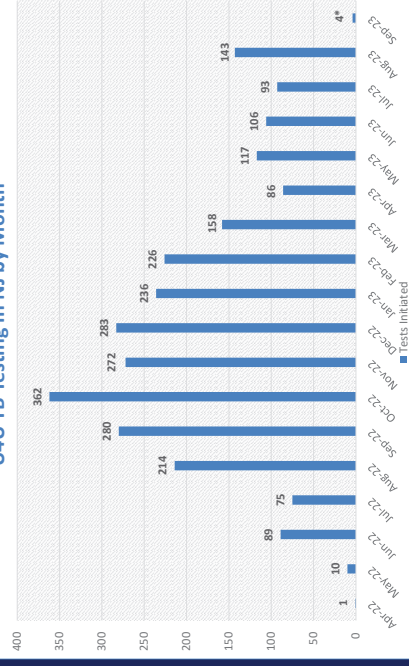
Uniting for Ukraine TB Testing by County (N=2,756) New Jersey, (ending Sep 11, 2023)

County	Tests Initiated	Percent	Cum. Percent
Bergen	608	22.06%	22.06%
Middlesex	479	17.38%	39.44%
Monmouth	280	10.16%	49.60%
Union	166	6.02%	55.62%
Mercer	163	5.91%	61.54%
Hudson	129	4.68%	66.22%
Passaic	127	4.61%	70.83%
Morris	126	4.57%	75.40%
Warren	117	4.25%	79.64%
Somerset	100	3.63%	83.27%
Ocean	83	3.01%	86.28%
Essex	79	2.87%	89.15%
Cumberland	75	2.72%	91.87%
Burlington	55	2.00%	93.87%
Atlantic	48	1.74%	95.61%
Hunterdon	27	0.98%	96.59%
Sussex	23	0.83%	97.42%
UNK	22	0.80%	98.22%
Camden	21	0.76%	98.98%
Gloucester	11	0.40%	99.38%
Out of State (CA, FL, NY, PA)	9	0.33%	99.71%
Cape May	5	0.18%	99.89%
Salem	3	0.11%	100.00%
TOTAL	2756	100.00%	100.00%

*Missing or Unknown



U4U TB Testing in NJ by Month



*through September 6, 2023

IGRAs Initiated among Humanitarian Parolees* by Country of Origin (N= 351)

New Jersey, Jan 1– June 30, 2023			
Country	Frequency	Percent	Cum. Percent
Venezuela	145	41.31%	41.31%
Haiti	110	31.34%	72.65%
Nicaragua	73	20.80%	93.45%
Cuba	23	6.55%	100.00%
TOTAL	351	100.00%	100.00%

*Excluding humanitarian parolees from Ukraine

IGRA Testing among Humanitarian Parolees* New Jersey (Jan 1—June 30, 2023)

- Tests initiated: N= 351
- Positive: n= 61 (17.4%)
 - Negative: n= 285 (81.2%)
 - Borderline (T-Spot): n= 01 (< 1.0%)
 - Indeterminate (QFT-G) n= 01 (< 1.0%)
 - Test Not Performed: n= 03 (1.1%)

Median age: 32 (Range: 01–85)

Sex

- Female: n= 192 (54.7%)
 - Median age: 33 (Range: 01–85)
- Male: n= 159 (45.3%)
 - Median age: 31 (Range: 02–67)

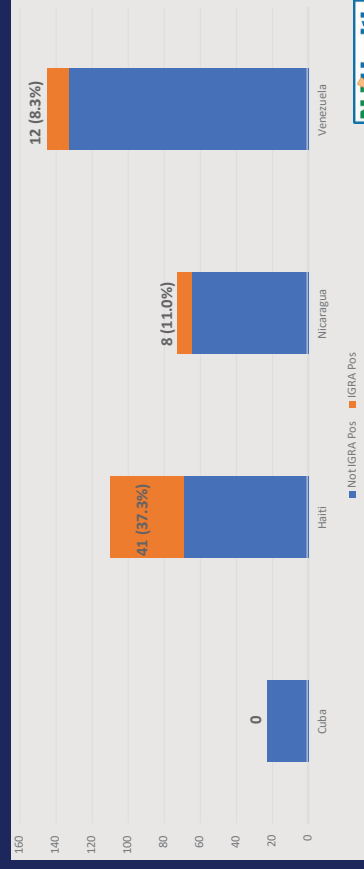
Children aged 0–4:

Children aged 5–14: n= 09 (2.6%)

Persons diagnosed with TB disease: n= 0.0

*Excluding humanitarian parolees from Ukraine

IGRA Positives among Humanitarian Parolees by Country of Origin (n= 61) New Jersey, Jan 1–June 30, 2023



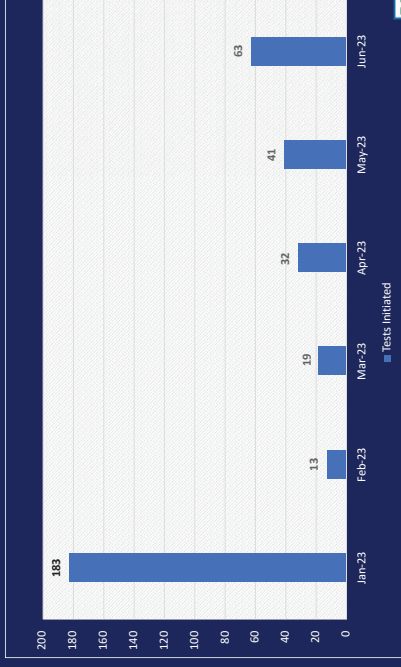
Humanitarian Parolee* Testing by County (N= 351)**
New Jersey, Jan 1 – June 30, 2023

County	Frequency	Percent	Cum. Percent
Middlesex	66	18.80%	18.80%
Camden	47	13.39%	32.19%
Passaic	45	12.82%	45.01%
Bergen	34	9.69%	54.69%
Essex	32	9.12%	63.81%
Hudson	29	8.26%	72.07%
Mercer	28	7.98%	80.05%
Monmouth	24	6.84%	86.89%
Somerset	13	3.70%	90.59%
Union	13	3.70%	94.29%
Atlantic	11	3.13%	97.42%
Ocean	4	1.14%	98.56%
Gloucester	3	< 1%	99.41%
Cumberland	1	< 1%	99.69%
Out of State	1	< 1%	100.00%
TOTAL	351	100.00%	100.00%

*Excluding humanitarian parolees from Ukraine

**County of residence

Humanitarian Parolee* IGRA Testing by Month
New Jersey, Jan 1 – June 30, 2023 (N= 351)



*Excluding humanitarian parolees from Ukraine

TB Cases, Case Rates, and Trends in New Jersey



Tuberculosis — United States, 2022 *MMWR* / March 24, 2023 / 72(12):297–303

- During 2022, **8,300** TB cases were reported in the United States; 2.5 cases per 100,000 population <https://www.cdc.gov/mmwr/wwjmmw/volumes/72/wrmm7212a1.htm>
- TB incidence appears to be returning to pre-pandemic levels
- 73% occurred among non-U.S.-born persons
- Half (n= 4,182) of all cases occurred in just four states (California, Texas, New York, and Florida), with each state reporting more than 500 cases



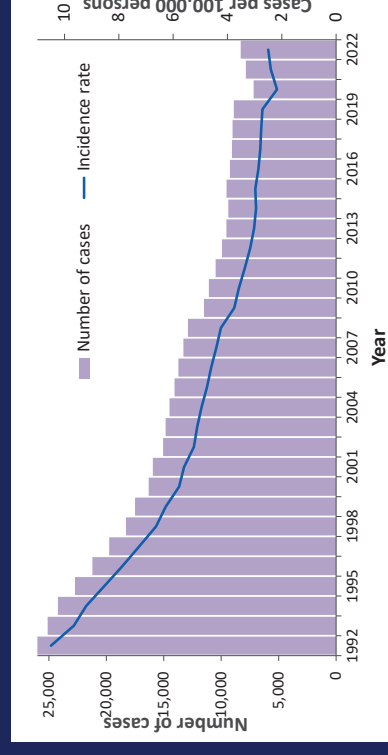
Tuberculosis — United States, 2022

MMWR / March 24, 2023 / 72(12);297–303

- Incidence of reported tuberculosis (TB) decreased gradually in the United States during 1993–2019, reaching 2.7 cases per 100,000 persons in 2019.
- Incidence substantially declined in 2020 to 2.2, coinciding with the COVID-19 pandemic (1).
- Proposed explanations for the decline include delayed or missed TB diagnoses, changes in migration and travel, and mortality among persons susceptible to TB reactivation (1).



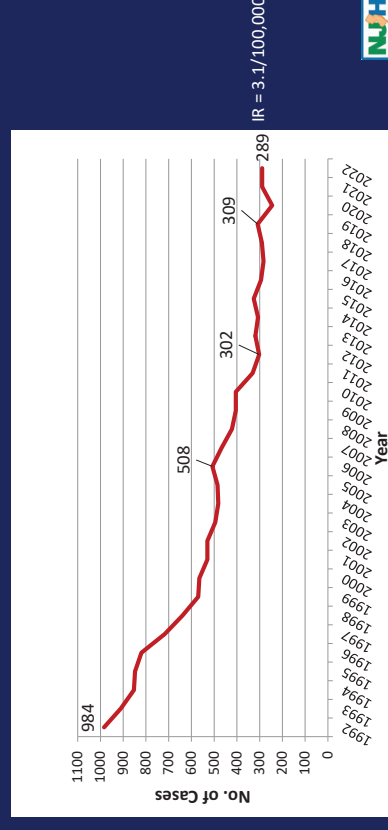
TB Cases and Incidence Rates
United States, 1992–2022



New Jersey Quick Facts

- New Jersey is the fourth smallest and most densely populated state, with approximately 1,200 people per square mile
- In 2021, the population was 9.2 million; 50.8 percent females and 49.2 percent males
- The largest segment of the population is White (53.5%) followed by Hispanic (21.5%), Black (15.3%), Asian (10.3%), Multiple Races (2.4%), American Indian/Alaskan Native (0.7%), Native Hawaiian/Pacific Islander (0.1%)
- Approximately 23 percent were foreign-born persons

TB Morbidity New Jersey, 1992–2022

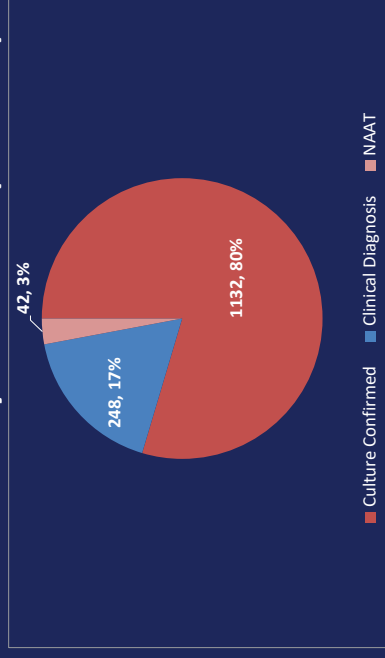


TB Case Reporting Summary Data

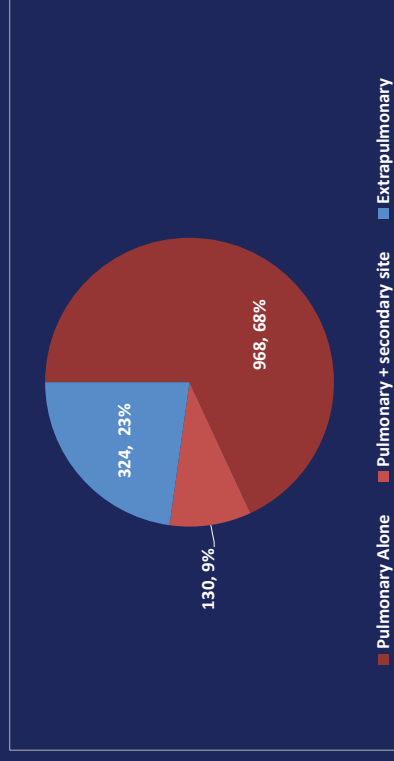
New Jersey, 2018–2022



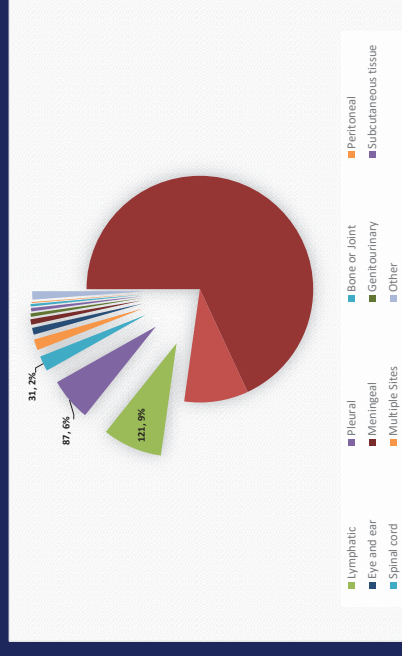
TB Cases by Verification Criteria New Jersey, 2018–2022 (N= 1,422)



TB Cases by Site of Disease New Jersey, 2018–2022 (N= 1,422)



Extra-pulmonary TB by Site of Disease New Jersey, 2018–2022 (n= 324)



Geographic Distribution of TB in New Jersey

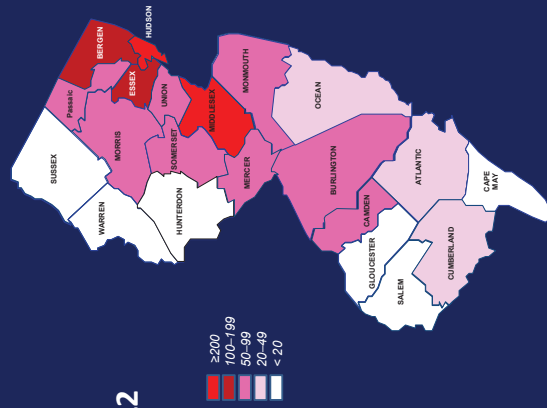


TB Incidence by County New Jersey, 2018–2022 (N=1,422)

Rank	Reporting County	Frequency	Percent	Cum. Percent
1	Middlesex	223	15.68%	15.68%
2	Hudson	203	14.28%	29.96%
3	Essex	195	13.71%	43.67%
4	Bergen	141	9.92%	53.59%
5	Pasaic	96	6.75%	60.34%
6	Union	92	6.47%	66.81%
7	Mercer	70	4.92%	71.73%
8	Morris	70	4.92%	76.65%
9	Burlington	62	4.36%	81.01%
10	Camden	60	4.22%	85.23%
11	Somerset	54	3.80%	89.03%
12	Monmouth	51	3.59%	92.62%
13	Cumberland	26	1.83%	94.44%
14	Ocean	23	1.62%	96.06%
15	Atlantic	20	1.41%	97.47%
16	Gloucester	12	0.84%	98.31%
17	Warren	9	0.63%	98.95%
18	Sussex	5	0.35%	99.30%
19	Hunterdon	4	0.28%	99.58%
20	Cape May	3	0.21%	99.79%
21	Salem	3	0.21%	100.00%
TOTAL		1422	100.00%	100.00%

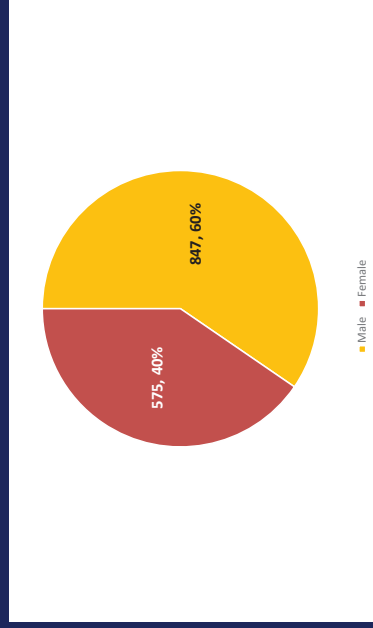


Counted TB Cases New Jersey, 2018–2022



Demographics

Reported TB Cases by Sex at Birth New Jersey, 2018–2022 (N= 1,422)

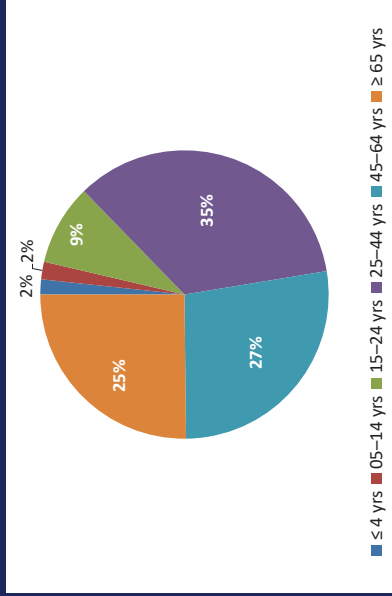


Tuberculosis and Gender

Globally men are significantly more at risk of contracting and dying from TB than women. In 2017 close to 6 million adult men contracted TB and around 840,000 died from it. This compares with an estimated 3.2 million adult women who fell ill and almost half a million who died from TB.

<https://www.who.int/tb/areas-of-work/population-groups/gender/en/>

Reported TB Cases by Age Group New Jersey, 2018–2022 (N= 1,422)

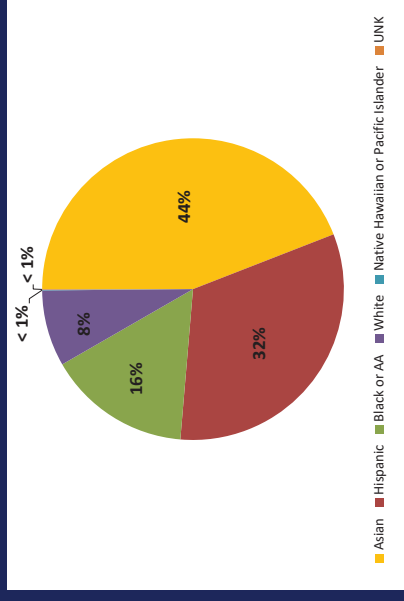


TB Incidence by Age
New Jersey, 2022 (N= 289)

0–04: 1.1/100,000
5–14: < 1/100,000
25–44: 4.2/100,000
45–64: 2.7/100,000
≥ 65: 5.2/100,000



Reported TB Cases by Race/Ethnicity* New Jersey, 2018–2022 (N=1,422)



*All races are non-Hispanic

TB Incidence by Race/Ethnicity
New Jersey, 2022 (N= 289)

Asian: 12.0/100,000
Hispanic: 5.9/100,000
Black/AA: 2.6/100,000
White: < 1/100,000



TB Among Foreign-born Persons, New Jersey



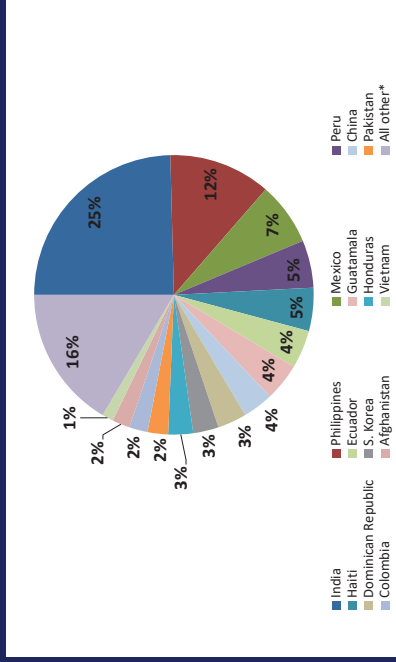
“Country of birth continues to be a risk factor for TB diagnosed in the United States because the risk of TB exposure varies by country.”

Reported Tuberculosis in the United States, 2016 Centers for Disease Control and Prevention
National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention Division of Tuberculosis
Elimination October 2017

Countries of Birth of Foreign-born Persons Reported with TB, New Jersey 2018–2022 (n=1,220)

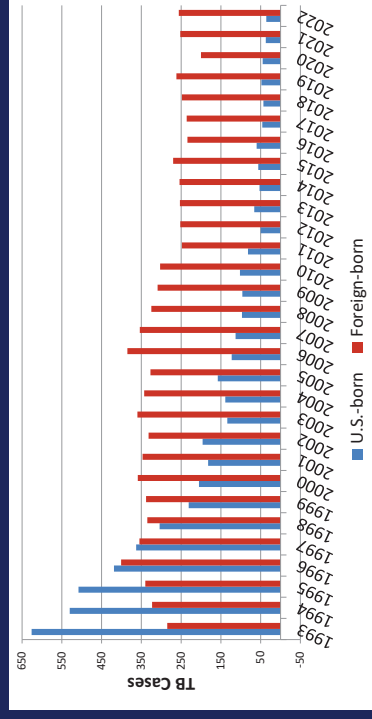
FBP= 85.8%

83 Countries

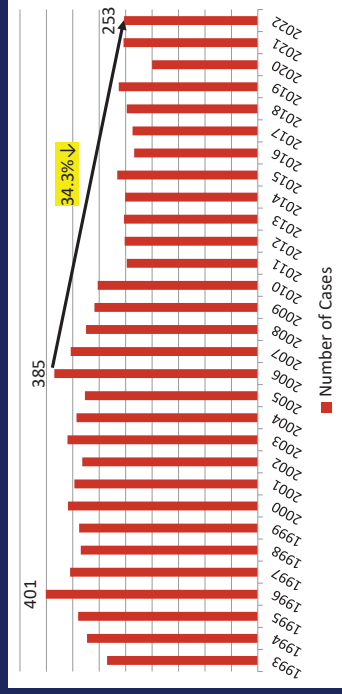


*All other = 68 countries

Number of TB Cases in U.S.-born vs. Foreign-born Persons New Jersey, 1993–2022



TB Cases among Foreign-born Persons New Jersey, 1993–2022



Drug Resistant TB in New Jersey

Anti-TB Drug Resistance Among Counted Cases New Jersey, 2018–2022



2018–2022

INH: n= 95 (6.7%)

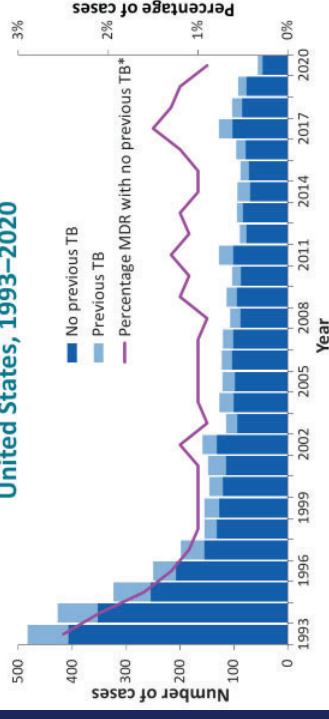
MDR: n= 28 (2.0%)

RMP: n= 04 (0.3%)

Multidrug resistant TB (MDR TB) is defined as resistance to both isoniazid and rifampin



Cases and Percentages of MDR TB by History of TB, United States, 1993–2020



*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.

MDR TB by Country of Birth

New Jersey, 2018–2022 (n = 28)

Country of Birth	Frequency	Percent	Cum. Percent
DOMINICAN REPUBLIC	3	10.71%	10.71%
INDIA	3	10.71%	21.43%
PERU	3	10.71%	32.14%
NEPAL	2	7.14%	39.29%
PHILIPPINES	2	7.14%	46.43%
VIETNAM	2	7.14%	53.57%
AFGHANISTAN	1	3.57%	57.14%
CHINA	1	3.57%	60.71%
COLOMBIA	1	3.57%	64.29%
ECUADOR	1	3.57%	67.86%
ETHIOPIA	1	3.57%	71.43%
GUATEMALA	1	3.57%	75.00%
INDONESIA	1	3.57%	78.57%
KOREA, REPUBLIC OF	1	3.57%	82.14%
MEXICO	1	3.57%	85.71%
NIGERIA	1	3.57%	89.29%
PAKISTAN	1	3.57%	92.86%
SPAIN	1	3.57%	96.43%
UNITED STATES	1	3.57%	100.00%
TOTAL	28	100.00%	100.00%

FBP= 96.4%

Thank You!

New Jersey Dept of Health
Division of HIV, STD, and TB Services
Tuberculosis Program
PH: (609) 826-4878
FX: (609) 826-4879

