The Changing Landscape of TB: Maryland TB in 2013
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Public Health Promotion Administration
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TB Annual Meeting
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Presentation Outline

• Maryland TB Epidemiology (2013)
  – Maryland TB numbers and trends
  – Country of Origin
  – Race
  – Age
  – Drug Resistance
  – Risk Factors
TB Case Rates, 2008-2013

*Excluding Baltimore City
TB Case Rates per 100,000, United States, 2013*

D.C.

CDC, 3/20/2014
Maryland TB Case Rates, by Jurisdiction, 2013

Counties with case rates $\geq 3.0/100,000$
TB Characteristics, 2013

• Pulmonary
  – 100 cases (56%)

• Extrapulmonary
  – 62 cases (35%)
  – Extrapulmonary disease is seen more often in persons born outside of the U.S.

• Both pulmonary and extrapulmonary
  – 16 cases (9%)
Percentage of TB Cases Among Foreign-born Persons, United States*

2002

2012

CDC, *Updated as of June 10, 2013
Country of Origin - Maryland, 2013

- Ethiopia: 13%
- India: 12%
- El Salvador: 6%
- Cameroon: 6%
- Philippines: 5%
- Burma: 5%
- Nigeria: 5%
- All Other Countries: 48%
Percent of TB cases by Origin, Maryland, 2011-2013

Baltimore City

Maryland Counties

- Foreign-born
- US-born
MD TB Cases by Race and Origin, 2013

U.S. Born

- Black/A.A.: 52%
- Hispanic: 38%
- White: 2%
- Asian: 8%

Foreign Born

- Black: 39%
- Hispanic: 17%
- White: 6%
- Asian: 36%
- Other: 2%
- Other: 2%
- Other: 2%
- Other: 2%
Cases by Age Group  Maryland, 2010-2013
TB in Children

• Children under 5 years old
  – Not many cases, but Maryland has exceeded the national average for 3 years
  – At high risk for TB meningitis
  – Disease can progress quickly
  – Important to find source case
    • Sensitivity results
    • Stop transmission
  – Can represent undiagnosed adult cases
TB in MD Children ≤ 5 years of age, 2009-2013
Case Rates in Young Children; Maryland vs. U.S.
MDR/XDR TB in Maryland, 2008-2013

*1 XDR case
Maryland Drug Resistance, 2013

178 cases total

122 (69%) cases: susceptibility results

21 (17%) cases: any resistance

1 (5%) MDR
1 (5%) XDR
Starting Treatment with 4 Drugs is Important!

- Maryland INH resistance (2013) is 10.7%
- National INH resistance (2012) is 9.2%
  - U.S. born: 5.7%
  - Foreign born: 10.7%
- 87% of eligible Maryland patients started treatment with 4 drugs in 2013.
  - National goal is 93.4%
# TB Risk Factors: Living and Occupational

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>National*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Congregate Setting</strong></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Homeless</td>
<td>6%</td>
<td>5%</td>
<td>3%</td>
<td>5.7%</td>
</tr>
<tr>
<td>Corrections</td>
<td>1%</td>
<td>0.5%</td>
<td>0%</td>
<td>4.1%</td>
</tr>
<tr>
<td>Long Term Care</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>2.2%</td>
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<tr>
<td><strong>Occupation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Care</td>
<td>6%</td>
<td>9%</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td>Correctional</td>
<td>3%</td>
<td>0.5%</td>
<td>0%</td>
<td>0.2%</td>
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</tbody>
</table>

*2012 National Data
## TB Risk Factors: Substance Use

<table>
<thead>
<tr>
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<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>National*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Injection Drug Use</strong></td>
<td>0.5%</td>
<td>1%</td>
<td>0.6%</td>
<td>1.5%</td>
</tr>
<tr>
<td><strong>Non-injection Drug Use</strong></td>
<td>2%</td>
<td>3%</td>
<td>2%</td>
<td>7.4%</td>
</tr>
<tr>
<td><strong>Excess Alcohol Use</strong></td>
<td>5%</td>
<td>7.5%</td>
<td>5%</td>
<td>12.4%</td>
</tr>
</tbody>
</table>

*2012 National Data
TB HIV Co-Infection Trends, 2009-2013

![Graph showing TB HIV Co-Infection Trends from 2009 to 2013](image-url)
TB HIV Co-Infection, Origin of Birth

- **US Born**
- **Foreign Born**

<table>
<thead>
<tr>
<th>Year</th>
<th>US Born</th>
<th>Foreign Born</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>2013</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>
TB and Diabetes

![Chart showing trends in TB and Diabetes cases over years. The chart includes bars for cases and a line for percentage. The x-axis represents the years 2009 to 2013, and the y-axis represents the number of cases and percentage.]
Questions?