Report on Tuberculosis in San Francisco: 2012

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Tuberculosis is an airborne disease
Span of TB Control Activities San Francisco - 2012

116 San Franciscans with TB

Over 500 TB Suspect Cases

950 Contacts to Cases

50,000 San Franciscans Infected

820,000 San Franciscans
San Francisco Tuberculosis Cases Have Been Increasing since 2010

Figure 1. TB Case Rates by Year, 1990-2012

San Francisco Tuberculosis Cases Have Been Increasing since 2010
Where are the TB cases in San Francisco?

<table>
<thead>
<tr>
<th></th>
<th>2008-2009 Average</th>
<th>2012 Total</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>116.5</td>
<td>116</td>
<td>-0.5</td>
</tr>
<tr>
<td>US-born</td>
<td>27</td>
<td>24</td>
<td>-3</td>
</tr>
<tr>
<td>Foreign-born</td>
<td>89.5</td>
<td>92</td>
<td>2.5</td>
</tr>
<tr>
<td>Asian/PI</td>
<td>73.5</td>
<td>81</td>
<td>7.5</td>
</tr>
<tr>
<td>Chinese</td>
<td>35.5</td>
<td>38</td>
<td>2.5</td>
</tr>
<tr>
<td>Filipino</td>
<td>18.5</td>
<td>19</td>
<td>0.5</td>
</tr>
<tr>
<td>S.E. Asian</td>
<td>9.5</td>
<td>12</td>
<td>2.5</td>
</tr>
<tr>
<td>Other</td>
<td>9</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>Black</td>
<td>10.5</td>
<td>15</td>
<td>4.5</td>
</tr>
<tr>
<td>Hispanic*</td>
<td>20.5</td>
<td>6</td>
<td>-14.5</td>
</tr>
<tr>
<td>White</td>
<td>11.5</td>
<td>12</td>
<td>0.5</td>
</tr>
<tr>
<td>Age 0-14</td>
<td>4.5</td>
<td>2</td>
<td>-2.5</td>
</tr>
<tr>
<td>Age 15-24</td>
<td>10.5</td>
<td>10</td>
<td>-0.5</td>
</tr>
<tr>
<td>Age 25-64</td>
<td>65</td>
<td>74</td>
<td>9</td>
</tr>
<tr>
<td>Age 65+</td>
<td>36.5</td>
<td>30</td>
<td>-6.5</td>
</tr>
<tr>
<td>Homeless</td>
<td>15</td>
<td>12</td>
<td>-3</td>
</tr>
</tbody>
</table>

*p<0.05
San Francisco TB Cases by Race/Ethnicity

Figure 3. 2012 TB Cases by Race/Ethnicity

- Asian/Pac Islander: 70%
- Black: 13%
- Hispanic: 5%
- White: 10%
- AI/AN: 2%
San Francisco Foreign Born TB Cases by Country of Origin

Figure 4. 2012 Foreign-born TB Cases by Country of Birth
Tuberculosis Cases in San Francisco in the Homeless

Figure 5. Homeless Cases by Year, 1993-2012
HIV Co-infected Tuberculosis Cases in San Francisco

Figure 6. HIV Co-Infected Cases by Year, 1993-2012
Indicators of Severe TB Disease in San Francisco: 2012

<table>
<thead>
<tr>
<th></th>
<th>Number (%)</th>
<th>Average 2008-2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deaths</td>
<td>9 (8)</td>
<td>9.5</td>
</tr>
<tr>
<td>AFB Smear Positive</td>
<td>37 (45)</td>
<td>40.5</td>
</tr>
<tr>
<td>Culture Positive</td>
<td>84 (72)</td>
<td>88.5</td>
</tr>
<tr>
<td>Drug Resistant</td>
<td>16 (19)</td>
<td>12.5</td>
</tr>
<tr>
<td>• Isoniazid only</td>
<td>9 (11)</td>
<td>3.5</td>
</tr>
<tr>
<td>• Multi-Drug Resistant</td>
<td>1 (1)</td>
<td>0.5</td>
</tr>
<tr>
<td>• Poly-Drug Resistant</td>
<td>6 (7)</td>
<td>2.5</td>
</tr>
<tr>
<td>• Extremely Drug Resistant</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Why the increase in TB cases?

- No outbreaks
- Indicators of severe disease are unchanged
- Federal funding to support local TB programs has been reduced
- Capacity to perform unique public health functions has significantly decreased
San Francisco TB Cases are Rising as Funding Decreases
TB Clinic Encounters 2002-2012

FY = Fiscal Year (July - June)
Public Health TB Program Unique Activities

- Receive reports of TB cases and suspects and ensure that evaluation and treatment are initiated
- Perform contact investigations in the home and other exposure sites (worksites, schools, shelters)
- Field workers to administer medications, locate patients, facilitate treatment and monitoring
- Use of legal authority to ensure adherence to anti-TB treatment
- Receives funds for incentives and enablers (e.g. bus tokens, housing, food coupons) to promote treatment adherence

*The Affordable Care Act will not support these activities*
TB Program Surveillance and Field Staff

- Day in the Life of DCI Candy Box
- Patient 1 - Elderly pt with severe TB having difficulty managing his care at home
- Patient 2 - Infectious hospitalized pt threatening to leave AMA
Normal Lung

Pt 2
Cavitary AFB Smear
Positive Tuberculosis
Drug Resistant
Federal Funding Will Continue to Decrease through FY2015

- 2004 - $4.9M budget, 2 satellite clinics, 50 FTE
- 2005 - Target testing & Model Center dollars lost, Fed. cuts ($1.0M) - Staff pulled from CHOPS testing site, -5 FTE
- 2006 - 2007 - TOPS Clinic closed, -3 FTE
- 2008 - Eliminated evening clinic, -2 FTE
- 2009 - 12% GF Cut ($226K) -2.5 FTE
- 2010 - 16% Federal cut ($220K) -4 FTE
- 2011 - 2012 - $3.8M budget 28.3 FTE +1.5 Research FTE
- 2013 - 17% Federal Cut ($183K)
- 2014 - 18% Federal cut (projected, $160K)
- 2015 - 22% Federal cut (projected, $160K)

- Indirect rate 20-23%
- Fringe rate 25%
- 5%
- 28%
- 32%
- 37%
- 43-47%
The cost of losing control of TB

Total Funding
Active TB Cases

58 million dollars
Plan of Action for TB Control
Section 2013

- Redirect diagnosis and treatment of TB infection to the community to reduce referrals to the clinic by 32%. TB clinic will continue to provide direct clinical services to:
  - TB Cases
  - TB Suspects
  - Undocumented
  - High risk TB infection (on chemotherapy, HIV/AIDS, immunosuppressive medications)

- Support best practice for screening and treatment of TB infection in the community
  - Make diagnosis and treatment of TB infection a performance indicator in SF in the community

- New regimen for TB infection (3HP)
  - 12 weekly doses - directly observed therapy required

- Embrace technology
  - Videophones to perform directly observed therapy (research)
  - Meaningful use of the electronic medical record/surveillance record

- Reorganization of the Population Health and Prevention Division
Acknowledgements

Jennifer Grinsdale, MPH Program Manager

TB Control Section