Tuberculosis Epidemiologic Studies Consortium (TBESC) Update

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Prevention and Health Promotion Administration
Center for TB Control and Prevention
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Mission and Vision Administration

Mission
The mission of the Prevention and Health Promotion Administration is to protect, promote and improve the health and well-being of all Marylanders and their families through provision of public health leadership and through community-based public health efforts in partnership with local health departments, providers, community based organizations, and public and private sector agencies, giving special attention to at-risk and vulnerable populations.

Vision
The Prevention and Health Promotion Administration envisions a future in which all Marylanders and their families enjoy optimal health and well-being.
10 TBESC Sites

Multiple recruitment clinics in 11 states
## Maryland TBESC Staff

<table>
<thead>
<tr>
<th>Study Nurse Coordinators</th>
<th>Research Assistant</th>
<th>Other Study Staff</th>
<th>Co-Principal Investigators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gina Maltas Bee Munk</td>
<td>Paola Rivera-Mudafort</td>
<td>Sam Holzman Alexandra Pyan</td>
<td>Maunank Shah Paul Saleeb (joins May 1) Wendy Cronin (leaves May 31)</td>
</tr>
</tbody>
</table>
Summary of TBESC Activities

• **Part A** – head to head comparison between TST, QFT-GIT, and T-SPOT (Baltimore City and Baltimore County)

• **Part B** – LTBI Cascade (Baltimore City and Baltimore, Prince Georges, and Montgomery Counties)
  - **January-June 2017**: LTBI activities in two LHDs
  - **Fall 2017 - ongoing**: LTBI activities with community providers serving high risk populations

• **Part C** – LTBI implementation research in 2 community clinics (protocol under development)

• **Part D** – Fall 2018: TBTC Study 37, a clinical trial for 6 week regimen of Rifapentine, daily, self-administered (under IRB review)
Part B. USPSTF Recommendation (2016)

- US Preventative Services Task Force recommends screening for LTBI in populations at increased risk for LTBI and for progression from LTBI to active TB disease.

Contacts | Foreign-born | Medical risks
Part B. TB Prevention Cascade to Cure

- High risk for exposure
- High risk for progression
- Both
Part B: Latent Tuberculosis Infection
Cascade to Cure

- Local health departments: Baltimore City and Baltimore County

- Community Clinics serving High Risk Populations
  - St. Clare Medical Outreach, UM St. Joseph Medical Center (community clinic)
  - Chase Brexton Health Care (FQHC)
  - CCI Health and Wellness Services (FQHC)
  - University of Maryland Baltimore County (UMBC) – University Health Center (student clinic)
  - Towson University (student clinic)
### Part B (LHDs): LTBI Cascade to Cure – preliminary data

All LTBI+ patients by testing source, January-June 2017

<table>
<thead>
<tr>
<th>Stage</th>
<th>Total</th>
<th>Internal</th>
<th>External</th>
<th>Not done</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive test</td>
<td>132</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LTBI diagnosis/No TB</td>
<td>118 (89%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LTBI tx offered</td>
<td>108 (82%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Started LTBI tx</td>
<td>91 (69%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completed LTBI tx</td>
<td>54 (41%)</td>
<td></td>
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</tr>
</tbody>
</table>

**Legend:**
- Internal
- External
- Not done
Part B (LHD): LTBI Cascade to Cure – preliminary data
All LTBI patients internally tested, by country of birth, January-June 2017

- Tested: 78
- Positive test: 36
- LTBI diagnosis/No TB: 30 (83%)
- LTBI tx offered: 27 (75%)
- Started LTBI tx: 22 (61%)
- Completed LTBI tx: 10 (28%)

Legend:
- Foreign-born
- US-born
- Not done
Part B (LHD): LTBI Cascade to Cure – preliminary data, all LTBI patients externally tested, by country of birth, January-June 2017

- Positive test
- LTBI diagnosis/No TB
- LTBI tx offered
- Started LTBI tx
- Completed LTBI tx

<table>
<thead>
<tr>
<th>Category</th>
<th>Foreign-born</th>
<th>US-born</th>
<th>Not done</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive test</td>
<td></td>
<td></td>
<td></td>
<td>96</td>
</tr>
<tr>
<td>LTBI diagnosis/No TB</td>
<td></td>
<td></td>
<td>92%</td>
<td>88</td>
</tr>
<tr>
<td>LTBI tx offered</td>
<td></td>
<td>84%</td>
<td></td>
<td>83</td>
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<tr>
<td>Started LTBI tx</td>
<td></td>
<td></td>
<td>72%</td>
<td>69</td>
</tr>
<tr>
<td>Completed LTBI tx</td>
<td></td>
<td>45%</td>
<td></td>
<td>43</td>
</tr>
</tbody>
</table>

Legend:
- Blue: Foreign-born
- Orange: US-born
- Gray: Not done
LTBI Cascade, Targeted LTBI Services Provided by Chase Brexton Health Care, 2016

- HIV-positive, IVDU, Homeless
- Foreign-born patients: No. unknown

2,982

186 (6%)

59

44 (75%)

33 (56%)

33 (56%)
LTBI Cascade, High-risk Screening in University XYZ, Pooled Data, 2015-2016

10,000 All students

700 High risk, tested

91 LTBI+ / not TB

18% Started LTBI TX

1% Completed LTBI TX

1% New TB cases

Rate: 1,099 cases/100,000 LTBI+
Things to consider for LTBI services in Community Clinics

Cost-benefit study*

• Screen **high risk** populations only

• **Monitor** throughout screening and treatment

Our findings in Maryland

• Country of birth commonly unavailable

• Need for increased monitoring and follow-up for anyone with a positive test though to treatment completion

• Treatment completion: Very difficult to determine tx outcomes from EMR data extraction

*Campbell JR et al. PLOSone 2017; 12(10):e0186778