

**WORLD  
TB DAY**

March 24 →

[stoptb.org](http://stoptb.org)  
[who.int/tb](http://who.int/tb)

**Stop TB Partnership**



World Health  
Organization



# Michigan World TB Day Conference

March 26, 2018



# Welcome

Please:

- Sign in at the registration table and check your email address
- Silence all cell phones



# Breaks

- Optional break after survivor panel, before Q&A session (10:40 AM)
- 2:30 PM



# Conference Resources

Most presentations have resources associated with them (see Detailed Agenda)

## Resource Packet

- Printed in folder
- Electronic with links:
  - Emailed
  - [www.michigan.gov/TB](http://www.michigan.gov/TB)

## Presentations (PDF)

- [www.michigan.gov/TB](http://www.michigan.gov/TB)

Exhibitors (Conference Information Packet page 5)

# Continuing Education Conference Information Packet page 6

Nurses: 5.7 contact hours<sup>†</sup>

Physicians: 5.5 contact hours<sup>±</sup>

In order to receive CE/CME credits, you must:

1. Sign-in at registration (check email)
2. Stay for the whole day
3. Complete the online evaluation by **4/26/18**:

[www.surveymonkey.com/r/18WTBDeval](http://www.surveymonkey.com/r/18WTBDeval)

<sup>†</sup>This continuing nursing education activity was approved by the Ohio Nurses Association, an accredited approver by the American Nurses Credentialing Center's Commission on Accreditation (OBN-001-91). Approval valid through 3/19/2020. Assigned ONA #21521.

<sup>±</sup>This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of Michigan State Medical Society and Michigan Department of Health and Human Services. The Michigan State Medical Society is accredited by the ACCME to provide continuing medical education for physicians. The Michigan State Medical Society designates this live activity for a maximum of 5.5 *AMA PRA Category 1 Credits*<sup>™</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.





# Questions

- Presentations have question time built-in
  - Microphones in audience
- Question box with index cards on handouts table
- MDHHS staff and speakers will be available during breaks and lunch

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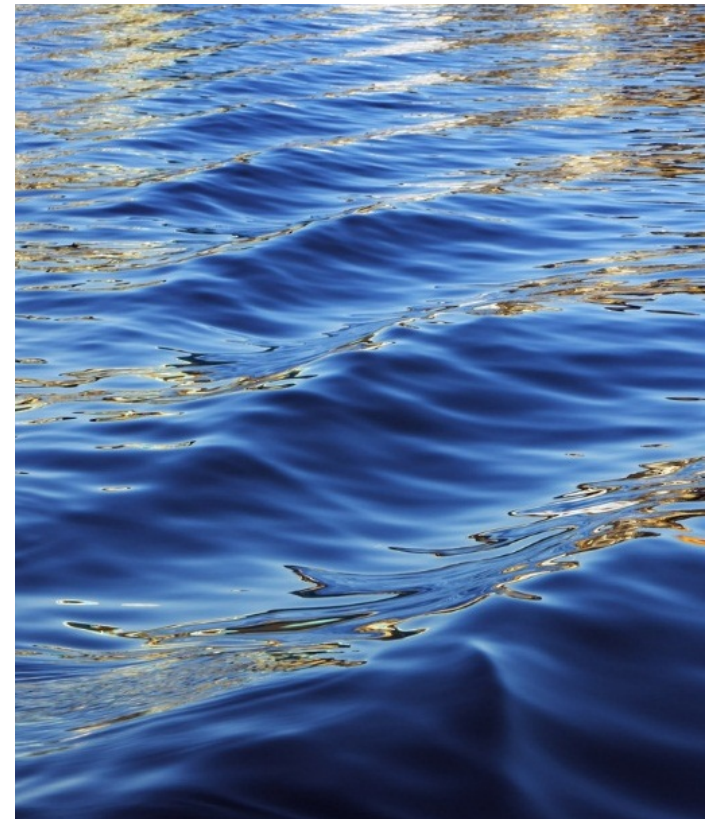
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**Peter Davidson, PhD**  
TB Program Manager, MDHHS



TB in Michigan,  
2017:  
How we stood out





# Whole Genome Sequencing (WGS)

- August 2017, MDHHS Lab named as National TB Molecular Surveillance Center
  - Starting March 2018, will perform spoligo/MIRU **AND** WGS on all new patient isolates of MTB.
  - Funded for up to 9,000 isolates/year
  - In 2017, did spoligo/MIRU on 8,880 isolates, and WGS on 40-64 isolates/month
  - From 2018 – 2020, spoligo/MIRU and WGS will be done concurrently.
  - Starting in ~2021, only WGS will be done.

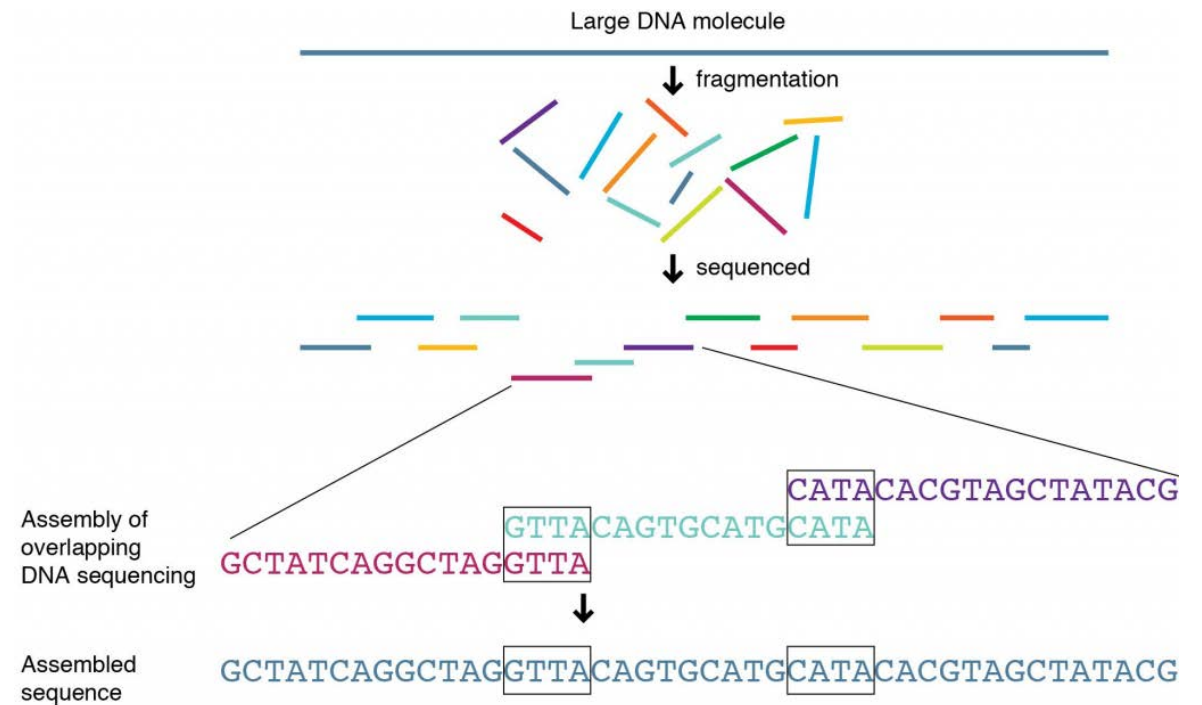
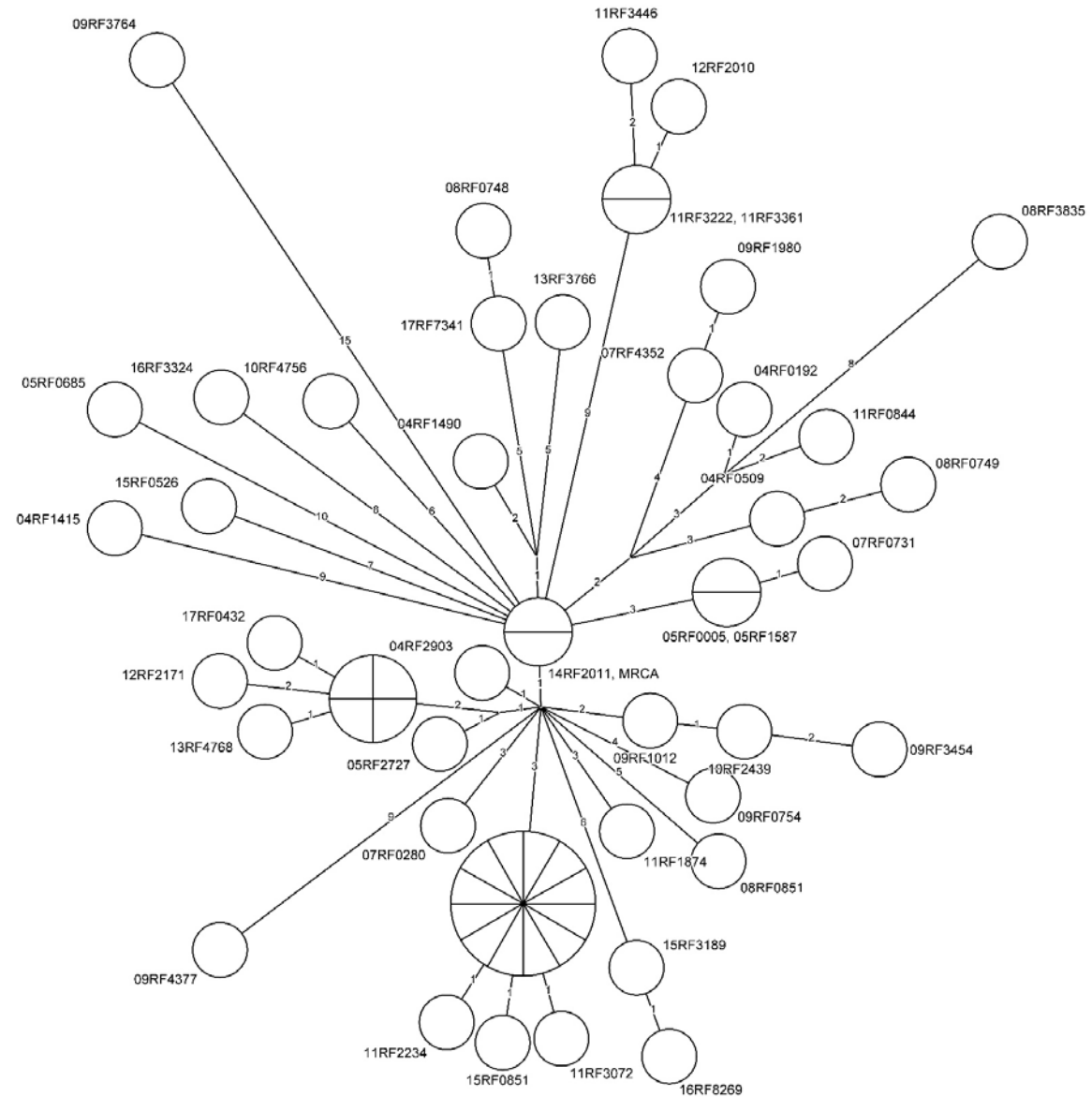


Image courtesy of National Human Genome Research Institute, accessed at <http://knowgenetics.org/whole-genome-sequencing/>

# A Sneak-Peak At WGS Results



# Real-Time Nucleic Acid Amplification Test

- February 2018, MDHHS Lab completed validation for real-time NAAT in non-respiratory specimens
  - Project began in February 2016
  - Home-developed NAAT to detect MTB and M. avium complex in one test
  - Validated for **ALL** specimen types except stool
- CDC 2009 recommended nucleic acid amplification tests to aid rapid diagnosis for all smear-positive patients, and smear-negative if there is high suspicion of TB
  - GeneXpert (sputum only)
  - MTD (respiratory only)
  - MDHHS real-time (all except stool)
  - <https://www.cdc.gov/mmwr/PDF/wk/mm58o1.pdf>

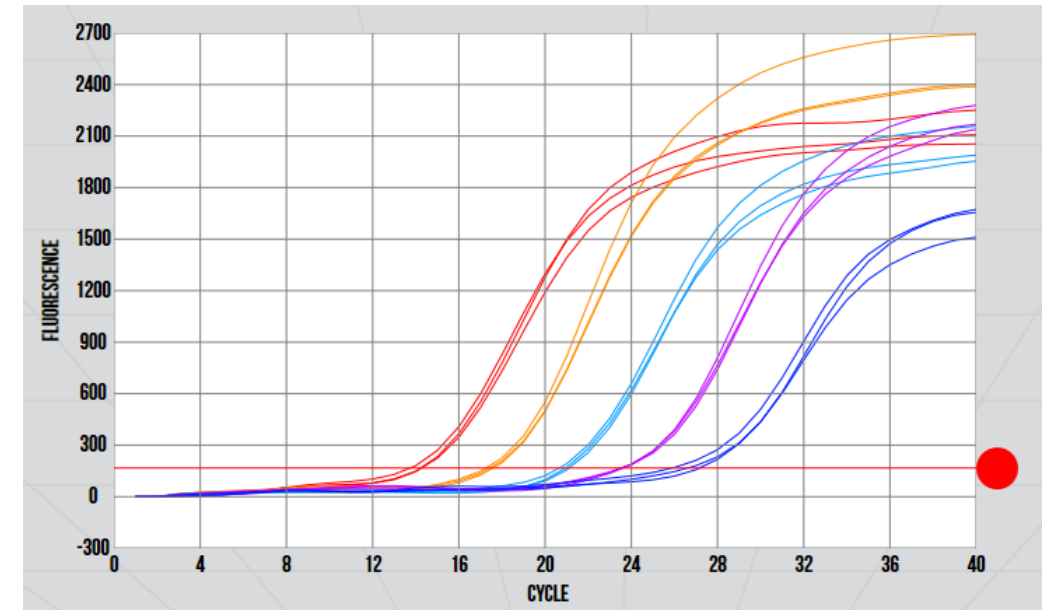
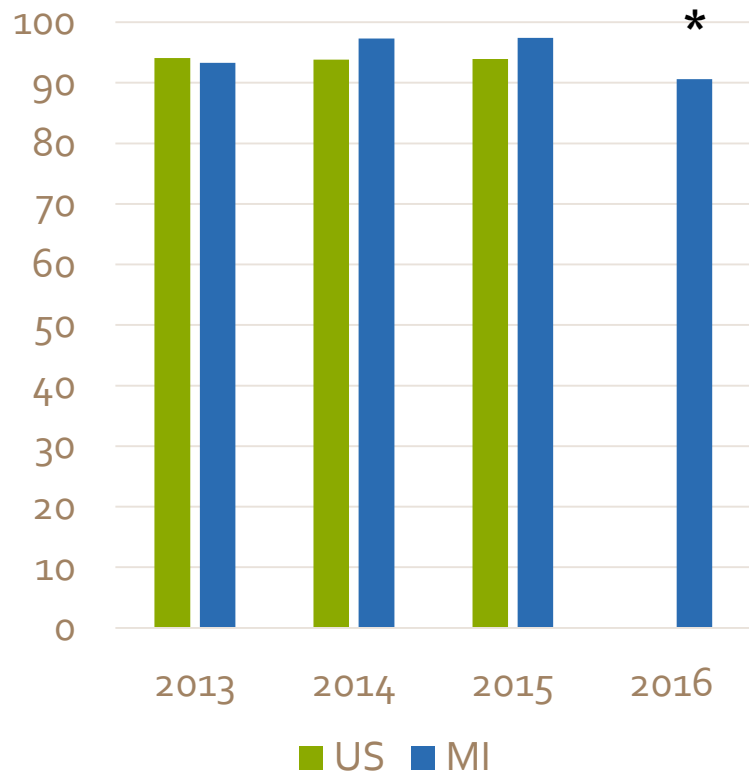


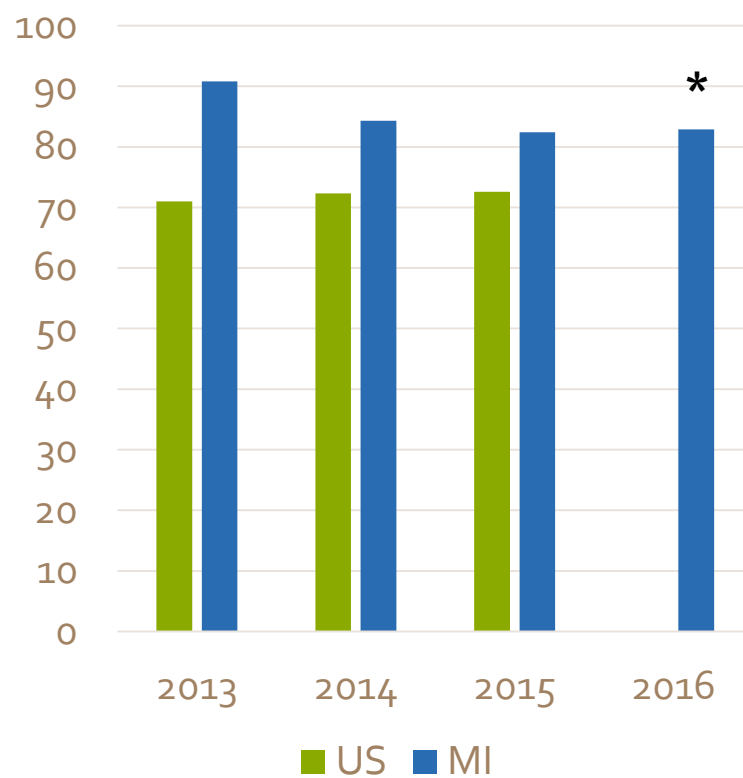
Image courtesy of xxpresspcr®, accessed at <https://www.xxpresspcr.com/all-news/standard-dilution-series-with-the-xxpress-qpcr-thermal-cycler/>

# Contact Investigations & Treatment of LTBI

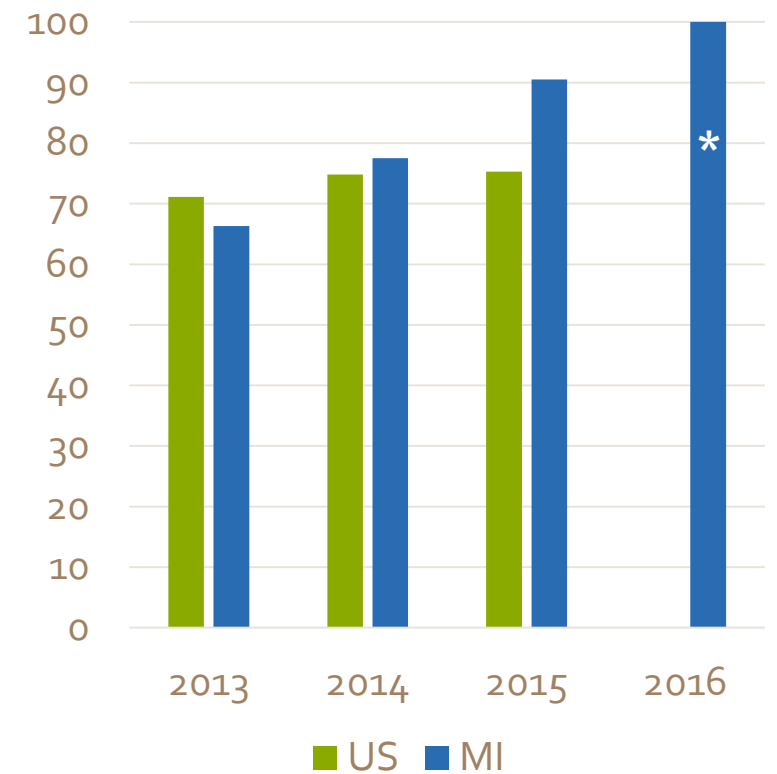
Percent of AFB-positive cases with contacts identified



Percent of contacts that started LTBI treatment

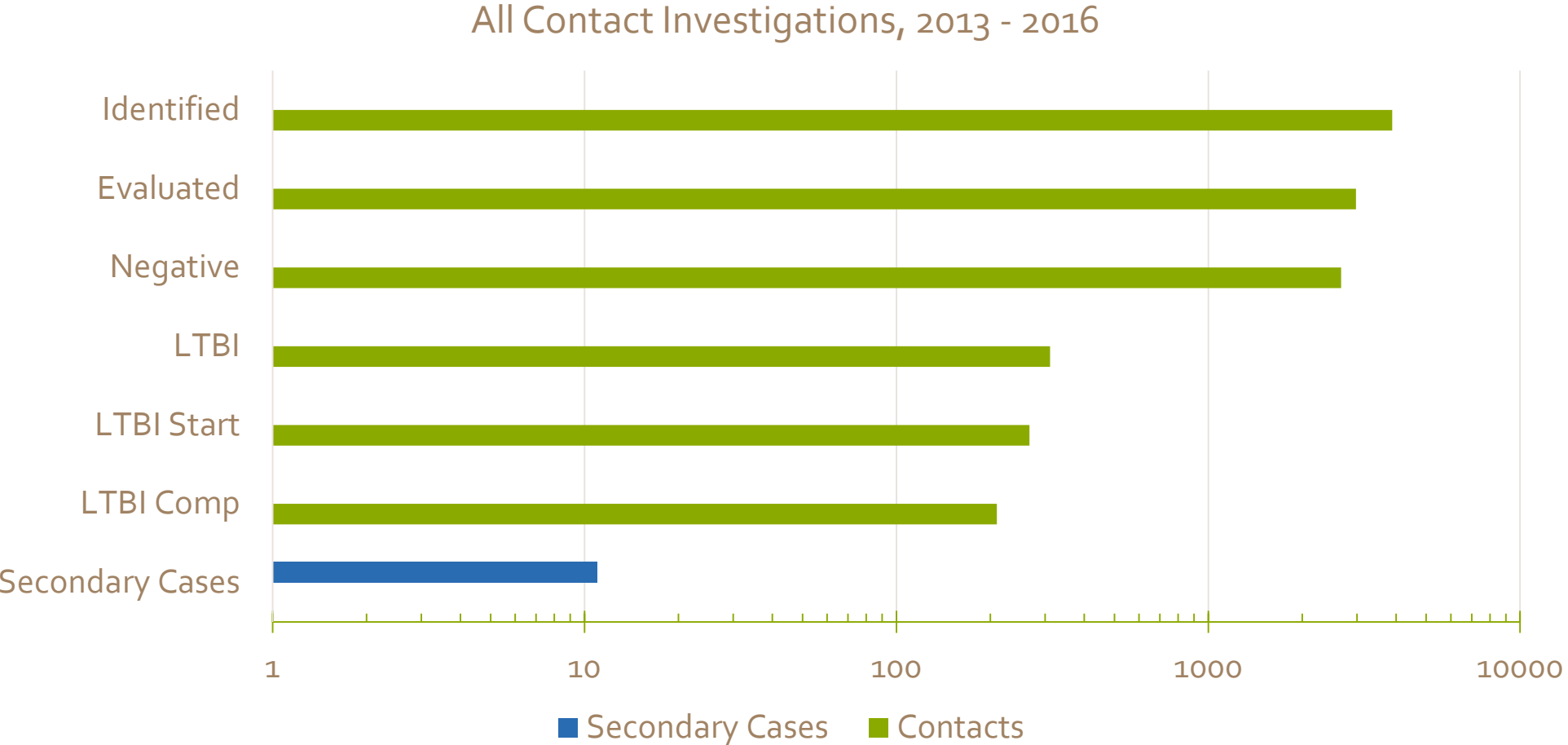


Percent of contacts that completed LTBI treatment



\*2020 National Target. CDC National Tuberculosis Indicators Project, accessed 3/12/2018

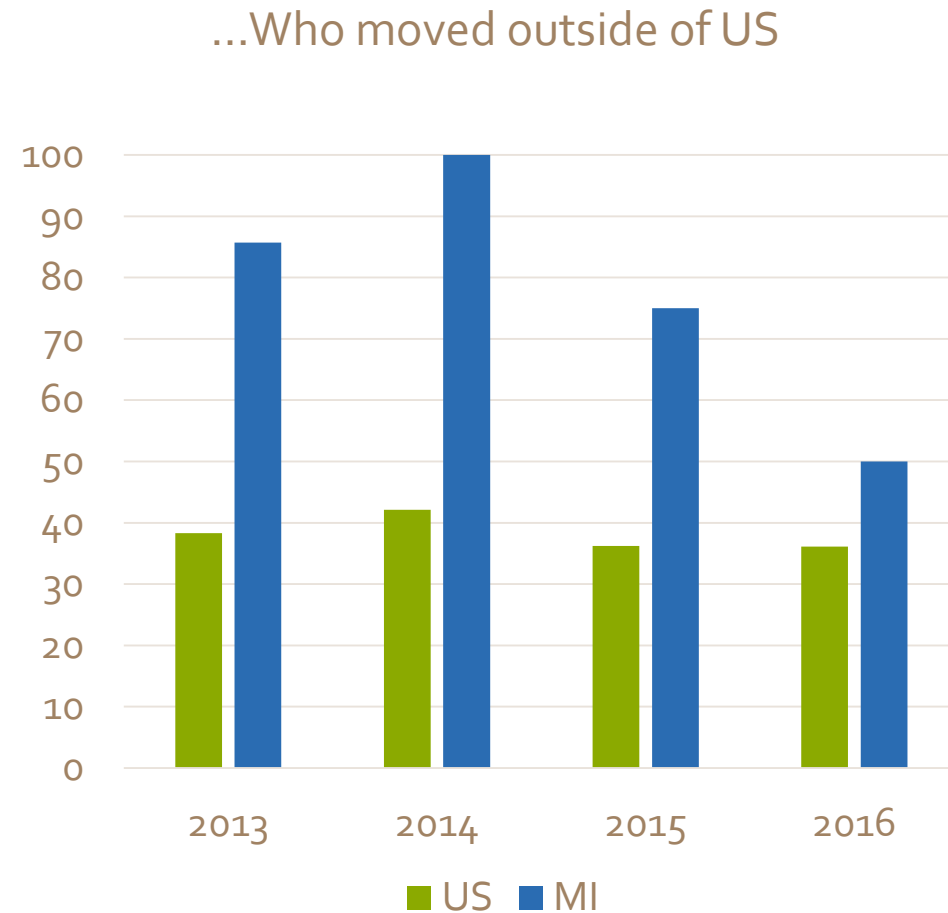
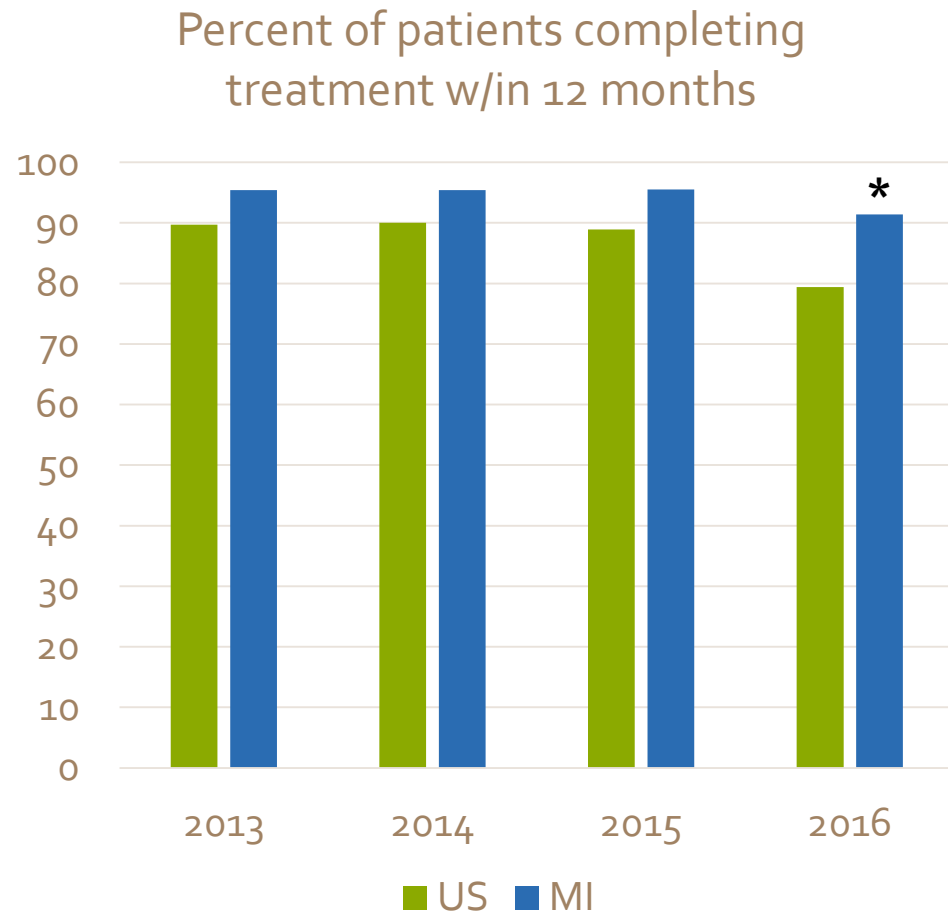
# By the Numbers: A Tremendous Investment in Prevention



# Return on Investment: More Than Ethics

- CDC estimate: For every 100 contacts with LTBI that complete treatment, ~ 2 cases of TB are averted (<https://www.cdc.gov/mmwr/pdf/wk/mm6450.pdf>)
  - About 2% return
- Michigan, 2013 – 2016: 210 contacts with LTBI completed treatment. Your efforts in contact investigations and LTBI treatment have prevented 4 or 5 people from getting TB.

# Completion of Treatment for TB Disease



\*2020 National Target. CDC National Tuberculosis Indicators Project, accessed 3/12/2018

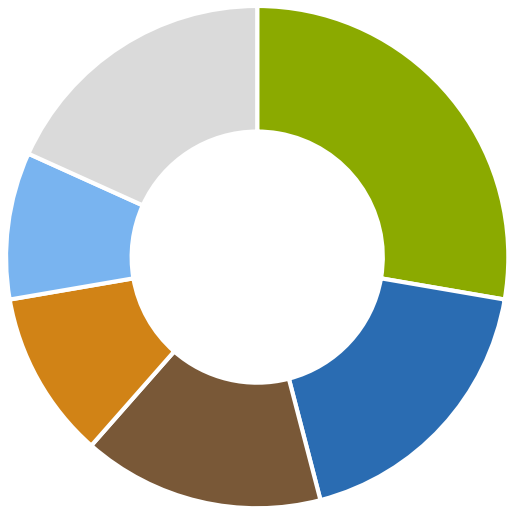
# Cohort Reviews: What They Are

- VOLUNTARY
- Currently with high-burden health departments, but happy to try with low-burden health department if interested
- In-person, detailed and systematic review of all cases that completed treatment during a defined period of time (1 spring & 1 fall)
  - Demographic, clinical/medical, and case management factors
  - Barriers: contact investigation, clinical management, social factors, economic factors
- Identify best practices, needs and strategies to meet those needs
- 2017: 108 cases reviewed (~80% of all cases reported during review period)



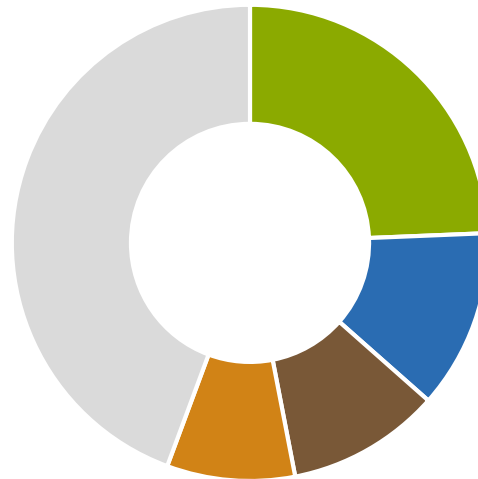
# Cohort Reviews: Barriers in 2017 (n patients)

Clinical



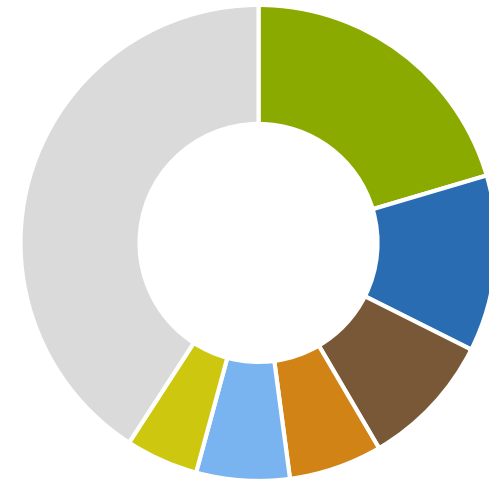
- DOT
- Medical Mgt
- Co-morbidities
- Partnerships Other Orgs
- Medical Intxn
- None

Social



- Language/Literacy
- Pt Coop
- Family Coop/Support
- Other
- None

Economic



- Transportation
- Financial Stability
- Un/Under-Insured
- UnEmp/Emp Sec
- Food Security
- Homeless/Shelter Sec
- None

# Incentives & Enablers: Flexibility To Address Barriers

- Available to ALL health departments to help overcome barriers or needs that impact TB or LTBI treatment.
  - Pre-paid vendor cards (e.g. Walmart / Meijer / gas station)
  - Reimbursement to health department for rent / mortgage, utilities or groceries.
- 2017: ~\$41,000 for 657 people (most so far)
  - 55 TB disease
  - 602 LTBI
- Demonstrate compassion, strengthen relationship & often address multiple barriers or needs
  - Food support improves nutrition and DOT (meds easier to take with food)
  - Stable housing eases DOT and reduces stress/strain on many levels
  - Covering co-pays or deductibles increases access to care
- Contact Helen McGuirk to learn more or make a request



# Perspectives

- Dr. Kissner, early March 2018: “TB cases are getting more and more complex. I’ve never seen such complicated cases as we get nowadays.”
- She has said that at least once per year – every year – since 2007.
  
- Adapt & Innovate
- If It ‘Aint Broke, Don’t Fix It
- Learn from every situation – ESPECIALLY FROM PATIENTS (they know what works)
- Don’t give up. Ever.