

MARYLAND DEPARTMENT OF HEALTH

# TB Case Management: The Successes and Barriers of a Small County

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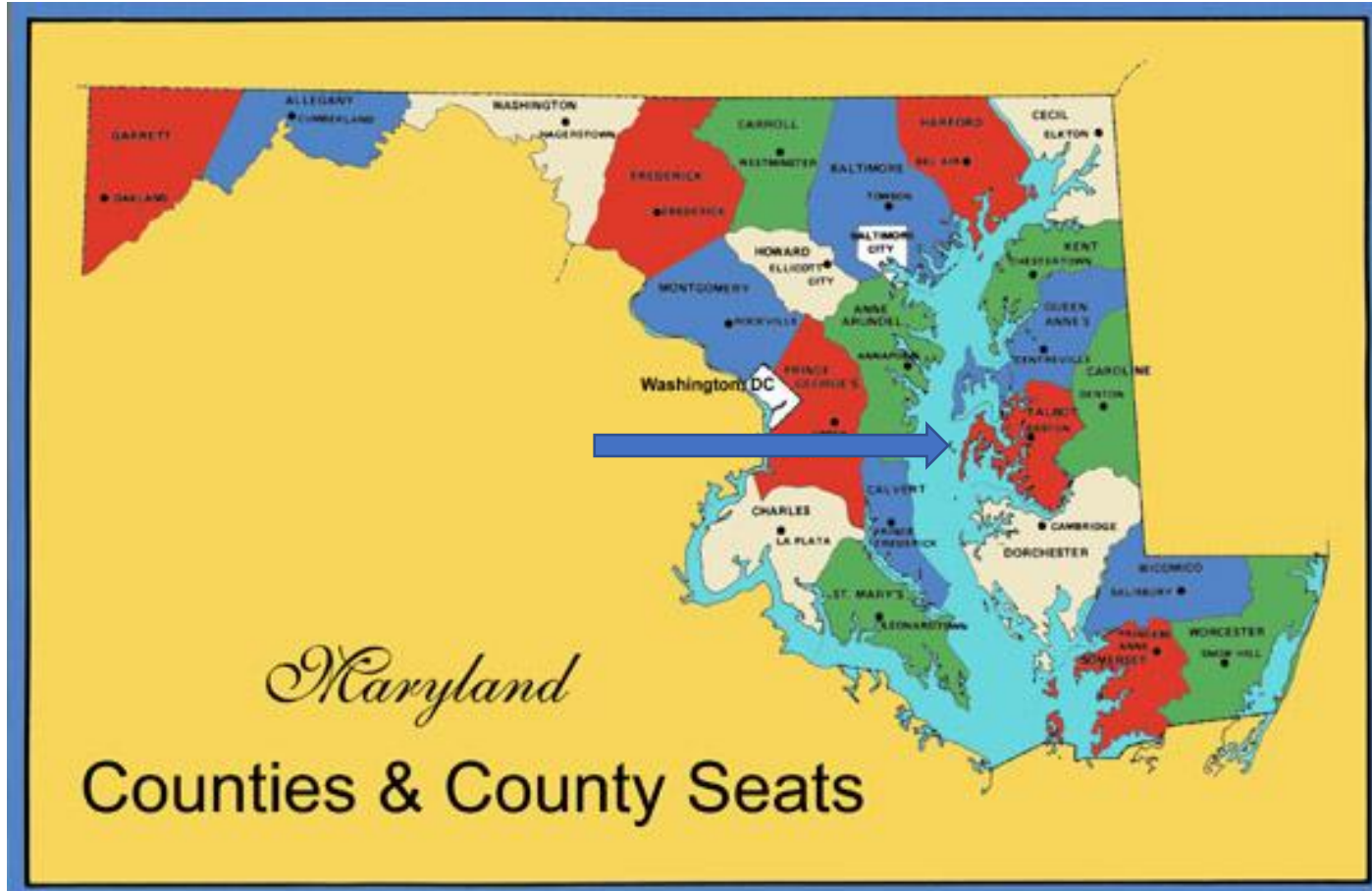
Talbot County Health Department

April 25, 2018

# TALBOT COUNTY

Total Population 37,782

Foreign born Population 2,220



## Background Information

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### Staffing for the Infectious Disease Program:

60% FTE Nurse

65% FTE Vacant Nurse

30% FTE Nurse (New)

50% Program Supervisor (me)

Last active case in Talbot County

2009

# What was happening on August 7, 2017?



Queen Anne's County 4-H Fair



18 U.S.C. 707  
75th Anniversary - Since 1942  
August 7th - 12th



# And in Talbot County.....



# Initial Notification

- On Saturday, August 5, Dr. Wadley received a phone call from a Dr. at a local FQHC. She had seen a client with possible symptoms of TB and had told him to come to the Health Dept. Monday morning.
- On August 7, 2017 at 9:00 a.m. in walked the gentlemen who spoke with our interpreter. He told her he had been to a local Dr. because of a cough. She had ordered a chest x-ray (which showed left hilar mass) and told him to come to the health dept first thing Monday to have sputums done to rule out active TB.

# Index Case:

- Age: 57
- Country of birth: Mexico
- Been in U.S. – 9 years
- S/S: coughing X8 months, weight loss
- No previous history.
- Seen previously X2 by another Dr. who treated his cough with antibiotics.
- Drew a QFT, gave him his sputum cups with request to return ASAP.
- He returned sputums on 08/10/2017.
- Now we wait.....

# Continued:

- Monday, August 14 received sputum results:

**Numerous AFB found**



Called client, discussed results, asked to come back in to do more testing and discuss plan.

- Obtained bloodwork, weight, etc.
- Began the discussion of where he lived, who he lived with, where he worked, who his friends were he spent time with.
- Educated on Tuberculosis.
- Began meds Tuesday, 08/15/17. Son came with him. Obtained bloodwork and gave sputum cups.



# Reaction index case: Rash

9/18 neck and arms, off and on X1 wk, Benadryl helps, d/c PZA on 9/27, received 28 doses.



# Began contact investigation immediately!!

Home contacts:

- Son who had been in the country for 6 months
- 4 other adults and a 6 month old baby boy

Work = 36

Close friends = 2

- Targeted household first. Home visit made on Tuesday, 8/15. Only one family home. Discussed possible exposure to TB, educated. Allowed us to place PPD's including the baby but very confused, why we were "targeting" them. Educated more.

# Continued: Household

- Other household members contacted. Will test them the following day, 8/16.
- Discussed with active client need to be truthful with household, especially to protect the baby.
- He allowed the interpreter and I to help him explain his diagnosis, reason for testing, and importance.
- All household tested. All household positive PPD's except the baby.
- Of 6 in household: Son became case #3, 1 came from Honduras and treated at age 9, 1 received 12 wk regimen, 2 refused, baby received 10 wks of daily DOT window prophylaxis. Repeat PPD negative.

# Contacts: Friends

- 2 contacts tested
  - QFT – both positive
  - CXR – negative
  - No symptoms
  - Both treated/completed 12 wk regimen

# Continued: Employer

- Contacted employer on 8/15. Plan to come to business and place PPD's on all, Monday, 8/21.
- Lumber yard, large open buildings, lunchroom area small.
- 12 of 36 positive.
- 10 CXR negative.
- 1 CXR showed 3 mm calcified granuloma. No longer employed. Did not work with index case. Referral made to state where he moved.
- 1 CXR showed 3.1X2 cm mass left upper lobe with associated left hilar lymphadenopathy. Drew QFT. Became case #2.
- Offered treatment options to 10 LTBI.
- All 10 above chose 12 wk regimen. Employer allowed us to come every week to administer meds. All completed!!

# Second case: Co-worker

55 x 45 mm reading



# Continued: Second Case Co-worker

- Age: 49
- Country of birth: U.S.
- S/S – coughing X4 wks, night sweats, weight loss
- CXR – 3.1 X 2 cm mass in left upper lobe with associated left hilar lymphadenopathy. Could represent malignancy.
- Smear – negative/culture – negative
- Began 4 drug regimen 8/30/2017
- Referral made to Pulmonologist – seen 8/31, Bronchoscopy scheduled 9/01.
- Bronch wash smear and culture negative.
- Symptoms improved and CXR improved.

# Continued: Second case Contacts

- Family in home included:
  - Wife 59 y.o.
  - Son 37 y.o.
  - Son 27 y.o.
  - Grandson 7 y.o.
  - Granddaughter 6 y.o.
  - Granddaughter 8 months
- All PPD's negative, no symptoms.
- Repeat PPD's 10 wks later still all negative!!



# Third case: Son

- Age: 24
- Country of birth: Mexico
- How long in the U.S.: 6 months
- S/S – none
- Smear – negative/culture – negative
- QFT: positive
- CXR: negative
- Began treatment as LTBI on 8/24/2017.
- Home visit 8/31 – C/O abdominal pain below the rib, sweating, BP and P elevated, fever. Encouraged ER.
- Re-evaluated everyday, Father took to ER 9/05.

# Continued: Third case

- Admitted to hospital: consolidation of nearly entire left lower lobe with associated small to moderate pleural effusion.
  - Diagnosis: Pleural tuberculosis
  - Thoracentesis performed on 9/07, 1045 ml of fluid removed & 9/12, 650 ml fluid removed, smear negative.
  - Discharged on 9/13. Continued 4 drug regimen.
  - Repeat CXR 10/28 – resolution of left pleural effusion.
- Contacts: 1, QFT negative, no symptoms, educated.

# Repeat PPD's: Employer

- 21 PPD's
- 3 positive
  - 2 treated
  - 1 refused (Crohn's, Dr. drew a QFT which was positive but told her it was a false positive), educated.

# Contact Investigation

CONTACTS	NUMBER OF PEOPLE
Identified (Total number for All 3 cases)	50
Evaluated	1 <sup>st</sup> round = 50, retested = 27
Identified as active	2
Recommended for LTBI	1 <sup>st</sup> round 15, retested 3, Total = 18
Started LTBI	1 <sup>st</sup> round 13, retested 2, Total = 15
Discontinued Treatment for LTBI	0
Completed LTBI	1 <sup>st</sup> round 13, retested 1, 1 continuing
Refused LTBI	3
Window Prophylaxis	1

# Challenges

- Limited staff
- Language barrier
- Convincing clients of the importance of treatment
- When clients returned back to work, and fitting in treatment
- Not home at times due to work
- Late hours
- Flexing schedule to accommodate clients

# Successes

- Compliant
- Interpreter on staff/availability
- Clients grateful/appreciative
- Employer supportive
- LTBI treatment and completion

# Thank You!

The success of this investigation goes to the guidance received from the Center for TB Control and Prevention, the support of my staff and health officer, the cooperation of the employer that allowed us to treat the employees, and the clients who accepted us, trusted us, and were compliant with their treatments. A special thank you to our interpreter!! She was instrumental in contacting the clients, coordinating home visits, and helping to alleviate concerns and fears of the clients!!

# We're almost done...





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