The Heart of Community Health

BALTIMORE
Medical SYSTEM

The Integration of TB Screening and Care into Primary Health Care:

A FQHC's Perspective

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International Services

David MBEYA
Program Manager

Goals/Objectives

- Introducing BMS
- Refugee Health Program
- Standards of Care/Guidelines
- Data
- Conclusion

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Who Are We?

BMS has been deeply involved with community health services throughout the City and the county since 1984.

- 6 Community Health Centers
- 8 school based sites

BMS serves nearly 50,000 patients. (~125,000 visits per year).

Several programs to assist patients: Deaf services, International Services, Health Benefits Advisors, Pharmacy Assistance, Outreach, CHW, Substance Abuse…

- Primary care services:
  - Adult Medicine
  - Family Practice
  - Pediatrics & Adolescent Medicine
- Obstetrics & Gynecology
- Behavioral Health

Who Do We Serve?

- Diverse patient population from different backgrounds and cultures. Approximately 60 countries and 30 languages.
  - ~10,000 active Hispanic Patients
  - 3,500 active non-Spanish, non-English speakers including refugees

- The 10 top Languages:
  - Spanish
  - Nepali
  - Arabic
  - Burmese
  - Tigrinya
  - American Sign Language
  - French
  - Amharic
  - Kinyarwanda
  - Swahili

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Tuberculosis Testing

The Refugee Health Program has set the tone in recent years at BMS when it comes to Tuberculosis testing and management LTBI patients.

- Piloting and implementing the IGRA test.
- Coordinating the transfer of LTBI treatment for Baltimore City patients
- Staff training
- LTBI management

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Refugee Health Program

BMS screens refugees and asylees from 3 Jurisdictions at our Highlandtown location.

- Baltimore City
- Baltimore County
- Anne Arundel County

Approximately 1000-1200 screened annually.

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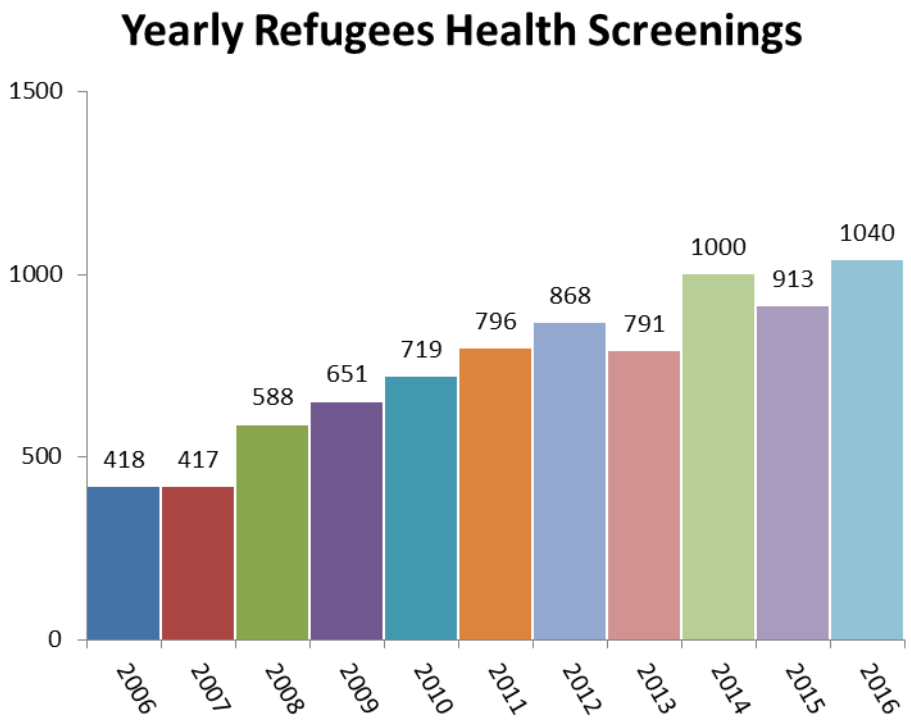
Refugee Health Assessments



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Refugee TB Screening

Late 2011 the Refugee Program piloted a new blood test, an IGRA test: QuantiFERON® TB Gold.

- More accurate
- Not affected by BCG
- Target group: 5 years old and over
- Operationally: Eliminates the need to return for a PPD reading for 92% refugees

Following the trial period, implemented Spring 2012 to both refugees and other patients with health insurance.
Others would remain on the TST.

Refugee TB Screening

Fall 2012, commissioner's advisory redirected the care and management of Latent TB to Primary Care Providers.

The refugee Health Team worked with BCHD:

- LTBI protocols
- Referral process for active cases/uninsured
- Class B waivers
- Consulting with clinicians for specific cases
- In-service training for clinical and program staff

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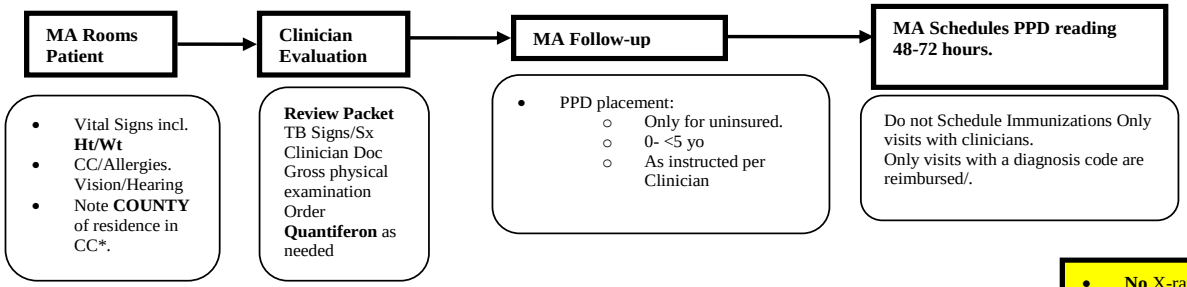
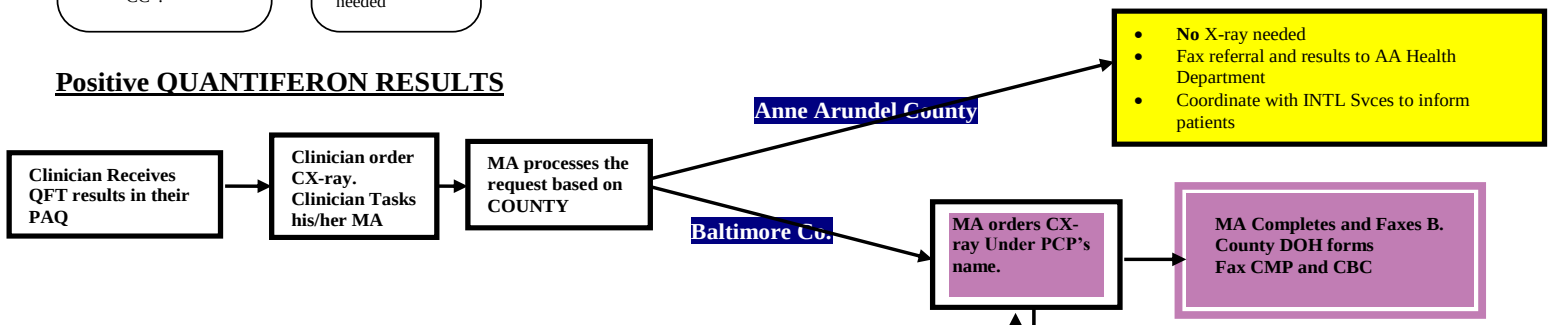
Transition to PCP

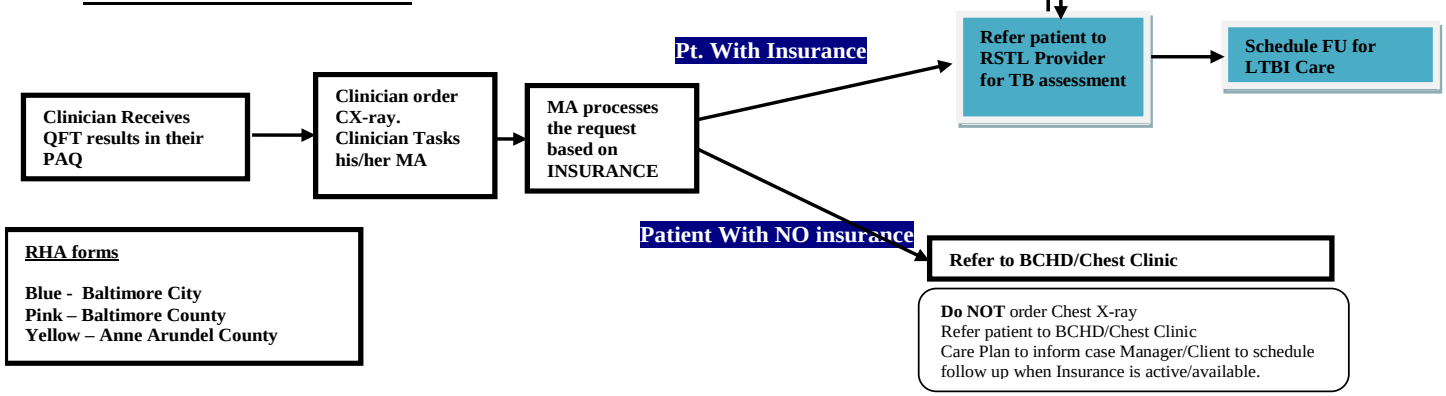
Clinician's Visit



Positive QUANTIFERON RESULTS



BALT. CITY RESIDENTS



RHA forms

Blue - Baltimore City
Pink – Baltimore County
Yellow – Anne Arundel County

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Integration into Care

- TB assessments for new and existing patients.
- TB Questionnaire is embedded in several of our clinical guidelines and EMR templates.
- Various guidelines/forms are readily available to clinical staff for screening, testing, and patient education.
- Educate and train staff on existing clinical guidelines and resources.

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Who Do We Test?

- Employment Requirement
- Contractual agreement: New **OB** patients at St. Agnes

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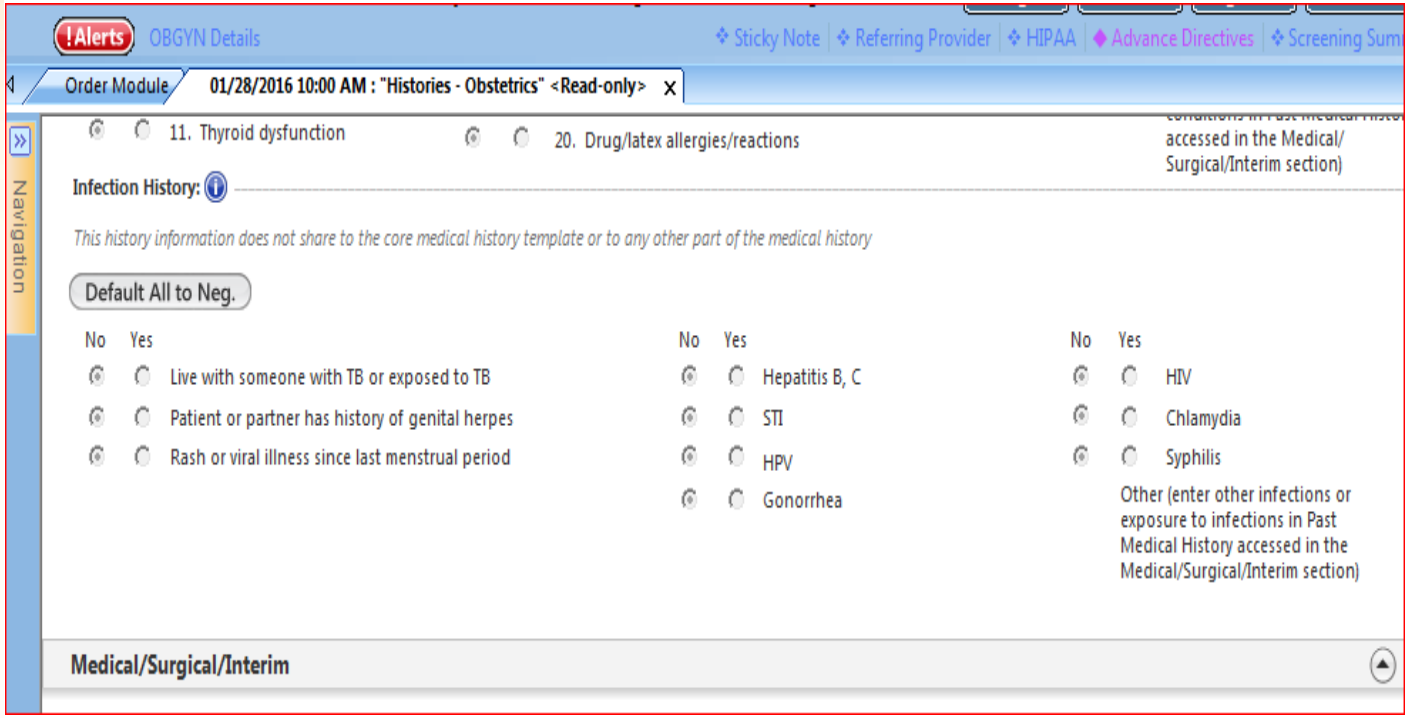

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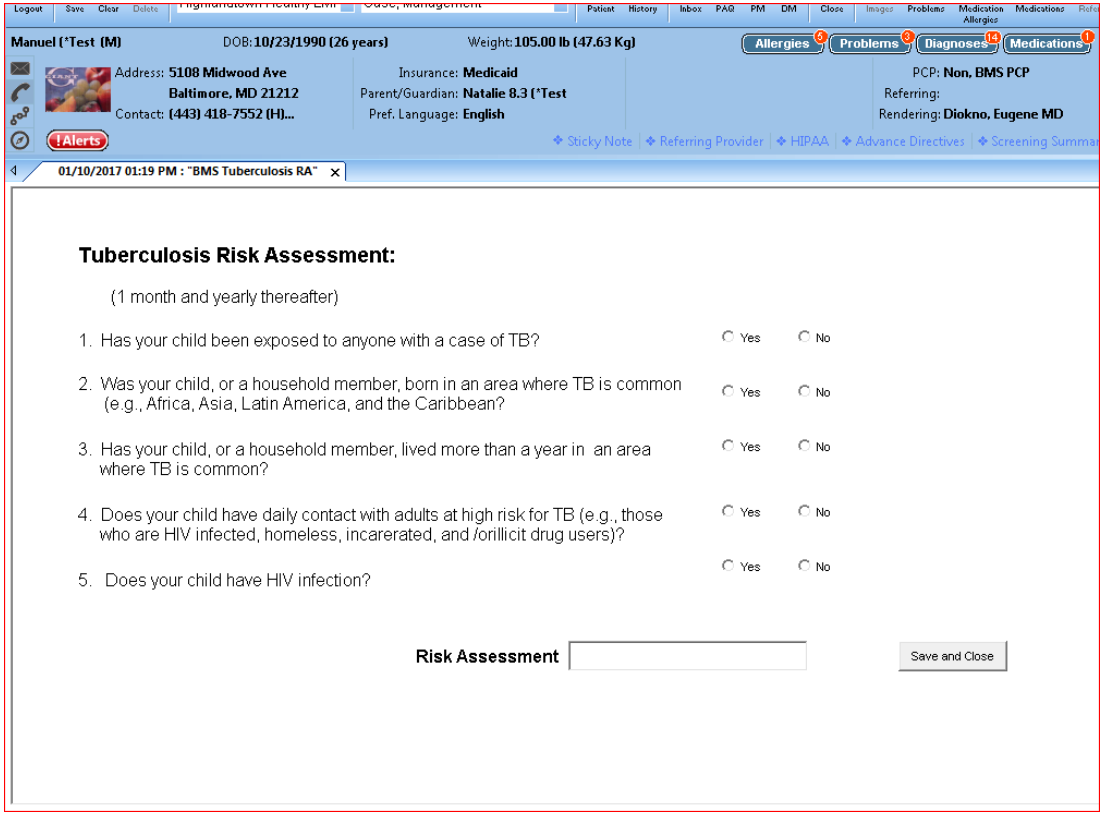
Who Do We Test?

- Employment Requirement
- Contractual agreement: New **OB** patients at St. Agnes
- **Pediatric population**: Annually assessed during Well Child Visits or physicals (MDHK)



Who Do We Test?

- Employment Requirement
- Contractual agreement: New **OB** patients at St. Agnes
- **Pediatric population**:
  Annually assessed during Well Child Visits or physicals (MDHK)
- **Adult patients:**
  - ❑ New Immigrants to our Practice
  - ❑ Patients deemed at-risk based on risk assessment questionnaire

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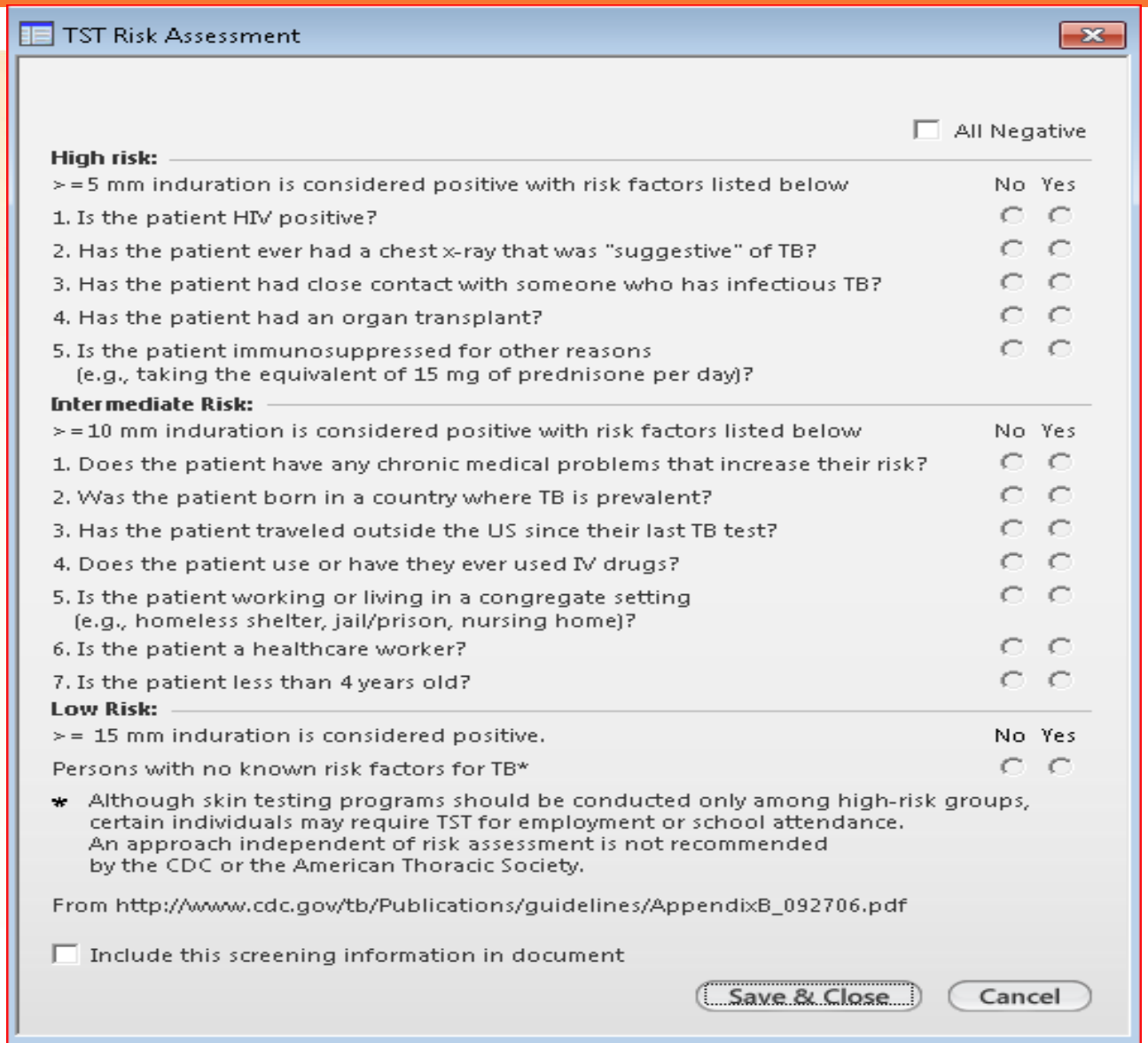
Who Do We Test?



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Risk Assessment Data

- **2015** *11,520* patients assessed for TB
  - *8,500* not at-risk
  - *3,020* at-risk: *~1,100* tested
  - Not tested: Previous positive/treated, asymptomatic
  - *833* adults/remaining are under the age of 18
- **2016** *11,979* patients assessed for TB
  - *8,192* not at-risk
  - *3,787* at-risk: *~1,400* tested
  - *423* adults

Almost 50% of pediatric assessments were performed at our SBH suites

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Workflow

- All other counties: Patients are referred to the Local Health Department. Clinician may order a Chest X-Ray.

- Baltimore City residents: Patients with Latent TB are treated in-house by the PCP and nursing team.

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LATENT TUBERCULOSIS INFECTION
B-CITY Residents

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Positive PPD/ Quantiferon Results.
LTBI Assessment

Clinician reviews PAQ
- Order X-Ray
- Check if CBC w diff. was done.
- Check if CMP was done.
- Task MA for next steps

SYMPTOMATIC?

NO

- LTBI Evalluation during RSTL follow up.
- Patient are to be schedueld with their PCP in the allocated slots

YES

TB Suspects Referred to Health Dept.

Symptoms assessed at the initial Visit

TB Suspect Referral
- Please Send all Relevant documents
- Send TB symptom evaluation details and clinician's contact info.
- Notify Health Department by phone.
- Complete appropriate referral form.
- Send Lab results, incl. LFTs and HIV

Clinician Evaluation
- Review of symptoms, labs
- Review of risk factors and contraindications
- Provide Pt with copy of treatment plan.

TREATMENT?

YES

- Provide prescription and refills
- Provide TB info in the patient's language.
- 1 mo F/U with Nurse . Complex cases can use the clinician or Dr. Priya's consult.

NO

- **Close the LTBI case.**
- Inform Refugee Program

Provide close-out letter

Nurse's Schedule
- Assess symptoms , check Side effects, problems with standardized LTBI treatment records form.
- Check for Compliance and concerns.
- Schedule 1 month Follow up with Nurse.

- Symptoms: Nausea, poor appetite, Vomiting, Dark Urine, Itching
- Compliance: Ask patients to bring Rx bottle.

Nurse F/U
- Inform Clinician/ Add comments to EHR notes.
- Provide certfiicate of completion when treatment ends

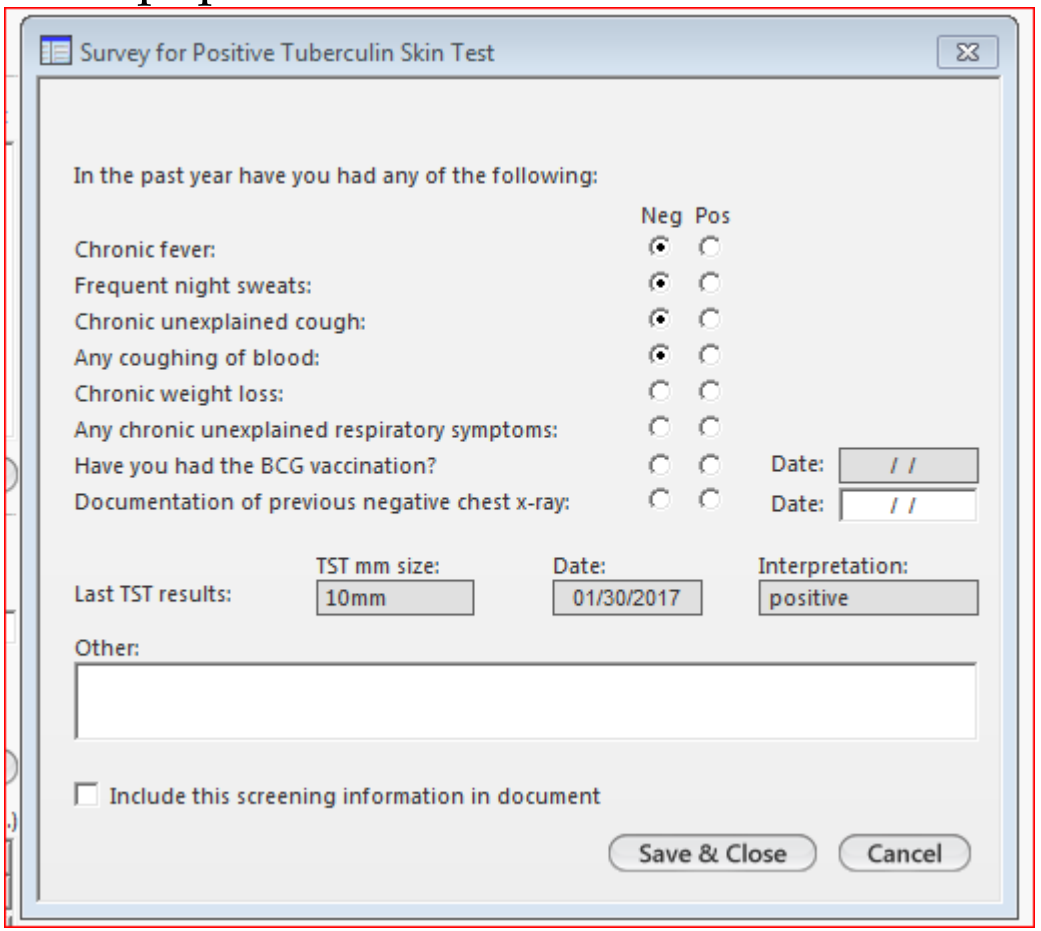
Provide Completion letter

IMPORTANT
- Appointments should be scheduled with an interpreter.
- IF CMP/CBC are normal, do not repeat beyond visit #2
- During Nurse visits, please also check immunizaton status
- Every patient should receive a Refugee Health Assessment Summary (RHAs) and LTBI information.
- Please confirm patient' contact information for outreach calls.

RSTL DM 2015

Workflow

- Patients with a positive QFT or TST result are asked follow up questions.



Treatment and Education

- Clinicians prescribe the entire treatment regimen and advise patients on refills.
- Monthly monitoring by a Nurse while on treatment and follow-up with clinicians in case of complications.
- Nurse visit consists of monitoring for medication intake and assessing for adverse reactions/LFTs.

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Treatment and Education

Table 8. Regimens for Treatment of Latent TB Infection And Recommended Monitoring

Drugs	*Interval*	*Dose*	*Medical Monitoring*
Adults Recommended			**Adults – INH (9 months) and RIF (4 months)**
Isoniazid (INH) 9 months Provide only one month supply at a time	Daily	INH 5 mg/kg (Max: 300 mg)	**Clinical Monitoring** *Pretreatment:* ask about previous TB drugs, oral contraceptives (if using rifampin) and other medications, history of liver disease, alcoholism and allergies. **When using rifampin, use barrier method of contraception, increase methadone, etc.** (See Appendix C). *Monthly (in person):* check for anorexia, nausea, vomiting, abdominal pain, dark urine, jaundice, scleral icterus, rash, fatigue, fever or paresthesias. **Laboratory (** AST, ALT & bilirubin) *Pretreatment:* only necessary for persons with a history of liver disease (e.g., hepatitis B or C, alcoholic hepatitis or cirrhosis), persons who have a history of past or current alcohol abuse or injection drug abuse, HIV infection or women who are pregnant or < 3 months post-partum. *During treatment:* Monthly LFTs are recommended if baseline tests elevated, history of or risks for liver disease, the patient is pregnant/postpartum, or there are adverse reactions to treatment.
	Twice Weekly DOT	INH 15 mg/kg (Max: 900 mg)	
HIV-Negative Adults – Alternative			
Rifampin (RIF) 4 months Provide only one month supply at a time	Daily	RIF 10 mg/kg (Max: 600 mg)	
Children* (ages 0-18)			**Children – INH (9 months)**
Isoniazid (INH) 9 months Provide only one month supply at a time	Daily	INH 10-20 mg/kg (Max 300 mg)	**Clinical Monitoring** *Pretreatment:* ask about other medications and medical conditions, allergies. *Monthly (in person):* check for anorexia, nausea vomiting, abdominal pain, dark urine, jaundice, scleral icterus, rash, fatigue, fever or paresthesias. **Laboratory** – no routine studies needed.
	Twice Weekly DOT	INH 20-40 mg/kg (Max: 900 mg)	

* Rifampin six months daily is an alternative regimen for children (10-20 mg/kg, maximum 600 mg), particularly those exposed to INH resistant disease.

Treatment Completion: nine months daily = 270 doses within 12 months. Six months daily = 180 doses within nine months. Nine months twice weekly DOT= 76 doses within 12 months. Six months twice weekly DOT = 52 doses within nine months. Four months daily rifampin (or rifabutin) = 120 doses within six months.

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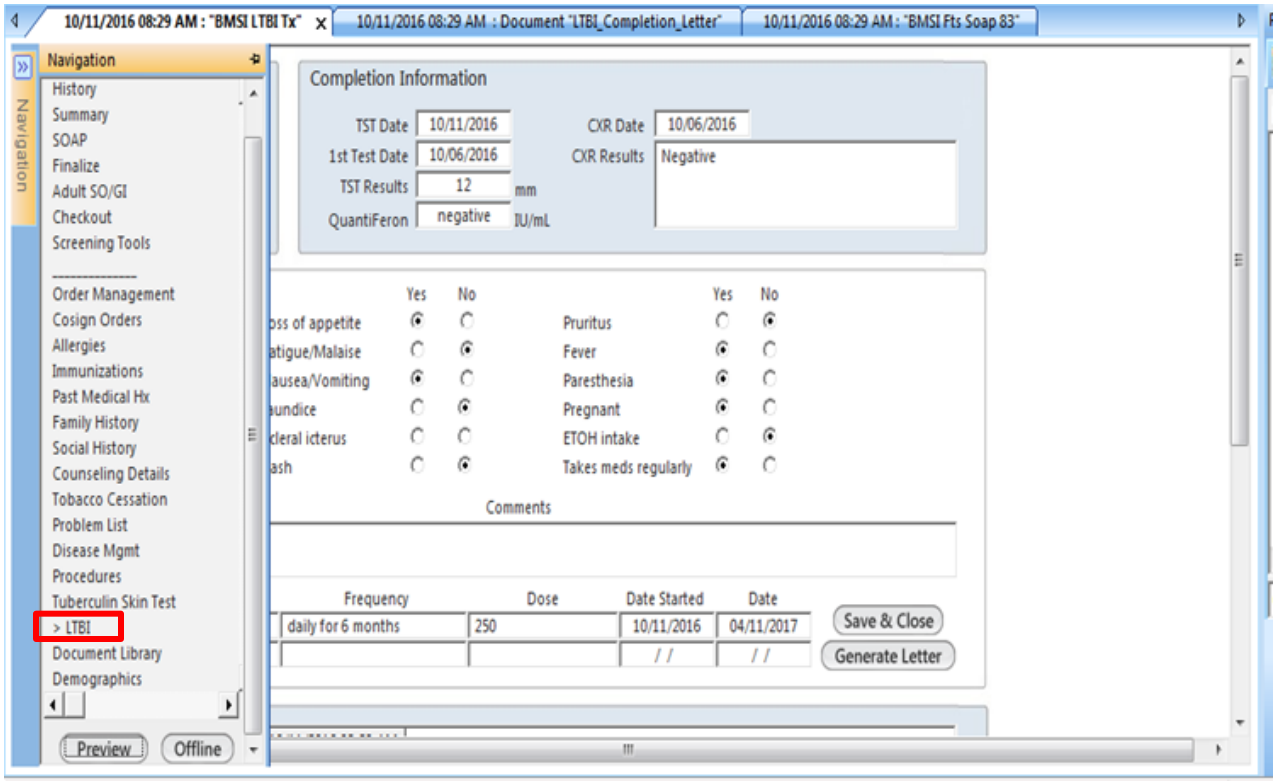
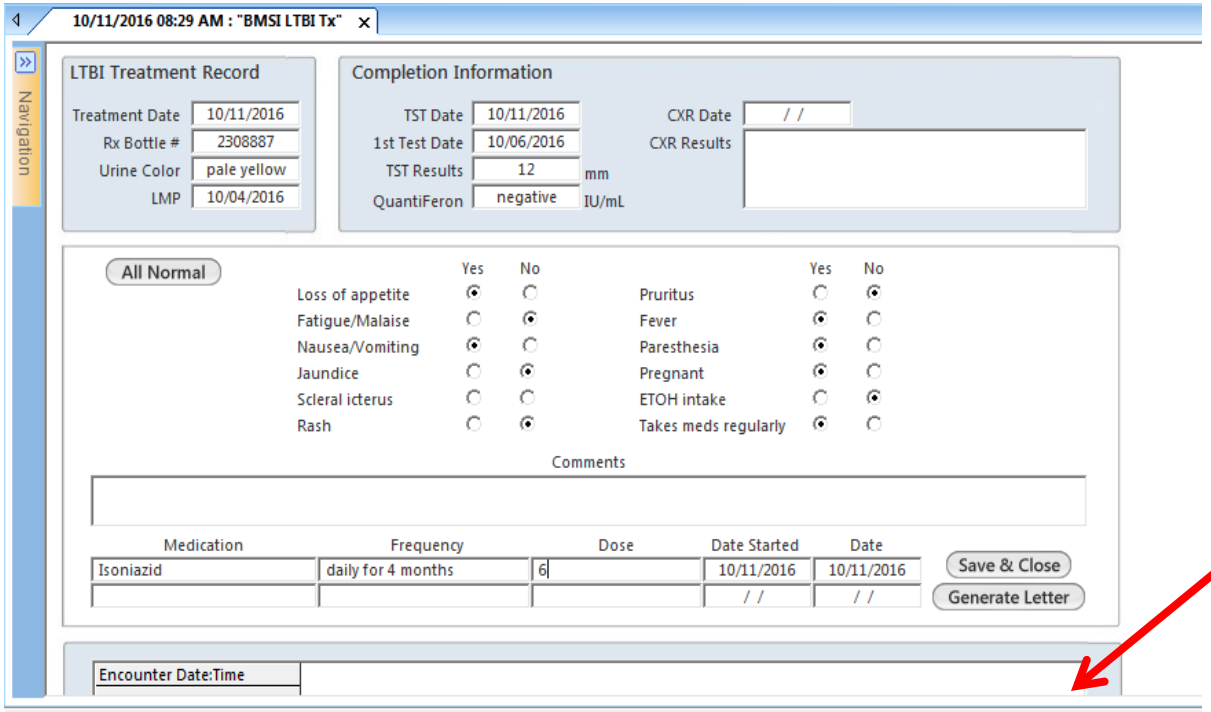
LTBI Management

- The nursing team monitors patients monthly



LTBI Management

- Completion Letter



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LTBI Management

LTBI COMPLETION LETTER

Name: Test (*Testing	TST Date: 10/11/2016	Results: 12 mm
Date of Birth: 11/27/1988	QuantiFeron: negative IU/mL	First Test Done: 10/06/2016
Chest X-Ray Date: 10/06/2016	Results: Negative	

Our records indicate that you have recently completed your treatment for Latent Tuberculosis Infection (LTBI). The treatment has reduced the risk of developing active tuberculosis disease during your lifetime.

No further skin testing is necessary. Routine periodic chest x-rays are also unnecessary in the absence of significant pulmonary symptoms of tuberculosis. In the event you do develop symptoms suggestive of tuberculosis, seek medical attention. Some of the symptoms include:

- A cough that persists for a month or more
- Bringing up large amounts of sputum (phlegm)
- Persistent, unexplained fever, weakness or fatigue
- Sweating at night that leaves the bed clothes damp
- Unexplained loss of weight (10 pounds or more)

Please keep this form among your important papers. The information provided on it will be important if you see your doctor or any other doctor for any of the above symptoms. It will also provide documentation should you be told you need TB testing in the future.

Medication	Frequency	Dose	Date Started	Date Completed
Isoniazid	daily for 6 months	250	10/11/2016	04/11/2017

Erica Isles MD 10/11/2016 08:52 AM

Belair Edison Family Health Center
3120 Erdman Avenue
Baltimore, MD21213-1720
(410)558-4800

LTBI Data 2015

2,041 patients were screened for Tuberculosis:

- **246** were positive
- **84** were treated for LTBI

Languages	Count	Positive	Treated
English	774	54	12
Burmese/Hakha/Tidim/Chin	361	67	8
Spanish; Castilian	344	25	3
Arabic	98	13	8
Nepali	94	26	14
Tigrinya	93	20	15
Masalit	49	2	2
Swahili	38	6	5
Amharic	32	3	
Kinyarwanda	28	10	9
Dari	20	4	3
French	19	4	2
Farsi	16	4	1
Urdu	12	1	
Pashto	11	1	
Somali	11	1	

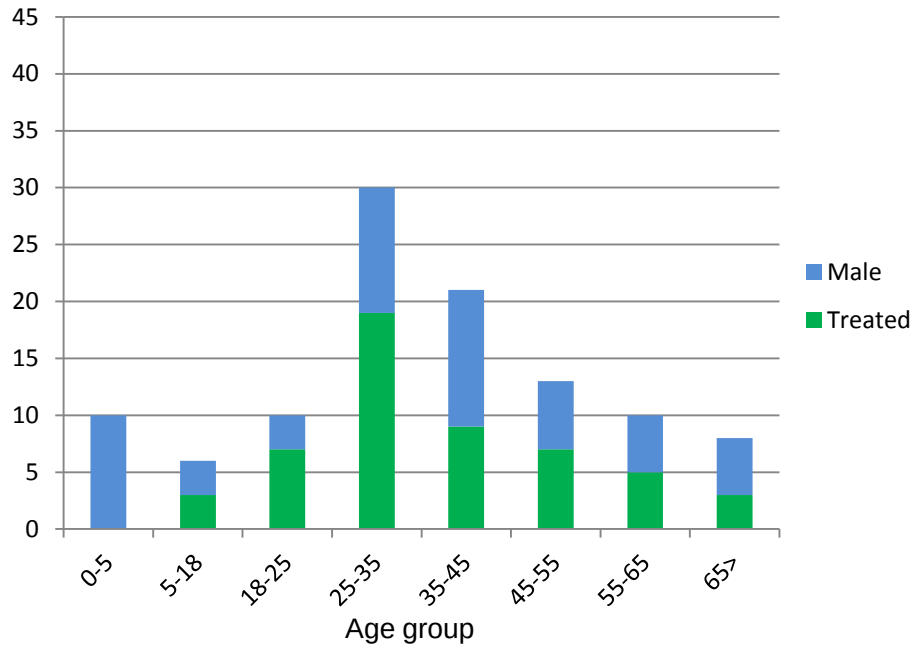
162 Not Treated

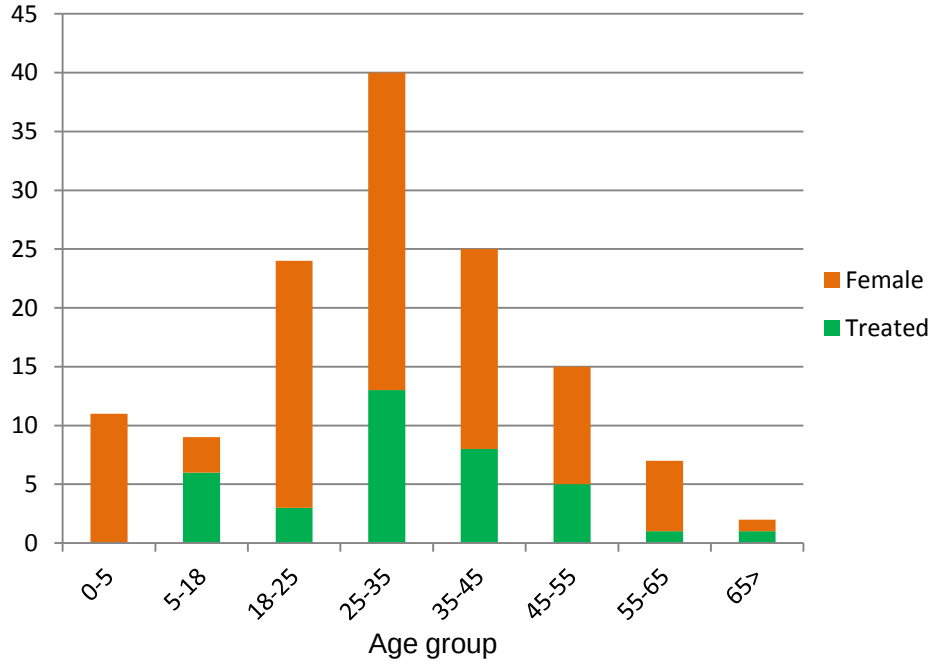
Residence	Count
B. City	38
B. County	102
Other counties	22

Anne Arundel, Howard, Harford, and Caroline

LTBI Data 2015

Breakdown by Gender and Age





LTBI Data 2016

2,579 patients were screened for Tuberculosis:

- **250** were positive
- **65** were treated for LTBI

Language	COUNT	POSITIVE	Treated
English	860	63	11
Spanish; Castilian	537	24	4
Arabic	372	29	11
Burmese/Hakha/Tidim/Chin	194	44	4
Swahili	122	18	8
Nepali	91	14	6
Tigrinya	80	10	7
Spanish	56	3	1
Kinyarwanda	45	12	4
Dari	41	3	1
Amharic	35	10	5
French	27	5	
Khurdish	15	1	
Urdu	13	1	
Sudanese Arabic	12		
Farsi	11	3	1
Russian	10	1	
Pashto	8		

185 not treated

Residence	Count
B. City	45
B. County	123
Other Counties	17

Anne Arundel, Harford, Howard and PG County.

Of the 45 City residents

- 35 had Normal Chest Xray
- 10 did not:
  - B1 waivers
  - Pregnancy
  - Retested, Neg. QFT
  - Moved out
  - Prior Positive

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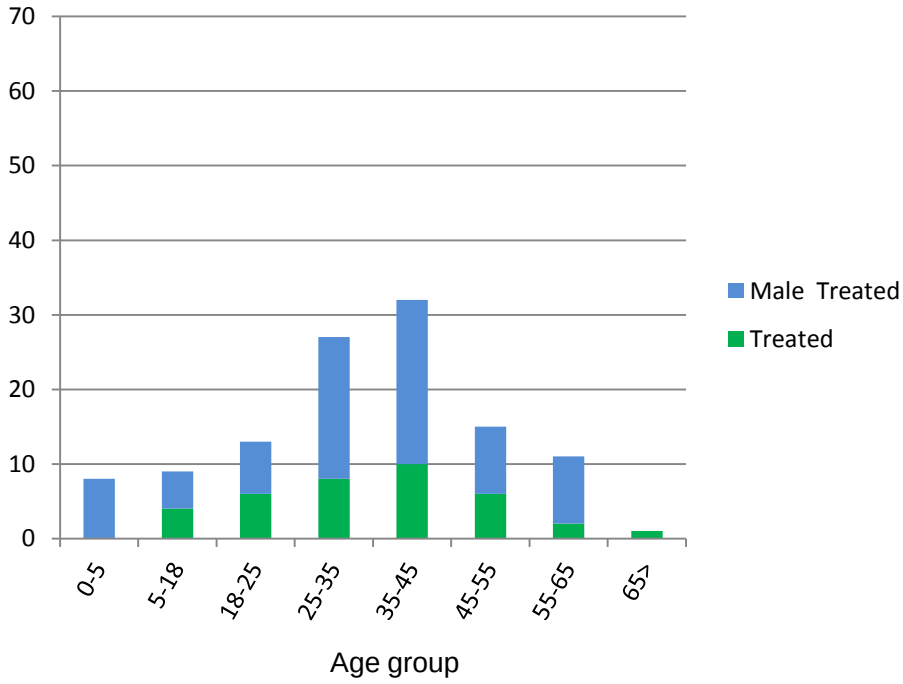
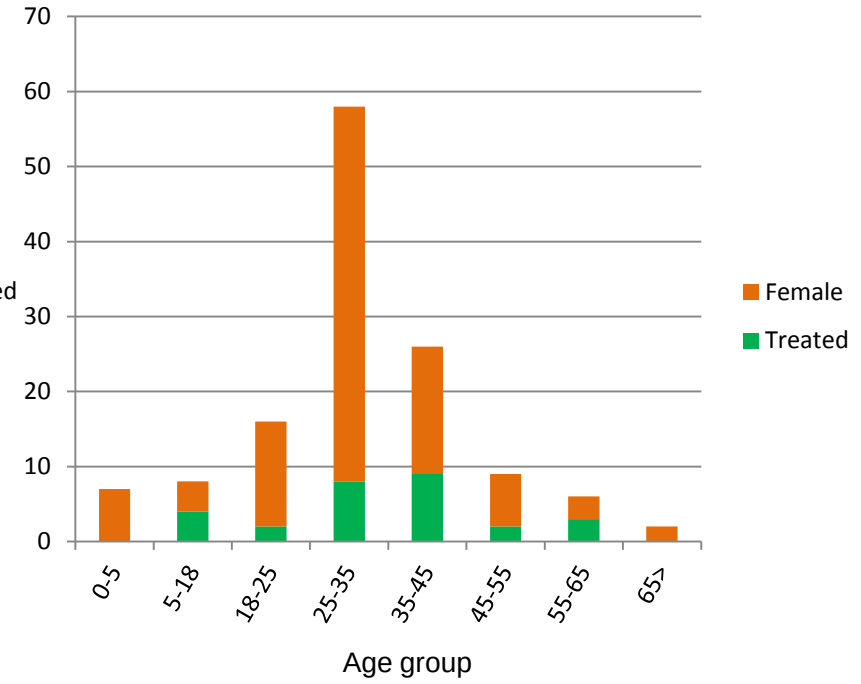
LTBI Data 2016

Breakdown by Gender and Age





Lessons Learned

- Better assessment for children
- No equivalent for Adult patients
  - ✓ Can be triggered after review of personal and family history
  - ✓ At the discretion of clinicians
  - ✓ More consistent screening
- Opportunities
  - ✓ Streamline process and training at other sites
  - ✓ Data collection for non-refugee patients
  - ✓ Improve tracking for unaddressed positive results and those sent to other counties

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Contact Information

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