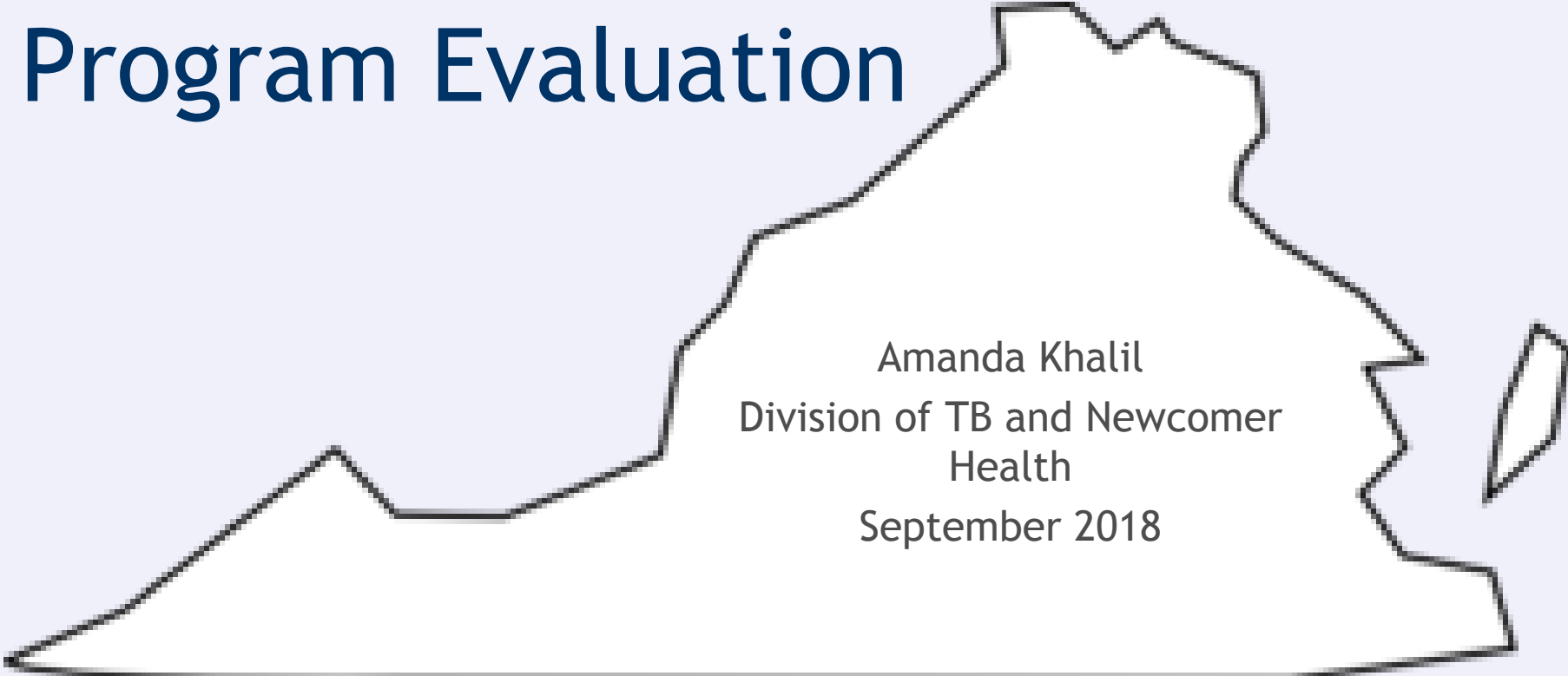


# How are we doing in Virginia? Program Evaluation

A white outline map of the state of Virginia is positioned on the right side of the slide, partially overlapping the title text. The map is a simple black outline with no internal details.

Amanda Khalil  
Division of TB and Newcomer  
Health  
September 2018

# Outline

- Review and discuss National Indicators
  - Case management
  - Contact investigation
  - Immigrant and refugee examination
- Program evaluation focus areas
  - Immigrant and refugee exam initiation and completion
  - Cohort review
- Feedback
  - Survey



# Data Sources

## Cohort review forms

- 2016 cases (1/2 of the districts)
- Completed by district staff
- Faxed to central office

## Report of Verified Case of Tuberculosis (RVCT)

- 2016 cases (all of them!)
- Data abstracted from charts by Bill and Tim
- Entered into VEDSS (Virginia Electronic Disease Surveillance System)

## Aggregate Reports for Program Evaluation (ARPE)

- 2016 cases (all of them!)
- Data submitted by districts on the 502
- Entered into VEDSS



# VIRGINIA COHORT REVIEW & NTIP

A review of 48.8% of 2016 TB cases  
and statewide NTIP results



# INDICATORS FOR CASE MANAGEMENT

Data from: Cohort review forms and the RVCT

## Treatment Initiation

	Cohort Review Data			RVCT
	2014 n=90	2015 n=34	2016 n=34	NTIP 2016 n=54
Virginia	90%	79.4%	94.1%	85.7%
National 2020 Goal	97%			

NTIP Objective: For TB patients with positive AFB sputum smear results, increase the proportion who initiated treatment within 7 days of specimen collection to 97%.

## Recommended Initial Therapy

	Cohort Review Data				RVCT
	2013 n=174	2014 n=191	2015 n=104	2016 n=94	NTIP 2016 n=194
Virginia	97.1%	97.4%	96.2%	94.7%	98.0%
National 2020 Goal	97%				

NTIP Objective: Increase the proportion of patients who are started on the recommended initial 4-drug regimen when suspected of having TB disease to 97%.



## Known HIV Status

	Cohort Review Data				RVCT
	2013 n=180	2014 n=194	2015 n=104	2016 n=94	NTIP 2016 n=198
Virginia	93.3%	97.9%	92.3%	97.9%	99.5%
National 2020 Goal	98%				

NTIP Objective: Increase the proportion of TB cases with positive or negative HIV test result reported to 98%.

# Sputum Culture Report

	Cohort Review Data				RVCT
	2013 n=140	2014 n=160	2015 n=84	2016 n=74	NTIP 2016 n=149
Virginia	97.1%	98.8%	97.6%	98.6%	95.5%
National 2020 Goal	98%				

NTIP Objective: Increase the proportion of TB cases with a pleural or respiratory site of disease  $\geq$  age 12 with a sputum-culture result reported to 98%.

# Sputum Culture Conversion

	Cohort Review Data				RVCT
	2013 n=87	2014 n=109	2015 n=59	2016 n=52	NTIP 2016 n= 86
Virginia	95.9%	76.1%	81.4%	78.8%	85.1%
National 2020 Goal	73%				

NTIP Objective: Increase the proportion of TB patients with positive sputum culture results who have documented conversion to sputum culture-negative within 60 days of treatment initiation to 73%.

# Drug Susceptibility Results

	Cohort Review Data				RVCT
	2013 n=140	2014 n=152	2015 n=83	2016 n=83	NTIP 2016 n=165
Virginia	98.6%	99.3%	98.8%	100%	98.8%
National 2020 Goal	100%				

NTIP Objective: Increase the proportion of culture-positive TB cases with initial drug-susceptibility results reported to 100%.

## Completion of Treatment ≤ 366 Days

	Cohort Review Data				RVCT
	2013 n=152	2014 n=174	2015 n=93	2016 n=86	NTIP 2016 n=159
Virginia	90.8%	95.4%	93.5%	95.3%	92.4%
National 2020 Goal	95%				

NTIP Objective: For patients with newly diagnosed TB for whom 12 months or less of treatment is indicated, increase the proportion of patients who complete treatment within 12 months to 95%.

# INDICATORS FOR CONTACT INVESTIGATION



Data from: Cohort review forms and the ARPE

# Contacts Identified (Elicited) Index Case Smear + & Smear -

	Cohort Review Data				ARPE
	2013 n=73	2014 n=90	2015 n=35	2016 n=34 / 63	NTIP 2016 n=62 / n= 47
Virginia	100%	100%	100%	100% / 66.7%	98.4% / 94%
National 2020 Goal	100%				

NTIP Objective: Increase the proportion of TB patients with positive AFB sputum smear results who have contacts elicited to 100%.

# Contacts Completely Evaluated (Examined) Index Case Smear + & Smear -

	Cohort Review Data				ARPE
	2013 n=588	2014 n=2770	2015 n=1146	2016 n=947 / 326	NTIP 2016 n=1017 / 357
Virginia	87.9%	72.2%	85%	88.3% / 76.1%	85.3% / 83.4%
National 2020 Goal	93%				

NTIP Objective: Increase the proportion of contacts to TB patients with positive AFB sputum smear results who are examined for infection and disease to 93%.



# LTBI Treatment Initiation Index Case Smear + & Smear -

	Cohort Review Data				ARPE
	2013 n=366	2014 n=261	2015 n=115	2016 n=117 / 29	NTIP 2016 n=126 / 30
Virginia	53.8%	70.5%	75.7%	75.2% / 72.4%	70% / 75%
National 2020 Goal	91%				

NTIP Objective: Increase the proportion of contacts to sputum AFB smear-positive TB cases with newly diagnosed LTBI who start treatment to 91%.

# LTBI Treatment Completion Index Case Smear + & Smear -

	Cohort Review Data				ARPE
	2013 n=197	2014 n=184	2015 n=87	2016 n=88 / 21	NTIP 2016 n=97 / 22
Virginia	81.7%	84.8%	82.8%	79.5% / 95.2%	76.9% / 73.3%
National 2020 Goal	81%				

NTIP Objective: For contacts to sputum AFB smear positive TB cases who have started treatment for newly diagnosed LTBI, increase the proportion who complete treatment to 81%.

# Evaluation of Tuberculosis Prevention Index Case Smear + & Smear -

	Cohort Review Data					ARPE
	2012 n=358	2013 n=366	2014 n=261	2015 n=115	2016 n=117 / 29	NTIP 2016 n=97 / 22
Virginia	36.9%	44.0%	59.8%	62.6%	59.8% / 69%	53.8% / 55%

“Missed Opportunities” Measure: The proportion of contacts to sputum AFB smear-positive TB cases with newly diagnosed LTBI that complete treatment for LTBI.



# INDICATORS FOR EXAMINATION OF IMMIGRANTS AND REFUGEES

Data from: EDN - Electronic Disease Notification system

# Indicators for the Examination of Immigrants and Refugees

- Data from CDC system: EDN - Electronic Disease Notification System
- Indicators calculated based on the primary jurisdiction of arrival
- Focus specifically on those with abnormal chest x-rays read overseas suggestive of TB (typically Class B1)

## Examination Initiation

	2015 n=180	2016 n=185
Virginia	59.4%	50.8%
National 2020 Goal	84.0%	

NTIP Objective: Increase the proportion of immigrants and refugees who initiate a medical examination within 30 days of notification.

## Examination Completion

	2015 n=125	2016 n=109
Virginia	41.3%	29.9%
National 2020 Goal	76.0%	

NTIP Objective: Increase the proportion of immigrants and refugees who complete a medical examination within 90 days of notification.

## Treatment Initiation

	2015 n=47	2016 n=38
Virginia	60.3%	50.7%
National 2020 Goal	93.0%	

NTIP Objective: Increase the proportion of immigrants and refugees that start treatment.



## Treatment Completion

	2015 n=23	2016 n=22
Virginia	48.9%	57.9%
National 2020 Goal	83.0%	

NTIP Objective: Increase the proportion of immigrants and refugees that complete treatment.



## Examination of immigrants and refugees

# What's going on here?

Indicator and time frame		2020 Goal	2016 Performance
Exam initiation	Within 30 days of notification	84%	50.8%
Exam completion	Within 90 days of notification	76%	29.9%

# Program evaluation activities

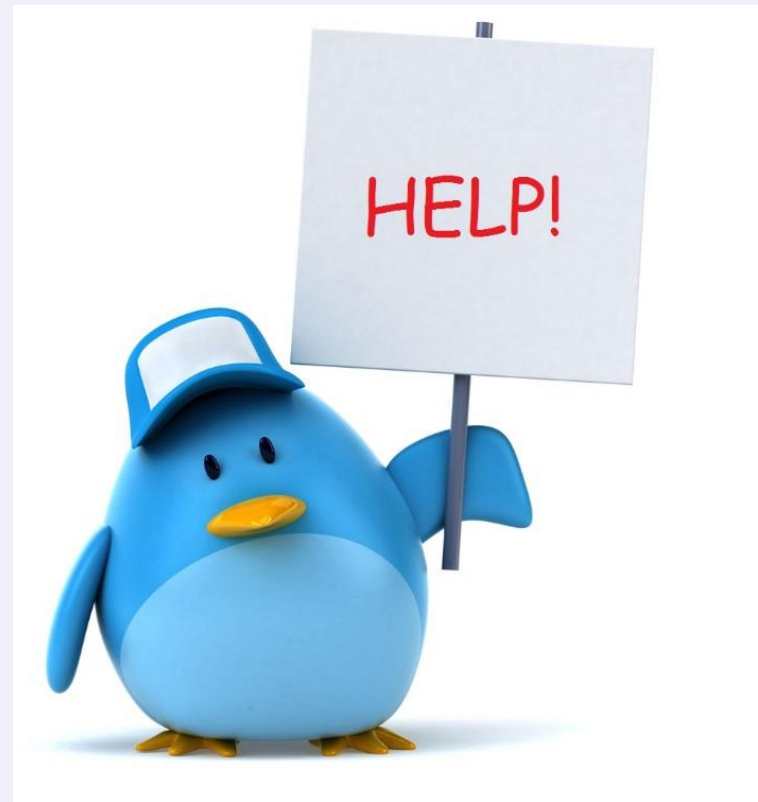


- Access to EDN
- EDN training
- Survey to TB program employees
- Phone call interviews
- Focus group
- District level reports

# You can help!



- Complete the survey today
- Volunteer to participate in the focus group
- Call or send me an email to discuss your thoughts
- Share your best practices and ideas to improve our performance!





# Cohort review

# Understanding Cohort Review

- Cohort = group of cases counted during a specified period of time
- Focused review of a set of indicators
- Group process to provide TB program learning opportunities and to improve program performance
- Required by CDC (our funder)

# Program evaluation activities



- Site visits
- Survey of TB program staff



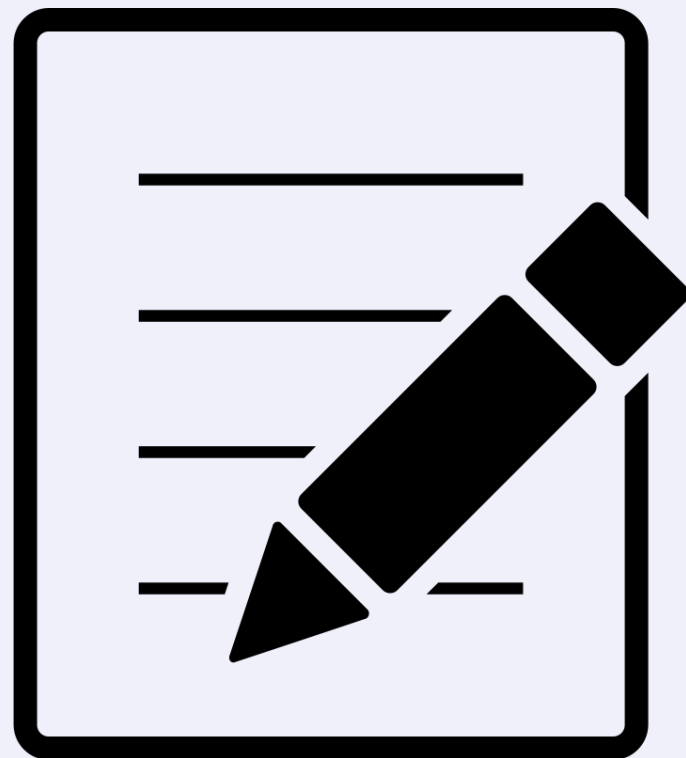
# You can help!



- Complete the survey today
- Provide feedback during our site visits
- Call or send me an email to discuss your thoughts



Please complete  
the survey today  
to give your  
feedback on  
EDN and Cohort  
Review!



Questions?

Thank you!