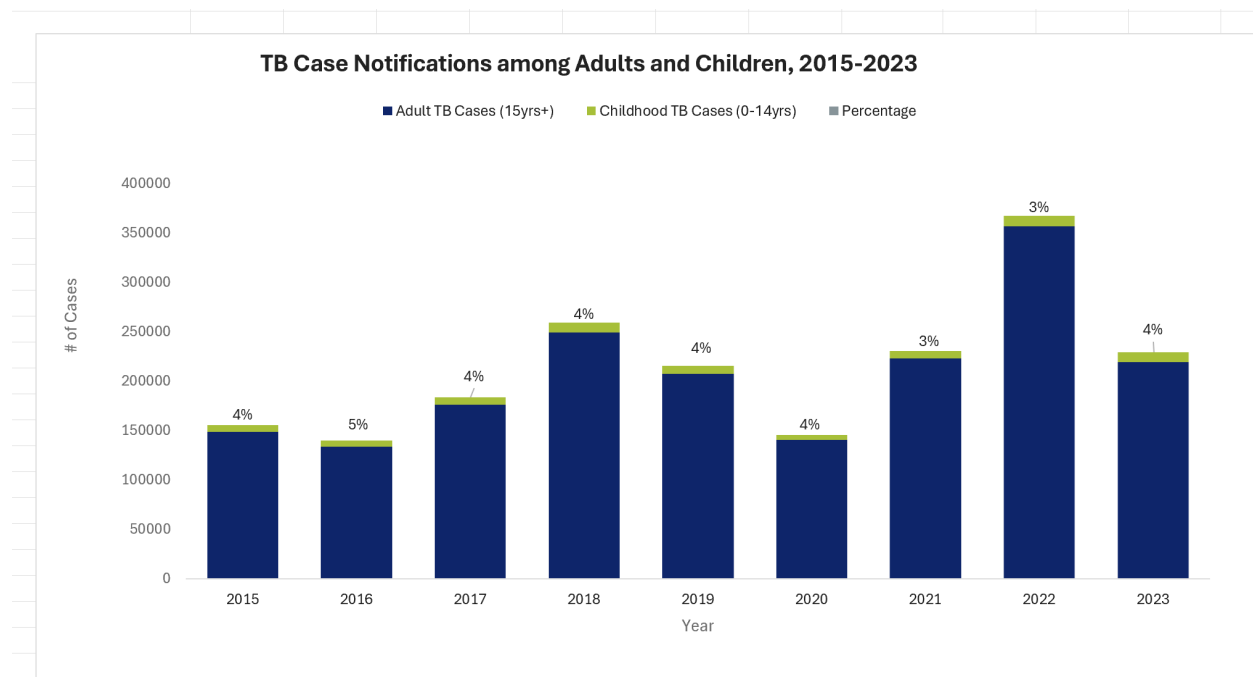


## Childhood TB Data Presentation - Video Script

Thank you to all my colleagues who are here for this annual stakeholder meeting of the National TB Program in Freedonia. The purpose of this presentation is to review trends in childhood TB in our country, which is a key priority in our National Strategic Plan.

Globally, children represent about 10% of all people with TB. This varies from country to country, but based on global models, if children are a very low percentage (less than 5%) or a very high percentage (more than 15%) of total notifications, we should further analyze the data to look for where we may need to intervene in services.

We analyzed childhood TB notifications in Freedonia from 2015–2023, looking at the total number of childhood TB cases (ages 0–14 years) as a percentage of the total number of TB case notifications. In this graph, we can see that childhood TB cases are 4% or lower.



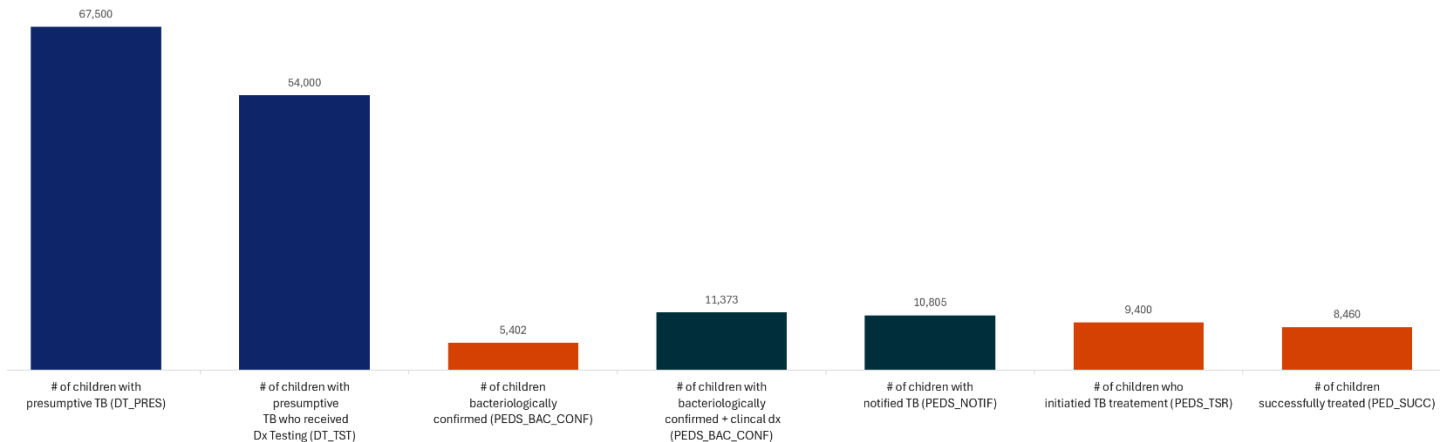
From the data, we can see that low childhood notification is an ongoing challenge for the program. So we gathered a multi-disciplinary team to review subnational data.

Using USAID's PBMEF sample Pediatric TB cascade, we created our own cascade. We gathered data on the following indicators:

## Pediatric TB Cascade, 2022

Estimated Incidence: 18,008

# of children screened: 1,090,126



- Number of children screened for active TB
- Number of children with presumptive TB
- Number of children with presumptive TB who received diagnostic testing
- Number of children who were bacteriologically confirmed
- Number of children who were bacteriologically confirmed and clinically diagnosed
- Number of children with notified TB
- Number of children who initiated treatment, and
- Number of children who successfully completed treatment

From this analysis we saw that there is a gap in detection of TB among children. The estimated incidence is 18,008 and the children diagnosed and notified to the NTP is 10,805. We estimated that we missed 7,230 children. That is a 40% gap.

We also found that:

- There is a low presumptive rate among those who were screened - about 6%
- The number of children bacteriologically confirmed is 10%, and
- The treatment success rate is 87% which is lower than the national target of 90%

The gap in case detection among children is a major concern. We conducted a situation analysis to help identify why so many children do not have access to TB screening and diagnosis services.. This is what we know:

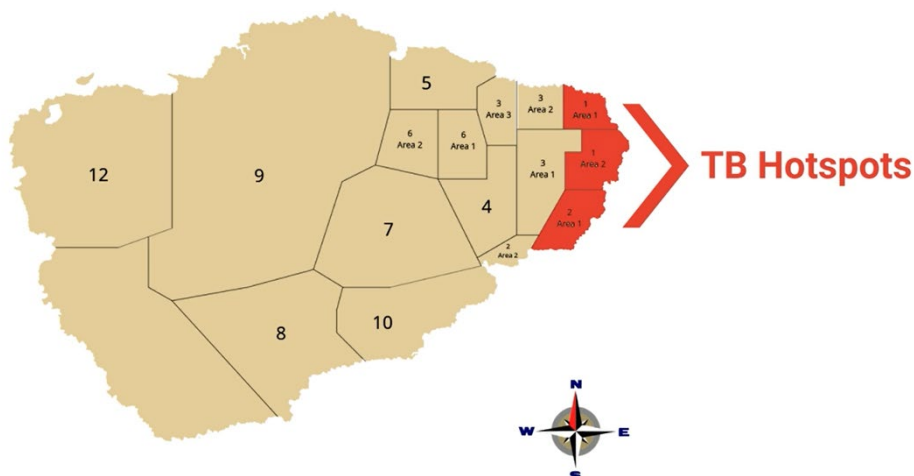
- It is challenging to confirm the diagnosis of TB in a child. They may not be able to produce sputum, and there are not many providers who can perform procedures they would need to get a sample.

- TB symptoms among children are often non-specific, for example cough, fatigue, fever, or slow weight gain or weight loss, especially in malnourished children. Their caregivers may also notice they are less playful.
- This leads to misdiagnosis with other common childhood respiratory illnesses and children are put on treatment for other diseases instead of TB treatment.
- Children become sick with fewer TB bacteria compared to adults, so the most common diagnostic tests often cannot detect the low levels of TB bacteria in the sample, and the child does not test positive for TB.
- Children are much more likely than adults to have TB disease outside the lungs, for instance, in lymph nodes or bones, and it is very challenging to get a sample for testing.

In our country, we found:

- There is a lack of clinical knowledge and skills to recognize TB symptoms in children.
- In the northeast region of our country, there is a lack of access to TB diagnostic tools, which affects access to services for everyone, including children.
- It is difficult to get an adequate sample for testing, especially in young children under the age of 5 years. We do not have providers who are trained in the procedures needed to get samples such as gastric aspirates.
- Transporting samples to the lab takes too long because our sample transportation system is not well developed. The distance from the health facility to the lab is significant, especially in the northeast region and the frequency of collecting TB samples is low.
- X-rays are often available only in hospital-level care and are not available in most places where children should be screened or diagnosed for TB.
- Social stigma around TB leads families to hide their child's symptoms, keeping from seeking care on time.

We also identified certain parts of the country as childhood TB hotspots using subnational data.



We concluded that many of our facilities, especially in under-resourced areas, were not properly screening and diagnosing children with TB due to a lack of clinical knowledge and accurate diagnostic tests. This highlighted the longstanding need for building capacity for clinical evaluation

and improving efficiency of our screening and diagnostic algorithm to ensure children are referred appropriately for TB testing in a timely manner.

Based on our analysis, we need to prioritize efforts to expand diagnostic services such as stool-based testing and implement updated clinical algorithms included in the 2022 WHO guidelines on the management of TB among children and adolescents. We should adopt them as soon as possible into our national TB policies and, at the same time, provide sufficient training and support to staff to allow their practical implementation at all levels of care.

We are also asking our colleagues from the global community, including manufacturers, to step up to the challenge of developing better and more affordable TB diagnostic tests for children.

Thank you for taking time to listen to our presentation on Childhood TB. Let's end TB together.