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Intensifying efforts to find children with TB in Vietnam

Dr Hien Mai

USAID Support To End TB Project | FHI 360 Vietnam

Outline

- 1 TB and Pediatric TB context in Vietnam
- 2 Pediatric TB detection through the USAID Support to End TB project
- 3 Translation from the project results to Nationwide Pediatric TB scale up
- 4 Lessons learned



TB and Pediatric TB context in Vietnam

TB context in Vietnam



98.2 million total population
63 provinces

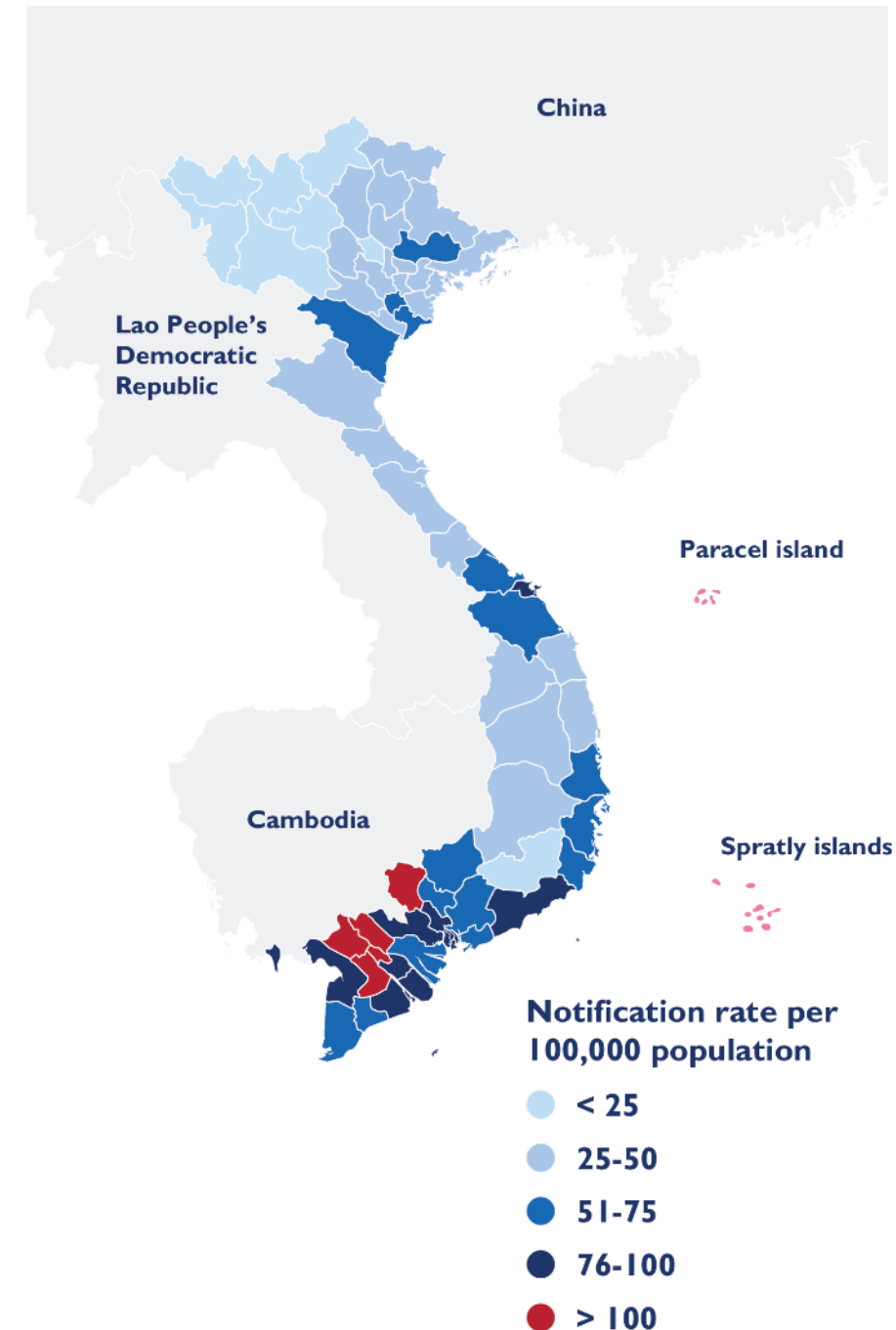


Vietnam TB profile (WHO - Global Tuberculosis Report 2024):

- **Among 30** high TB burden countries
- Estimated incidence of **182/100,000** population



57% treatment coverage



Pediatric TB context in Vietnam

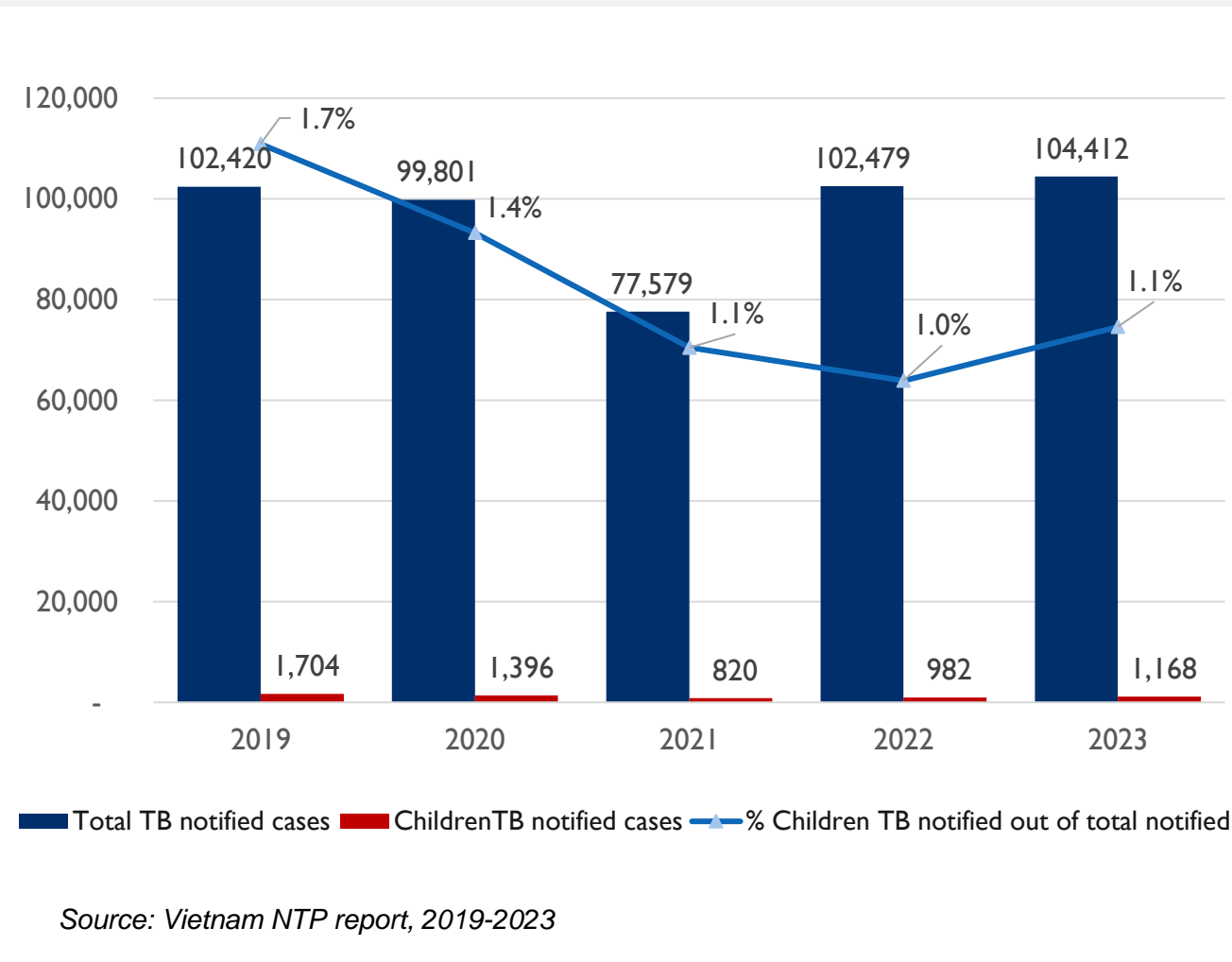


About **25%** of the country's population is between 0-14 years



Pediatric TB in Vietnam (2023)

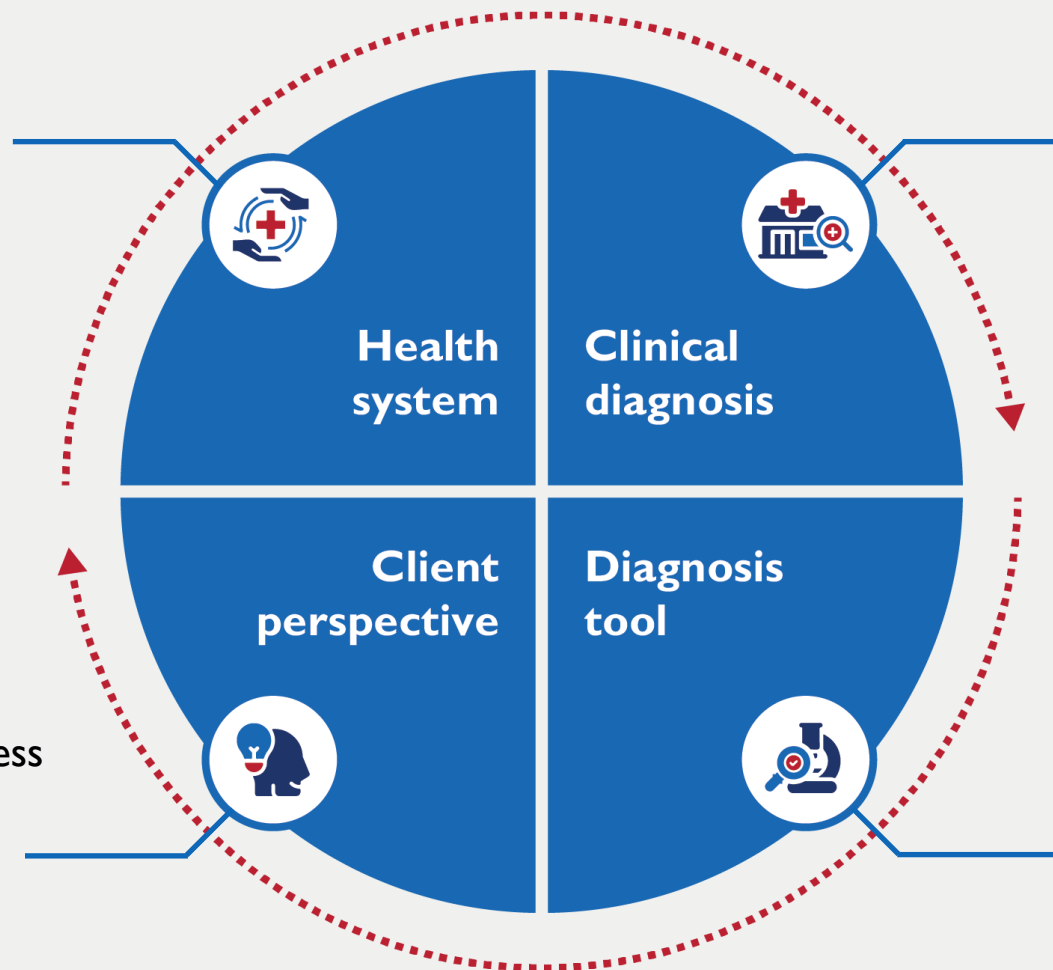
- WHO estimation: **7,400 cases (4.0% of total incidence)**
- Notified TB: **1,168 cases (1% of total notifications)**
- Detection gap: **84%**



Challenges for Pediatric TB detection

- Inefficient linkages between Pediatric facilities and TB care system
- Limited capacity for Pediatric TB management

- Lack of community awareness
- General and pediatric hospitals are often the first point of care



- Symptoms are often non-specific
- Atypical CXR findings
- Limited medical consultations for non-bacteriologically confirmed TB

- Difficult to obtain sputum specimen and paucibacillary
- CXR, Xpert/Xpert Ultra cartridge shortages



Pediatric TB detection
through the USAID
Support to End TB project

USAID Support to End TB Project



Funder:
USAID Vietnam



Implementer:
FHI 360

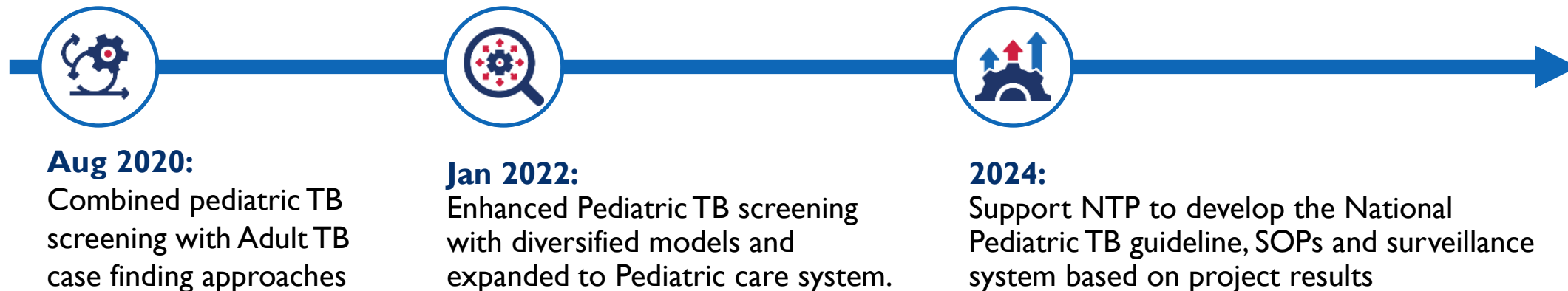


Main Partner:
National TB Program (NTP)

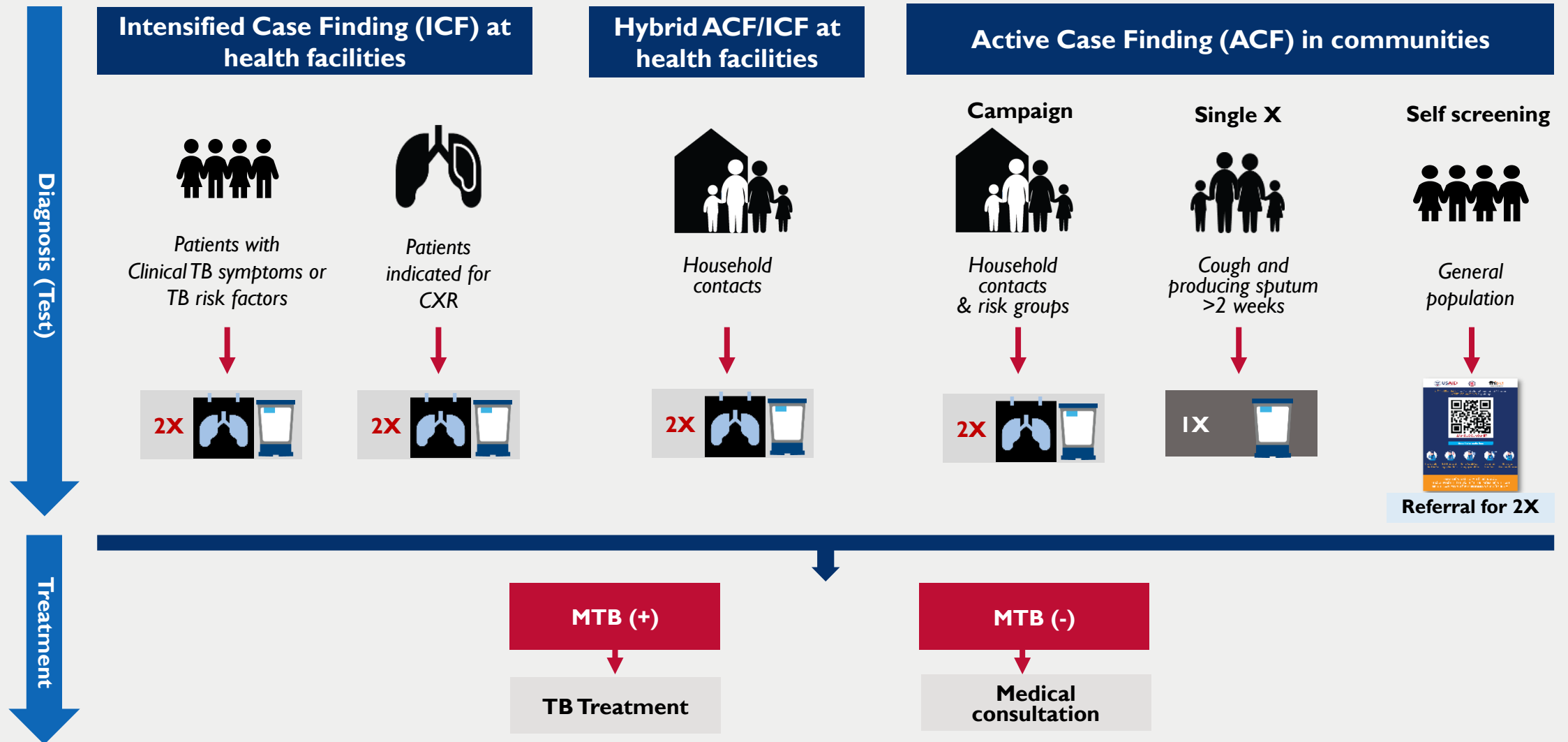


Geography:
11/63 high burden TB provinces and 45/93 districts

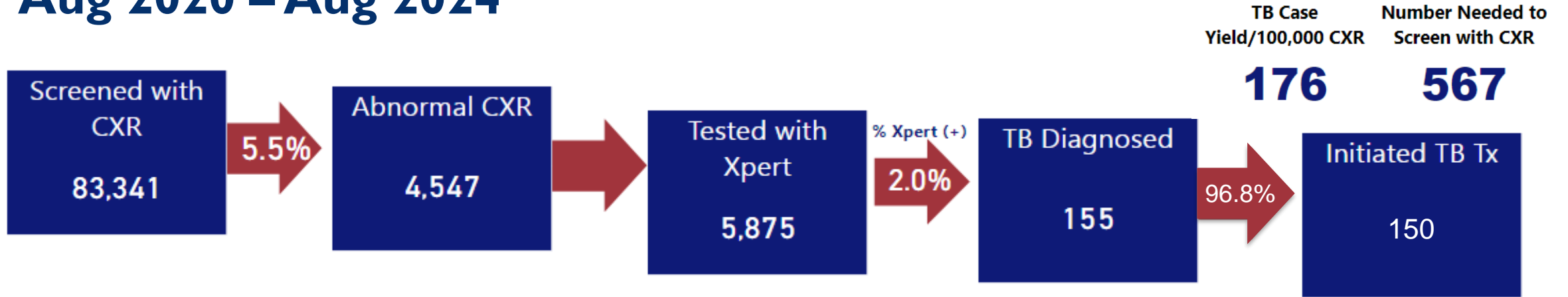
Pediatric TB activities:



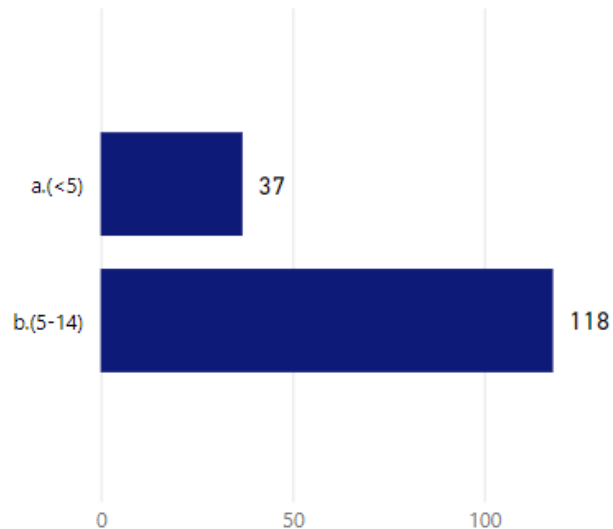
USAID SET-supported Pediatric TB detection, diversified models



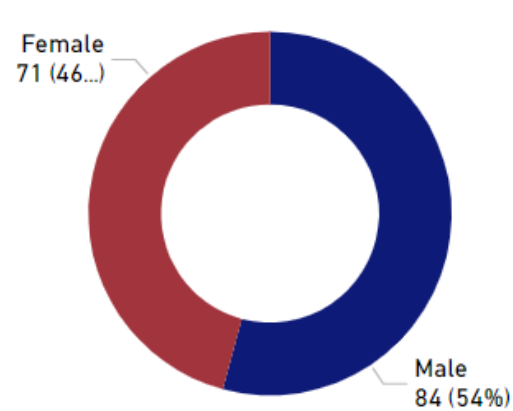
USAID SET supported Pediatric TB detection, Aug 2020 – Aug 2024



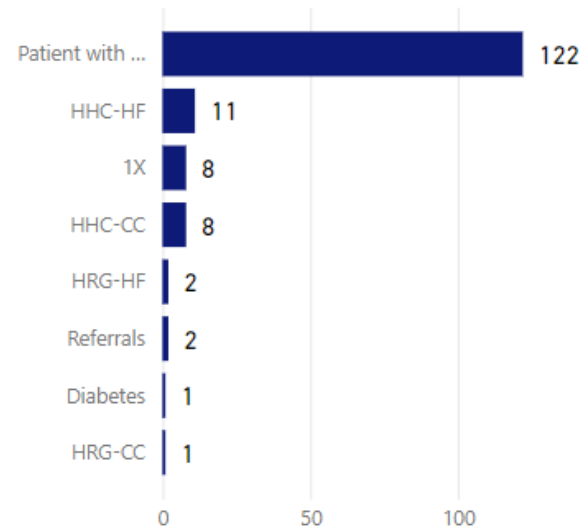
TB diagnosed by age groups



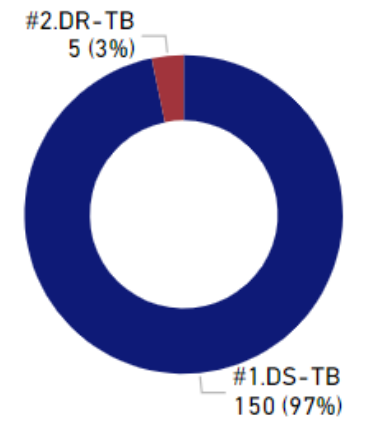
TB diagnosed by sex



TB diagnosed by populations



TB diagnosed by TB type



USAID SET-supported Pediatric TB detection, by models

Model	No. evaluated with CXR	(No./%) Abnormal CXR	(No./%) Tested with Xpert	(No./%) Xpert positive	No. Clinically diagnosed	No. TB diagnosed	(No./%) Initiated TB treatment	TB case Yield/ 100,000 CXR
ICF at health facility	73,840	3,860 (5.2%)	4,300	99 (2.3%)	26	125	120 (96%)	169
Hybrid ACF/ICF	3,245	370 (11.4%)	469	7 (1.5%)	4	11	11 (100%)	339
2X campaigns	5,965	242 (4.1%)	421	6 (1.4%)	3	9	9 (100%)	151
Single X	N/A	N/A	606	6 (1%)	2	8	8 (100%)	N/A
Self-screening	291	75 (25.8%)	79	1 (1.3%)	1	2	2 (100%)	687
Total	83,341	4,547 (5.5%)	5,875	119 (2.0%)	36	155	150 (96.8%)	176

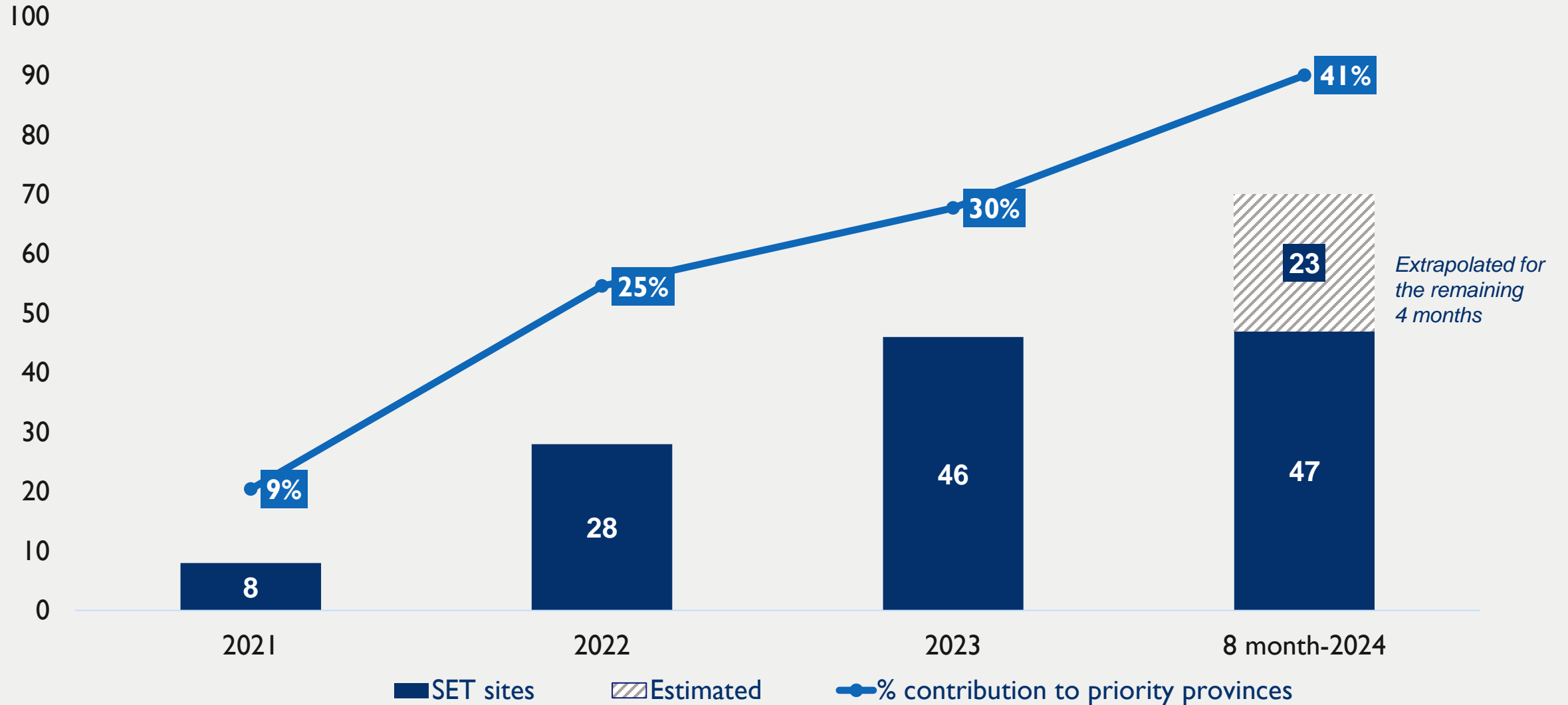
80.7% (125/155) TB cases from ICF model;
23.2% (36/155) clinically diagnosed TB cases

Characteristics of 121 Pediatric TB Cases Jan 2022- Aug 2024*

#	Total (N=121)	
Gender		
Male	61	50.4%
Female	60	49.6%
Age		
<5	25	20.7%
5-15	96	79.3%
Model		
ICF	96	79.3%
ACF	25	20.7%
Risk factors		
Household contact	33	27.3%
Children at risk of TB	88	72.7%
Symptoms		
Yes	78	64.5%
No	43	35.5%
CXR		
TB presumptive CXR	90	74.3%
Normal CXR	31	25.7%
Bac confirmed TB diagnosis by Xpert +		
Sputum	67	76.1%
Stool	14	15.9%
Gastric aspirate	5	5.7%
CSF	2	2.3%
Non – Bac confirmed TB diagnosis by Clinical diagnosis		
	33	27.0%

* The period of enhancing Pediatric TB care through the project. All TB case were followed up for collection of this information

USAID SET-supported Pediatric TB detection, by years



Capacity building on Pediatric TB, Aug 2020- Aug 2024



In-person training for health providers



Online training on CXR interpretation



In-person and online clinical consultations



Meetings at Pediatric hospitals



Routine TA



CQI meetings

Raising awareness on Pediatric TB



TB and TBI leaflets, including information on pediatric TB



4

Trẻ em sống cùng, hoặc tiếp xúc gần, thường xuyên với người mắc lao phổi cần làm gì?



Trẻ em dưới 5 tuổi:

- Không cần xét nghiệm lao tiềm ẩn.
- Điều trị lao tiềm ẩn sau khi xác định không mắc bệnh lao.



Trẻ em từ 5 tuổi trở lên:

- Xét nghiệm lao tiềm ẩn.
- Điều trị lao tiềm ẩn nếu xét nghiệm dương tính và được xác định không mắc bệnh lao.

3

Ai cần điều trị lao tiềm ẩn?



Trẻ em dưới 5 tuổi:

- ✓ Đang sống cùng hoặc có tiếp xúc gần, thường xuyên với người mắc lao phổi.
- ✓ Đã được xác định không mắc bệnh lao.

Trẻ em từ 5 tuổi trở lên VÀ người trưởng thành:

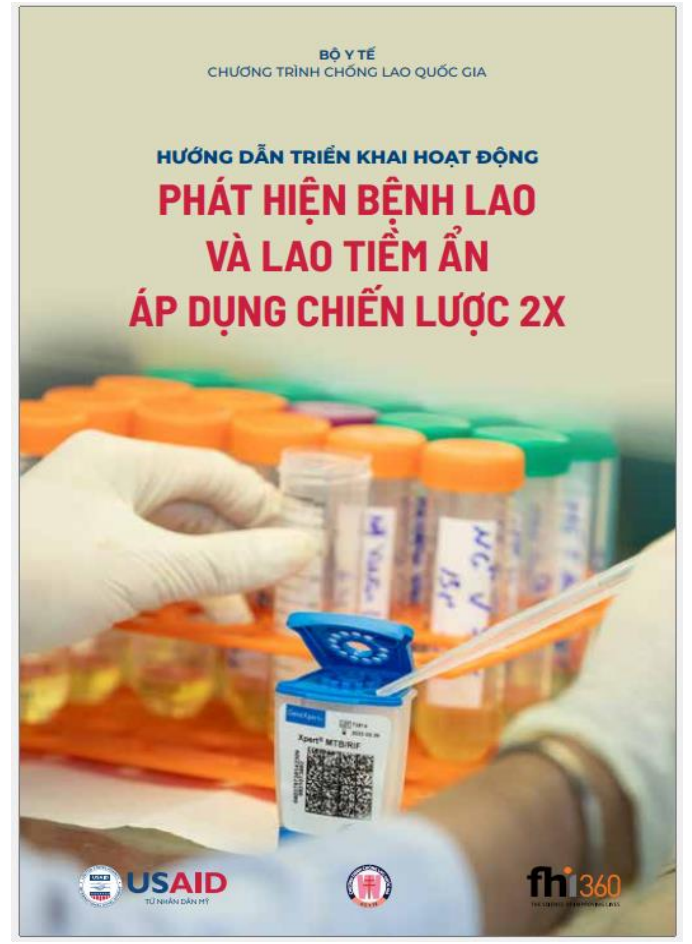
- ✓ Là người tiếp xúc với người mắc lao phổi; hoặc người có nguy cơ.
- ✓ Được xác định nhiễm lao tiềm ẩn.
- ✓ Đã được xác định không mắc bệnh lao.



Translation from the project
results to Nationwide Pediatric
TB scale up

Updating national guidelines and SOPs

- 1 National guideline on TB diagnosis, treatment and prevention, issued in Jan 2024 by MoH
- 2 National SOP on Pediatric TB diagnosis and treatment, issued in Aug 2024 by NTP
- 3 National guideline on 2X TB and TBI detection, issued in Sept 2024 by MoH



Updating national guidelines and SOPs



Strategy:

- Assessment of TB clinical symptoms and risk factors
- 2X and clinical consultations
- Diagnosis of non-bacteriological confirmed PTB: Case-based approach



Specimens: Sputum, stool, gastric/bronchial aspirate, CSF



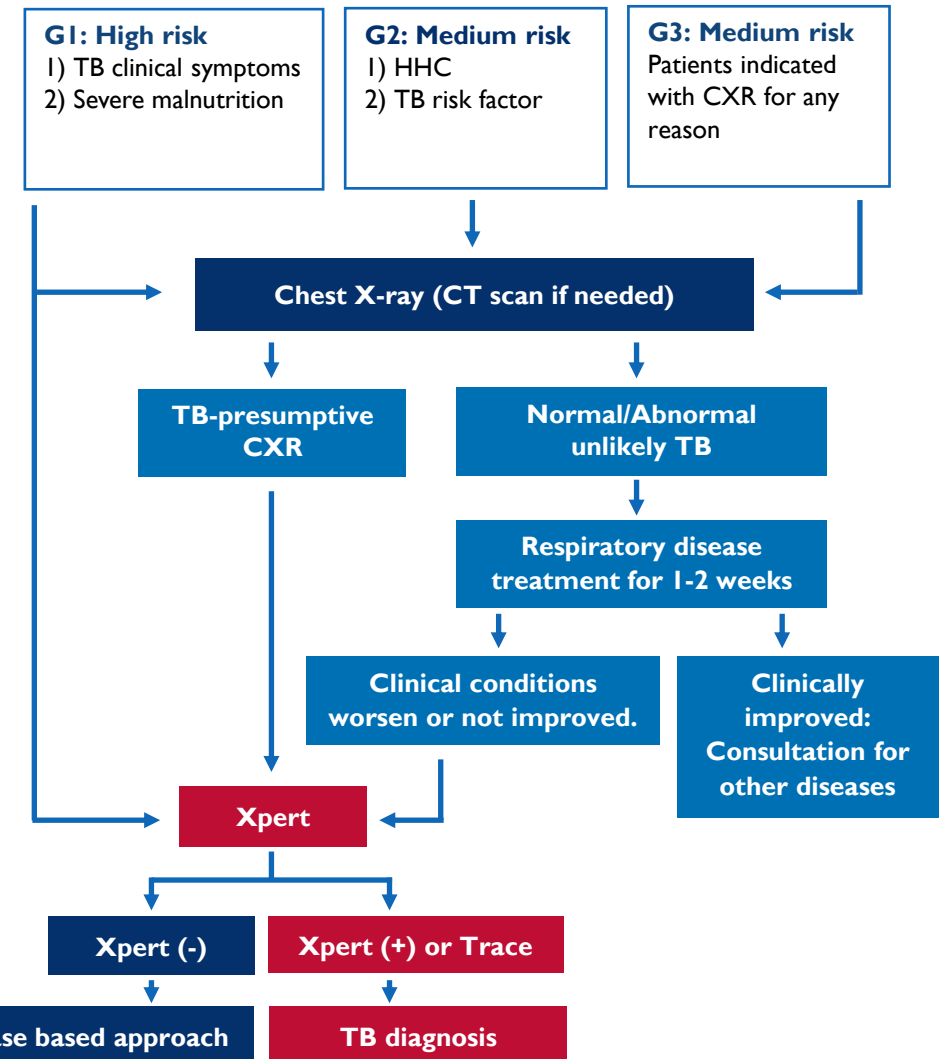
OUTPATIENTS



INPATIENTS

TB risk and symptom assessment

1) TB Clinical symptoms; 2) TB risk factors
(HHC, Previous TB treatment; malnutrition; Immunodeficiency diseases)



#	TB clinical symptoms	TB presumptive Chest X-ray	Contact history with PTB case	TB presumptive Chest CT scan	Response with non-TB antibiotic treatment	Diagnosis decision
1	Yes	Yes	Yes			TB Diagnosis
2	Yes	Yes (highly suggestive)	No			TB Diagnosis
3	No	Yes (highly suggestive)	Yes			TB Diagnosis
4	Yes	No	Yes	Yes		TB Diagnosis
				No		Re-evaluate after 1 month
5	Yes	Yes (less likely)	No		Yes	Re-evaluate after 1 month
					No	TB Diagnosis

Case-based approach for Pediatric TB diagnosis

Upgraded National TB surveillance system

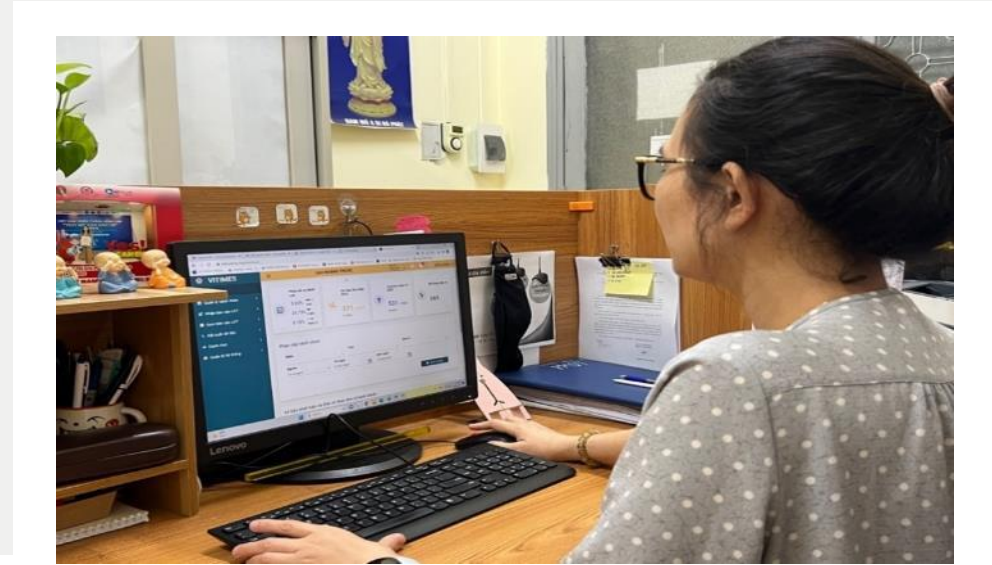


A one for all TB surveillance system, for adult and Pediatric TB :

- DS TB
- DR-TB,
- TBI



Nationwide use of this system started in April 2024



Key functions

Case-based management

Họ tên	CHỖ	Tuổi	Giới tính	Địa chỉ
12	NĐ	Hà Nội, Quận Hai Bà Trưng, Thành Lương	Nam	Bình Phước, Chơn Thành, Minh Thành, NT
4	NĐ	TĐ Hồ Chí Minh, Quận 6, 11, NG Đường Hữu Giang, Phường 11, Quận 6	Nữ	Bình Tân, Thành Phố, An Thạnh, An Ngãi B, 12/17
12	NĐ	Đồng Nai, Long Khánh, Xuân Lạc, Trung Sơn	Nam	Đông Nai, Thành phố Nam Định, Lộc Vương, SF 1/25 Tân Thái Tông
14	NĐ	Nam Định, Thành phố Nam Định, Lộc Vương, SF 1/25 Tân Thái Tông	Nữ	TĐ Hồ Chí Minh, Bình Tân, Bình Hưng Hòa A, 208 Đường 50, Phường Bình Hưng Hòa A, Quận Bình Tân
8	NĐ	TĐ Hồ Chí Minh, Bình Tân, Bình Hưng Hòa A, 208 Đường 50, Phường Bình Hưng Hòa A, Quận Bình Tân	Nữ	Điện Biên, Thành phố Điện Biên Phủ, Mường Thắm, T2 11 - Phường Mường Thắm - Thành phố Điện Biên Phủ - Tỉnh Điện Biên
11	NĐ	Điện Biên, Thành phố Điện Biên Phủ, Mường Thắm, T2 11 - Phường Mường Thắm - Thành phố Điện Biên Phủ - Tỉnh Điện Biên	Nam	Hà Giang, Yên Minh, Ngạc Long, Phường 50 - Ngạc Long - Yên Minh - Hà Giang
12	NĐ	Hà Giang, Yên Minh, Ngạc Long, Phường 50 - Ngạc Long - Yên Minh - Hà Giang		

Reporting

	Giới	Nhóm tuổi				
		0-4	5-14	15-24	25-34	35-44
Nam		196	389	4,664	8,507	11,922
Nữ		97	490	3,584	5,096	4,368
Tổng		293	879	8,248	13,603	16,290
Trong đó HIV(+):		9	22	217	679	780

Dashboard





Lessons learned

Lessons learned



1

Health system:

- Establish linkages between TB and Pediatric care systems, including TA mechanism
- Strengthen capacity through different channels
- Analyze and use data for quality improvement

2

Clinical diagnosis:

- Update guidelines and SOPs, including for Double X and clinical consultations
- Integrate pediatric TB detection into existing systems
- Employ diverse approaches to maximize outreach

3

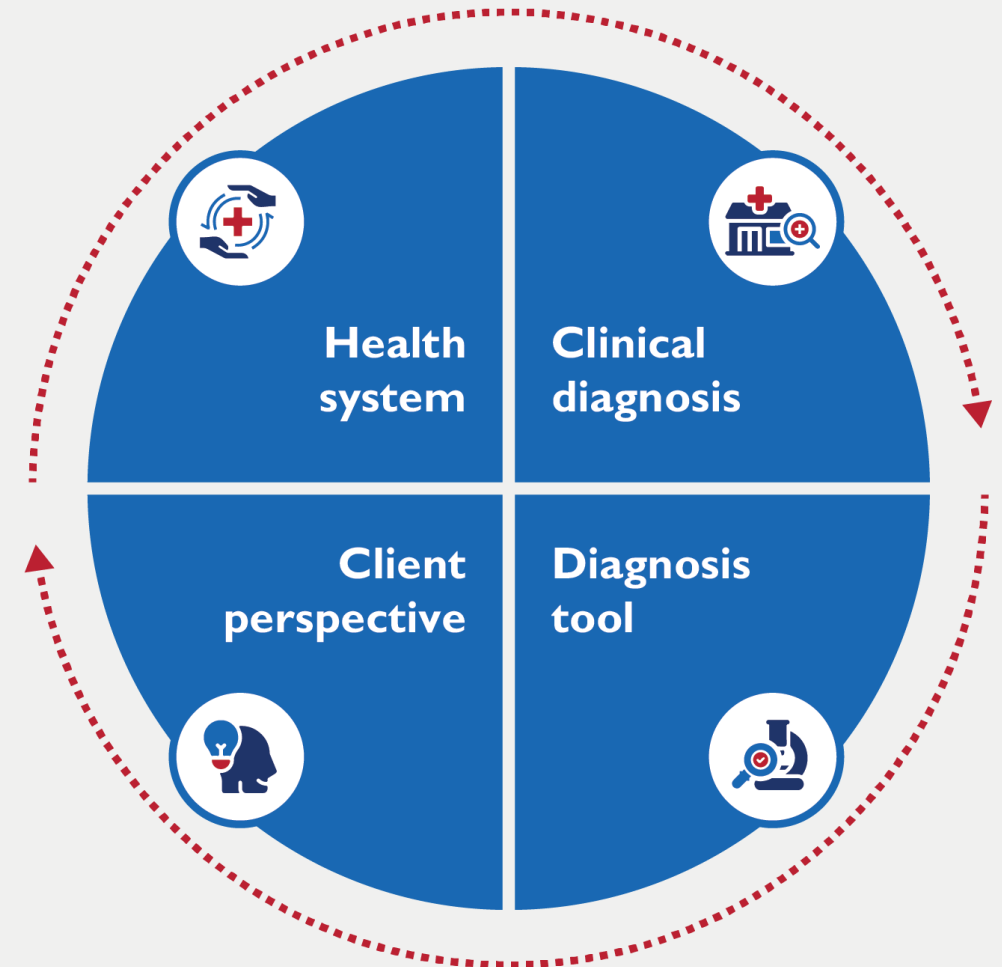
Diagnosis tool:

- Expand specimen types for Xpert testing
- Improve the supply chain

4

Client perspectives

- Raise awareness about TB in children



Acknowledgements

- USAID Vietnam
- FHI 360
- Vietnam National TB program
- Provincial TB Program, Pediatric Hospitals, District General Hospitals in eleven priority provinces - *An Giang, Tay Ninh, Dong Thap, Tien Giang, Can Tho, Khanh Hoa, Soc Trang, Kien Giang, Hau Giang, Binh Duong, Vinh Long*





Thank you!

Thank You

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