TRANSFORMING

PAEDIATRIC TB IN HUMANITARIAN SETTINGS

Lessons, Challenges & Opportunities from:

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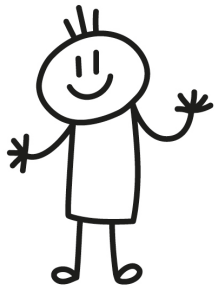


Test Avoid Cure TB in Children

- MSF PAEDIATRIC DAYS 7th EDITION
- AMMAN – JORDAN – NOV 2025
- Daniel Martinez Garcia, MD, MPH, Paediatrician, PHDc

MEDECINS SANS FRONTIERES

Triple Neglect: Child + TB + Setting

Of the 1.3 million children who had TB in 2023 NEARLY HALF remained undiagnosed

Neglected in a Neglected Setting: Children with TB are overlooked, especially within fragile humanitarian systems despite being the largest group in need.

Vertical focus bias: Perceived as a Public Health problem and not a clinical or quality of care one – Paed TB cases not prioritize as less contagious

Broken Health Systems: Conflict and displacement shatter diagnostic, treatment, and prevention services as TB frequently under MoH.

High Risk & Vulnerability: Malnutrition , HIV, overcrowding , <2 y, drastically increase infection & disease progression. The more miserable are the more at risk.

Impossible or limited Diagnosis: Critical shortages of paed tools & trained staff delay or prevent Dx. Difficult to get care for a condition most don't know they have.

A Cycle of Suffering: Stigma, food insecurity, and trauma lead to treatment abandonment and higher mortality. Children's voice forgotten.

DISASTER PREPAR EDNESS AND RESPONSE (IMMEDIATE AND CHRONIC)

PUBLIC AND GLOBAL HEALTH EPIDEMIOLOGY

OUTBREAKS REGULAR & CATCH-UP **VACCINATION**

CLINICAL MEDICINE

HOSPITAL AND PRE-HOSPITAL MANAGEMENT

CONFLICT SETTING MEDICINE

REFERRAL SYSTEMS / TELEMEDICINE

HUMANITARIAN PEDIATRICS AND TB

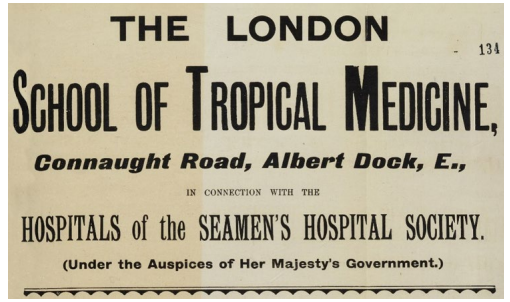
HUMANITARIAN LAW, **SOCIAL ECONOMIC, ANTHROPOLOGICAL POLITICAL, SOCIAL & HEALTH SYSTEMS STUDIES**

BASIC, CLINICAL AND **OPERATIONAL RESEARCH** ACADEMIC AND CIVIL SOCIETY COLLABORATIONS

ADVOCACY, CHILD RIGHTS, PROTECTION, EDUCATION

TRAINING AND LEARNING FOCUS ON LOCAL RESOURCES

NETWORKS AND COMMUNITIES OF PRACTICE



Too many children do not have access to chest X-ray

CHEST X-RAY

- **High sensitivity**
- **Low operational cost**
- **Rapid results**

There is lack of expertise in high TB burden settings to interpret children's chest X-ray images

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DOCTORS WITHOUT BORDERS

60%

OF CHILDREN WITH TUBERCULOSIS WORLDWIDE ARE UNDIAGNOSED

96%

OF CHILDREN WHO DIE WITH TB WERE NOT PUT ON TREATMENT

More kids diagnosed	Shorter treatments	Shorter prevention
Treatment decision algorithms with or without Xray Bacterial tests using stool samples Rapid treatment initiation	4 months treatment for non severe TB Uses the existing, cheap, children's formulations	3 months treatments to prevent TB for household contacts

WHO AND WHERE ARE WE?

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Goal: reduce deaths from TB in children, by increasing the number of children put on treatment and prevention

Unstable projects (Mainly Nut /Paed)

(12 countries > 52 projects) Implementation

(6 sites – 2 studies) Ops Research

(national, international) Advocacy

WHAT ARE WE DOING

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- Assessment: policy, capacity, patient flow, identification of presumptive TB, supply, data collection
- Diagnosis, treatment decision algorithms, Xray, treatment: 4M regimen for non severe TB, TB preventive treatment (TPT)
- Training (clinical), Chest Xray interpretation (online +F2F), awareness
- Integration / Communities of Practice
- Capacity building and mentoring
- Telemed monitoring and case analysis (575+ cases)
- Monitoring sustainability of activities
- We work within and with MSF current systems – trying to avoid duplicating

*TDA: Treatment decision algorithm for diagnosis of TB in children with pulmonary TB
4M regimen: 4 month treatment for non severe drug susceptible TB in children adolescents less than 16 years
TPT: Tuberculosis preventive treatment

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OPERATIONAL RESEARCH: TDAs & new 4M short Regimens

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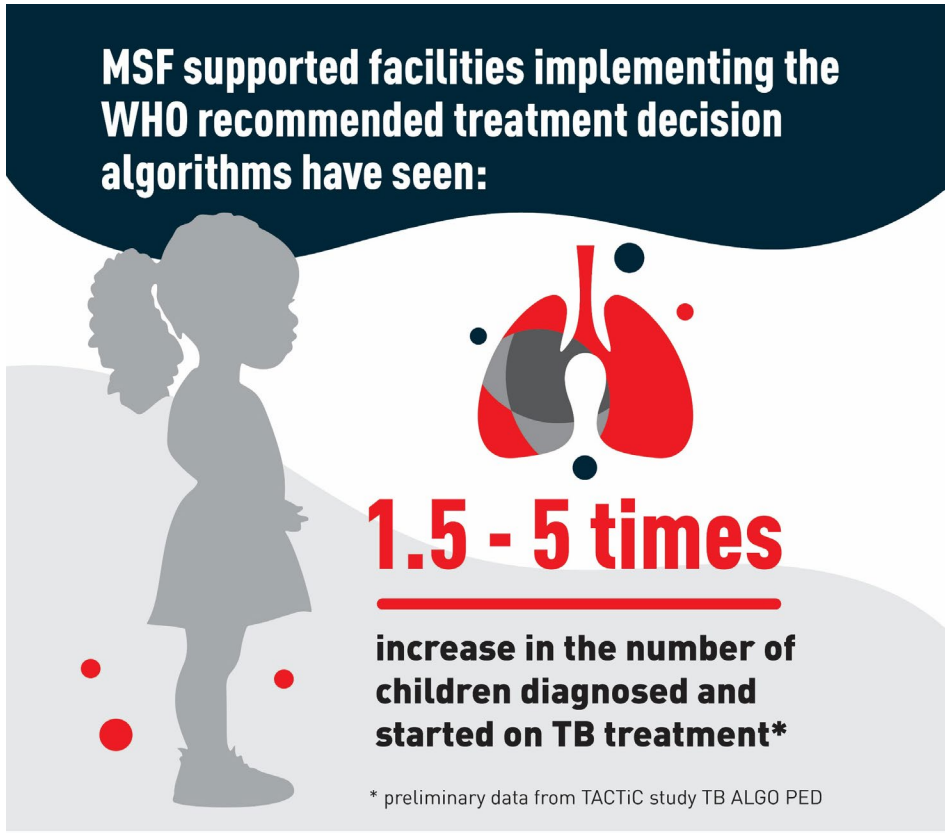
1) TDA feasibility / acceptability (TB AlgoPed Study): High Accuracy

- On average, TDA **double the number** of diagnoses & treatments
- Most common reason to start treatment was **clinical-radiological score**
- Feasible including in settings without Xray

2) 4-month regimen in children: Uptake and feasibility

- Prospective study embedded in TDA study (Ug) / Mixed methods (Phil.)
- High proportion of TB children eligible - feasible even if no X-ray (50-97%)
- Willingness form health workers and community
- Xray reports: not always contain right info => radiographers & radiologists
- CAD diagnosis for children being studied



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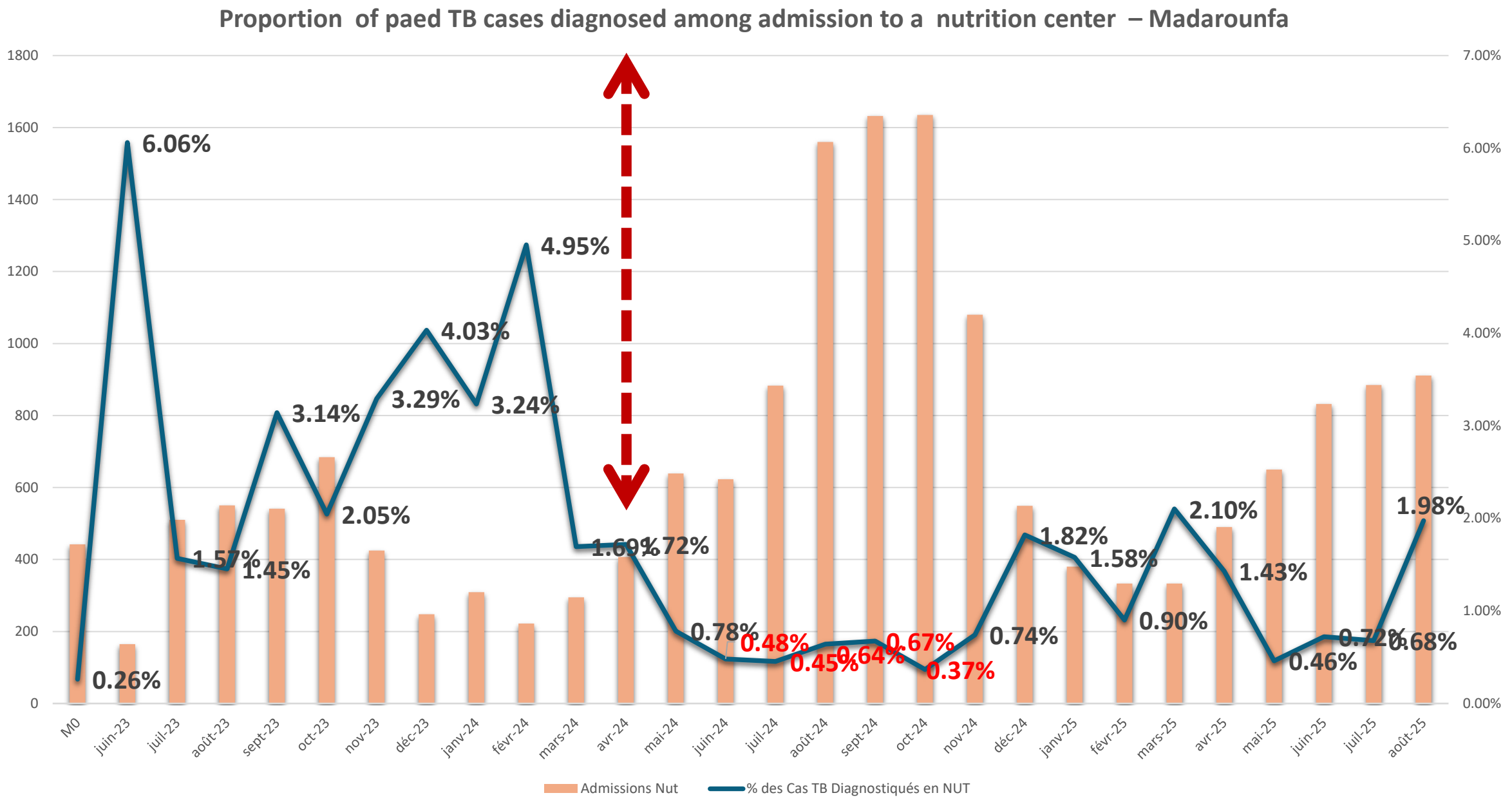
MEDECINS SANS FRONTIERES DOCTORS WITHOUT BORDERS
epicentre ÉPIDÉMIOLOGIE • EPIDEMIOLOGY

PAEDIATRIC TB – RESEARCH VS. IMPLEMENTATION - NIGER

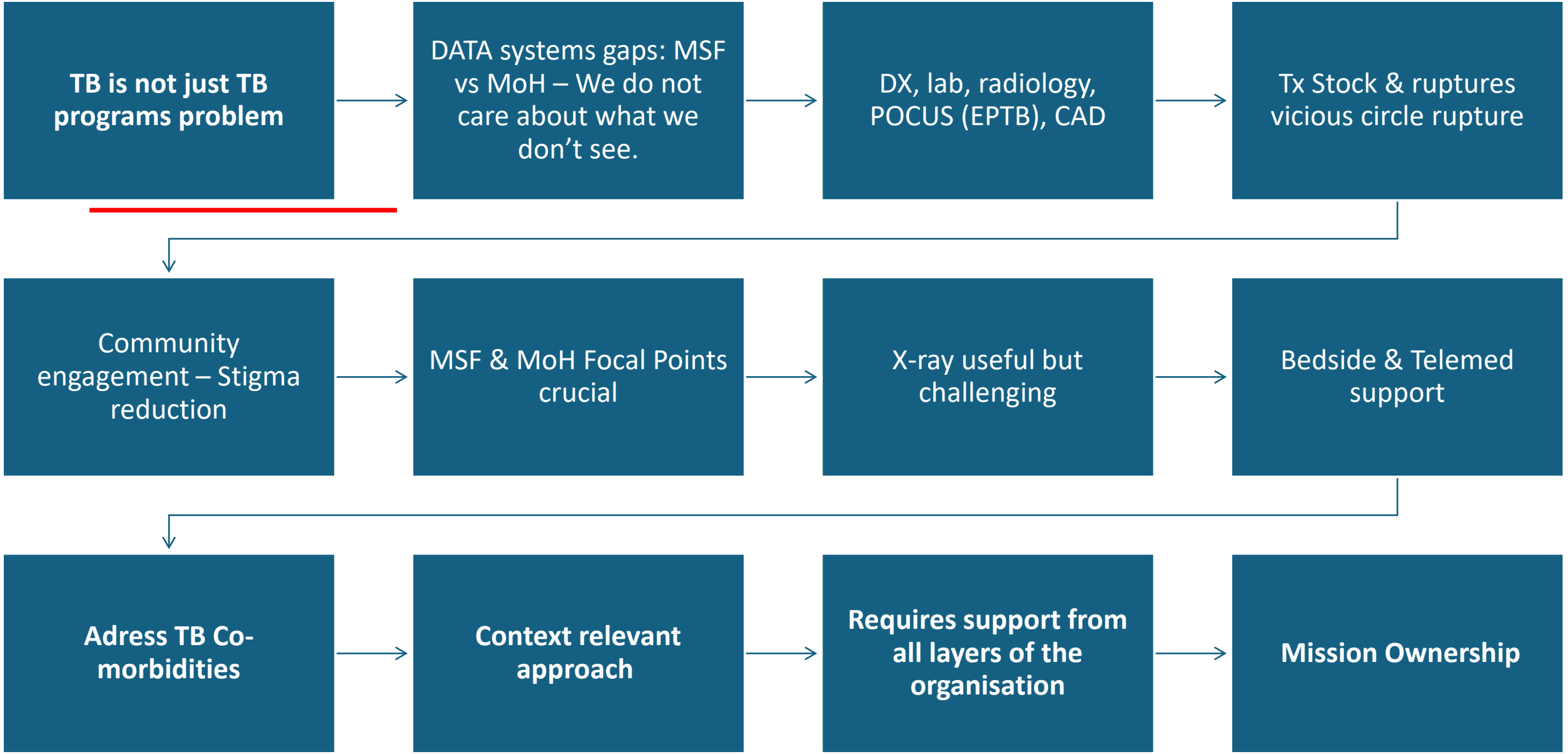


ADVOCACY LESSONS

- **TB programs should NOT BE alone in the fight : Integrate in MCH & Nut**
- More funding cuts coming to already neglected TB programs
- Programs have to adapt to vulnerable populations: displaced, poor.

- Ops Advocacy: political willingness & resources to **implement** & prioritize recommendations & children – **Ownership by Key stakeholders**
- Show the way with policy survey, country briefers, Roadmap & Roundtable

CRITICAL LESSONS: DATA, INTEGRATION & AWARENESS



CHALLENGES

Julius Dada/MSF

- Insecurity, conflict, displacement
- Funding cuts
- Climate change & environmental challenges
- Continuous change in Ops priorities…
- Lack of child friendly formulations available
- Project vs Ops timelines
- High volume of activities and children with malnutrition
- Peaks and outbreaks
- Lack of new tools (Vaccine and CAD not good for children yet)
- No prevention strategies outside of TB projects

OWN THE PAEDIATRIC TB CHALLENGE

- Children with TB remain **invisible** both from vertical and integrated projects - Prioritization is crucial.
- **Not an Ops Choice, but a Real priority in conflict:** Paed TB is already present. Ignoring it does not make it disappear; it silently increase child mortality, morbidity, and ultimately impacts workload and morale.
- **We cannot only treat the child.** A successful outcome demands a **family-centered approach** integrating curative & preventive Tx & nutrition, psychosocial support, stigma reduction & protection.
- **The Treatment Imperative:** Diagnosis creates a responsibility. We have an ethical and programmatic **obligation to ensure a full course of treatment**, not just a one-time diagnosis.
- **No "Passing the Ball":** We cannot in good conscience refer children to a dysfunctional or absent MoH and consider our job done. **We must bridge the gap** to ensure continuity of care.
- The current funding crisis will exacerbate gap : Seize momentum to prepare for the hit
- No project is too complex or too dangerous – We adapt our model to your needs
- If your project rarely reports paed TB cases, you might need to call …

https://www.msf.org/tactic-tuberculosis-children

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