

#### Using GIS data to inform active case finding in the Kulob Zero TB project, Tajikistan

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# Zero TB program in Tajikistan

- Global TB rates are decreasing at an unacceptably slow pace
- We must do something different
- A global movement for comprehensive TB care
- We have successful stories: small administrative units like cities, districts, and islands as the vehicle for this movement
- The goal of the Zero TB Initiative is to create islands of elimination and support local coalitions
- Community-based, patient-centric programs are the only viable approach
- Donors, implementers, campaigns technical partners, and local, regional, and national governments









**Basic principles of epidemic control Search-treat-prevent** 

- Search for newly infected people among the contacts of current patients
- Start the correct therapy quickly for people with disease; give the safest, most effective multi-drug therapy in the shortest time
- Treat all contacts that do not yet have disease with post-exposure prophylaxis
- Ensure adherence to therapy
- Passive case detection is insufficient
- Finding and treating those missing cases will require careful consideration of the gaps that allow these people to fall through the cracks
- GIS tools can help to close the gap





orld Health

Médecins Sans Frontières (MSF) initiated the Zero TB project to demonstrate the feasibility of reducing TB burden through intensified active case finding (ACF) using computer-aided detection (CAD) screening, optimized case management, and preventive strategies.



#### Methods





GIS data collection

#### Results



	ACF screening
Age in years (median)	36
Female sex	64%

	ACF + PCF
Total on treatment	485
CNR (95% CI)	77/100,000 (71-85)
urban vs rural aRR (95% CI)	1.64 (1.14-2.36)
household size aRR (95% CI)	1.05, (1.00-1.11)



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4 km





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# Implications



Spatial analysis facilitates the identification of TB transmission hotspots.

GIS information can be used to optimize targeted, evidence-based TB screening, prevention, and education

In Kulob we identified urban and high population density as factors to consider for Active Case Finding

# **THANK YOU! СПАСИБО!**

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