

## ECDC Project synopsis

# Estimating the burden of tuberculosis infection in the EU/EEA (2024-2027)

## Background

- TB infection (TBI) prevalence has been estimated for Europe, at 11- 15%<sup>1,2</sup>.
- Country-specific TBI estimates are not available for Member States of the European Union/European Economic Area.
- Available TBI estimates for specific at-risk populations are 'fragmented'.

## Relevance

Country-level evidence would better support the development of policy to ensure availability of TB preventative treatment (TPT) to manage TB infection and progression to TB disease.

## Project Purpose

The scope of this project is to estimate the prevalence of tuberculosis (TB) infection and rate of progression to active TB in at-risk groups among selected countries in the EU/EEA.

## Project Objectives

1. To assess the feasibility of generating these estimates in each country of the EU/EEA;
2. To estimate TBI prevalence and rate of progression to active TB in at-risk groups for 6 -9 EU/EEA countries selected based on feasibility;
3. To present TBI prevalence and rate of progression to active to TB in at-risk groups at the national level;
4. To identify key challenges around TBI management and action points for ECDC consideration.

### At-risk populations of interest

- Household and close contacts
- Immigrants and asylum seekers
- People with underlying medical conditions
- Homeless populations
- Additional country-specific risk populations

<sup>1</sup> Houben RMGJ, Dodd PJ (2016) The Global Burden of Latent Tuberculosis Infection: A Re-estimation Using Mathematical Modelling. *PLoS Med* 13(10): e1002152. <https://doi.org/10.1371/journal.pmed.1002152>

<sup>2</sup> Guthmann JP, Haas W. Tuberculosis in the European Union/European Economic Area: much progress, still many challenges. *Euro Surveill.* 2019 Mar;24(12):1900174. doi: 10.2807/1560-7917.ES.2019.24.12.1900174. PMID: 30914075; PMCID: PMC6440586.

## Methodological Approach

Phase 1	Purpose: To identify all the EU/EEA countries in which estimation of TBI prevalence and progression to active TB disease can be done for at least one at-risk group.	
	Step 1: Literature review to assess availability of data in the literature	Spring 2024
	Step 2: Survey to assess potential availability and quality of data → Send to National Focal Points (June 2024)	June- September 2024
	Step 3: Online Focus Group Discussions to assess key challenges in TBI management and future action points → with National Focal Points (October 2024)	October 2024
	Step 4: Determine country-level feasibility for TBI prevalence estimation by using a scoring matrix to rank feasibility based on outcomes of step 1 and step 2	September- November 2024
	Step 5: Disseminate results.	January 2025



Selection of maximum 9 EU/EEA countries based on feasibility assessment  
If >9 countries are eligible for phase 2, geography, population size, and TB burden will be taken into account for the final selection.

Phase 2	Purpose: To estimate TBI prevalence and risk for progression to TB disease per country per population at risk	
	Step 1: Develop generic study protocol.	Winter 2024
	Step 2: Appoint local study teams. Per selected country, a team will be assigned, consisting of a TB epidemiologist, junior epi-statistician and TB modeler from the consortium and a TB focal point and data manager from the country.	Spring 2025
	Step 3: Develop country-specific protocols.	Spring 2025- Spring 2026
	Step 4: Prepare in-country data collection. Identify appropriate sources of data, clean data, and begin to prepare final datasets.	Spring 2025- Spring 2026
	Step 5: Conduct country missions. An in-country data gathering and verification mission will be followed by the at-risk group specific modelling exercises led by the consortium modeler.	Summer/Autumns 2025- 2026
Step 6: Modelling country and at-risk group-specific estimates for TBI prevalence and risk for progressing to TB disease.	Autumn 2025 – Winter 2026	

## Project Outputs

### Phase 1: Feasibility assessment

- Overall report
- Country-specific reports
- Manuscript TBD

### Phase 2: TBI prevalence estimates

- Overall report
- Country-specific reports
- Manuscript

## Country Benefits

Participating countries will benefit by having estimates on TBI prevalence and rate of progression to TB disease, and knowledge and experience to update these estimates when there are changes in at-risk populations, or risk factors.

## Project Consortium



**Consortium lead**

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*(Professor of Global Health & Senior Fellow)*

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*(Physician & Senior Epidemiologist)*



**Prof. Dr. Pete Dodd**  
*(TB modeller)*