

Supplementary Material II: PICOS (Population – Intervention – Comparator – Outcome – Study design)

1. Review question

Which service models and organisational structures, including different types of healthcare workers and settings, are effective and cost-effective for delivering TB services to hard-to-reach populations?

2. PICOS

Population

Hard-to-reach groups in low incidence countries, like:

- homeless people including rough sleepers and shelter users
- people who abuse drugs or alcohol
- sex workers
- prisoners or people with a history of imprisonment
- migrants, including vulnerable migrant populations such as asylum seekers, refugees and the Roma population
- children within vulnerable and hard-to-reach populations
- people living with HIV

Studies focusing on hard-to-reach populations from Organisation for Economic Co-operation and Development (OECD) countries, European Union, European Economic Area (EU/EEA) countries and the EU candidate countries were included.

EU/EEA and candidate countries

1. Albania
2. Austria
3. Belgium
4. Bulgaria
5. Croatia
6. Cyprus
7. Czech Republic
8. Denmark
9. Estonia
10. Finland
11. France
12. Germany
13. Greece
14. Hungary
15. Iceland
16. Ireland
17. Italy

OECD countries

1. Australia
2. Austria
3. Belgium
4. Canada
5. Chile
6. Czech Republic
7. Denmark
8. Estonia
9. Finland
10. France
11. Germany
12. Greece
13. Hungary
14. Iceland
15. Ireland
16. Israel
17. Italy

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| 18. Latvia | 18. Japan |
| 19. Liechtenstein | 19. Korea |
| 20. Lithuania | 20 Luxembourg |
| 21. Luxembourg | 21. Mexico |
| 22. Malta | 22. Netherlands |
| 23. Montenegro | 23. New Zealand |
| 24. Netherlands | 24. Norway |
| 25. Norway | 25. Poland |
| 26. Poland | 26. Portugal |
| 27. Portugal | 27. Slovak Republic |
| 28. Romania | 28. Slovenia |
| 29. Serbia | 29. Spain |
| 30. Slovakia | 30. Sweden |
| 31. Slovenia | 31. Switzerland |
| 32. Spain | 32. Turkey |
| 33. Sweden | 33. United Kingdom |
| 34. The former Yugoslav Republic of Macedonia | 34. United States |
| 35. Turkey | |
| 36. United Kingdom | |

Studies that did not specifically look at any of these target populations or were conducted in a different geographical area were excluded.

Intervention

This review aimed to collect evidence on all areas of interventions targeting service structures and service models for the identification and management of TB in vulnerable and hard-to-reach populations. These interventions can cover activities to improve TB services for screening, active case finding or TB management.

Predefined interventions included in the protocol were:

- Using different locations like:

- Hospitals
- Specialised TB clinics
- Shelters for homeless people
- Needle/syringe exchange programmes
- Locations that combine care: providing treatment for drug addiction, medical care, HIV care
- Large general practises
- Port of arrival
- Schools
- Mobile clinics
- Prisons

- Using different type of health care workers like:

- Doctors
- Nurses
- Community health workers
- Peers
- People from the same background

- Others

- Family based DOTS programs
- Social care support and general interventions
 - Provision of housing
 - Nutritional programmes
 - Addressing challenges related to immigration from high-TB burden countries
 - Addressing inequalities and socioeconomic deprivation
- Collaboration with alternative, traditional, and / or spiritual medicine

Comparator

Not relevant.

The comparator was re-defined during the review process into:

Standard care.

Outcome

The outcome measures were quantitative outcomes focusing on the effectiveness and/or cost-effectiveness of service structures and service models aiming to identify and manage TB in hard-to-reach populations in low incidence countries, including a qualitative description of these interventions.

Study design

Randomised controlled trials (RCTs) focusing on service models and organisational structures on the selected hard-to-reach populations were included. Since it was very likely that few RCTs would be identified, we also included non-randomised studies like, but not exclusively, case-control studies, cohort studies, cross-sectional studies and observational studies. Quantitative and qualitative studies were included. Systematic reviews were included for reference checking only.

3. Further notes on PICOS

For this systematic review of interventions with a scoping component, a very broad and sensitive search was conducted to cover a wide range of interventions. Predefined interventions were included in our registered protocol but the list of interventions was not exclusive and interventions were added to the list during the review process. Supplementary Material I reflects the registered protocol. Changes made during the implementation of the systematic review protocol are stated at the end of each section.