

# Checklists for screening for active tuberculosis in high-risk groups

## General screening program considerations

*The following are aspects of design and implementation that should be considered before planning and initiating a systematic screening program.*

### Background information:

- Previous screening activities for the area/population to be screened, and results (yield, costs, cost-effectiveness, treatment outcomes)
- Epidemiology of the population to be screened (population size, estimated TB prevalence, prevalence of TB risk factors)
- Existing health services in the area/population to be screened (including TB diagnostic and treatment services, community health workers, patient/family support services)
- Current level of access to care (and TB services) among the population to be screened
- Existing national/subnational guidelines on TB diagnosis, treatment, and active and passive TB case-finding activities

### Stakeholder buy-in, linkage with relevant groups:

- Any organizations currently providing health or welfare services to the population to be screened
- Community leaders (religious, commercial, political) who can be potential allies to the screening program
- Providers/health workers who will perform the screening and/or provide follow-up diagnostic and treatment services to those diagnosed

### Resources for implementation:

- Estimated funding required for the screening program, estimated available funding, additional potential sources of funding for screening
- Required human resources capacity, available human resources
- Availability of TB treatment

### Development of program:

- Reach and scope of the screening program
- Design of the program (clinic-based, home visits, mobile clinic/laboratory, health fair, etc.)
- Screening algorithm to be used
- Linkage of symptomatic/sick to the health facility for initiation of treatment, treatment monitoring, and patient support
- How will consent be ensured?
- How will issues of potential stigma or negative social consequences of screening be mitigated?

- Provision of incentives/enablers?

#### Roles & responsibilities

- Personnel to conduct the contact investigations
- Personnel for data entry, management, monitoring, and analysis
- Overall program management, coordination, and trouble-shooting

#### Development of monitoring & evaluation system:

- Key information to be collected, corresponding to program's goals & objectives
- Data collection tools and a database system
- Indicators to be monitored and level at which they will be monitored (local, national, global)
- System for analysis & reporting

#### Implementation:

- Creation of protocols and tools
- Hiring & training staff for all identified roles
- Procurement of additional TB medicines
- Pilot-testing of program
- Initial evaluation of program
- Revising program as necessary
- Scale-up of program after revision

#### Evaluation:

- Ongoing monitoring for screening program implementation and performance, including indicators to be used
- Outcomes analysis for achievement of screening program's stated goals & objectives, including indicators to be used
- Mathematical modelling to estimate screening program's achieved and potential impact on incidence & prevalence in the targeted community
- Feedback on acceptability of screening program from population/area being screened

## **Additional considerations for screening programs in specific high-risk groups**

### ***HIV/VCT clinic attendee screening***

For details, see “Guidelines for intensified tuberculosis case-finding and isoniazid preventive therapy for people living with HIV in resource-constrained settings”

([http://who.int/tb/challenges/hiv/ICF\\_IPTguidelines/en/](http://who.int/tb/challenges/hiv/ICF_IPTguidelines/en/))

- Demographic and clinical profile of clinic attendees, including rate of repeat visits and current level of screening for TB
- Existing TB diagnostic services available to HIV/VCT clinic attendees, both at clinic facility and at other primary health facilities, and level of access to TB diagnostic services by HIV/VCT clinic attendees
- Algorithms to be used for patient population with high HIV prevalence

### ***Contact investigation***

For details see “Recommendations for Investigating Contacts of Persons with Infectious Tuberculosis in Low- and Middle-Income countries”

([http://apps.who.int/iris/bitstream/10665/77741/1/9789241504492\\_eng.pdf?ua=1](http://apps.who.int/iris/bitstream/10665/77741/1/9789241504492_eng.pdf?ua=1)) and the associated “Adaptation and Implementation Guide” (<http://www.tbcare1.org/publications/>)

- Model of contact investigation – home visit (active investigation) or clinic-based (contact invitation)
- Definition of index cases for whom to conduct contact investigation, and which index cases to be prioritized for contact investigation
- Definition of contacts to be investigated, and which contacts to be prioritized for investigation and evaluation
- Time frame after diagnosis of index case for conducting investigation
- Addressing potential barriers for prioritized contacts to reach health centre for evaluation – sputum transfer, transportation assistance, provision of incentives/enablers, etc.
- Provision of preventive treatment of latent TB infection to high risk contacts in whom active disease is ruled out

### ***Screening in migrants***

- Description of migrant population (cross-border vs. internal, pre-migration visa applicants, demographic characteristics, socio-economic profile, etc.)
- Estimated size and distribution of targeted migrant population, including estimates of predicted migrant flows per month/year
- Which migrants are to be screened – all or specific subgroups?
- Description of current tracking mechanisms, if any, for cross border and internal migration of people with TB
- Description of local policy on treatment availability to people who are not residents
- Assessment of deportation laws around people with TB

- Structure of existing migration/refugee services in general and health care services specifically, including screening programs and services
- Coordination with border control and immigration services
- Timetable of migrant screening:
  - When to screen the migrant – pre entry, at entry, at exit, repeatedly?
  - Hours of operation of migratory services/border surveillance
  - Host screening by referral at certain points throughout day/week/month or continuously?
- Possible combination with screening for latent TB infection, in case of immigrants from high-incidence to low-incidence countries.

### ***Community-based screening***

- Existing health services available to community, specifically TB diagnostic and treatment services, and accessibility of community to those services
- Model of provision of services (door-to-door, mobile vans, health fairs, provision through existing community organizations, etc.)
- Equipment necessary to perform screening (mobile vans, portable clinics, etc.)
- Defining who will be included in screening program
  - Geographical boundaries to targeted area?
  - Any demographic/clinical inclusion criteria?
  - Screening in children?
- Linkage of symptomatic/sick contacts to the health facility for initiation of treatment, treatment monitoring, and patient support

### ***Health centre-based screening***

- Demographic and clinical profile of patient population, including rate of repeat visits
- Definition of outpatient attendees to be included in screening program
  - Only those with risk factors?
  - How to determine who meets inclusion criteria?
- Estimated smear status of missed cases among patient population to be screened and consideration of sensitivity/specificity of screening and diagnostic tests to be used, in terms of potential additionality of screening beyond current case detection
- Buy-in from health centre staff, in particular:
  - Clinic providers and staff involved in administration and patient flow
  - Laboratory staff
  - TB clinic staff in charge of treatment supervision and patient support

### ***Prison screening***

- Demographic and clinical profile of prison population, including estimated prevalence of TB and of other TB risk factors
- Existing prison health services, including and specifically TB screening services
- Timing of TB screening, including entry, repeat, exit screenings

- Buy-in from penitentiary administrators and prison health system
- Policy and practice for linkage with health services outside prison, after release

### ***Shelter/refugee camp screening***

- Demographic and clinical profile of shelter/refugee population, including estimated prevalence of TB and of other TB risk factors
- Definition of shelter residents to be included in screening program - all, or those with other risk factors?
- Existing health services, if any, available to shelter/refugee population
  - Any existing TB screening services available and accessible?
  - Any TB diagnostic service providers that could be incorporated into a screening program?

### ***Screening health care workers***

- Demographics of the healthcare worker population to be screened, including number of healthcare workers, their level of exposure to TB, and the prevalence of any other TB risk factors
- Definition of health care workers to be included in screening program
- Level of infection control currently offered to healthcare workers
- Health services currently offered to healthcare workers, including TB screening (and frequency of screening)
- Healthcare worker community buy-in to TB screening and preventive treatment if applicable