

BMJ Open Tuberculosis contact investigation in African Portuguese-speaking countries at End TB Strategy era: a scoping review

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ABSTRACT

Objectives The contact investigation of tuberculosis (TB) index case is one of the critical elements pointed by the WHO to reach the end of the TB epidemic. The scoping review aimed to map out the recommended and the adopted processes applied to active contact investigation of TB index case in African Portuguese-speaking countries (PALOP).

Design Scoping review.

Data sources We searched B-on, Cochrane Library, PubMed, Web of Science, Scopus, WHOLIS, IRIS, OKR, each country's Ministry of Health websites, WHO, Global Fund, World Bank and bibliographic reference lists from February to May 2020.

Eligibility criteria All available literature on TB contact investigation in each country part of PALOP (Angola, Cape Verde, Guinea-Bissau, Mozambique and Sao Tome and Principe) published from 1 January 2010 to 31 January 2020.

Data extraction and synthesis A data-charting form was developed to extract data on documents' characteristics and variables pertinent to the TB contact investigation process. Before qualitative analysis, we thematically synthesised findings and converted them into appropriate text units.

Results Fifteen documents were included in the scoping review. The recommended processes for TB contact investigation were identified only for Cape Verde and Mozambique. It included clinical evaluation, counselling and testing for HIV, chest radiography, tuberculin skin test, sputum smear microscopy or Xpert MTB/RIF. The adopted processes were detected only in research studies from Angola, Guinea-Bissau and Mozambique. Therefore, they cannot be assumed as adopted within the scope of the national programmes of the respective countries.

Conclusion This review highlights the scarcity of references on TB contact investigation in PALOP at the End TB Strategy era. Furthermore, it is well clear the importance of an information system that provides actual data for assessing the real impact of such interventions in controlling the disease in African Portuguese-speaking countries.

INTRODUCTION

Despite all the efforts to achieve its control, tuberculosis (TB) remains a serious public health problem worsened by TB/HIV coinfection and the emerging forms of resistant TB,¹

Strengths and limitations of this study

- The first review focused on recommended and adopted processes on active contact investigation of the TB index case in African Portuguese-speaking countries (PALOP).
- We performed a comprehensive literature search with no restrictions to language, study design or source of information.
- A critical appraisal of the articles had not been performed prior to inclusion once it is an optional step for scoping review.

all known by African Portuguese-speaking countries. In 2019, an estimated 10.0 million new cases of TB and about 1.41 million TB deaths occurred.¹ In addition, it is estimated that about three million people per year remain undiagnosed or do not receive proper treatment.¹

The End TB Strategy, launched by WHO in 2015, aims to reduce 95% in the absolute number of TB deaths and a 90% reduction in TB incidence rate by 2035, compared with 2015.² One of the strategy's pillars is the early diagnosis of TB, including universal drug-susceptibility testing and systematic screening of contacts and high-risk groups.² In addition, one of its priorities is contact investigation coverage equal to or greater than 90% for contacts of bacteriologically confirmed TB cases.²

TB index case is the first identified case of new or recurrent TB in a specific setting, representing the starting point of the contact investigation process.³ For low-income and middle-income countries (LMICs), WHO suggests investigation of household and close contacts of every pulmonary TB case and recommends that contact investigation be conducted whenever the index case: (1) presents pulmonary TB with positive sputum smear microscopy; (2) presents proven or suspected multidrug-resistance tuberculosis (MDR-TB), or extensively drug resistance



tuberculosis (XDR-TB), (3) is a person living with HIV (PLHIV) or (4) is a child <5 years of age.³ In addition, however, WHO addresses that the screening processes of TB contacts should be considered whenever available operational capacity and resources for so, and also when the country's treatment success rate is equal to or greater than 85%.³

More than 95% of incident cases and deaths due to TB occur in LMICs.⁴ Angola, Guinea-Bissau and Mozambique are high TB-burden countries with incidence rates ranging from 351 to 361 new cases per 100 000 people/year in 2019. In contrast, Cape Verde and Sao Tome and Principe present lower TB incidence rates, ranging from 46 to 114 new cases per 100 000 people/year, in 2019.¹ They are LMICs that share Portuguese as the official language and are known as African Portuguese-speaking countries (PALOP).

In the TB context, the standardisation, adoption and maintenance of periodic actions to mitigate the incidence and prevalence of the disease in a given area are fundamental components of TB control. The active contact investigation (ACI), from the TB index case, aims at the early diagnosis and treatment of new TB cases, mainly pulmonary TB, in a moment when contacts are still asymptomatic or experience few symptoms and are less infectious.⁵ Shortening the duration of infectiousness and the diagnosis delay can minimise TB transmission, which is essential to reach the end of the global TB epidemic. Furthermore, ACI hastens identifying people with latent tuberculosis infection (LTBI) and HIV infection who are eligible for TB preventive therapy and those with risk factors requiring follow-up.⁶ The active investigation mainly implies screening outside health facilities.⁷ Once it transfers the responsibility of the starting process to the healthcare service, limited resources (human, technical and financial) can quickly impair the operation. The ACI provides health, social and economic individualised benefits⁷ by expanding therapeutic options and reducing the risk of poor treatment outcomes. Thus, it can reduce TB morbidity and mortality and TB's economic and social impact.^{8,9}

Motivated by the heterogeneous TB scenario in PALOP, we conducted a scoping review to systematically map the literature available on contact investigation of the TB index case in a context that has not been reviewed comprehensively before. Thus, we sought to answer:

1. Which are the recommended processes for ACI of TB index case in African Portuguese-speaking countries?
2. How does ACI of TB index case operate in African Portuguese-speaking countries?

PROTOCOL

A study protocol was developed as a prerequisite of a master's degree thesis in Public Health and Development at Instituto de Higiene e Medicina Tropical, Universidade Nova de Lisboa, Portugal. No registration was performed.

METHODS

Eligibility criteria

We conducted the review per methods described by Arksey and O'Malley¹⁰ and presented our results following Preferred Reporting Items for Systematic Reviews and Meta-Analysis Extension for Scoping Reviews (PRISMA-ScR)¹¹ reporting guidelines (the checklist is provided as online supplemental file 1). We searched the literature to identify available information on TB contact investigation published from 1 January 2010 to 31 January 2020 in each country part of PALOP: Angola, Cape Verde, Guinea-Bissau, Mozambique and Sao Tome and Principe, considering definitions of TB contact and TB case; description of recommended and adopted processes and identifying barriers and facilitators to the contact investigation. There was no restriction to language, study design or source of information. We excluded studies of other countries (not PALOP), studies not focused on TB contact investigation and studies published outside the pre-established period (except government-endorsed norms still in force in the considered period).

Information sources and search strategy

From February to May 2020, we searched B-on (1 January 2010 to 31 January 2020), Cochrane Library (January 2010 to January 2020), PubMed (1 January 2010 to 31 January 2020), Web of Science (2010 to 2020), Scopus (2010 to 2020), WHOLIS (2010 to 2020), IRIS (2010 to 2020) and OKR (2010 to 2019) databases; each country's Ministry of Health websites (no date specified); WHO (2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019); Global Fund (2010 to 2020); World Bank (2010 to 2019) and screened bibliographic reference lists. The last search was run on 11 May 2020 (online supplemental file 2). The search strategy was drafted by the reviewers' team (RBRL, RMR and CC), performed by one reviewer (RBRL) and counted with initial experienced librarian guidance. In addition, we contacted experts to request relevant documents and the names of key informants in each country considered.

Document selection process

Two reviewers (RBRL and RMR) screened and selected independently the titles and abstracts retrieved through electronic databases. In case of disagreement, we obtained the full text, and the third reviewer's opinion (CC) decided the study's selection. Finally, RBRL screened the retrieved TB policy documents recovered through government and international institutional websites. Whenever policy documents' title/abstract was not clear enough for inclusion decision, we applied a software reading tool to search for specific terms: 'case finding', 'caso', 'caso índice', 'index case', 'contact', 'contacto', 'contact tracing', 'contato', 'despistagem', 'rastreo', 'screening', 'tuberculosis', 'tuberculose', 'TB' and the name of each country in Portuguese and English languages.

Data charting process

A data-charting form was developed by CC and agreed on by the group. RBRL independently charted the data, discussed the results with the team and updated the data chart. We extracted data on documents' general characteristics (title, author, country of origin, publication date, type of document, population) and specific ones (aims, methodology, results, conclusions, TB case and TB contact definitions; TB recommended and adopted contact investigation processes, barriers and facilitators to TB contact screening). Data on recommended and adopted TB contact investigation processes were comprehensively screened after full-text reading of selected documents. Any mention of the process of contact tracing, such as number of close contacts of a notified adult smear-positive pulmonary TB, number of tuberculin skin tests (TST) applied, number of chest X-rays performed, was considered for the analysis.

Synthesis of results

The collected data were organised in thematic categories: TB index case definition, TB contact definition, contact investigation recommended process, contact investigation adopted process, barriers and facilitators to contact investigation process. Subsequently, this information was converted into appropriate text units.¹²

Patient and public involvement

Patients were not involved in this research.

RESULTS

Sources of evidence

Among 2562 potential citations identified, we selected 15 documents for inclusion in the review (flow diagram, figure 1), among published studies and policy documents (table 1). The relevant data thematically charted for each source of evidence included can be found in online supplemental file 3.

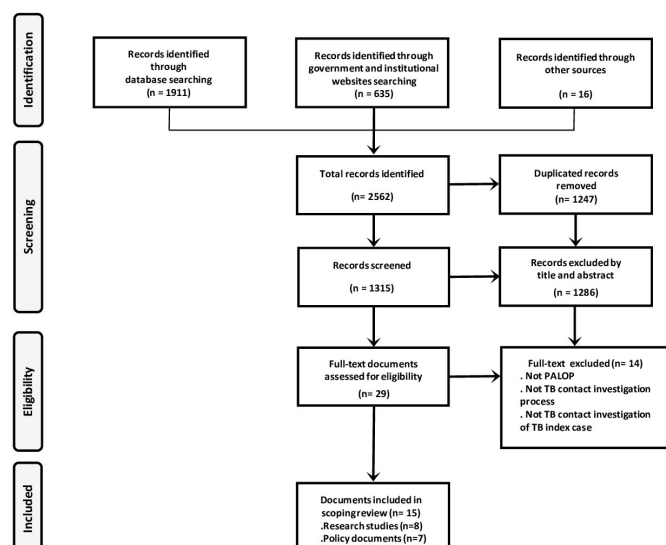


Figure 1 Flow diagram of document selection.

Definition of the TB index case

Definitions of index case in the selected documents were heterogeneous. While some studies presented definitions based on microbiology,^{13–17} others presented definitions based on TB case records,^{18,19} notified pulmonary TB cases²⁰ and clinical diagnoses of TB.^{13–15} The full reading of each policy document was necessary due to the absence of direct and evident definitions. The heterogeneity of concepts attributed throughout the text confers a non-standardised character to the index case, such as ‘bacillary tuberculosis’, ‘BK positive patient’, ‘adult with tuberculosis’,²¹ as well as definitions based on an association of clinical and microbiology findings.^{22,23}

Definition of TB contact

In research studies included in this review, the paediatric age group was the target population to be investigated as contacts. The definition of TB contact varied among studies from exclusive home character, regardless of being a household or cohabitant^{13–15,19,20} to exposure to a case of TB without mentioning the intensity, frequency or proximity of the contact.¹⁸ However, two works were straightforward about the definition of TB contact as a child with close contact with a patient with pulmonary TB and positive sputum smear microscopy.^{16,17} Policy documents addressed TB contact to be investigated whenever a household, a cohabitant or a person sharing the same environment for several hours with the case of TB (independently of the sputum smear result).^{21–27}

Recommended processes on TB contact investigation

Most of the countries included in the review lack guidance on TB contact investigation. Consequently, documents identified and included in the review were centralised in two countries and are summarised in table 2.

Adopted processes on TB contact investigation

No policy documents or official references were detected, such as activity reports, identifying screening actions adopted in PALOP. Therefore, the processes summarised in table 3 refer to the documents included as published research studies. The main results of each included study are outlined in online supplemental file 4.

Barriers and facilitators to TB contact investigation

Two research studies conducted in Guinea-Bissau and Angola addressed the obstacles of TB contact investigation.^{14,18} They emphasise technical barriers such as radiological examinations of poor technical quality and failure to read the TST, and sociocultural factors such as parents' refusal to carry out complementary protocol tests on children, migration, absence of domicile and absence from schedule appointments. Facilitators were identified in one study of Guinea-Bissau as weekly health education sessions for all patients admitted to the hospital, reinforced daily by conversations with a psychologist and a social worker, sensitising the patient about the importance of the early screening of contacts from an adult pulmonary TB case.¹⁹

Table 1 Characteristics of sources of evidence included in the scoping review

Author/date	Country	Type of document	Title	Population target
Patsche <i>et al</i> ¹⁵ 2017	Guinea-Bissau	Research study	Low prevalence of malnourishment among household contacts of patients with tuberculosis in Guinea-Bissau	People ≥15 years
Bosa <i>et al</i> ¹⁹ 2017	Guinea-Bissau	Research study	Feasibility and effectiveness of tuberculosis active case-finding among children living with tuberculosis relatives: a cross-sectional study in Guinea-Bissau	Children
López-Varela <i>et al</i> ¹⁶ 2016	Mozambique	Research study	Low paediatric tuberculosis case detection rate in Southern Mozambique	Children <3 years
López-Varela <i>et al</i> ¹⁷ 2015	Mozambique	Research study	Incidence of tuberculosis among young children in rural Mozambique	Children <3 years
Gomes <i>et al</i> ¹⁴ 2013	Guinea-Bissau	Research study	Impact of isoniazid preventive therapy on mortality among children less than 5 years old following exposure to tuberculosis at home in Guinea-Bissau: a prospective cohort study	Children <5 years
Gomes <i>et al</i> ¹³ 2011	Guinea-Bissau	Research study	Impact of tuberculosis exposure at home on mortality in children under 5 years of age in Guinea-Bissau	Children <5 years
Gomes <i>et al</i> ²⁰ 2011	Guinea-Bissau	Research study	Adherence to isoniazid preventive therapy in children exposed to tuberculosis: a prospective study from Guinea-Bissau	Children <15 years
Fortunato <i>et al</i> ¹⁸ 2011	Angola	Research study	Screening and follow-up of children exposed to tuberculosis cases, Luanda, Angola	Children <5 years
Ministério da Saúde de Moçambique <i>et al</i> ²⁶ 2019	Mozambique	Policy document	Avaliação e Manejo de Pacientes com Tuberculose – Protocolos Nacionais, Moçambique (Assessment and Management of Tuberculosis Patients - National Protocols, Mozambique)	General
Ministério da Saúde de Moçambique <i>et al</i> ²⁵ 2019	Mozambique	Policy document	Manual para o Manejo da Tuberculose na Criança, Adolescente e Mulher Grávida, Moçambique (Manual for the Management of Tuberculosis in Child, Teenager and Pregnant Woman, Mozambique)	Child, teenager and pregnant woman
Ministério da Saúde de Moçambique <i>et al</i> ²³ 2019	Mozambique	Policy document	Directriz para Atividades Comunitárias para Tuberculose, Moçambique (Guideline for Community Activities for Tuberculosis, Mozambique)	General
Ministério da Saúde de Cabo Verde <i>et al</i> ²⁷ 2014	Cape Verde	Policy document	Plano Estratégico Nacional de Luta contra a Tuberculose 2015–2019, Cabo Verde (National Strategic Plan to Fight Tuberculosis 2015–2019, Cape Verde)	General
Ministério da Saúde de Moçambique <i>et al</i> ²² 2013	Mozambique	Policy document	Manual de Tuberculose Infantil de Moçambique (Mozambique Infant Tuberculosis Manual)	Children
Ministério da Saúde de Cabo Verde <i>et al</i> ²¹ 2012	Cape Verde	Policy document	Guia Técnico de Controlo da Tuberculose de Cabo Verde (Cape Verde Technical Guide to Tuberculosis Control)	General
Ministério da Saúde de Moçambique <i>et al</i> ²⁴ 2009	Mozambique	Policy document	Manual de Diagnóstico e Tratamento de Tuberculose Resistente e Multi-Droga Resistente de Moçambique (Mozambique Manual for the Diagnosis and Treatment of Resistant and Multi-Drug Resistant Tuberculosis)	General

DISCUSSION

The challenges of TB control in African Portuguese-speaking countries

In resource-limited scenarios, TB management relies primarily on passive case finding, meaning diagnosing and treating symptomatic patients as the primary means of containment of the continuous transmission of TB.²⁸ In these settings, TB contact investigation is inconsistently carried out²⁹ while included in national TB control programmes. These findings may justify the small number

of retrieved documents addressing contact screening in PALOP in the last 10 years.

Although there is a paucity of national guidelines on TB management for most PALOP, the policy documents identified seek to cover essential topics of TB control. Still, they lack specificity in operational definitions (index case's or contact's definitions), which can lead to non-standard procedures and can threaten the performance of the TB control programme.²⁹ In addition, we did not detect official data regarding practices implemented

Table 2 Summary of recommended processes on TB contact investigation in PALOP

	Cape Verde ^{21 27}	Mozambique ^{22 24–26}
Nature of the attendance of the contact to the healthcare unit	Active contact tracking (home visit or workplace visit)	Active contact tracking based on the indications provided by the index case (home visit for household contacts of patients with TB or summoning)
Screening algorithm	HIV testing and Chest X-ray or Sputum smear microscopy or Erythrocyte sedimentation rate or Tuberculin skin test (TST)	Clinical evaluation (epidemiology history, presumptive TB signs and symptoms) Complementary tests depending on the clinical picture presented and the availability of the method (chest X-ray, tuberculin skin test, sputum smear microscopy, Xpert MTB/RIF test, culture-based methods for drug susceptibility testing and line probe assay)
Contact follow-up	Not mentioned	Two years follow-up for children under 15 years

HIV, Human Immunodeficiency Virus; Xpert MTB/RIF, Molecular test that detects *Mycobacterium tuberculosis* and rifampicin resistance simultaneously; TB, tuberculosis.

or results achieved on TB contact investigation for any PALOP, which can be interpreted as the absence of TB contact investigation or difficulty in recovering data from the field.

The adopted processes point to a gloomy reality of a significant prevalence of active TB, TB/HIV coinfection and a high mortality rate among children exposed to a pulmonary TB case (eg, 100% of TB/HIV coinfecting children evolved to death in the selected study from Angola).^{13 14 16–19} A dreadful but avoidable scenario. In this sense, active TB contact investigation plays a critical part in reducing unfavourable outcomes by early diagnosing active TB, HIV infection and LTBI. Notwithstanding, the good news is that they have also shown how effective and viable it is to screen contacts when supported by available resources, an information system, committed health professionals and health education classes.^{13 14 18 19}

Contact investigation

ACI plays an essential part in TB prevention and control,² and it was the principal approach observed in the analysed documents, mainly in published research studies.

Passive contact investigation, a patient-initiated pathway to TB investigation, shows a low contact coverage³⁰ even in areas with well-structured TB programmes.⁹ The passive route usually implies a situation in which patients self-report to a health facility to get screened, generally when they become ill.⁷ Nevertheless, it seems to be the principal approach to TB contact investigation in PALOP, as in our review, there was a lack of local policy documents orienting active investigation processes. Once this route depends on the spontaneous search for healthcare and the contact's perceptions about the susceptibility to TB and the severity of the disease,^{30 31} it may lead to a delay in diagnosis—a known impediment to the effective control of TB.³²

Table 3 Summary of adopted processes on TB contact investigation in PALOP

	Angola ¹⁸	Guinea-Bissau ^{14 15 19 20}	Mozambique ¹⁷
Nature of the attendance of the contact to the health unit	Not mentioned	Home visit to the home of the adult with pulmonary TB to identify contacts; Identification of the household contact, of a pulmonary TB case, registered in the Bandim Health Project's census register before home visits; and Daily approach to patients recently admitted to the Hospital Raoul Follereau, asking them to take their relatives or cohabitants in the paediatric age group for outpatient clinical evaluation in the hospital complex.	Passive case detection of children presenting to the health facility with one or more symptoms compatible with TB and active case finding characterised by linking the adult smear-positive pulmonary TB cases registered at the district National TB Programme in the previous 24 months to the Health and Demographic Surveillance System database to identify all household contacts under 3 years of age.
Screening algorithm	Clinical evaluation HIV testing Chest X-ray TST	Clinical evaluation Whenever active TB was suspected: Thorough clinical evaluation HIV testing Chest X-ray Sputum smear microscopy An appropriate diagnostic approach to each case	Physical evaluation HIV testing Chest X-ray TST For symptomatic cases were obtained samples of gastric aspirate and induced sputum. For suspected extrapulmonary TB appropriate samples were obtained.
Contact follow-up	Not mentioned	Not mentioned	Asymptomatic cases with abnormal chest X-ray were re-evaluated at further visits.

TB, tuberculosis; TST, tuberculin skin test.



Type of contact

Children represented the focus of contact investigation among selected documents, namely research studies, findings in line with WHO's recommendations.³ Considering the population pyramid in PALOP,³³ the importance of screening children under 15 years old is clear.

Households and close contacts, particularly those in the paediatric age group and PLHIV, have an increased risk for TB infection and progression to active disease after exposure to *Mycobacterium tuberculosis* (MTB) compared with the general population.⁵ These groups benefit significantly from TB preventive therapy, reducing the pool of infected people who will progress to active disease and reducing TB morbidity and mortality in both of mentioned groups.^{34–37} Furthermore, studies have shown that not only household contacts may benefit from screening but also those close contacts outside of the home environment^{38–40} as health services,⁴¹ teaching environments⁴² and places of religious activities.⁴³

Methods of investigation of TB contacts

Early TB diagnostic and universal drug-susceptibility testing is a crucial point of the End TB Strategy, but many countries cannot afford it.²⁹ Therefore, most screening algorithms identified in the present review relied on low-cost screening tools. The methods of investigation identified were:

1. Clinical evaluation (symptom screening), which lacks sensitivity and specificity when no other method is combined.^{44 45} Relying solely on reports of compatible TB symptoms as a screening method for requesting diagnostic tests constitutes missed opportunities to early diagnose active disease in a portion of contacts in a low infectivity phase. Studies show that almost 50% of patients with active TB do not report symptoms;⁴⁵ thus, passive case finding cannot be the favourite method to early TB diagnosis;
2. Chest X-ray test is a useful screening tool as it presents high sensitivity for active lung disease; however, it requires equipment and capacitated professionals to perform and read the images^{44 45};
3. Sputum smear microscopy, a confirmatory test, is the standard diagnostic test for TB in contexts with limited resources but presents limitations to use in children and PLHIV⁴⁶;
4. Culture plus drug-susceptibility test and Xpert MTB/RIF (a molecular test) are confirmatory tests. The WHO recommends the Xpert MTB/RIF test as the initial diagnostic method for every case of probable pulmonary TB, if available, particularly in suspected rifampicin resistance cases, people at risk for MDR-TB and in TB/HIV coinfection⁴⁷;
5. HIV testing mainly was recommended, and it is in line with WHO's recommendations³; and
6. The TST is still the chosen method for detecting LTBI in countries with high TB burden and limited resources.⁴⁰ However, it requires trained professionals for test application, test reading and a suitable storage place.

Also, it depends on two visits to conclude the result, which can be an obstacle due to patient resource constraints. Furthermore, it can be influenced by previous BCG vaccination and immunosuppression states. Also, it may be a challenging procedure in contexts of limited access to health services and scarcity of human resources, such as rural and peripheral areas. According to WHO's recommendations, TST is not mandatory before TB preventive therapy for children aged under 5 years, who are household contacts of people with bacteriologically confirmed pulmonary TB, as long as active TB is ruled out.⁴⁸ Despite the TB preventive therapy value in TB control, we did not discuss LTBI management even once as it was not the purpose of this scoping review.

Barriers and facilitators

Our findings match other studies carried out in similar settings that have identified sociocultural and economic factors, such as stigma and poverty, as the main barriers to TB contact investigation.^{7 31 49} As shown in our results, the parents' refusal to carry out complementary protocol tests on children and the absence of domicile can be linked to stigma. In addition, migration, missed appointments and failure to read the TST can be linked to poverty.

Stigma delays access to health facilities once it is linked to fearing TB diagnosis becoming public, creating discrimination in the workplace, school and community;⁴⁹ thereby, stigma leads to diagnosis delay and increases poor outcomes. Poverty imposes direct and indirect costs to contact investigation that the more vulnerable population cannot handle (eg, transportation fees, abstaining from work for commuting to the health service, spending money on examinations),^{7 31} which can compromise the contact investigation process. In this sense, ACI, with home visits, may help reduce the barrier between people and the health system. Furthermore, under-reporting and underdiagnosis of active TB cases impair TB control and impact TB contact investigation. This situation may be linked to the usual lack of specific knowledge and attitude among many healthcare workers on TB assistance.⁴⁹ Research conducted from 2010 to 2016 pointed to a case detection gap of up to 50% for some countries in Africa, a continent where up to 50% of MDR-TB cases do not have access to treatment and the observed prevalence of PLHIV is very high.⁵⁰

Regarding facilitators to contact tracing, other studies have observed that family support, health education and community health agents' action (persuading and incentivising) are factors improving the uptake of this service.³¹

CONCLUSION

The TB contact investigation is one of the critical elements of the End TB Strategy to reach the end of the TB epidemic. Nonetheless, our findings illustrate the limited available literature on TB contact investigation in PALOP.

Ending the TB epidemic is more than a worldwide public health goal. Nevertheless, following the End TB Strategy's guidance is a continuous challenge in the face of the existent social determinants perpetuating the population's vulnerability to TB.

One possible explanation for the information gap is the limitations imposed on health systems, programmes and governments, due to the scarcity of human and financial resources. However, the lack of official references should not be interpreted exclusively as the lack or insufficiency of TB contact investigation per se. It may rather relate to the difficulty in accessing information by those who work in the field or investigate the topic. The findings reinforce the importance and the need for an information system that provides actual data for assessing the cost-benefit and the real impact of such interventions in TB control in PALOP.

Strengths and limitations

To our knowledge, this is the first review focusing on the recommended and the adopted processes applied to ACI of the TB index case in African Portuguese-speaking countries. We performed a comprehensive literature search with no restrictions to language, study design or source of information. In addition, it provides an overview of the paucity of literature on the investigation of TB contacts in the PALOP in the last 10 years.

There are some limitations to our review. First, we did not perform a critical appraisal, representing a limitation on our study, even though it is optional for scoping review. Despite a thorough literature search, we may have missed some critical information, mainly the unpublished documents. We could not identify any policy document from Guinea-Bissau. Although some policy documents from Sao Tome and Principe and Angola had been retrieved, these do not provide information about TB contact investigation processes. Furthermore, the adopted processes, identified only in research studies, cannot be assumed to be adopted by the National TB programmes, which did not enable us to answer one of the research questions.

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Contributors RBRL, RMR and CC contributed to the conceptualisation of the study and methodology design. RBRL performed the search strategy. RBRL and RMR assessed published studies for inclusion. RBRL assessed policy documents for inclusion, extracted and analysed the data and drafted the manuscript. CC acted as the third reviewer. RMR and CC reviewed and provided critical comments to the manuscript. All authors read and approved the final manuscript. RBRL is responsible for the overall content as guarantor.

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Ethics approval Not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

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