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Mobile targeted screening for tuberculosis in Zimbabwe: diagnosis, linkage to care and treatment outcomes

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Setting: Targeted active screening for tuberculosis (Tas4TB) using mobile trucks in the community was implemented in 15 high TB burden districts in Zimbabwe. At-risk populations were screened for TB based on symptoms and chest radiography (CXR) results. Those with any positive symptom and/or an abnormal CXR had sputum collected for investigation and diagnosis and were linked to care and treatment if found to have TB.

Objective: To determine 1) the proportion and characteristics of those screened and diagnosed with TB; 2) the relationship between TB symptoms, CXR and diagnostic yields; and 3) the relationship between initiation of anti-TB treatment and treatment outcomes.

Design: Cohort study using routinely collected data

Results: A total of 39 065 persons were screened, of whom 663 (1.7%) were diagnosed with TB; 126/663 (19.0%) were bacteriologically confirmed. The highest TB diagnostic yields were in symptomatic persons with CXRs suggestive of TB (19.4%), asymptomatic persons with CXRs suggestive of TB (8.4%) and persons at high-risk of TB (3.2%). For all diagnosed TB patients, pre-treatment loss to follow-up was 18.9% and treatment success was 59.9%.

Conclusion: Tas4TB resulted in high diagnostic yields; however, linkage of diagnosis to care was poor. Reasons for loss to follow-up need to be better understood and rectified.

Tuberculosis (TB) remains an enormous global public health threat, especially in low- and middle-income countries (LMICs). In 2017, there were an estimated 10.0 million incident cases and 1.6 million deaths due to TB, making TB one of the top 10 leading causes of death worldwide and the leading cause from a single infectious agent.[1] In 2017, only 6.4 million new patients with TB were reported, meaning that 3.6 million (36% of the estimated disease burden) were either not diagnosed or not notified to national programmes.[1] In most LMICs, TB case detection is based on passive case finding, but this strategy, as shown in many TB prevalence surveys, is inadequate to detect the substantial burden of undiagnosed TB in the community.[2] Alternative strategies are needed, and one of these is active case finding (ACF), which seeks to pro-actively identify patients with TB.

Modelling studies suggest that ACF can increase TB case finding, and the World Health Organization (WHO) has provided guidelines for systematically and actively screening TB contacts and high-risk patient groups.[3,4] In one review, yields of newly diagnosed TB through ACF varied from 0.7% in population-based community surveys to over 8% in human immunodeficiency virus (HIV) care clinics.[5] Prisons and health care facilities are especially high-risk areas for transmission of TB,[6,7] and ACF in these settings can help to identify cases early and reduce ongoing transmission.

Zimbabwe is among the 14 countries in the world with a high triple burden of TB, TB-HIV and multidrug-resistant TB.[1] TB in the country has been fuelled by the HIV epidemic, with TB-HIV co-infection rates of 63% in 2017.[1] In 2017, TB treatment coverage (notified/estimated incidence) was estimated to be 71%,[1] which meant that almost 30% of TB patients were either not diagnosed or not registered in the National TB Control Programme (NTP), posing a risk for affected individuals and the community due to ongoing TB transmission.

Zimbabwe has for many years relied heavily on a passive case finding strategy with its many disadvantages. The WHO End TB Strategy, however, endorses the early diagnosis of TB, including the systematic and active screening of high-risk groups (HRGs).[8] In line with this global effort towards ending TB, the NTP in Zimbabwe, in collaboration with other partner organisations, has adopted various ACF strategies. One of these is the use of mobile trucks for targeted active screening for TB (Tas4TB), which aims to target HRGs. These HRGs comprise the elderly (age ⩾65 years); people living with HIV (PLHIV); miners (formal and informal); prisoners (current and past); healthcare workers; refugees; those previously diagnosed with TB; and contacts of TB patients.

The Tas4TB Programme has a strong focus on the identification of TB cases, with little attention paid to further linkage to care and treatment outcomes. This is mainly because the Tas4TB screening teams spend one day at a site and leave the investigation of persons with presumptive TB, the diagnosis of TB and initiation of treatment and subsequent monitoring in the hands of the local health facilities. The whole process of screening, diagnosis, linkage to care and documentation of treatment outcomes of patients diagnosed during Tas4TB has not yet been systematically evaluated, and this information would be valuable for the Zimbabwe NTP.

The aim of the present study therefore was to assess how Tas4TB performed in Zimbabwe in 2017 in terms of diagnosis, linkage to care and treatment outcomes in those identified with TB. Specific objectives were to determine 1) the numbers and characteristics of those

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screened and diagnosed with TB, 2) how the presence or absence of TB symptoms and chest radiography (CXR) findings related to TB diagnostic yields, and 3) the initiation of anti-TB treatment and TB treatment outcomes.

METHODS

Study design

This was a cohort study using routinely collected data.

Setting

General setting

Zimbabwe is a land-locked country in southern Africa. It has a population of 13 million and a gross domestic product per capita of US$1,333.[9,10] The country is divided into 10 administrative provinces, covering 63 health districts. Most health care is delivered through primary health care facilities where services at the point-of-care are free of charge.

Zimbabwe National TB Control Programme

The NTP is responsible for coordinating national TB control efforts. The programme is represented and coordinated at the national level by a central unit, and at the provincial and district levels by provincial and district TB coordinators, respectively. The diagnosis and treatment of TB are provided free of charge at public health facilities with other general health services. Over the last two decades, the country has been compliant with international TB control policies and has adopted the WHO TB guidelines as part of its own national TB guidelines.[11–13]

Targeted screening for tuberculosis

The Tas4TB programme was started in 2017 in 15 priority districts purposively selected based on high burdens of TB. The Tas4TB programme has a medical team (comprising nurses, counsellors, radiographers, laboratory scientists, medical officers and data officers) and uses a mobile X-ray truck to offer free health services to the population, including hard-to-reach groups. There is also a demand creation team, mostly comprising health promoters, that mobilises communities, identifies screening sites and schedules dates.

The team and the truck arrive at a designated site and actively screen people who come forward; this includes those from HRGs (estimated to comprise 12% of the population of the 15 priority districts) and non-HRGs. The screening process involves patient registration, screening, HIV testing and counselling, and sputum collection for those found to have presumptive TB. Screening for each person involves a symptom-based enquiry focused on cough of any duration, fever and night sweats, and a digital CXR is also performed; this is read by the medical officer in the team. Those with one or more positive symptoms and/or an abnormal CXR (suggestive or not suggestive of TB) are identified as having presumptive TB and are asked to produce one sputum specimen, which is delivered by the mobile truck team to the nearest district hospital for analysis, usually using the Xpert® MTB/RIF assay (Cepheid, Sunnyvale, CA, USA). If Xpert technology is not available, sputum specimens are examined using direct smear microscopy for acid-fast bacilli. Patients with bacteriologically diagnosed TB (Xpert- or sputum smear-positive) are referred to the nearest health facility for registration and initiation of treatment. Those with negative sputum specimens are further assessed to determine whether they have clinically diagnosed TB.

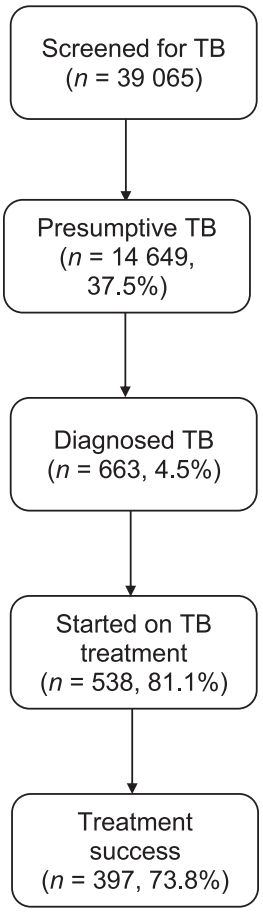

FIGURE The cascade from screening to diagnosis to treatment and treatment success in persons screened for TB by the mobile Tas4TB programme in Zimbabwe in 2017. TB = tuberculosis; Tas4TB = targeted active screening for TB.

Data are collected using a smart phone android application that links with a central electronic database in real time. The system runs on an SQL Server backend, with built-in validations, and this is used to capture patient-level data at each stage of the screening cascade using smart phones.

Study population

The study includes all persons (including those belonging to HRGs) in selected districts that were reached and screened for TB by the Tas4TB programme in 2017.

Data variables, sources of data and data collection

The data variables included demographic data, HRG status, HIV status, symptoms at screening, CXR result,

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Conflicts of interest: none declared.

TABLE 1 Characteristics of persons screened and diagnosed with TB by the mobile Tas4TB programme in Zimbabwe in 2017

	Screened for TB	Diagnosed with TB		Bacteriologically confirmed	
Characteristics	*n*	*n*	(%)*	*n*	(%)†
Total	39 065	663	(1.7)	126	(19.0)
Sex					
Male	14 991	390	(2.6)‡	77	(19.7)
Female	24 074	273	(1.1)	49	(17.9)
Age group, years					
0–14	2 605	43	(1.7)	4	(9.3)§
15–64	31 116	480	(1.5)	110	(22.9)
⩾65	5 344	140	(2.6)¶	12	(8.6)¶
HRG					
Yes	14 110	451	(3.2)‡	94	(20.8)
No	24 955	212	(0.8)	32	(15.1)
HRGs#					
PLHIV	1 083	258	(23.8)‡	61	(23.6)§
PLHIV on ART	921	194	(21.1)¶	53	(27.3)¶
PLHIV not on ART	162	64	(40.0)¶	8	(12.5)
Miner (formal and informal)	3 439	98	(2.8)‡	17	(17.3)
Prison inmate (current and past)	2 077	37	(1.8)‡	7	(18.9)
Health care worker	1 652	13	(0.8)	3	(23.1)
Refugee	268	9	(3.4)‡	0	—
Previous TB treatment	2 463	111	(4.5)‡	18	(16.2)
TB contact	7 252	157	(2.2)‡	34	(21.7)

*Denominator = screened for TB.
†Denominator = diagnosed with TB
‡$P < 0.001$ (comparisons made within groups, except for persons in HRGs, in which case comparisons are made with persons not in an HRG).
§$P < 0.05$ (comparisons made within groups, except for persons in HRGs, in which case comparisons are made with persons not in an HRG).
¶$P < 0.01$ (comparisons made within groups, except for persons in HRGs, in which case comparisons are made with persons not in an HRG).
#As some persons belong to two or more of these HRGs, the numbers in HRGs are more than the total shown.
TB = tuberculosis; Tas4TB = targeted active screening for TB; HRG = high-risk group; PLHIV = people living with human immunodeficiency virus; ART = antiretroviral therapy.

diagnosis of TB, whether bacteriological confirmation or clinical diagnosis, registration in the presumptive TB and TB treatment registers, and treatment outcomes. Data sources included the Tas4TB central electronic database and the presumptive and treatment TB registers. Data were collected in the first quarter of 2019.

Analysis and statistics

Data were captured using EpiData v3.1 (EpiData Association, Odense, Denmark), and the data exported to STATA (Stata Corp, College Station, TX, USA) for analysis. Frequencies and proportions were used to summarise categorical data. Categorical exposure variables were compared with outcome variables using the χ^2 test and presented as risk ratios (RRs) with 95% confidence intervals (CIs) with respect to treatment outcomes. Levels of significance were set at 5% ($P < 0.05$).

Ethics

Ethics approval was obtained from the Zimbabwe Medical Research Council, Harare, Zimbabwe and the Ethics Advisory Group, the International Union Against Tuberculosis and Lung Disease, Paris, France. Secondary collected data were used, and the ethics committees waived the need for patient consent.

RESULTS

The overall flow of patients from being screened to diagnosis to treatment and to treatment success is shown in the Figure. More details about the screening and TB diagnostic yields are shown in Table 1. In total, 663 (1.7%) of 39 065 persons screened were diagnosed with TB, with 126 (19%) of these being bacteriologically confirmed. Significantly higher TB diagnostic yields were found in males, in those aged ⩾65 years and in those categorised in an HRG. Just over one third of those screened for TB were in a HRG, where the overall TB diagnostic yield (3.2%) was four times higher than in the non-HRG group (0.8%). All the different categories of HRG had significantly higher diagnostic yields compared with the no HRG group, except for health care workers. PLHIV had the highest diagnostic yield of 23.8%. There were 126 (19.0%) diagnosed patients who had bacteriological confirmation of TB; this was significantly higher in PLHIV and significantly lower in children aged 0–14 years and adults aged ⩾65 years.

There were 14 649 (37%) persons with presumptive TB (12 134 based on TB symptoms and 2515 based on CXR with no symptoms). Of those with positive TB symptoms, 510 (4.2%) were diagnosed with TB. Of those with no symptoms but abnormal CXRs, 148 (5.9%) were diagnosed with TB (Table 2). The highest TB diagnostic yields were in symptomatic persons with a CXR suggestive of TB (19.4%), asymptomatic persons with a CXR suggestive of TB (8.4%) and symptomatic persons with an abnormal CXR not suggestive of TB (1.7%).

Linkage to care, start of treatment and treatment outcomes are shown in Table 3. Overall pre-treatment LTFU was 19%. Overall pre-treatment LTFU and treatment outcomes were similar between symptomatic and asymptomatic TB patients. Pre-treatment LTFU was significantly higher, while "not being evaluated" was significantly lower in bacteriologically confirmed patients than in those with clinically diagnosed TB.

Baseline characteristics associated with pre-treatment LTFU are shown in Table 4. There were no significant associations. Of the

TABLE 2 Relationship between TB symptoms, CXR findings and TB diagnosis in persons screened by the mobile Tas4TB programme, Zimbabwe, 2017

Characteristics	Total *n*	Diagnosed with TB		Bacteriologically confirmed	
		n	(%)*	*n*	(%)†
All persons with TB symptoms	12134	510	(4.2)	101	(19.8)
TB symptoms + CXR suggestive of TB‡	2432	473	(19.4)	76	(16.1)
TB symptoms + abnormal CXR not suggestive of TB	593	10	(1.7)	6	(60.0)
TB symptoms + normal CXR	9109	27	(0.3)	19	(70.4)
All persons with no TB symptoms	26931	153	(0.6)	25	(16.3)
No TB symptoms + CXR suggestive of TB	1713	144	(8.4)	19	(13.2)
No TB symptoms + abnormal CXR not suggestive of TB	802	4	(0.5)	3	(0.4)
No TB symptoms + normal CXR§	24416	5	(0.02)	3	(0.01)

*Denominator = screened for TB.
†Denominator = diagnosed with TB.
‡CXRs were assessed by a medical doctor in the Tas4TB team and were classified into three categories: suggestive of TB; abnormal, not suggestive of TB; and normal.
§These persons did not fulfil the criteria for TB investigations but they were diagnosed with TB: it is possible that they had forms of extra-pulmonary TB but this was not documented.
TB = tuberculosis; CXR = chest radiograph; Tas4TB = targeted active screening for TB.

538 TB patients who started treatment, 397 (74%) were successfully treated. Baseline characteristics associated with treatment success among those who started treatment are shown in Table 5. Treatment success was significantly lower in children (56%) than in adults, and significantly lower in refugees (33%) than in those not belonging to a HRG—this was mainly due to LTFU and not being evaluated. Treatment success in miners (87%) was significantly higher than those not in a HRG.

DISCUSSION

This is the first reported study on Tas4TB in Zimbabwe, and there were some interesting findings. First, Tas4TB had a high TB diagnostic yield in the selected districts, at approximately 1700/100 000, which suggests that ACF can play an important role in TB case notification. Although Tas4TB was meant to target HRG, nearly two thirds of persons coming for screening were not in a HRG. Although case notifications in the non-HRGs were four times lower than in HRGs, they were still high and of the order of 800/100 000.

Second, diagnostic yields in the various HRGs were high and similar to those reported elsewhere.[5] The high TB diagnostic yields in PLHIV, especially those not on antiretroviral therapy, are similar to what has been found in other African and Asian countries undertaking intensified case finding among PLHIV in routine programme settings,[14,15] and the study findings support country-wide strategies to actively screen for TB in this group. The high diagnostic yields found in patients with previous TB are in line with findings in high HIV prevalent areas in sub-Saharan Africa,[16] although care is needed not to misdiagnose patients who may have post-TB chronic lung disease. Why the diagnostic yield was not particularly high in health care workers is not clear but may be due to their easier access to health care if symptoms develop and less need therefore for Tas4TB services, and also the stigma that so often accompanies the disease.

Third, the WHO proposes different options for the use of CXR in screening, and recommends that if resources are sufficient CXR be performed on everyone reporting for screening.[4] Our findings support this approach, showing that persons with CXRs suggestive of TB with or without symptoms have a high yield of TB.

Fourth, linkage to care and treatment was sub-optimal, with nearly one in five diagnosed patients failing to start treatment. A systematic review in Africa, Asia and the Western Pacific found that between 4% and 38% of patients with laboratory-confirmed TB (based on smear or culture) fail to start treatment.[17] This pre-treatment LTFU is not reduced with the use of Xpert, with

TABLE 3 Treatment outcomes in all patients diagnosed with TB by the mobile Tas4TB programme, stratified by symptom and type of TB, Zimbabwe, 2017

	Diagnosed with TB	Pre-treatment LTFU		Started on anti-tuberculosis treatment									
				Treatment success*		Died		LTFU		Failed		Not evaluated†	
Characteristics	*n*	*n*	(%)‡	*n*	(%)‡	*n*	(%)‡	*n*	(%)‡	*n*	(%)‡	*n*	(%)‡
All TB patients	663	125	(19)	397	(60)	23	(3)	26	(4)	0	(0)	92	(14)
With symptoms	510	98	(19)	297	(59)	16	(3)	21	(4)	0	(0)	78	(15)
With no symptoms	153	27	(18)	100	(65)	7	(5)	5	(3)	0	(0)	14	(9)
Bacteriologically confirmed	126	35	(28)§	74	(59)	2	(2)	6	(5)	0	(0)	9	(6)¶
Clinically diagnosed	537	90	(17)	323	(60)	21	(4)	20	(4)	0	(0)	83	(15)

*Treatment success = cured and treatment completed.
†Not evaluated = transferred-out with no outcomes reported and not assessed
‡Proportion of patients diagnosed with TB.
§$P < 0.01$, compared with clinically diagnosed TB.
¶$P < 0.05$, compared with clinically diagnosed TB.
TB = tuberculosis; Tas4TB = targeted active screening for TB; LTFU = loss to follow-up.

TABLE 4 Characteristics associated with pre-treatment LTFU in persons diagnosed with TB by the mobile Tas4TB programme, Zimbabwe, 2017

	Diagnosed with TB	Pre-treatment LTFU				
Characteristics	*n*	*n*	(%)	RR*	(95% CI)	*P* value
Total	663	125	(19)			
Sex						
Male	390	77	(20)	Reference		
Female	273	48	(18)	0.9	(0.6–1.2)	0.5
Age group, years						
0–14	43	7	(16)	0.9	(0.4–1.7)	0.7
15–64	480	90	(19)	Reference		
⩾65	140	28	(20)	1.1	(0.7–1.6)	0.7
High-risk group						
Yes	451	87	(19)	1.1	(0.8–1.5)	0.7
No	212	38	(18)	Reference		
High-risk group†						
PLHIV	258	54	(21)	1.2	(0.8–1.7)	0.4
PLHIV, on ART	194	42	(22)	1.2	(0.8–1.8)	0.3
PLHIV, not on ART	64	12	(19)	1.0	(0.6–1.9)	0.9
Miner (formal and informal)	98	16	(16)	0.9	(0.5–1.6)	0.7
Prison inmate (current and past)	37	11	(30)	1.7	(0.9–2.9)	0.1
Health care worker	13	4	(31)	1.7	(0.7–4.0)	0.3
Refugee	9	0	(0)	0.3	(0.1–4.4)	0.3
Previous TB	111	28	(25)	1.4	(0.9–2.1)	0.1
TB contact	157	25	(16)	0.9	(0.6–1.4)	0.6

*Calculated using the non-high-risk group as the reference.
†As some persons appear in two or more of these high-risk groups, the numbers in high-risk groups are more than the total shown.
LTFU = loss to follow up; RR = relative risk; CI = confidence interval; TB = tuberculosis; Tas4TB = targeted active screening for TB; PLHIV = people living with human immunodeficiency virus; ART = antiretroviral therapy.

TABLE 5 Characteristics associated with treatment success in TB patients started on treatment as a result of being diagnosed by the mobile Tas4TB programme, Zimbabwe, 2017

	Started TB treatment	Treatment success				
Characteristics	*n*	*n*	(%)	RR*	(95% CI)	*P* value
Total	538	397	(74)			
Sex						
Male	313	227	(73)	Reference		
Female	225	170	(76)	1.0	(0.9–1.2)	0.4
Age group, years						
0–14	36	20	(56)	0.7	(0.6–1.0)	0.02
15–64	390	290	(74)	Reference		
⩾65	112	87	(78)	1.1	(0.9–1.2)	0.5
High-risk group						
Yes	364	275	(76)	1.0	(0.9–1.1)	0.6
No	174	128	(74)	Reference		
High-risk group†						
PLHIV	204	154	(75)	1.0	(0.9–1.2)	0.7
PLHIV, on ART	152	116	(76)	1.0	(0.9–1.2)	0.6
PLHIV, not on ART	52	38	(73)	1.0	(0.8–1.2)	0.9
Miner (formal and informal)	82	71	(87)	1.2	(1.0–1.3)	0.02
Prisoner (current and past)	26	19	(73)	1.0	(0.8–1.3)	0.9
Health care worker	9	5	(56)	0.8	(0.4–1.4)	0.2
Refugee	9	3	(33)	0.5	(0.2–1.1)	<0.01
Previous TB	83	60	(72)	1.0	(0.8–1.1)	0.8
TB contact	132	98	(74)	1.0	(0.9–1.2)	0.9

*Calculated using the non-high-risk group as the reference.
†As some persons appear in two or more of these high-risk groups, the numbers in high-risk groups are more than the total shown.
TB = tuberculosis; Tas4TB = targeted active screening for TB; RR = relative risk; CI = confidence interval; PLHIV = people living with human immunodeficiency virus; ART = antiretroviral therapy.

losses varying from 21% in the Cameroon to 45% in South Africa.[18,19] A recent study in rural Zimbabwe also showed considerable LTFU between screening and diagnosis, and between diagnosis and treatment; long distances between rural health centres and health facility laboratories and shortage of environmental health technicians (who transport sputum specimens from health facilities to laboratories) are important contributory factors.[20] In our study, there were no differences in pre-treatment LTFU between those with and those without symptoms or between any baseline characteristics, but those with bacteriologically confirmed TB had higher pre-treatment LTFU than clinically diagnosed patients. The reasons are unclear, but bacteriologically confirmed TB patients are a risk to the community and they need to identified to be treated.

Finally, treatment success was suboptimal. Among all diagnosed patients, treatment success was only 60%, and among those who started treatment this was 74%, with higher rates in miners and lower rates in children and refugees, the latter due to high treatment LTFU and not being evaluated. This compares unfavourably with national treatment success rates, which were reported at 81% for patients with new and relapse TB registered in 2016.[1]

The strengths of this study were its implementation in 15 high TB burden districts of Zimbabwe, the large number of persons screened and the use of the same formal set of questions asked for every person screened. The conduct and reporting of the study were also in line with the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) guidelines.[21] However, there were some limitations. Important data on time to diagnosis and treatment were not obtained and reasons why persons without presumptive TB were diagnosed with TB were not captured.

There are some important programmatic implications. First, the Tas4TB approach identified high numbers of TB cases, although a greater focus on HRGs would increase the yield and make the approach more cost-effective. The screening protocol includes performing a digital CXR on every person. While TB diagnostic yields in non-HRG individuals were high, they were four times lower than in HRG individuals, and the justification and costs for screening non-HRG individuals should be called into question. Second, it is crucial to better understand pre-treatment LTFU. This might require prospective research by visiting patients' homes and finding out what has happened. This has been successfully done in both Malawi and Zambia, resulting in a better understanding of treatment LTFU.[22,23] At the same time, measures must be put in place to ensure that all diagnosed patients successfully start treatment. Third, it is also beholden on the TB programme to reduce the proportion of treated patients who are not evaluated and thus increase the chance of success. Finally, the database needs to be reviewed and modified to capture time to event information.

In conclusion, this study has shown that the use of Tas4TB (with CXR as part of the screening process) in 15 high-burden districts in Zimbabwe resulted in high TB diagnostic yields, which was four times higher in persons in HRGs; this calls into question whether screening of non-HRG individuals should continue. Linkage of diagnosis to care was poor, with one in five patients being LTFU before starting treatment; measures to rectify this deficiency should be put in place.

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Contexte : Un dépistage actif ciblé de la tuberculose (Tas4TB) à l'aide de camions mobiles dans la communauté a été mis en œuvre dans 15 districts très touchés par la TB au Zimbabwe. La population à risque a bénéficié d'un dépistage de TB basé sur les symptômes et la radiographie pulmonaire (CXR). Ceux qui ont eu un symptôme positif et/ou une anomalie de la CXR ont eu un recueil de crachats pour une recherche de TB, un diagnostic et un lien avec la prise en charge et le traitement en cas de confirmation de TB.
Objectifs : Déterminer 1) la proportion et les caractéristiques des patients dépistés ayant eu un diagnostic de TB; 2) la relation entre les symptômes de TB et la CXR avec le rendement diagnostique; et 3) la mise en route du traitement anti-TB et les résultats du traitement.
Schéma : Etude de cohorte basée sur des données recueillies en routine.
Résultats : Sur un total de 39 065 personnes dépistées, 663 (1,7%) ont eu un diagnostic de TB dont 126 (19,0%) ont été confirmés par bactériologie. Le rendement diagnostique de TB a été le plus élevé parmi les personnes symptomatiques ayant une CXR suggestive de TB (19,4%), parmi les personnes asymptomatique ayant une CXR suggestive de TB (8,4%) et parmi les personnes à risque élevé de TB (3,2%). Pour tous les patients ayant eu un diagnostic de TB, les pertes de vue avant traitement ont été de 18,9% et le succès du traitement a été de 59,9%.
Conclusion : Tas4TB a abouti à un rendement diagnostique élevé mais le lien entre le diagnostic et la prise en charge a été médiocre. Les raisons des pertes de vue doivent être mieux comprises et rectifiées.

Marco de referencia: En 15 distritos donde la carga de morbilidad por tuberculosis (TB) es alta se introdujo la detección activa y dirigida de la tuberculosis en unidades móviles (Tas4TB), en las comunidades de Zimbabwe. Se practicó el tamizaje de la TB en la población con riesgo de contraer la enfermedad mediante la interrogación sobre los síntomas indicativos de TB y la radiografía de tórax (CXR). En las personas con un tamizaje positivo de síntomas, CXR anormal o ambos, se obtuvieron muestras de esputo para investigación y diagnóstico y los casos diagnosticados se vincularon con los servicios de atención y tratamiento.
Objetivo: Determinar la proporción de personas examinadas en quienes se diagnosticó la TB y describir sus características; la correlación entre los síntomas indicativos de TB y la CXR y el rendimiento diagnóstico; y la iniciación del tratamiento antituberculoso y los desenlaces terapéuticos.
Método: Fue este un estudio de cohortes a partir de los datos corrientes recogidos de manera sistemática.
Resultados: Participaron en el tamizaje 39 065 personas, de las cuales 663 recibieron el diagnóstico de TB (1,7%) y se obtuvo la confirmación bacteriológica del diagnóstico en 126 casos (19,0%). El más alto rendimiento diagnóstico se logró en las personas sintomáticas con CXR indicativa de TB (19,4%), las personas asintomáticas con CXR indicativa de la enfermedad (8,4%) y las personas con riesgo alto de contraer la TB (3,2%). En todos los pacientes con diagnóstico de TB, la pérdida de vista antes de iniciar el tratamiento fue de 18,9% y el éxito terapéutico se logró en 59,9%.
Conclusión: La detección activa y dirigida de la TB ofreció un alto rendimiento diagnóstico, pero la vinculación de las personas con los servicios de atención fue deficiente. Es necesario comprender mejor las razones de las pérdidas de vista durante el seguimiento y aportar soluciones.

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