



Policy Brief - March 2021

Tuberculosis (TB) policy research.

Context to Research

- ◆ The World Health Organization (WHO) publishes three high burden country lists TB, TB/HIV, multidrug resistant TB (MDR-TB). Each list contains 30 countries: 20 countries with the highest number of cases in absolute terms, and 10 countries, not among the first 20, with the largest per capita case rate that meet a minimum threshold in terms of absolute numbers of cases.
- ◆ African countries appearing in all three lists are Angola, DR Congo, Ethiopia, Kenya, Mozambique, Nigeria, South Africa and Zimbabwe. Central African Republic, Congo, Lesotho, Liberia, Namibia, UR Tanzania and Zambia are high TB and TB/HIV burden countries. Botswana, Cameroon, Chad, Ghana, Guinea-Bissau, Malawi, Eswatini and Uganda are only high TB/HIV burden countries. Sierra Leone is only a high TB burden country and Somalia only a high MDR-TB country.

Introduction

The Global Fund funded the **Strategic Initiative To Find the Missing People** with TB as matching funds for TB until the end of 2019. The initiative aimed to get an additional 1.5 million people with TB notified in thirteen priority countries including six African countries: DR Congo, Kenya, Mozambique, Nigeria, South Africa and UR Tanzania. Countries obtained those grants as additional resources on top of their normal grant allocations. Stop TB partnership hosted by UNOPS was an implementing partner of this Strategic Initiative (SI).

Onion model and the cascade of care

The focus of the report was on the number of missing TB cases in Africa. In order to describe “missingness”, the onion model described originally by Chris Dye¹ and the care cascade adapted from the onion model have been used to plot each step of the care pathway for a presumptive TB case, from being a prevalent case and not having access to care, to being initiated on TB treatment at a health facility. A similar approach has been used in India².

To make sense out of the number of cases missed by any TB programme, one needs to break down the care pathway in steps; each step identifies unique gaps and needs unique interventions. To start with, the outmost step or circle gives an indication of the number of prevalent cases in the community, usually indicated by a prevalence survey on a national level; the innermost step is the number of cases who successfully completed treatment. The prevalence: notification (P:N) ratio gives an indication of the proportion of missing cases but does not show where in the care pathway these cases are missed³.

It is therefore essential that additional programmatic analyses or research studies should be conducted for each of the circles or steps of the model.

This report emphasizes the current estimated incidence rate, the trending estimated incidence rate over the past ten years and the notification-estimation gap, i.e. the proportion of missing cases⁴. **Ten countries** should be highlighted as crucial for immediate implementation of interventions to find missing cases.

Summary of findings

- ◆ Around 30% of TB cases are “missed”, i.e. not found or diagnosed, and continue transmitting disease within communities.
- ◆ Programmatic efforts, research, traditional and non-traditional methods must be used to identify and trace missing cases.
- ◆ Without determined and innovative approaches it might not be possible to reach the EndTB strategy's milestones in many African countries.



Ten (10) countries to focus search for missing cases

Four countries with extremely high incidence countries: **South Africa, Central African Republic and Lesotho** are three of only five high TB burden countries globally with an incidence >500/100,000 population. **Gabon** is an intermediate burden country but has an estimated incidence of 521/100,000 (95%CI 337-744) and an upwards incidence trend over the past ten years; in addition, only 48% of estimated cases are reached.

Six countries trending up in incidence with a large notification-estimation gap: countries with an upwards trend in the estimated incidence rate and a large gap (>40% not reached) are **Nigeria** (73% not reached), **Guinea-Bissau** (65% not reached), **Somalia** (58% not reached), **Liberia** (46% not reached), **Congo** (41% not reached) and **Madagascar** (41% not reached).

It is important to note that Gabon and Madagascar are not classified by the WHO as high burden countries but included in this group because of their incidence rates, the upwards trend in incidence and a large notification-estimation gap.

Finding the missing TB cases in Africa

Many other countries would qualify as high risk for missing cases either according to an upwards trend in incidence or a large notification-estimation gap; for instance Angola has an upwards incidence rate trend but a gap of 66%, Ghana has a fairly stable incidence rate trend but a gap of 34%, Equatorial Guinea has an upwards trend in incidence rate but a gap of 63% similar to DR Congo which has an upwards trend but a gap of 64%, Libya has an apparent stable incidence rate apart from the 2019 data but a gap of 56%, Sao Tome and Principe does not show a consistent upwards trend in incidence rate but a gap of 57% and Senegal has a fairly stable incidence rate but a gap of 57%.

Of the seventeen countries mentioned in the lists above, six are from the Central African region (six out of eight countries: Cameroon, Central African Republic, Chad, Congo, DR Congo, Equatorial Guinea, Gabon and São Tomé & Príncipe) and five are from the West African region (five out of seventeen countries). In addition, DR Congo is on the WHO list of ten countries with large notification-estimations gaps. It would therefore be important to focus primarily, but not exclusively, on these regions over the next few years.

Policy Recommendations

1 What can be done to find the missing people with TB?

The SI to Find Missing TB Cases should support implementation operational research studies addressing each step of the care cascade to highlight all the gaps experienced by missing cases; interventions could subsequently be tailored and targeted to specific and general contexts and could include community DOT.

2 Is additional funding for missing TB cases still needed?

The GF should continue supporting the SI to Find Missing TB Cases with a strong focus on the ten countries highlighted in this report and especially those from West and Central Africa; a tiered funding approach might be considered.

3 Where are the missing people with TB located?

The SI to Find Missing TB Cases should focus strongly but not exclusively on the ten countries classified as high risk for missing TB cases in this report and on the Central and West African regions.

4 Who are the missing people with TB?

The SI to Find Missing TB Cases should focus strongly but not exclusively on the first step of the care cascade, to find missing prevalent cases who are not accessing care. It is however important to note that in some countries the next steps of the care cascade are also not addressed, so a country-by-country approach should be followed to ensure all the gaps are investigated and plugged, especially in the West and Central African countries.

5 Why are the missing people with TB not diagnosed and/or notified and linked to adequate treatment?

The SI to Find Missing TB Cases should focus on context-specific research studies, tailored to countries' burdens and environments, to highlight why missing cases are not diagnosed, do not initiate treatment and do not adhere to treatment. Research studies should document who is missing or not accessing care early, for instance with patient pathway analyses or care cascade investigations.

References

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