

Short course rifapentine and isoniazid preventive treatment among household contacts in low and middle-income countries is safe and associated with high treatment completion rates

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Background

- TPT is recommended for household and close contacts of individuals with bacteriologically confirmed TB.
- In comparison to the general population household contacts (HHCs) are significantly at higher risk of acquiring TB.
- Once weekly rifapentine and isoniazid for 3 months (3HP) is recommended:
 - ✓ Higher completion rates
 - ✓ Less toxic and
 - ✓ As efficacious as longer regimens (6H & 9H) .

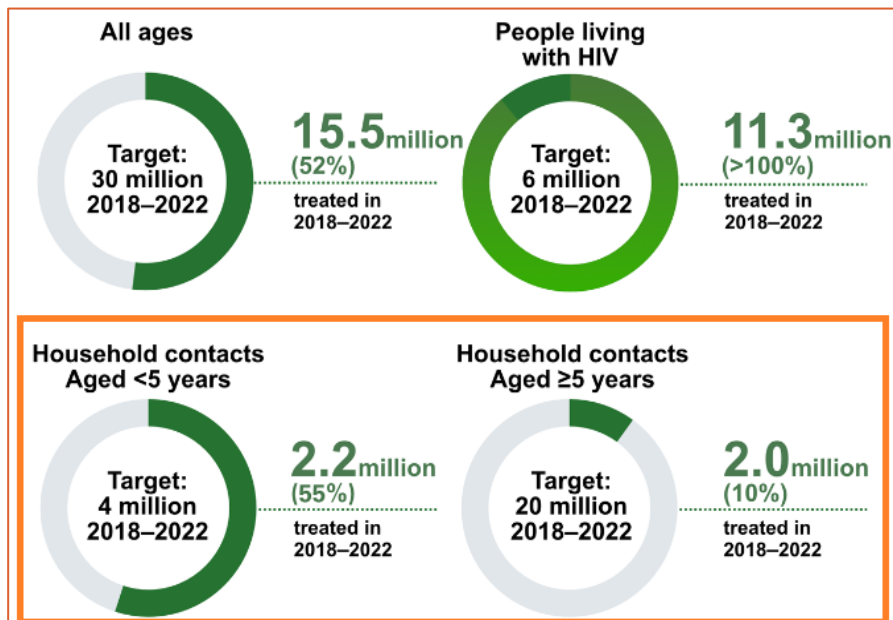
Risk of active TB among HHCs stratified by age and TBI status in comparison to the general population

Age (years)	LTBI-positive at baseline				Regardless of baseline LTBI status			
	Follow-up < 12 months		Follow-up < 24 months		Follow-up < 12 months		Follow-up < 24 months	
	No. of studies	Risk ratio	No. of studies	Risk ratio	No. of studies	Risk ratio	No. of studies	Risk ratio
General population	–	1.0 (reference)	–	1.0 (reference)	–	1.0 (reference)	–	1.0 (reference)
0–4	2	24.3 (0.73–811.0)	3	22.9 (7.7–68.6)	3	25.9 (16.9–39.7)	5	14.8 (9.8–22.3)
5–14	2	27.1 (17.5–54.1)	3	8.2 (2.3–29.4)	3	24.1 (16.9–34.4)	5	6.3 (2.9–13.7)
≥ 15	1	30.7 (17.5–54.1)	2	13.4 (9.5–18.8)	1	24.7 (14.2–43.0)	3	11.7 (7.6–18.0)

WHO consolidated guidelines on TB

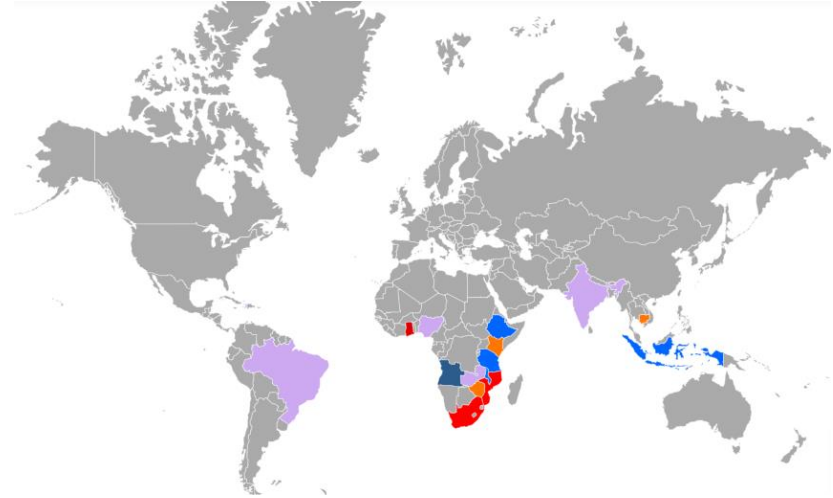
TPT Progress and Targets

- 2018 UN High level meeting targets on TPT



IMPAACT4TB Project

- Increasing **M**arket and **P**ublic health outcomes through scaling up **A**ffordable **A**ccess models of short **C**ourse preventive therapy for **T**B (IMPAACT4TB)
- **Goal:** Increase access to 3HP close contacts of TB patients in 12 high TB burden countries.
- **Generating evidence**
 - *Enhanced monitoring and evaluation* was conducted in up to four sentinel sites per country.



IMPAACT4TB countries: Brazil, Cambodia, Ethiopia, Ghana, India, Indonesia, Kenya, Malawi, Mozambique, South Africa, Tanzania, Zimbabwe

Aim, Objectives and Outcomes

- **Aim**
- To evaluate the implementation of 3HP among HHCs of TB patients in a routine programmatic setting
- **Objectives and outcomes**

Objective	Outcome
To describe the feasibility of implementing 3HP among HHCs	<ul style="list-style-type: none"> • Number of HHCs starting treatment. • Proportion of HHCs initiated on 3HP who complete treatment.
To describe routinely reported treatment limiting adverse events during treatment	<ul style="list-style-type: none"> • Proportion of HHCs initiated on 3HP who discontinue treatment due to adverse events.
To determine occurrence of TB and all-cause mortality among HHCs on 3HP	<ul style="list-style-type: none"> • Proportion of HHCs initiated on 3HP who develop TB or die while on treatment or within a year of completing treatment.

Evaluation Methods

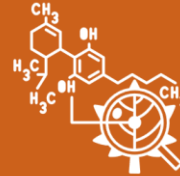
- **Population:** Household contacts of bacteriologically confirmed TB patients.
- **Period:** July 2020 to August 2022.
- **Design:** Multi-centre observational evaluation of programmatic implementation of TPT.



Strengthening
monitoring and
evaluation systems



Clinical procedures
done as per
standard of care



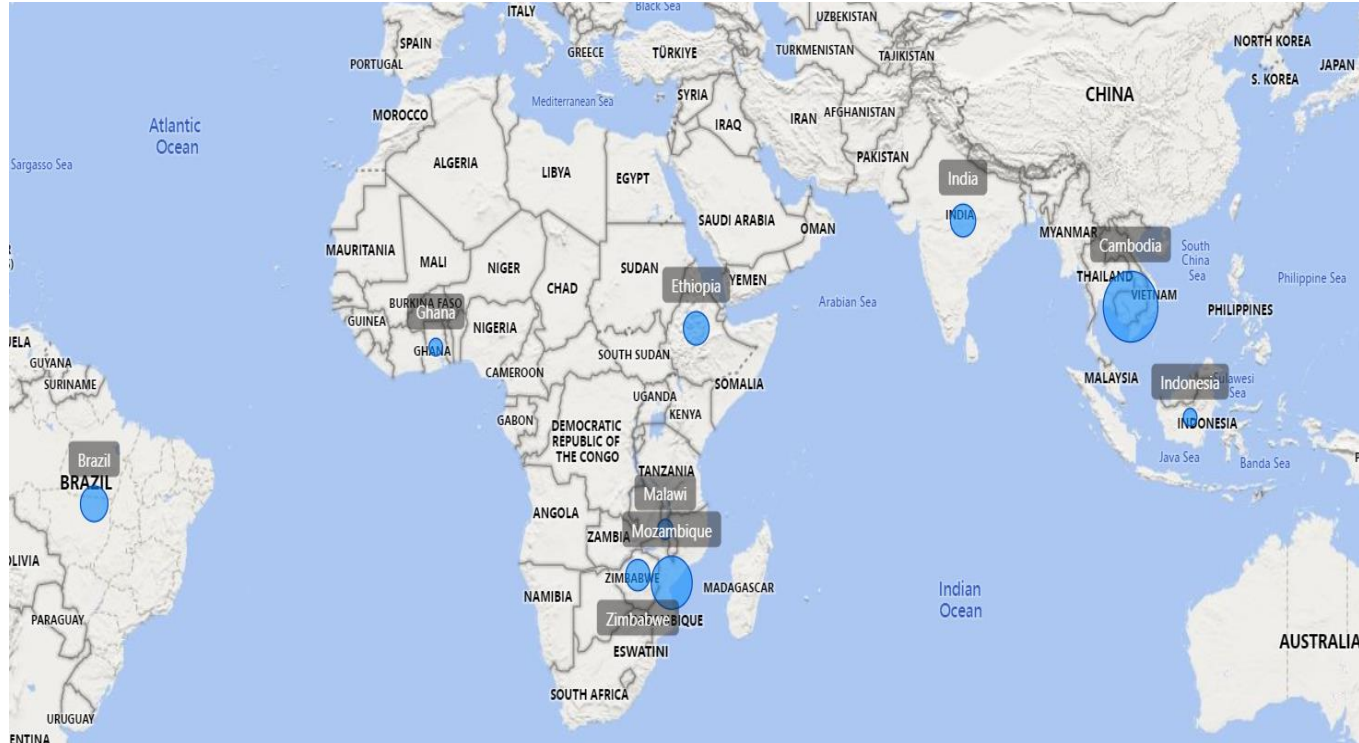
Retrospective
record review



Evaluation
outcomes
measured

- Retrospective record review was done after treatment completion in all countries and up to 12 months follow up only in 2 countries (Brazil and Cambodia).

Results: HHCs initiated on treatment



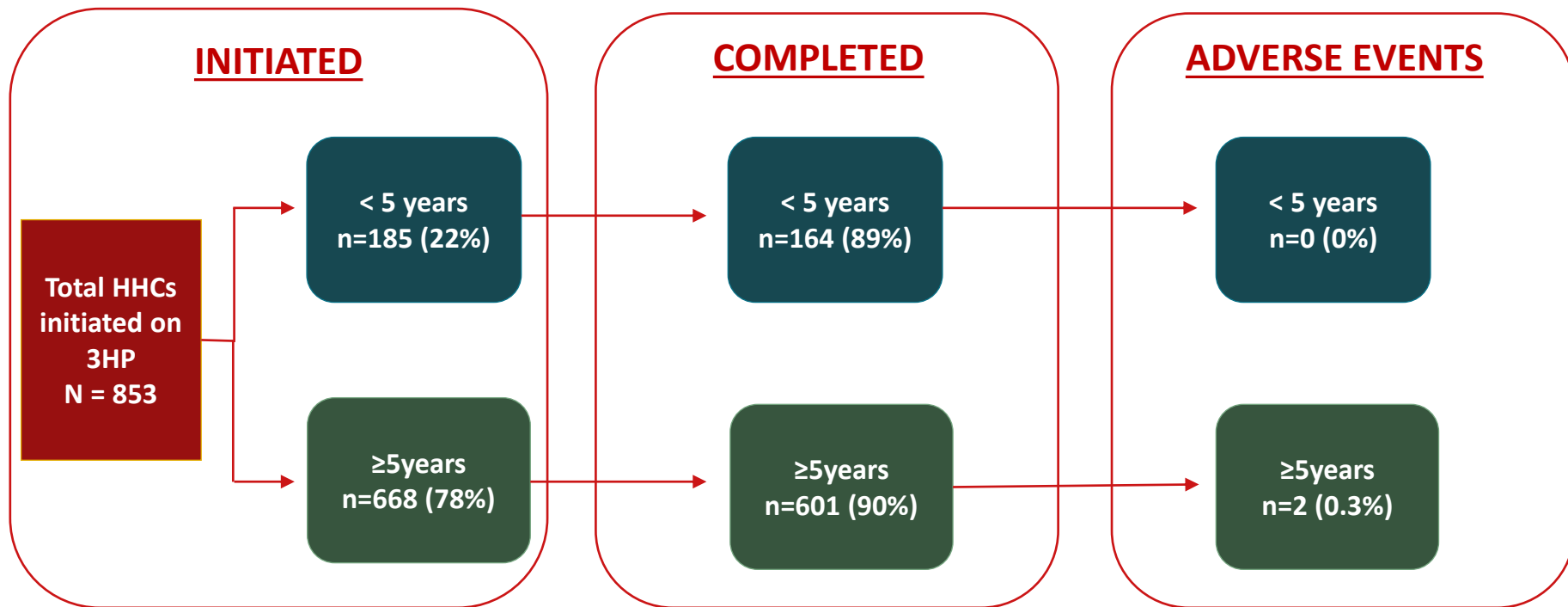
Country	# HHCs initiated on treatment
Cambodia	372
Mozambique	194
Brazil	75
Ethiopia	63
India	60
Zimbabwe	54
Malawi	15
Indonesia	10
Ghana	10

Demographics and clinical characteristics of HHCs

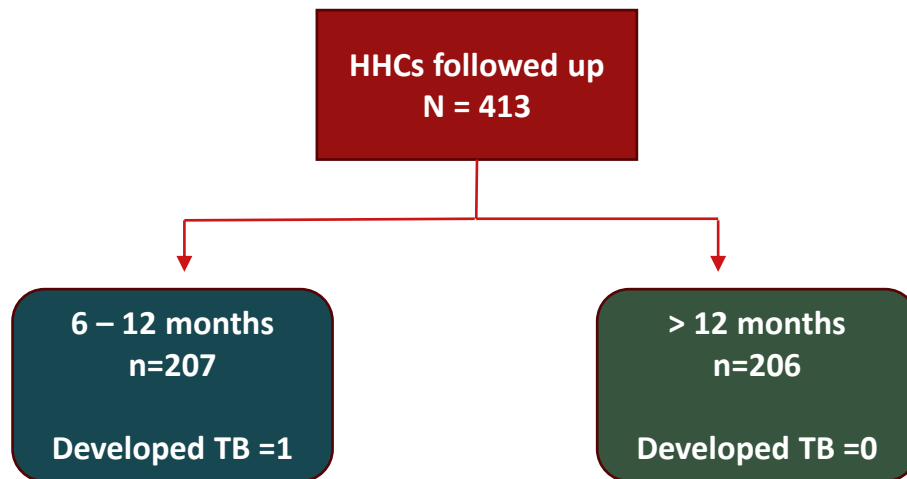
Variable	Categories	Total N(%)	< 5 years (n=185)	≥5years (n=668)
Gender	Male	409 (47.9)	95 (51.4)	314 (47.0)
	Female	444 (52.1)	90 (48.6)	354 (53.0)
Age	Median (IQR)	10 (5 – 13)	3 (3 – 4)	11 (8 – 14)
HIV Status	Positive	3 (0.4)	0 (0.0)	3 (0.4)
	Negative	315 (36.9)	55 (29.7)	260 (38,9)
	Unknown	519 (60,8)	126 (68,1)	393 (58.8)

- IQR : Interquartile range
- Median follow up days: 84 (IQR;77 – 91)
- HIV Status, missing n=16

Evaluation outcomes



Outcomes at post treatment completion



- Follow up period: Period between treatment completion date and date of follow up.
- Median follow up days: 360 days (IQR; 323 – 457)

Conclusion

- High treatment completion rates among HHCs was recorded.
- Low occurrence of treatment limiting adverse events were reported.
- Results show that 3HP initiation among HHCs needs to be ramped up.

Acknowledgements

- All country teams, national programs, ministries and departments of health of participating countries.
- Participants included in the evaluation

