

Current TB Epidemiology in the Philippines and the Effects of the COVID-19 Pandemic

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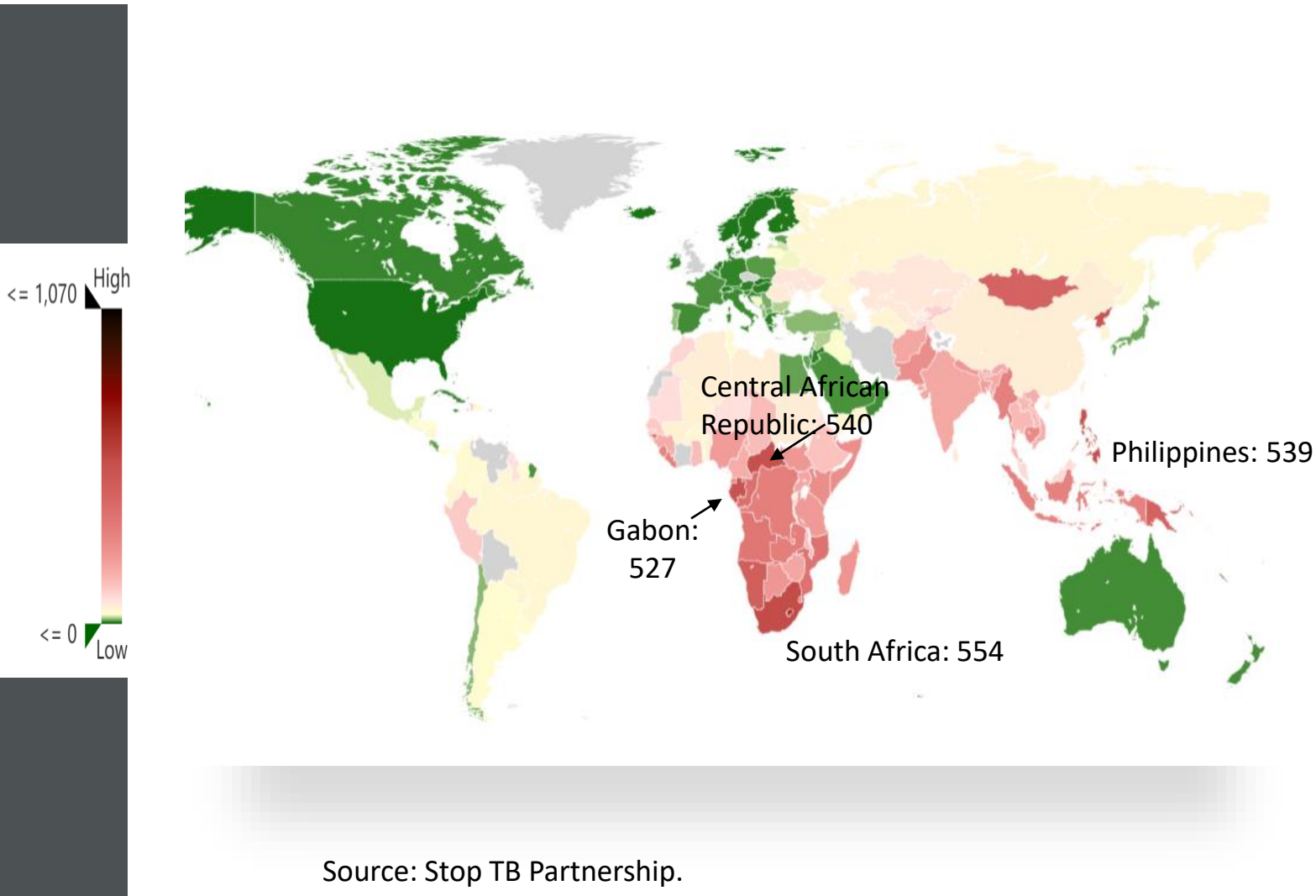
Science Policy & Information Forum on TB Elimination

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Photo credit: #TBFreePH at:

<https://tbfree.ph/index.php/resources/news-and-articles/world-tb-day-2022-press-release>

Incidence rate of TB, any form, 2020 (rate per 100,000 population)



Source: Stop TB Partnership.

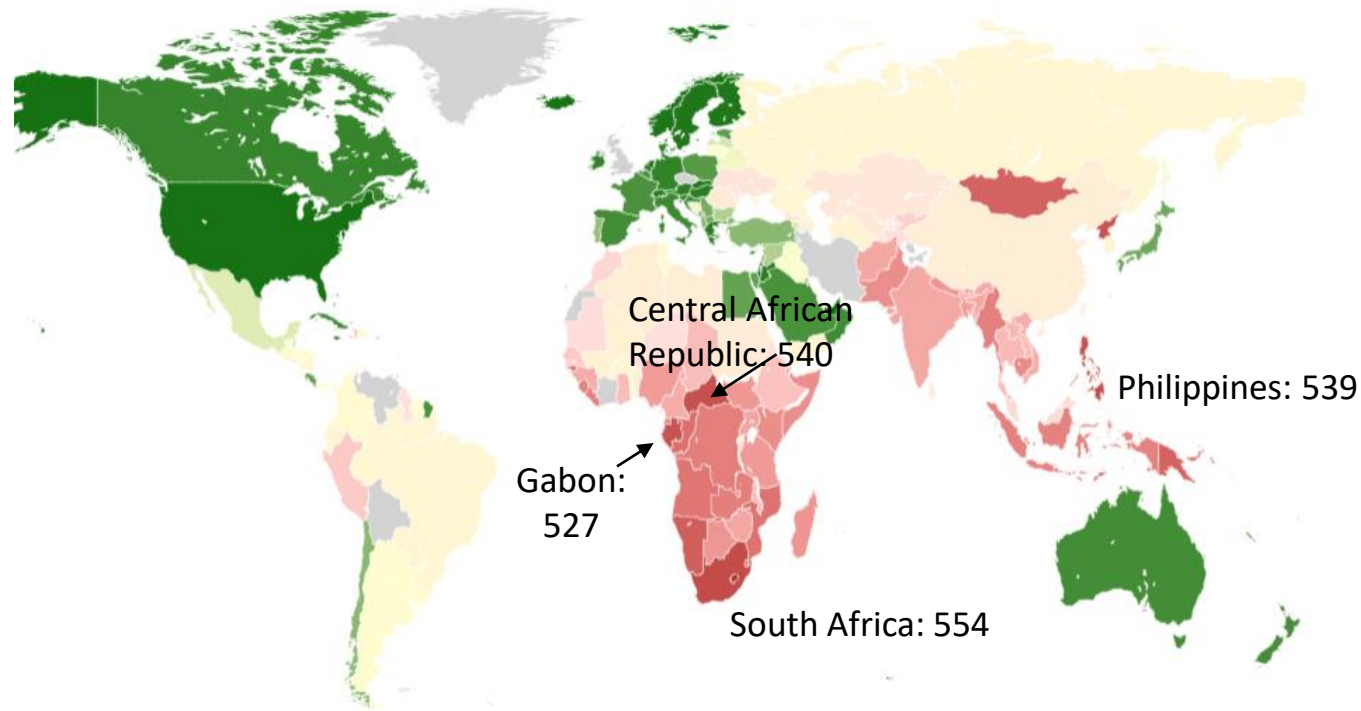
Philippines:

- Incidence: 539 per 100,000 population
- Among the top 20 high TB burden countries in the world
- 4th in terms of contribution to new TB cases in 2020:
 - India: 26%
 - China: 8.5%
 - Indonesia: 8.4%
 - Philippines: 6.0%

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- 5x the global average of 106,000 per 100,000 population
- 12th of the top 20 high MDR-TB burden countries



Source: Stop TB Partnership. Total number of people per 100,000 population that developed any form of TB.

Available at: https://www.stoptb.org/static_pages/MappingTool_Main.html



591,000

New TB cases

6,279 lab-confirmed
MDR/RR TB



73,000
children

New TB
cases out of
591,000

334,459
missing cases



54,551



of whom were
children

Year 2020

Philippines



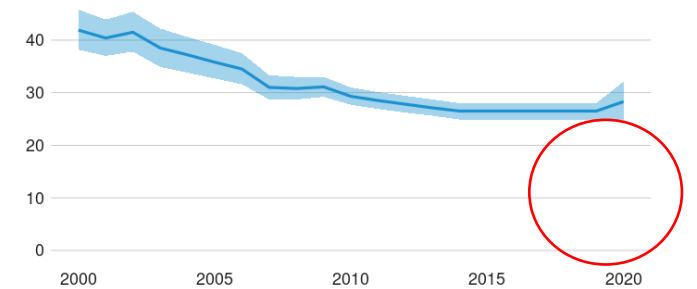
31,490

Deaths from TB

8th leading cause
of death (2019)

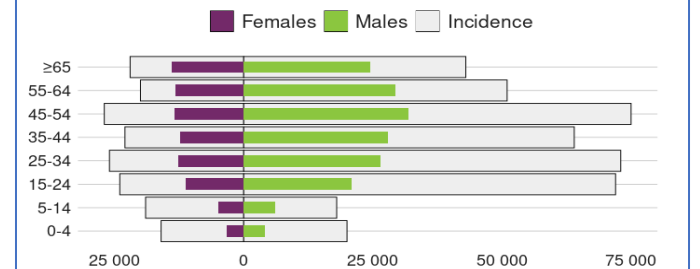
HIV-negative TB mortality

(Rate per 100 000 population per year)



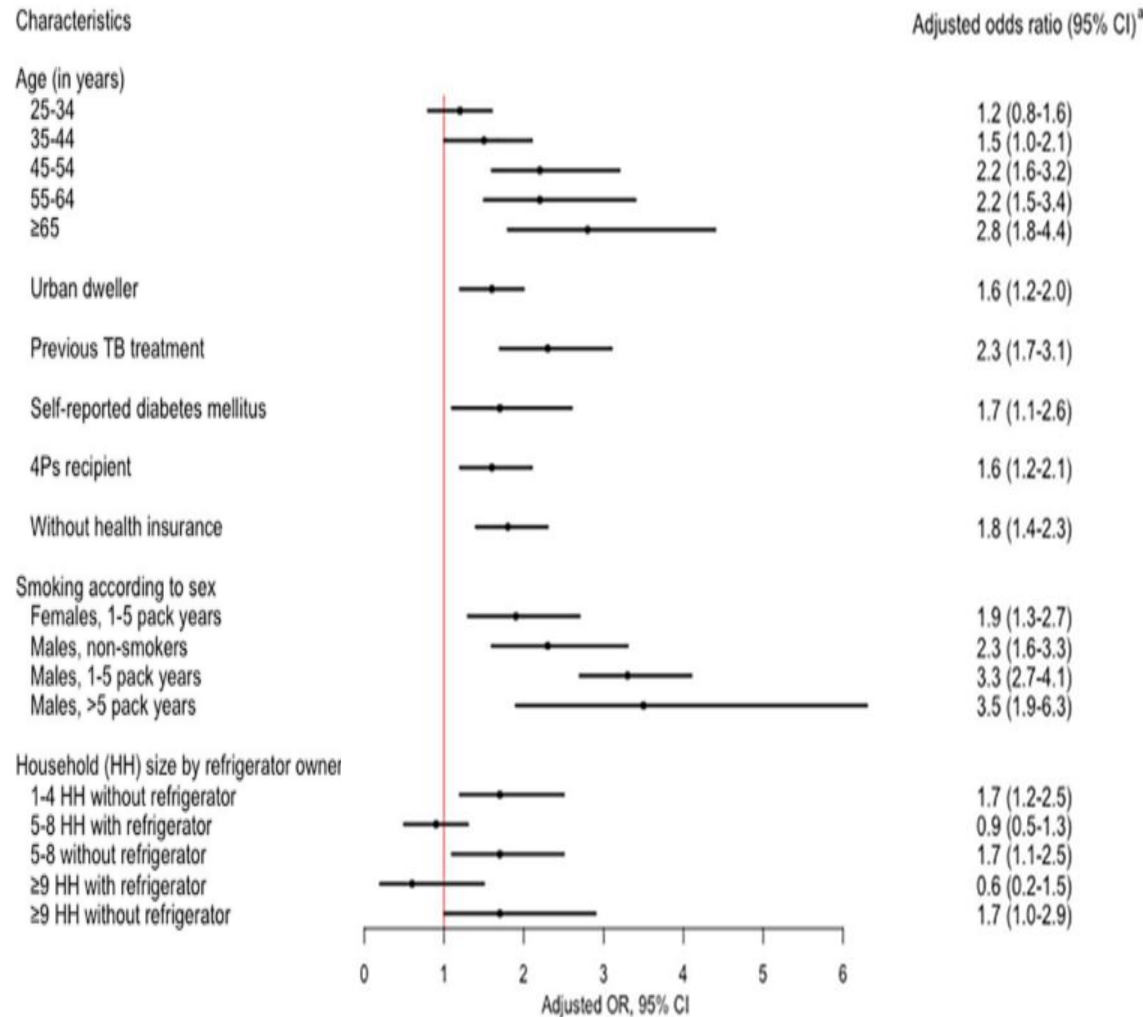
Incidence, Notified cases by age group and sex, 2020

(Number)



Sources of graphs: WHO Global TB Report 2021

Risk Factors for TB, 2016 NTPS (N=46,689)



Other Risk Factors for TB

- Close contacts of patients with TB
- Immunocompromised patients
- Patients with diabetes mellitus
- Heavy alcohol consumption
- Children < 5 years with + TB test
- Groups with high rates of TB transmission, e.g., people who use drugs, persons living with HIV, homeless persons
- Closed facilities/institutions with high risk: correctional facilities, hospitals
- Healthcare workers

Source: Lansang MAD, Alejandria MM, Law I, Juban NR, Amarillo MLE, Sison OT, et al. (2021) High TB burden and low notification rates in the Philippines: The 2016 national TB prevalence survey. PLoS ONE 16(6): e0252240. <https://doi.org/10.1371/journal.pone.0252240>

TB Infection → TB Disease

Burden of Latent TB Infection, Philippines

Assumptions:

- Estimate: $\frac{1}{4}$ of the world population → 1.7 billion
- 5 – 10% will develop active TB over their lifetime
- Philippines population (2020): ~110 million

Then:

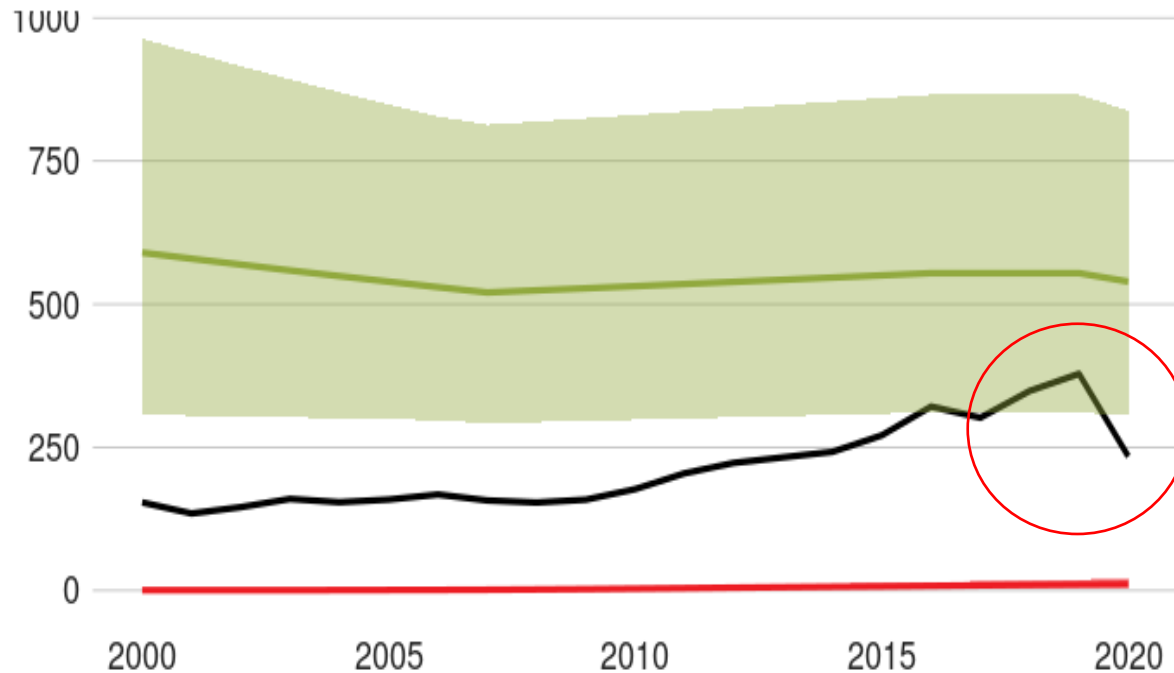
~27.5 million
latent TB infections

1.375 – 2.75 million
will develop active TB over their lifetime

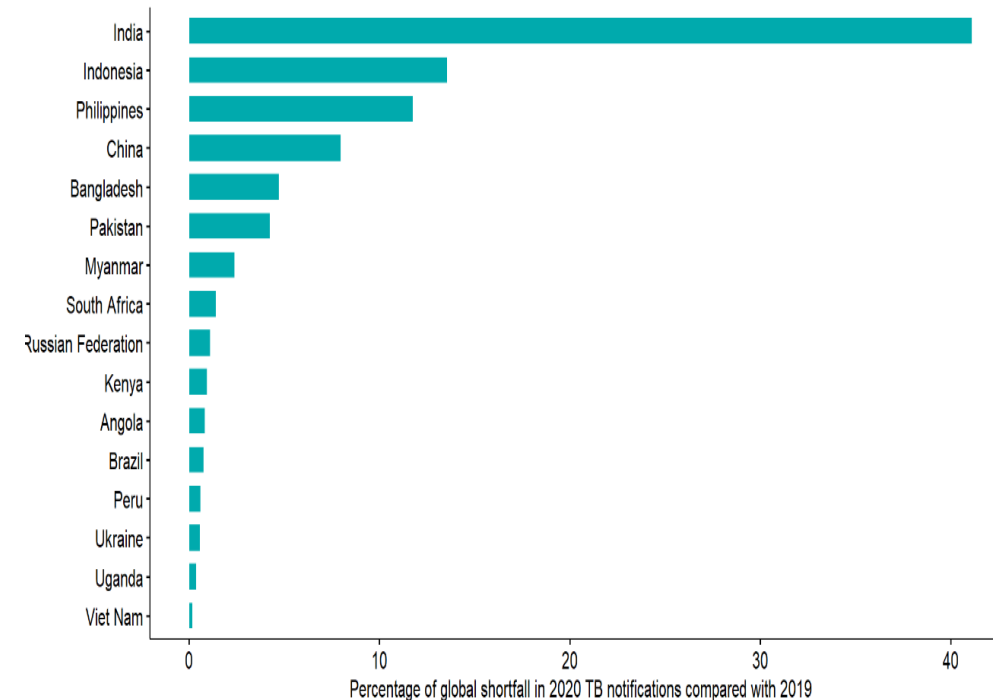


Effects of COVID-19 on TB Elimination Efforts

Incidence, New and relapse TB cases notified, HIV-positive TB incidence (Rate per 100,000 population per year)



The 16 countries with the largest contributions to the global shortfall in TB notifications, 2020 vs 2019

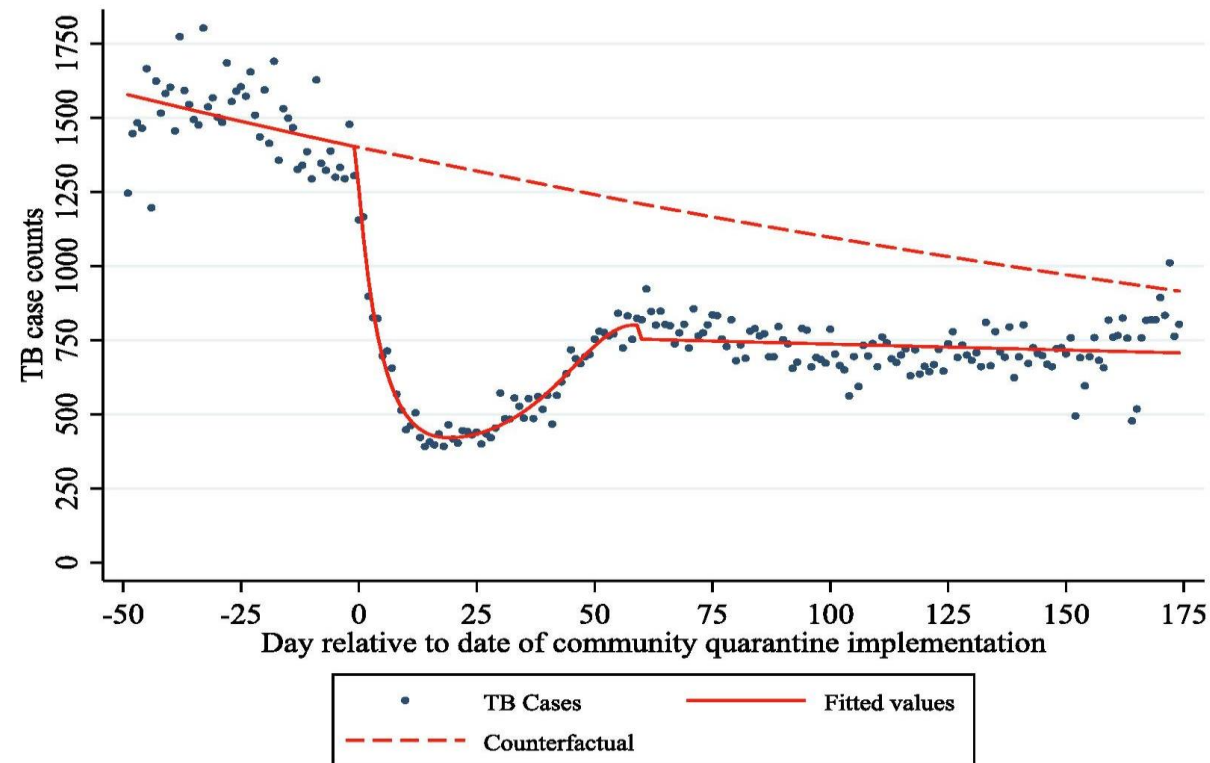


2020: 37% drop in TB notifications, Philippines

Impact of the COVID-19 pandemic on TB case notifications and mortality, Philippines, 2020

Source: Crowder R et al. *J of Clinical TB and Other Mycobacterial Diseases*. 2021; 25:100282

<https://www.sciencedirect.com/science/article/pii/S2405579421000711#:~:text=https%3A//doi.org/10.1016/j.jctube.2021.100282>



- Decline of **44.6%** (95% CI: 38.3 – 50.1%) TB case notifications during the stable post-quarantine period



- Assuming a 12-month disruption in TB case reporting:
~56.4% increase in TB-related deaths

Daily DS-TB case notifications in 2,986 DS-TB treatment facilities, Philippines, Jan – Dec 2020