

The Cost of Failing to Achieve the End TB Targets: A Full Economic Analysis



Photo courtesy Global Fund/John Rae

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Tuberculosis

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Building a tuberculosis-free world: The *Lancet* Commission on tuberculosis



"The prospect of a tuberculosis-free world is not just a distant aspiration. It is a realistic objective that can be achieved with the right commitment of leadership and resources."

A Commission by *The Lancet*

- Realizing the targets of the End TB strategy - to reduce TB deaths to 90% of 2015 rates by 2030 and to reduce TB incidence to 80% of 2015 rates by 2030 - is now highly unlikely.
- Achievement is likely to be delayed until 2045 - the best-case scenario, in-line with the Lancet Commission on TB - even with COVID-19.
- Nonetheless, the value of investing in TB programs is likely to be huge, the value of benefits of averting deaths from TB exceeding value of costs by >5 fold

WHAT IS THE COST OF INACTION?

PREVIOUS ESTIMATES

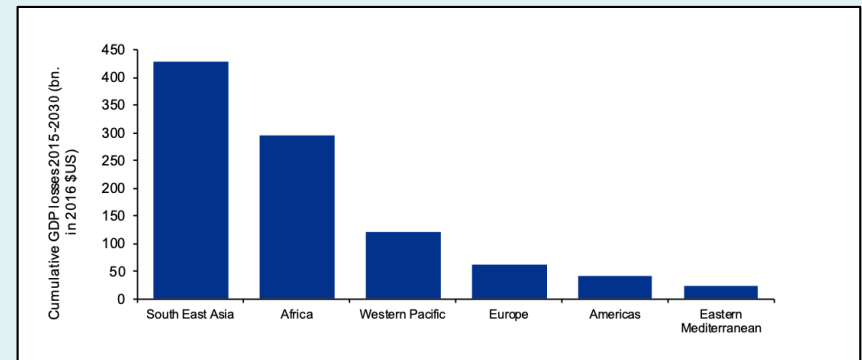
KPMG (Global TB Caucus) [2017]

FROM 2015-2030,
IF EFFORTS TO TACKLE TB CONTINUE AT THE
SAME RATE OF PROGRESS:

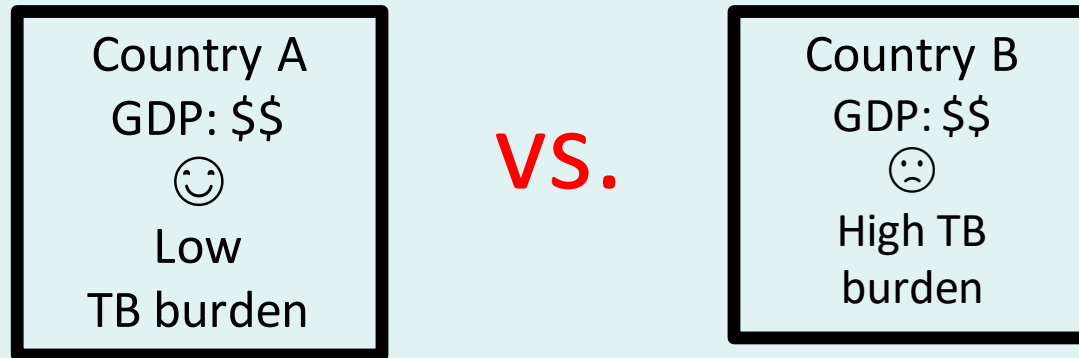
28 MILLION PEOPLE
WILL DIE BECAUSE OF TB –
AT A GLOBAL ECONOMIC
COST OF \$983BN

2015-2030:

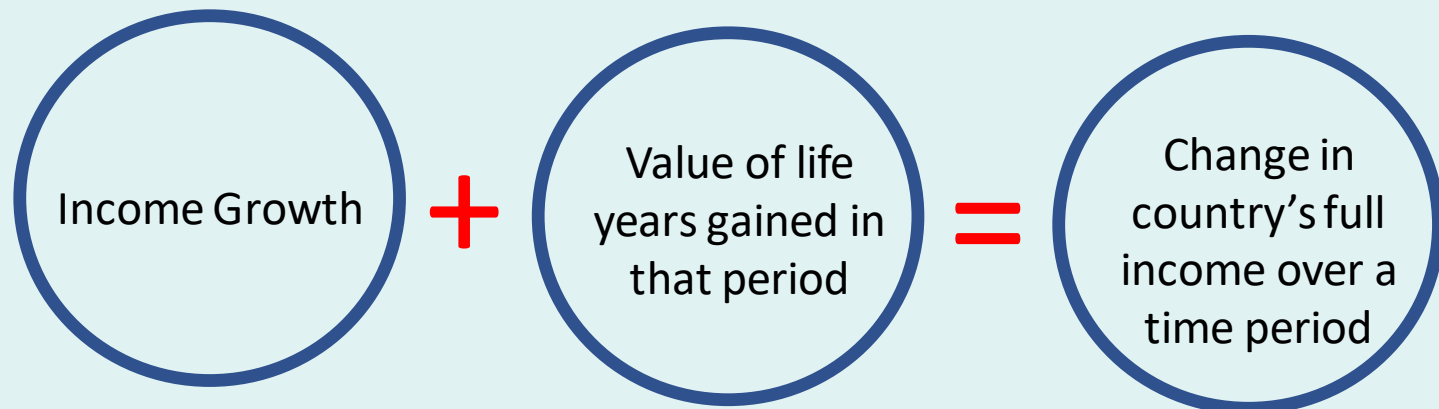
Greatest impact in South- East Asia



A better way to measure investing health?



Full Income Approach:¹



METHODS

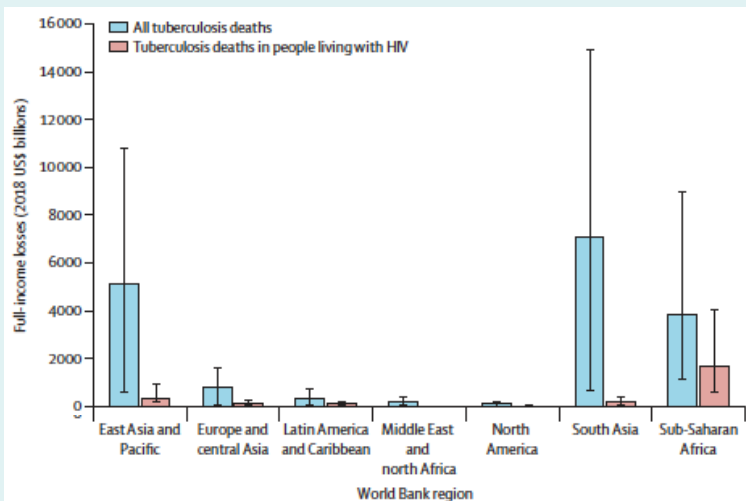
- We calculated life expectancy gains, under 3 scenarios, from 2020 to 2050:¹
 - TB death decline at a steady two percent – The business-as-usual (BAU) scenario.
 - TB death decline at an average annual rate allowing the End TB mortality target to be met in 2030 (and continue on the same trajectory until 2050).
 - TB death decline at an average annual rate allowing the End TB mortality target to be met in 2045 (and continue on the same trajectory until 2050).
- We estimated the impact of COVID-19 to lead to excess TB deaths, based on projections by Cilloni et al:²
 - Assuming 3 month suspension of services plus 10 months restoration
 - PLUS simulated excess TB deaths arising over the period from 2020-2025

RESULTS – CURRENT LOSSES

- 2018: total of 1.4 million deaths (95% UI 1.2m-1.7m) result due to all forms of TB, including deaths from TB in people who were HIV-positive.
- Full-income losses: US\$580 billion. The full-income loss per each TB death is on average US\$407k.
- Greatest losses were in sub-Saharan Africa (US\$200billion)
- In the 30 countries with highest rates of TB deaths among people with HIV, economic losses: US\$96 billion

RESULTS – 2020 – 2050 BAU:

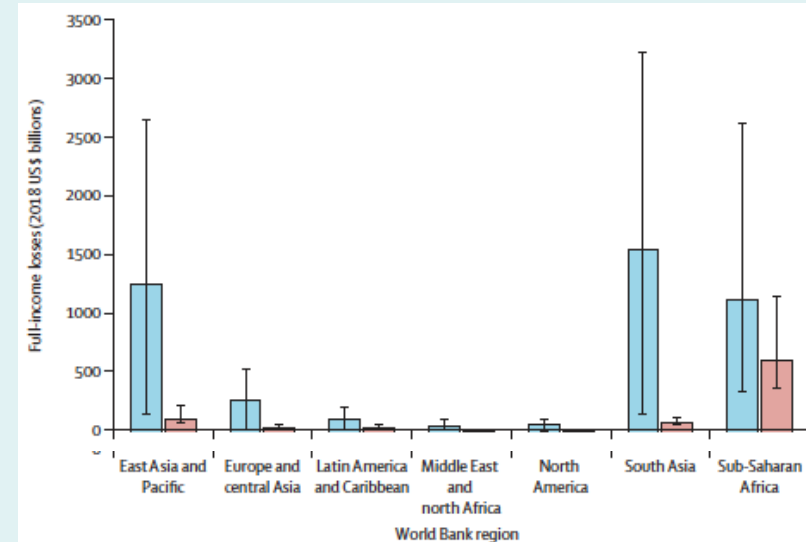
- If TB deaths declined at two percent annually from 2020 to 2050, then 31.80 million deaths result
 - The economic loss due to these deaths is US\$17.5 trillion in 2020
 - The highest economic losses would be in south Asia (US\$7 trillion), with greatest impact on life expectancy in sub Saharan Africa (0.84 yrs).
 - Highest full-income losses, in absolute terms accrue to India (US\$6.39 trillion), China (US\$1.95 trillion), Indonesia (US\$1.68 trillion), South Africa (US\$1.13 trillion) and Nigeria (US\$923.0 billion).



Economic losses by World Bank region in 2020–50 under three scenarios for reductions in tuberculosis mortality: Business As Usual

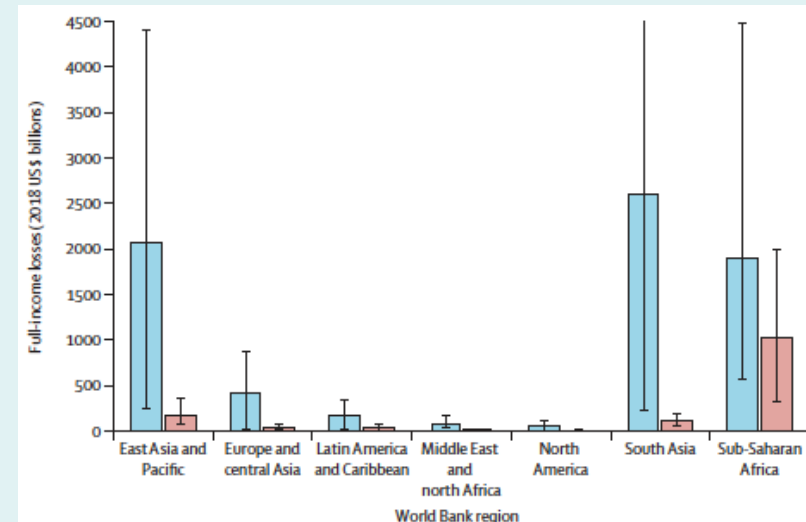
MEETING SDG TARGET IN 2030...

- A total of 8.0 million deaths result with a full-income value of US\$4.34 trillion will still die between then & now
- Meeting the End TB target in 2030 would avert 23.8 TB million deaths and avert US\$13.15 trillion in full-income losses cf. BAU scenario.



MEETING SDG TARGET IN 2045...

- A total of 13.7 million deaths result (an improvement of 18.1 million deaths from BAU scenario).
- Full-income losses are US\$7.30 trillion (a US\$10.19 trillion reduction cf. BAU scenario)
- Among people with HIV, unaverted deaths between 2020 & 2045 would incur US\$0.98 trillion in economic losses



The impact of COVID-19



TB-related health costs from short disruption in TB services (between 2020-2025)¹

- India: US\$1.9 billion
- Ukraine: US\$96 million
- Kenya: US\$29 million

Full income economic losses (120 countries) from short disruption in TB services now²

- BAU: By 2050 COVID-related excess TB deaths: US\$1trillion
- SDG Target 2045: COVID-related excess TB deaths: US\$737 billion
- SDG Target 2030: COVID-related excess TB deaths: US\$447 billion

Key take home message:

Even short COVID-19 related disruption in TB services with limited epidemiologic impact (2020-2025) will lead to substantial full income economic losses

POLICY IMPLICATIONS...



- Aggressively scale up scale-up TB control tools including increased focus on high-burden settings



- Increase domestic spending on health & hold on countries accountable for making progress to end TB



- Scale up low-cost packages, as part of broader UHC agenda



- Look for synergies with pandemic preparedness investment

Thank You

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