

Patient costs in models of TB prevention: an increasingly important consideration?

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Rationale

- Consideration of patient costs will;
 - Give a more accurate estimate of TB spending
 - Help us to understand unintended consequences of some interventions
 - Help to avoid cost-shifting from state to patient
 - Forms the foundation for work on equity, financial risk protection and catastrophic spending (as we heard earlier this week)

Cost of seeking care for TB

- Economic consequences of the cycle of TB and poverty in LMICs is well documented: Poverty increases the risk of contracting TB, while having TB exacerbates poverty.
- Although most countries aim to provide free TB diagnosis and treatment, many patients incur high direct and indirect costs due to TB - these costs have largely been ignored.
 - Direct costs comprise out-of-pocket spending for medical (e.g. medicines or consultations) and nonmedical (e.g. transport or food) items
 - Indirect costs constitute foregone income due to lost workdays.
- What are the consequences of these costs?
 - can delay care seeking, reduce adherence, slow recovery, exacerbate health problems and increase drug resistance.
 - may lead to catastrophic health expenditure and impoverishment.

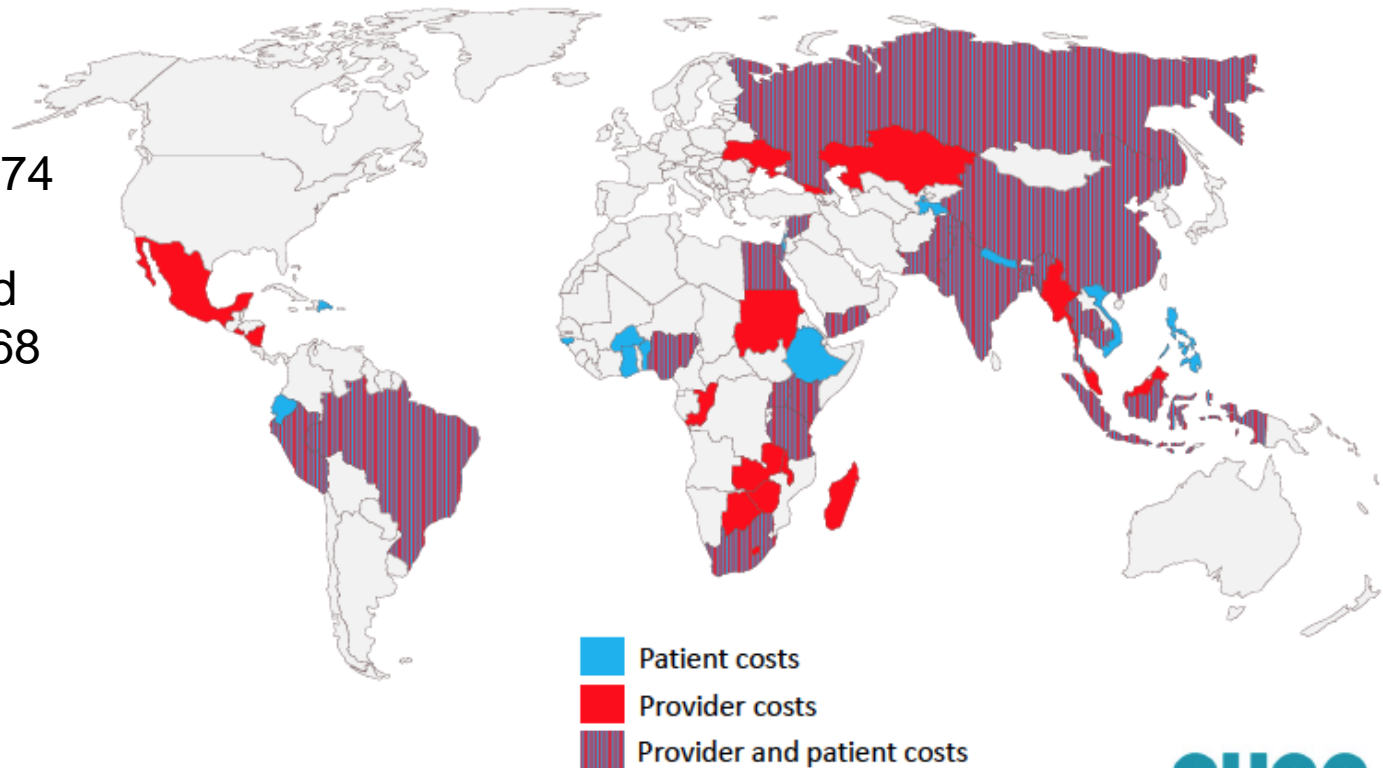
Perspective of costing and CEA of TB programmes

- Historically, most TB cost and cost-effectiveness studies used a provider or public funder perspective
- The provider perspective is used for different reasons:
 - EEs are often used to assess the relative efficiency of alternative interventions within the healthcare sector.
 - Conducting an evaluation from societal perspective is time-consuming and expensive
- Increasing numbers of costing and cost-effectiveness studies are reporting their results from a societal perspective, including both provider and patients costs

Perspective of costing and CEA of TB programmes

Total studies = 174

Studies included
patients costs=68

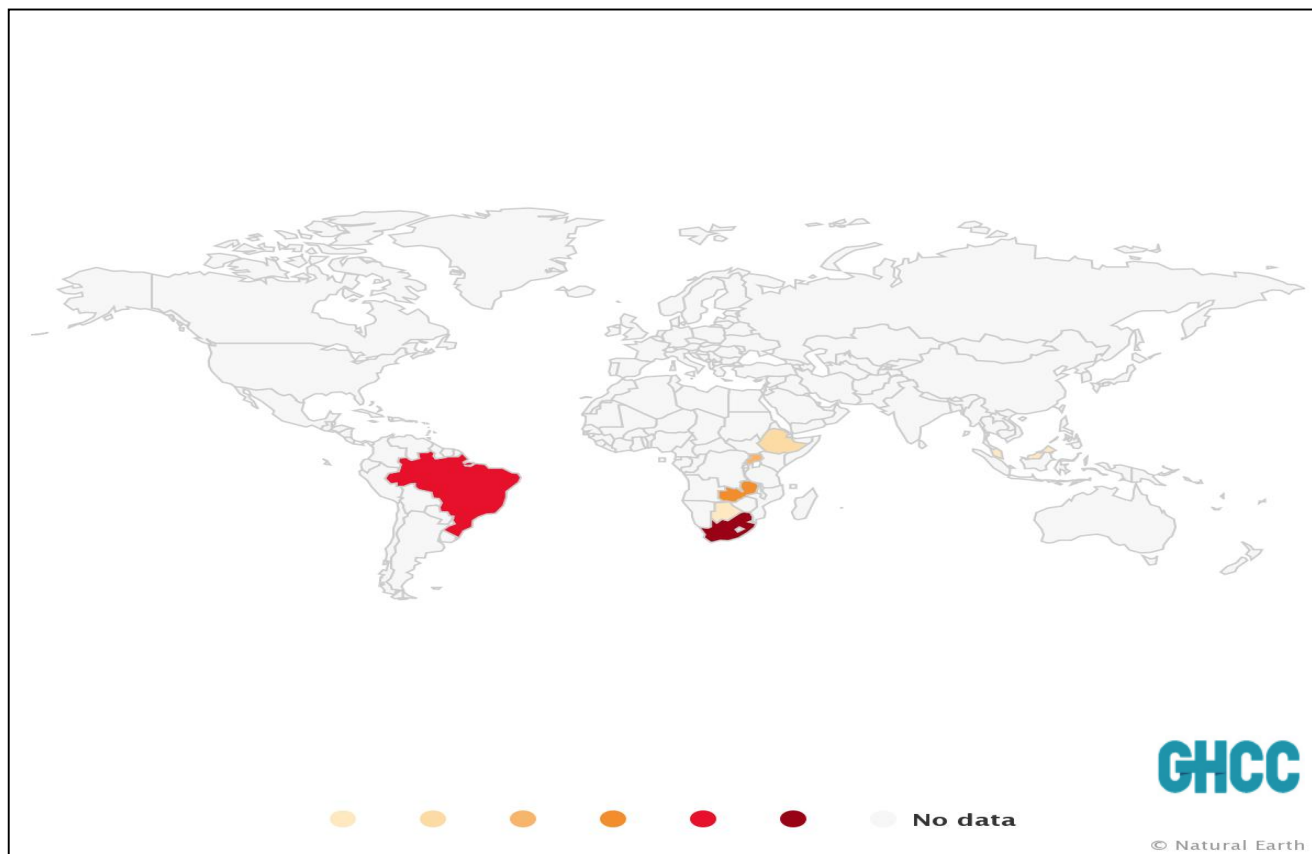


Patient costs in TB prevention studies

- The elimination of TB requires the management of LTBI, in particular in key populations.
- Patient costs are reported as a barrier to access to care (same as active TB)
- Many costing and cost-effectiveness studies of LTBI screening and treatment, majority in high income settings.
- However, only few reported patients' costs or adopted societal perspective.
- There are heterogeneity in patients' cost measurement, some with no details methodology.

TB prevention costing and CEA studies in LMICs (n=8, 22 unit costs)

Only one
study reported
patients costs



Patient costs of accessing collaborative tuberculosis and human immunodeficiency virus interventions in Ethiopia

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SUMMARY

OBJECTIVE: To measure the patient costs of tuberculosis and human immunodeficiency virus (TB-HIV) services from hospital-based pilot sites for collaborative TB-HIV interventions in Ethiopia.

METHODS: Costs of pre-treatment and treatment for a

retroviral treatment were 21% of annual household income. Costs fell as treatment progressed.

CONCLUSION: Our results highlight the need to mitigate the economic impact on patients of treatment for TB and HIV/AIDS (acquired immune-deficiency syndrome)

Table 5 Mean treatment costs, in \$US(2005)

Treatment category	Direct cost (non-transport)	Direct cost (transport)	Indirect cost	Caregiver cost	Total cost	Monthly household income	Total cost as % of monthly household income
TB treatment smear-positive for out-patients	69	64	78	14	225	38	49
TB treatment smear-positive for in-patients	225	12	70	20	327	38	71
INH prophylaxis for out-patients	15	8	17	2	42	34	10
Cotrimoxazole prophylaxis for out-patients First year of treatment	4	3	4	1	12	60	2
Voluntary counselling and testing	0	1	2	0	3	40	1
Antiretroviral treatment first year of treatment	65	8	67	1	141	55	21
Treatment for OI requiring 1 out-patient visit*	4	2	1	1	8	55	1
Treatment for OI requiring 2 out-patient visits*	8	3	3	2	15	55	2
Treatment for OI requiring 3 out-patient visits*	12	5	4	3	23	55	3
Treatment for OI requiring 4 out-patient visits*	16	6	5	4	31	55	5

*The treatment of most OIs treated in Ethiopia requires between one and four out-patient visits.
TB = tuberculosis; INH = isoniazid; OI = opportunistic infections.

ORIGINAL ARTICLE

Modelling the cost-effectiveness of strategies to prevent tuberculosis in child contacts in a high-burden setting

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ABSTRACT

Background WHO recommends isoniazid preventive

Key messages

Table 2 Cost of screening and treatment per patient (2009 US\$)

	Provider cost	Patient cost	Total cost
Component costs			
Clinic visit	12.8	10.9	23.7
Hospital outpatient visit	51.8	10.9	62.7
Hospital inpatient stay (per day)	155.3	0	155.3
TST (disposables, nurse administration and reading)	17.4	21.8	39.2
Chest radiography (includes reading and reporting)	30.6	10.9	41.5

Costs to the patient included time travelling and waiting to receive care, and transport costs.

Table 3 Costs, life years saved and incremental cost-effectiveness ratios associated with screening strategies in the base-case scenario

	15-year cost (US\$)*	Life years saved†		Cost effectiveness	ICER (life years)	
		Discounted§	Undiscounted		Societal perspective	Provider perspective
Base-case scenario, 0–2-year-old cohort, QTF						
No testing	2477	10.43	13.05	237		
TST	3513	9.52	11.90	369	(Dominated)	(Dominated)
QFT after (+) TST	3909	9.51	11.88	411	(Dominated)	(Dominated)
QFT after (–) TST	4563	10.39	13.00	439	(Dominated)	(Dominated)
QFT	4891	9.88	12.35	495	(Dominated)	(Dominated)

So why include patients costs?

- Recommended by Methods for Economic Evaluation Project (MEEP)/Gates Reference Case, Second Panel on CE in US, etc.
- Economic theory asks how to get the most benefit from limited resources:
 - Adopting a narrow perspective doesn't take into account alternative resource uses beyond the healthcare sector, which may yield greater societal welfare
 - Could result in suboptimal resource allocation decisions.
- Can help design models of care that minimise poverty.
- Helpful for designing support/social protection plans for the patients
 - As a results improve access/utilisation, adherence and recovery
- Important for achieving the global target of having no households incurring catastrophic TB costs

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Thank you

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