



TB MAC MRG 2019

Modeling the interplay of TB with primary/universal health care.

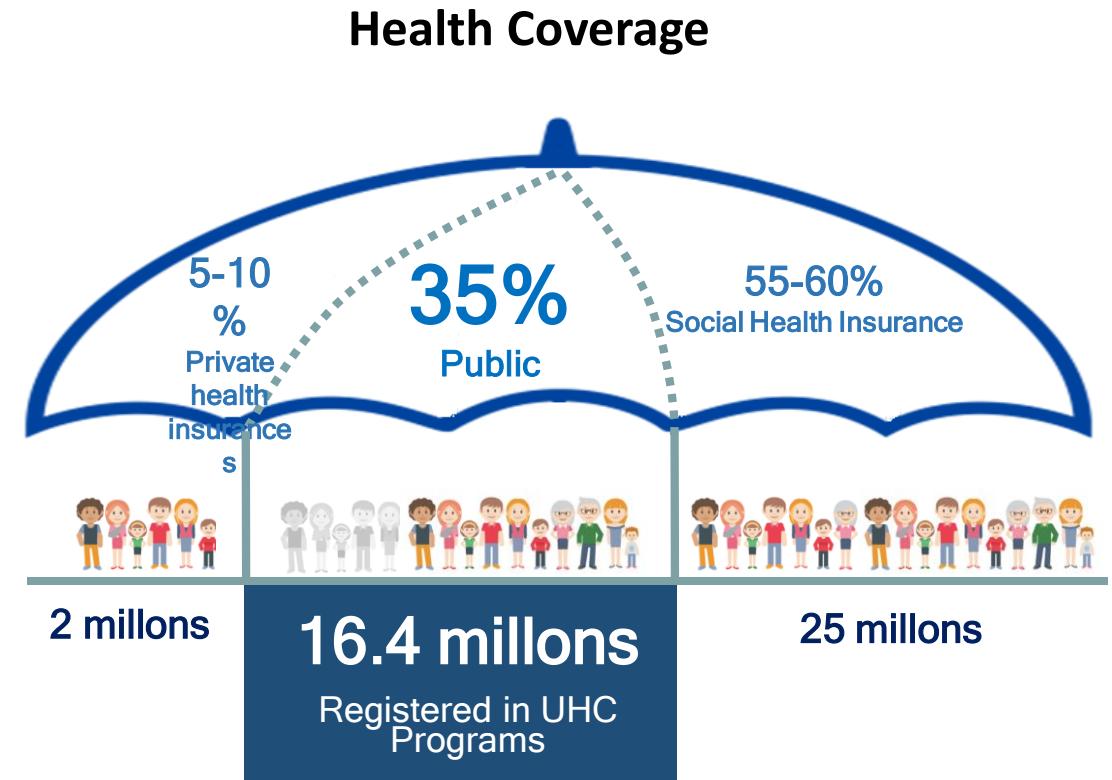
Implementation of specific UHC schemes and expected/intended impact on TB epidemiology

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Argentina



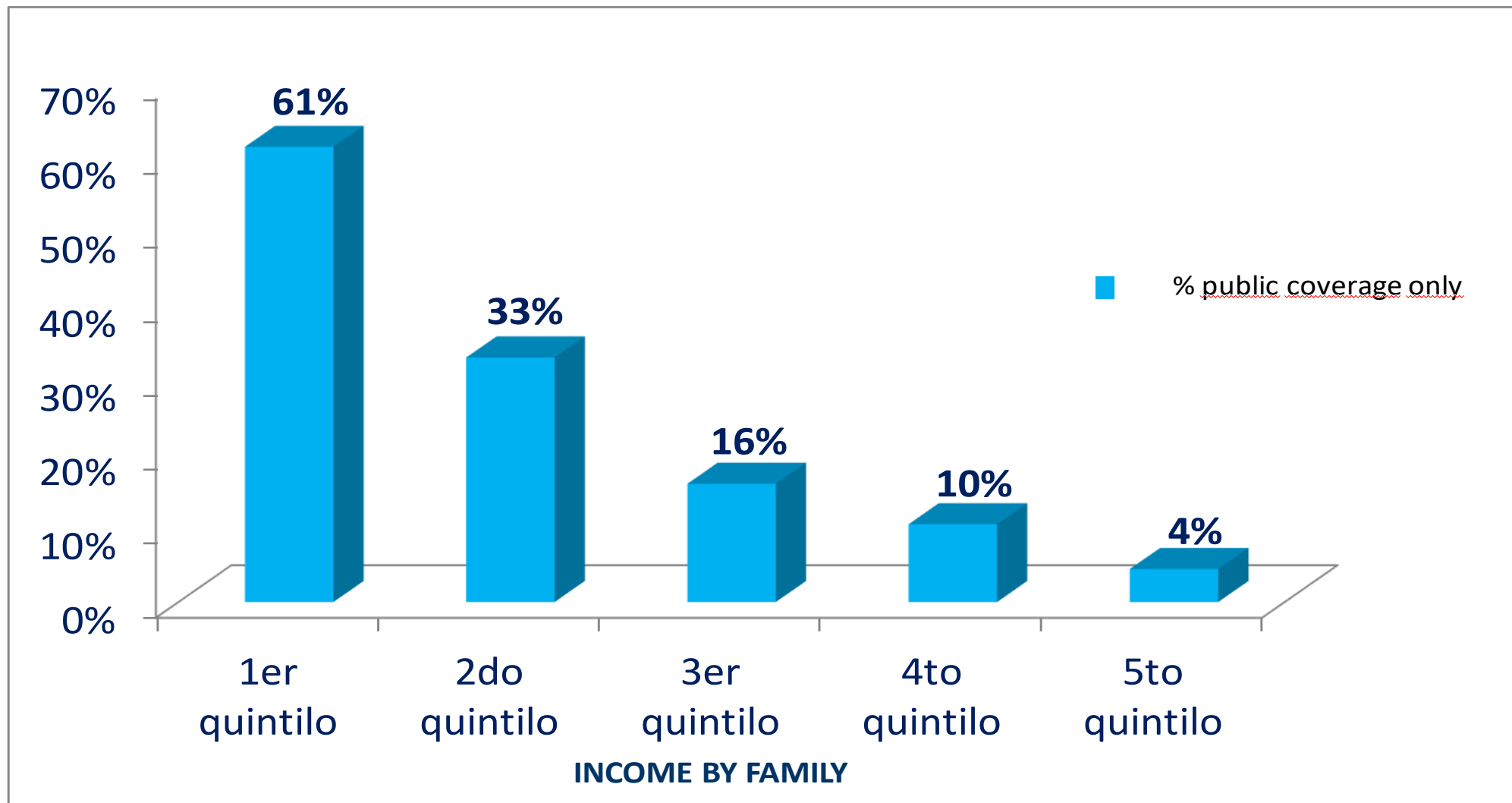
Total population (2016)	43,847,000
Gross national income per capita	21,900
Life expectancy at birth m/f (years, 2016)	74/80
Probability of dying under five (per 1 000 live births, 2017)	10
Probability of dying between 15 and 60 years m/f (per 1 000 population, 2016)	143/80
Total expenditure on health per capita (Intl \$, 2014)	1,137
Total expenditure on health as % of GDP (2014)	4.8



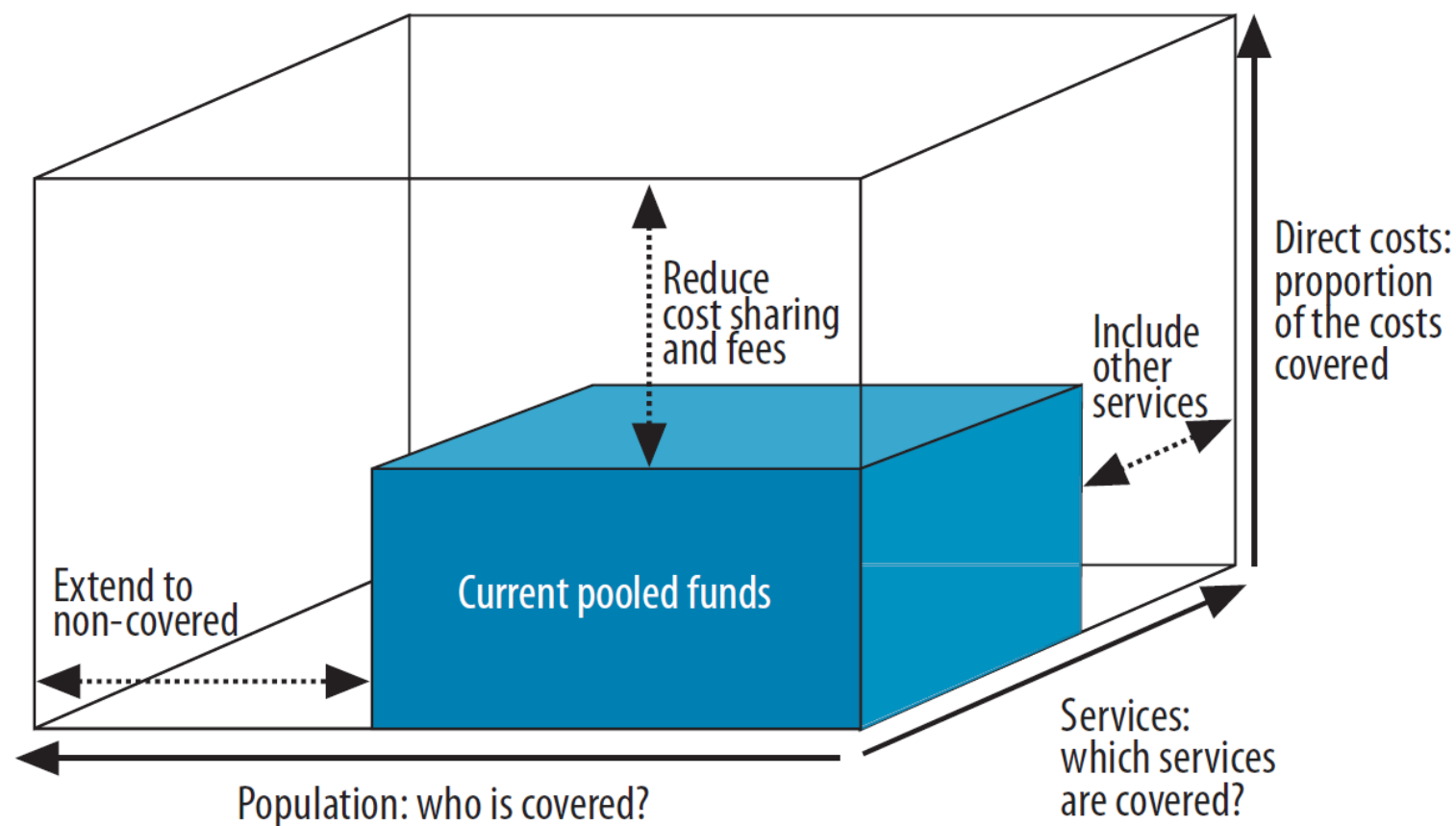
In Argentina, everyone is granted access to public health services (nominal coverage).

Health Coverage in Argentina (by Family Income)

(Lower to higher quintiles)

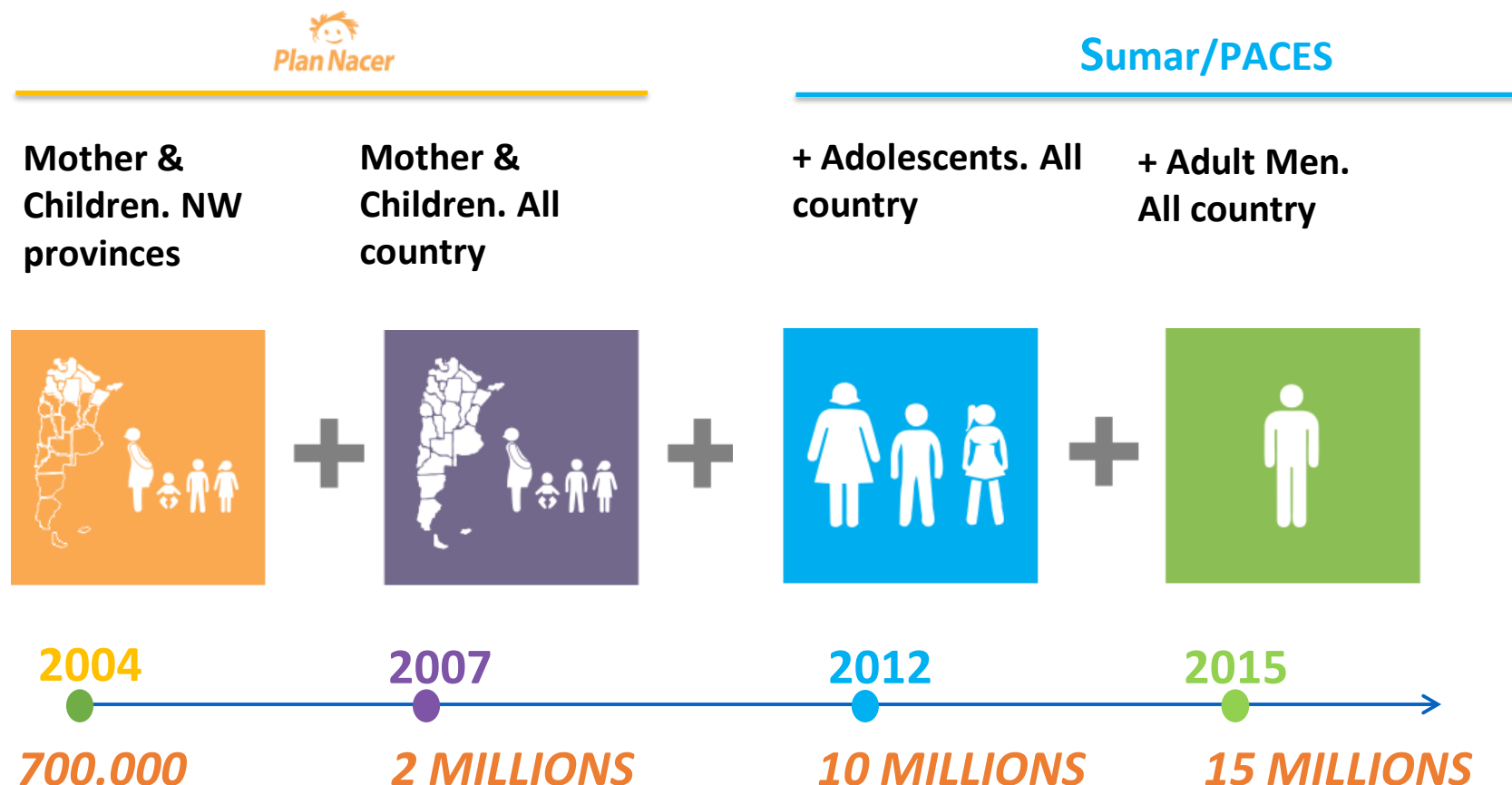


Three dimensions to consider when moving towards UHC



The road to UHC in Argentina

Nacer-Sumar-PACES Program



National program, sponsored by the World Bank, that has made a big leap in the public sector for the uninsured to advance UHC strategy

TB - Brief Summary



TB is a global health threat and the world's deadliest infectious disease despite it being largely curable.



Poor adherence to TB treatment is the most important contributing factor to poor outcomes and the development of drug resistance.



Individuals with TB face multiple barriers:

Social stigma;

Lack of education about the disease and its treatment;

Income loss, and lack of support during treatment.

TB - Brief Summary



2015 TB targets of halving the rate for incidence, prevalence, and mortality were met in the region of the Americas.



However, in many LMICs treatment success rates have remained consistently low and default rates remarkably high over the last decade.



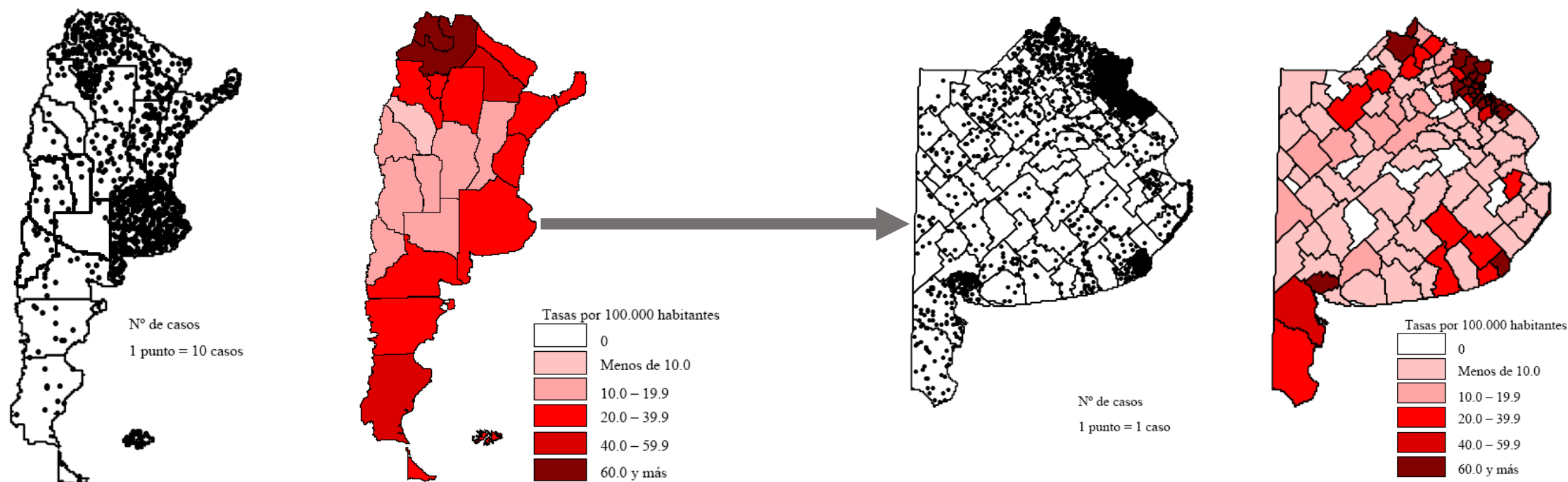
In Argentina, TB success for new pulmonary TB cases in the last 10 years ranged from 53-74% and default rates from 12-20%



The province of Buenos Aires concentrates nearly half of the more than 11,000 annual notified cases in the country and implements DOT for less than one third.

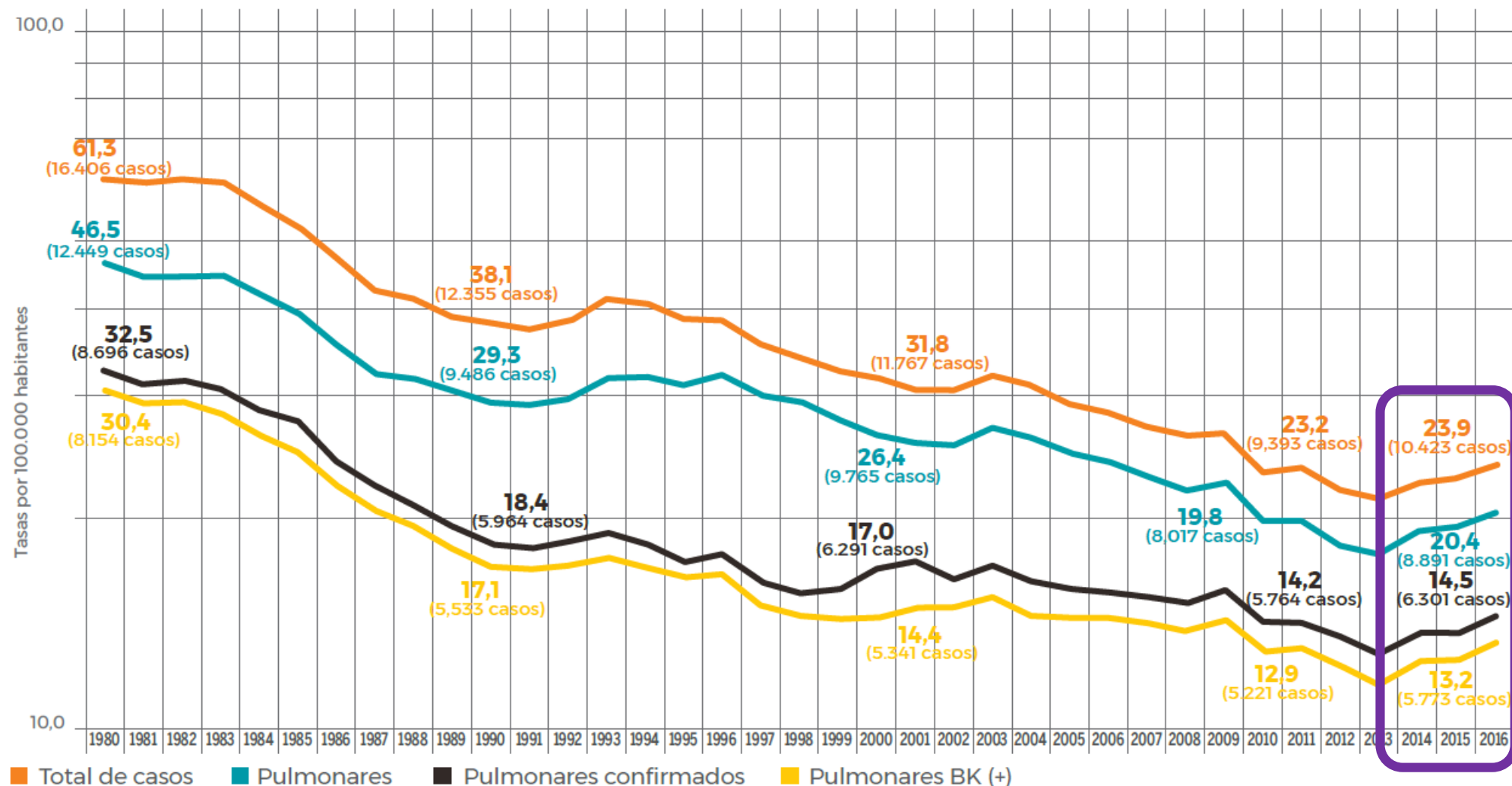
TB in Argentina

(TB case notification in Argentina and in the Province of Buenos Aires)



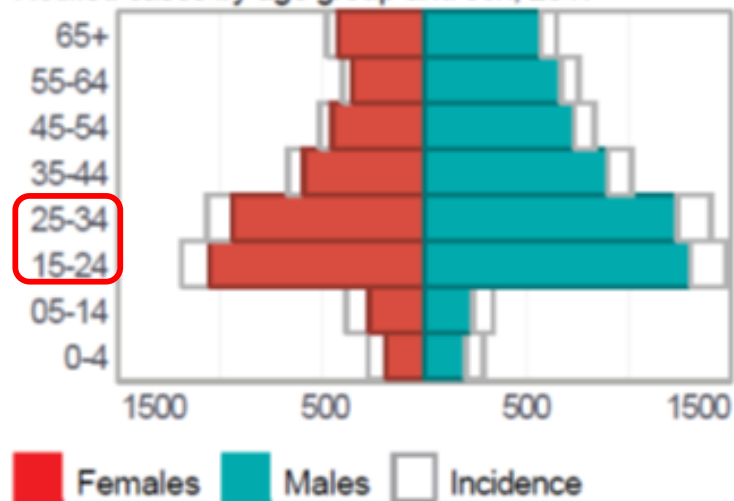
Case notification / 100,000 (new and relapses)

Gráfico 14: Tasas por 100.000 habitantes de TB todas las formas y localización pulmonar en el grupo de nuevos y recaídas. Argentina, 1980-2016.



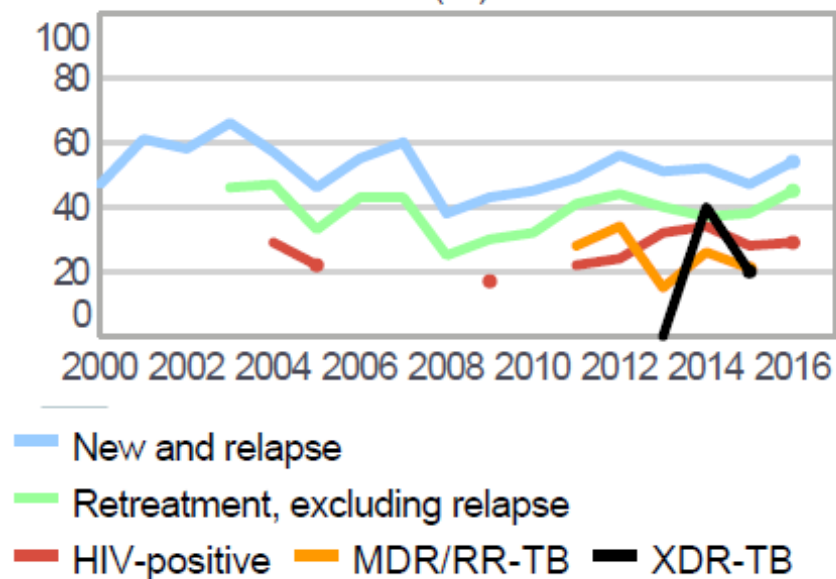
Fuente: Instituto Nacional de Enfermedades Respiratorias (INER) "Dr. Emilio Coni" con base en los datos de los Programas de Control de la Tuberculosis de las 24 jurisdicciones del país. Ministerio de Salud, Argentina, diciembre de 2017.

Notified cases by age group and sex, 2017

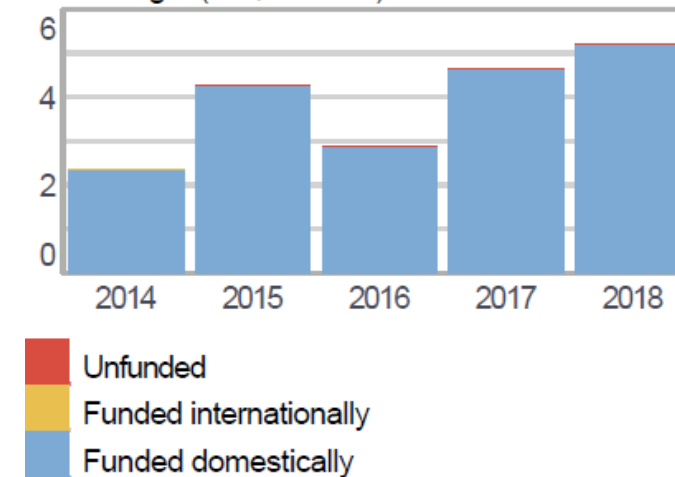


Treatment success rate and cohort size	Success	Cohort
New and relapse cases registered in 2016	54%	10 300
Previously treated cases, excluding relapse, registered in 2016	45%	1 165
HIV-positive TB cases registered in 2016	29%	652
MDR/RR-TB cases started on second-line treatment in 2015	21%	110
XDR-TB cases started on second-line treatment in 2015	20%	5

Treatment success rate (%)



Total budget (US\$ millions)



- Although TB care is provided free of charge by the public system, patients incur important direct expenses to access the treatment and may lose or reduce their source of income if they cannot work.
- Directly Observed Therapy (DOT) has been a fundamental component of the World Health Organization (WHO) DOTS strategy to ensure treatment adherence.
- Due to barriers to its full implementation many patients in LMIC still receive self-administered treatment (SAT) with high rates of default

- Argentina is one of the 5 countries in the Americas with an estimated high number of MDR-TB.
- Second-line treatments are less effective, leading to a vicious cycle of higher default rates and potentially catastrophic consequences.
- Identifying interventions to improve compliance and reduce abandonment of treatment represent a great contribution to reduce MDR-TB.

MHealth INTERVENTION DEVELOPMENT TO SUPPORT PATIENTS WITH ACTIVE TUBERCULOSIS

Sarah J. Iribarren, PhD^{1,2}, Susan L. Beck, PhD, APRN, FAAN, AOCN², Patricia F. Pearce, MPH, PhD, APRN³, Cristina Chirico, MPH, MD⁴, Mirta Etchevarria⁴, Fernando Rubinstein, MPH, MD⁵

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Research Article

TextTB: A Mixed Method Pilot Study Evaluating Acceptance, Feasibility, and Exploring Initial Efficacy of a Text Messaging Intervention to Support TB Treatment Adherence

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Research Article

Listening to Those at the Frontline: Patient and Healthcare Personnel Perspectives on Tuberculosis Treatment Barriers and Facilitators in High TB Burden Regions of Argentina

Sarah J. Iribarren,^{1,2} Fernando Rubinstein,² Vilda Discacciati,³ and Patricia F. Pearce⁴

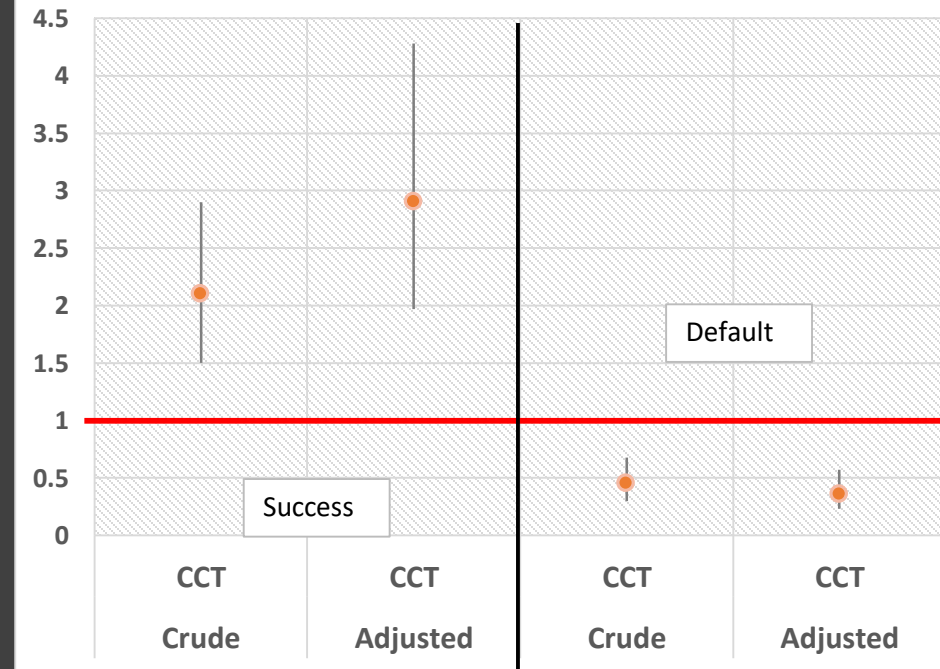
RESEARCH ARTICLE

Evaluation of a social protection policy on tuberculosis treatment outcomes: A prospective cohort study

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Odds ratios for treatment success and default



Main results

Those registered for the CCT program showed significantly higher success rates (82% versus 69%) and lower treatment abandonment (11% versus 20%) than those who were not, after adjusting for many other important individual and health system predictors of TB outcomes

From theory to action



Strengthen primary care (decentralization and management)



Facilitate access to health services in PC clinics and increase dissemination of TB information to the public and healthcare personnel



Improve the accuracy and efficiency of patient monitoring/tracking (e.g. centralized patient tracking system).



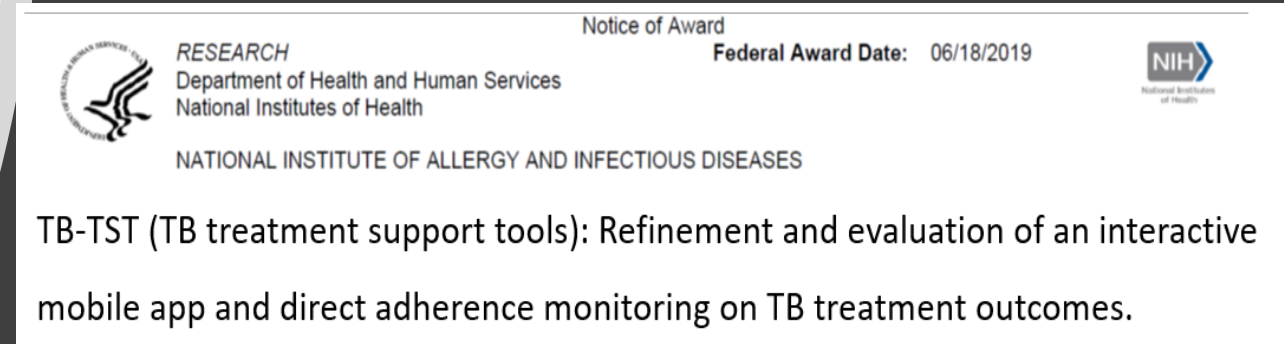
Universal Child Allowance, reaching 4 million children and adolescents up to age 18 (9.3% of the population)



Expand TB specific Cash transfer policy

Other supportive patient-centered strategies to provide tailored treatment supervision, increase self-management of care and improve patient-provider communication:

- **Grant 2019 - 2024**



- **New Proposal: to be presented in February 2020.**

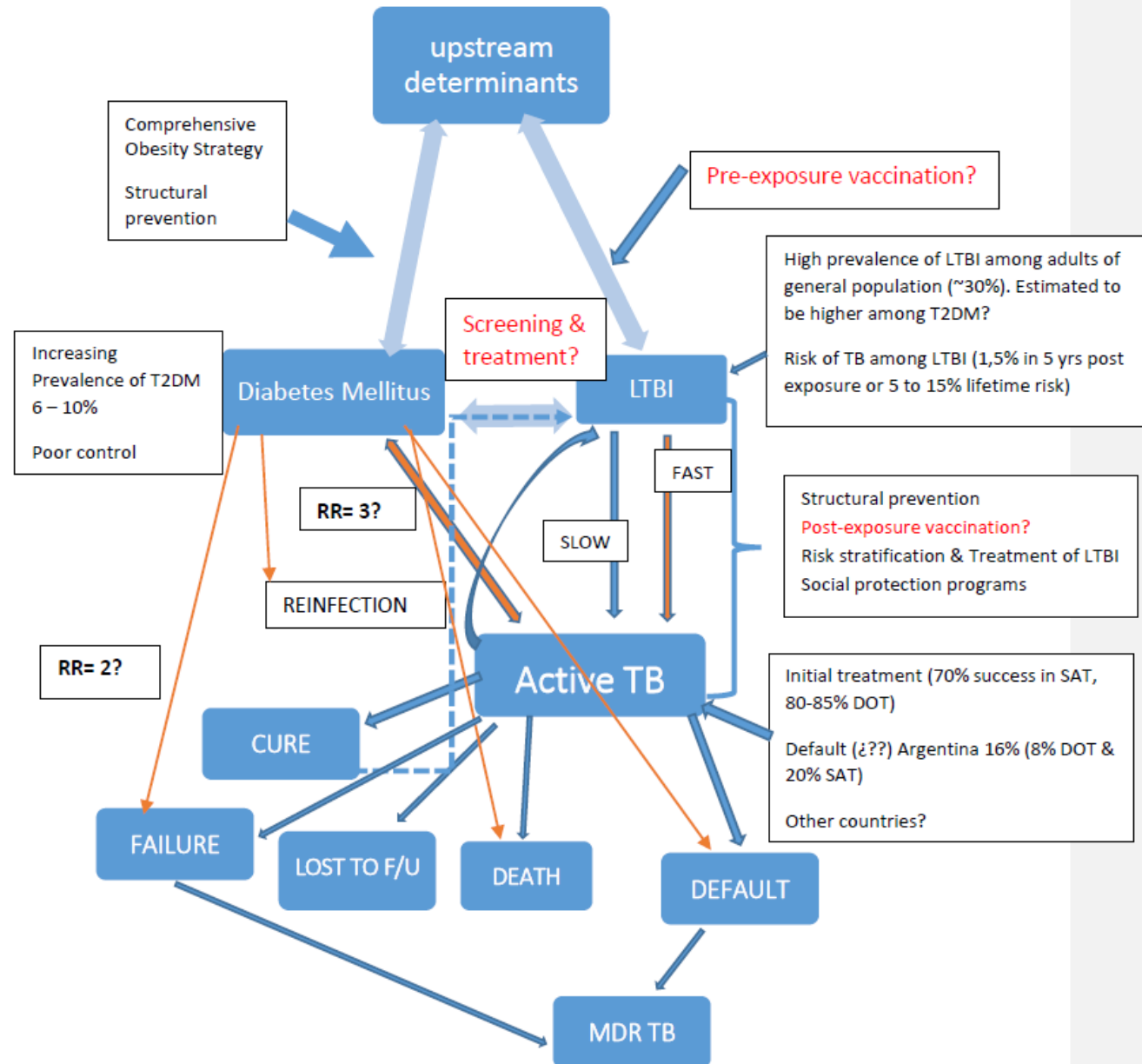
Implementation and evaluation of a multi morbidity integrated approach for TB and NCDs in primary care in Peru and Argentina.

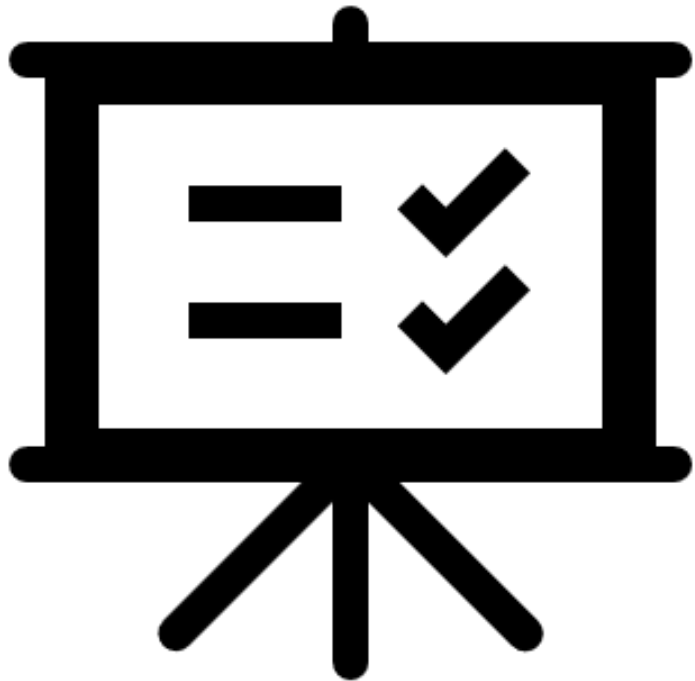
TB & Diabetes Syndemic or synergistic epidemic

The presence of two or more disease states that adversely interact with each other, negatively affecting the mutual course of each disease trajectory, enhancing vulnerability and experienced inequities.

“Although there may be little that clinical practitioners and public health interventionists can do about the presence of social and political circumstances that might negatively affect health, the syndemic framework allows for the potential to mitigate those effects by appreciating the complex nature of certain diseases and conditions and for addressing the array of factors that give rise to them.”

TB + DM

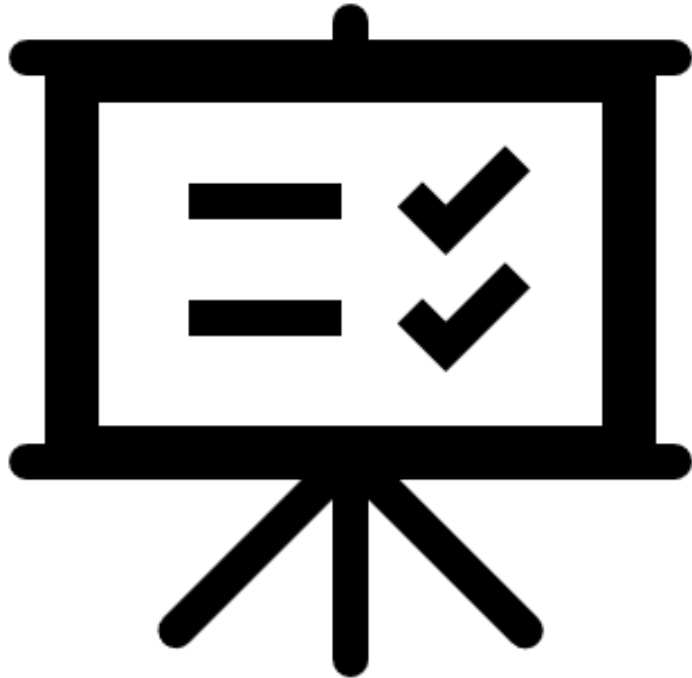




Questions for modelers

Specific TB interventions

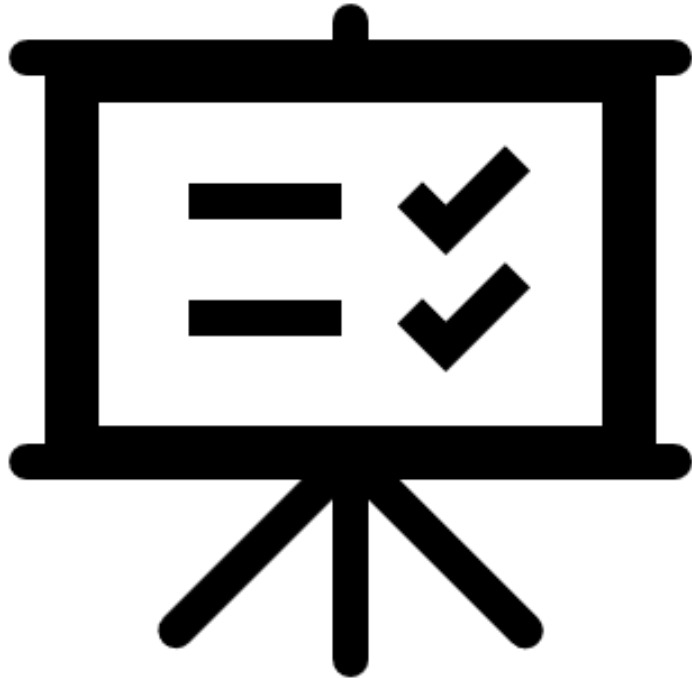
- To estimate the cost-effectiveness of initial TB treatment strategies based on different modalities of supervision with CCT and other social support programs.
- To explore of cost-effectiveness of these strategies for different risk subgroups (Risk based treatment decision).
- To define a common set of data and provide a practical generic costing toolkit for decision makers.
- To evaluate the feasibility of its implementation to inform TB treatment strategies design in settings with different TB burden and health care system organization.



Questions for modelers

Specific TB-DM

- Screening and (shortened) treatment for LTBI in DM and other higher risk groups
- Improved access and process of care for TB-DM and other NCDs co-management in primary care
- Impact of a tax on sugared beverages on obesity and diabetes prevalence



Final Comments

- Only biomedical or public health solutions are not enough to end the TB epidemic countries must implement social policy strategies that can protect the patients and their contexts and prevent incomplete treatment as a critical and necessary investment.
- We need to generate solid evidence to encourage decision-makers to facilitate and promote a much wider implementation of these policies and increase the coverage to all TB patients and households living under vulnerable conditions