Maximising impact with limited resources: optimisation versus prioritisation

Kathy Fiekert

SP-61-C9: Making informed and smart choices: evidence-based optimisation of national strategies to end TB
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PROGRESS TOWARDS END TB STRATEGY MILESTONES FOR 2020

and the four global targets set in the political declaration at the UN high-level meeting on TB: latest status

<table>
<thead>
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<th>MILESTONE OR TARGET</th>
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<tr>
<td><strong>TB INCIDENCE</strong></td>
<td>20% reduction by 2020 (compared with 2015)</td>
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<tr>
<td><strong>TB DEATHS</strong></td>
<td>35% reduction by 2020 (compared with 2015)</td>
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<tr>
<td><strong>TB PATIENTS NOT FACING CATASTROPHIC COSTS</strong></td>
<td>100% of TB patients by 2020</td>
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<td><strong>TB TREATMENT</strong></td>
<td>40 million people, 2018-2022</td>
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<tr>
<td><strong>TB PREVENTIVE TREATMENT</strong></td>
<td>20% reduction At least 30 million people, 2018-2022</td>
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<tr>
<td><strong>FUNDING FOR TB PREVENTION AND CARE</strong></td>
<td>US$ 13 billion annually by 2022</td>
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<tr>
<td><strong>FUNDING FOR TB RESEARCH</strong></td>
<td>US$ 2 billion annually, 2018-2022</td>
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Source: WHO Global Tuberculosis Report 2019

*End of 2018 except for funding for TB prevention and care (2019) and funding for TB research (2017).*
“TB patient journey”
& the care continuum

- Infection
- Symptomatic
- Community
- Healthy population
- Disease screening
- Diagnosis
- Treatment initiation
- Treatment support/monitoring & adherence
- Treatment completion/cure
- Notification

People seen by TB services, not diagnosed or notified:
- TB screening (not done)
- TB screening (not notified)
- TB screening (not treated)
- TB screening (not cured)

People not accessing the health system:
- People with TB infection
- High-risk population
- Associated diseases
- Symptomatic care
- Symptomatic disease, not seeking care

People with TB seeking care but either not diagnosed or not notified:
- TB screening (not done)
“TB patient journey” & the care continuum

People notified as a TB case but not successfully treated
- Diagnosed, not started on treatment
- Notified, not successfully treated
- Successfully treated, not relapse free

People not accessing the health system
- People with TB infection, high-risk for disease
- Asymptomatic disease, not seeking care
- Symptomatic disease, not seeking care

People with TB seeking care but either not diagnosed or not notified
- Presenting to health facilities, not diagnosed
- Diagnosed by non-NTP, not notified
- Diagnosed by NTP, not notified
Intervention optimization

1. Problem Prioritization
   - Which are the biggest problems?

2. Root Cause Analysis
   - What contributes to the problem? What does it look like?

3. Intervention Identification
   - What are priority solutions?

4. Intervention Optimization
   - Optimize impact with available resources

“What makes most sense?”

- People don’t make it to the health system
- People are in the health system, but not notified/diagnosed
- People with TB are notified, but not cured
- People with TB are notified, but not cured

Compare budget to best impact (epidemiological & economic)
Modelling to support prioritisation/optimisation

Feasibility =
- Affordable
- Available
- Acceptable
- Realistic (Doable)

Impact modelling:
- Validation/ robustness/ limitations?
  - Model ≠ “Crystal Ball”
- But how to address complexity?
  - Intervention packages vs interventions
  - Strategies depending on available resources
  - Short-term vs long-term vision
  - Intervention interdependency (A before B)

But what about the cost?
How much?

How much do we have?
How much does it cost?
What is it worth?
• long-term/ short-term
• Micro-economic/ macro-economic
Consider “true” and complete cost for both provider and patient

Don’t ignore hidden and related costs and “knock-on effects”
TB Financing

**Closing Financing Gaps**

- **US$ 10.1 Billion** required annually for **TB Implementation**
- Funding gap: **US$ 3.3 Billion in 2019**

**Funding Gaps in TB Research**

- **US$ 2 Billion** required annually for **TB Research**
- Funding gap: **US$ 1.2 Billion in 2017**
Economic evaluation is paramount

Is it worth the effort?

- Short-term and long-term gains (including future cost savings)
- Wider economic impact
  - healthy workforce = higher productivity & GDP
- ICERs (Incremental Cost Efficiency Rates)
- “Business case”....
  - “invest now, save later”, “Best buy”, etc.

Costing ≠ economic evaluation!
Understanding the intervention and cost

**Aim:** To create a national plan that is prioritized to reflect optimal allocative efficiency given at least 3 funding scenarios: 1) current / expected resource envelope, 2) +X% increase; and 3) fully funded

Acceptable additional resource input vs worthwhile enhancement/improvement of impact

Which will enable:

- Prioritized allocation of domestic budget
- Framework for allocation of sub-national budgets
- Prioritized investment case
- NSP-based funding application to Global Fund
- Expression of priorities for other donor funding and research activities
And yet … there is still a tendency …

• To prioritise rather than **optimise** – i.e. chose one intervention or risk group over another

• For donors & policy makers to “pick & choose” certain aspects to focus on and invest in rather than seeing the programme as a whole
  • *(e.g. gender bias, investment has to equal lives saved, etc.)*

• To oversimplify a complex situation
  • **Assuming heterogeneity** *(programming based on national aggregated average)*
  • **Misunderstanding UHC as** “everyone needs and is getting the same”
Global stakeholders including the World Health Organization rely on predictive models for developing strategies and setting targets for tuberculosis care and control programs. Failure to account for variation in individual risk leads to substantial biases that impair data interpretation and policy decisions.

=> Call for Risk Inequality Coefficient (RIC) compliant transmission & impact models

A note on modelling:
Purpose

Closing the gaps along the care continuum to find and cure **ALL** people with TB

Differentiating subnational responses to address TB in local contexts

Optimizing the implementation of TB services within UHC

Preventing infection, active disease, morbidity and mortality due to TB

Enabling patient-centered approaches which promote quality of care
Optimisation is about more than just the ingredients ...

New data acquired over the past 2-5 years will drive a targeted and prioritised approach.

NSP reflects a patient-centred approach to planning and evidence-based prioritisation of resource allocation to close the gaps along the patient pathway to quality care.

The NSP is operationalised through a partnership framework aligned to each stakeholder’s comparative advantage.

Activities address systemic and root causes of the gaps along the patient pathway, suggesting the complementary roles of sub-national and central governments, departments across the Ministry of Health, partners and other sectors.
The best strategic plan ... is only as good as its implementation

• Who is doing
• What
• When
• To what extend
• and for How much

--- and don’t forget to monitor and evaluate 😊
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