SMART4TB Webinar

February 2023

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Supporting, Mobilizing, and Accelerating Research for Tuberculosis Elimination

SMART4TB Consortium

Webinar Outline

- What is SMART4TB?
- SMART4TB in Context
- Technical Areas
- Proposed Approach for Country Engagement
- Feedback from Country Partners - live
- Q&A- live

Supporting, Mobilizing, and Advancing Research for TB Elimination

SMART4TB Consortium

Supporting, Mobilizing, and Advancing Research for TB Elimination

SMART4TB – a USAID Cooperative Agreement and an extraordinary investment to accelerate progress to achieve the END TB goals

- A consortium of leading researchers, educators, policy experts, and public health advocates from across the globe
- A TEC of up to USD $200 million over 5 years to meet the challenges of ending TB
- A tripartite mission of *Research, Capacity-Strengthening, and Policy and Community Engagement*

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UCSF

Johns Hopkins University

KNCV Tuberculosis Foundation

Elizabeth Glaser Pediatric AIDS Foundation

TAG Treatment Action Group

Regional Collaborative Hosts

walimu

KEMA

PHRU Improving Life Through Research
Perinatal HIV Research Unit of the University of the Witwatersrand

Y.R.G. CARE

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SMART4TB Strategic Vision

To design and implement research studies with local partners that will identify effective person-centered methods for finding, treating, and preventing TB; to strengthen local capacity to conduct high-quality research; and to engage communities to build demand for new interventions, drive policy change, and improve implementation of new and existing interventions to reach the End TB targets.

SMART4TB: A Tripartite Mission

Research

Capacity-Strengthening

Policy and Community Engagement

SMART4TB Guiding Principles

- **Transformative:** Novel approaches for reducing TB burden
- **Inclusive:** Engaging MOHs and NTPs, local partners and affected communities at all steps of the research to policy continuum
- **Collaborative:** Providing support and processes for locally-led research
- **Transparent:** Using a transparent and unbiased process for selecting studies in partnership with USAID.
- **Supportive:** Intentional support for developing the next generation of TB scientists.
- **Synergistic:** Harmonizing with other USAID resources, including Global Accelerator to End TB and other programs, and leveraging support from product developers and sponsors.

SMART4TB in Context

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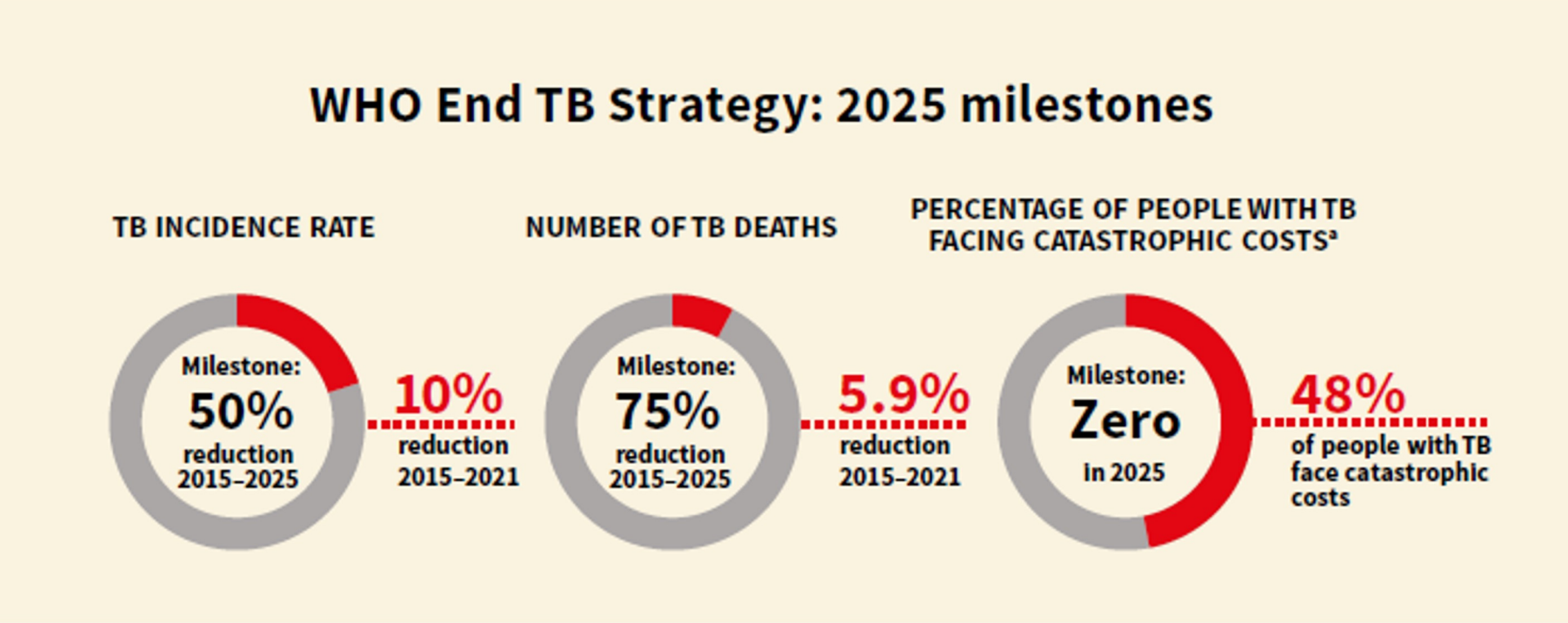
Progress Towards the End TB Goals Is Slow



- Further reductions in the global burden of TB requires new tools, new implementation strategies, increased demand from affected communities, and translation of research results into practice.
- Innovative approaches to Ending TB require engagement of local country partners: NTPs, clinicians, TB-affected people and communities.

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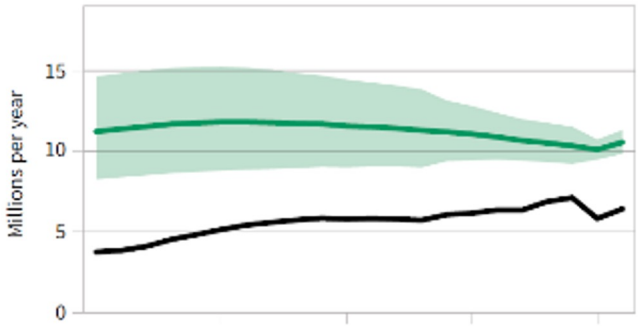
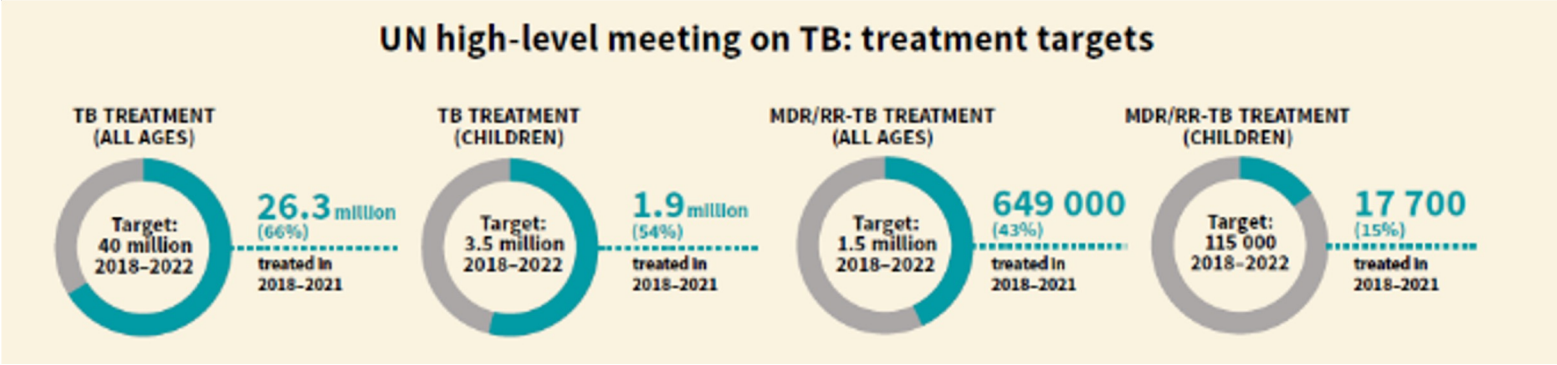
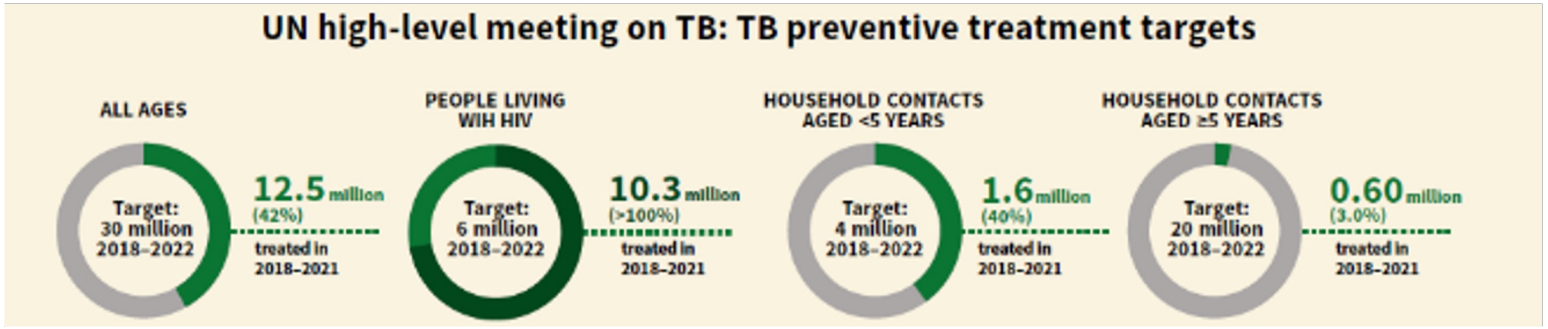
New tools and strategies are essential to close the gaps in the TB care and prevention cascade

- Gaps in diagnosis
- Gaps in treatment
- Gaps in prevention







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Strengthening Local Capacity is a Critical Need

- New solutions will come from high-burden countries, where research need be performed
- Strengthening the capacity of local institutions and investigators to design, implement, and analyze studies is an urgent need
- Engagement of affected communities to help shape and drive demand for new approaches will hasten achieving the END TB goals

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Rapid Policy Translation

- Research that only sits on the pages of medical journals benefits no one
- Moving *Results into Practice* requires translation of data into policy and dissemination of policy into practice
- Ensuring that the voice of affected communities is heard in creating guidelines is essential for meaningful policies
- Generating demand for better technologies, strategies, and policies benefits patients, providers, communities, and countries

SMART4TB Technical Areas

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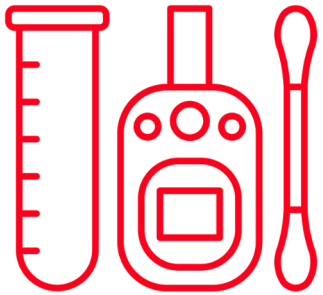
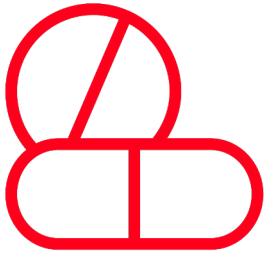
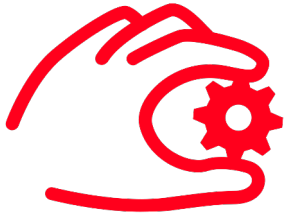
Technical Areas



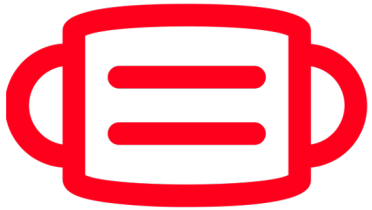
TA1: Diagnostics



TA2: Therapeutics



TA3: Operational Research



TA4: Interrupting Transmission

TA5: Vaccine Preparedness

TA6: Capacity Strengthening

TA7: Policy Translation

TA1: Diagnostics

Key activities and deliverables: Leverage high-quality TB diagnostic research sites and existing protocols to rapidly initiate evaluations that will enable WHO review of promising novel tests:

- Identify, help advance, and select novel diagnostics for field evaluations
  - Support biotech innovators to pivot to TB diagnostics
- Evaluate the usability and performance of non-sputum-based point-of-care TB diagnostic tests among adults to facilitate WHO policy review
  - ADAPT Study
- Evaluate the usability and performance of non-sputum-based point-of-care TB triage and diagnostic tests among children
  - ADAPT Kids Study

TA2: Therapeutics

Key activities and deliverables: Develop novel regimen trials for DS- and DR- TB, and rapidly assess the landscape of options for pregnant women and children in TB therapeutics trials:

- Randomized trial in adults and children to improve the treatment of DR-TB by optimizing regimens and duration using baseline predictors for treatment failure and relapse (PRISM-TB)
- Randomized trial of a treatment-shortening DS-TB treatment trial in children with a stratified medicine approach (SMILE-TB)
- Develop a consensus statement on TB therapeutic research in pregnant women (BRIDGE UP)
- Develop a protocol evaluating bedaquiline for TB prevention in adults, children, and pregnant women (BREAK-TB)

TA3: Operational Research

Key activities: Working with local partners in priority countries, develop operational research to improve performance of TB programs by targeting health system challenges and socioeconomic, behavioral, and other determinants of TB

- Working jointly with TA6, assist local investigators in developing research protocols addressing key needs in program effectiveness
- Promote collaborations between NTPs, local research organizations, and regional partners to develop multi-country studies of interventions to improve TB detection, treatment, and prevention
- Ensure that a capable and capacitated workforce of TB researchers is present in countries to continue operational research after SMART4TB is over.

TA4: Transmission Prevention

Key activities: Develop and evaluate innovative concepts and practices to interrupt tuberculosis transmission

- Develop a protocol to evaluate TB contact evaluations within social networks of patients to identify individuals with unrecognized TB or in need of TB Preventive Treatment
- Develop and evaluate packages of Airborne Infection Prevention and Control (AIPC) practices to reduce transmission within health facilities

TA5: Vaccine Preparedness

Key activities and deliverables: Build the foundation to inform research and future implementation activities for new TB vaccines:

- Conduct a scoping review of evidence available and identify gaps related to TB vaccine readiness
- Conduct a desk review to learn from recent vaccine introductions across the life course, including COVID-19 vaccines, HPV vaccines, and others
- Undertake an evidence-based approach to identify priority countries and target populations, and collect preliminary data related to TB vaccine readiness

TA6: Capacity Strengthening

Key activities and deliverables:

- Develop and conduct virtual country surveys intended to identify country preferences for engaging with SMART4TB, as well as priorities for types of TB research and TB research capacity strengthening
- Develop an early-stage Investigator (ESI) Mentorship Program

TA7: Policy Translation

Key activities and deliverables: Build a strong framework for policy translation and community engagement in each step of the project's development, as well as achieve ambitious high-level global policy commitments to advance research to end TB:

- Research design and implementation reflect the priorities of country stakeholders and affected communities;
- Following engagement throughout protocol and trial development to ensure project plans are relevant for policy change;
- Policy and community engagement plans and use of resources are aligned and synergistic with other members of the global TB community

Proposed Approach for Country Engagement

How Can Country Partners Participate in SMART4TB?

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TA3: Supporting Local Research

With bilateral mission funds…

TA3: Operational Research

- Work with country partners to develop research projects to address gaps in TB cascades of care and prevention, and address other barriers to care and social determinants of health
- Collaborate with regional and global partners to develop multi-country studies addressing unmet needs in TB prevention and care

TA6 Strengthening Capacity

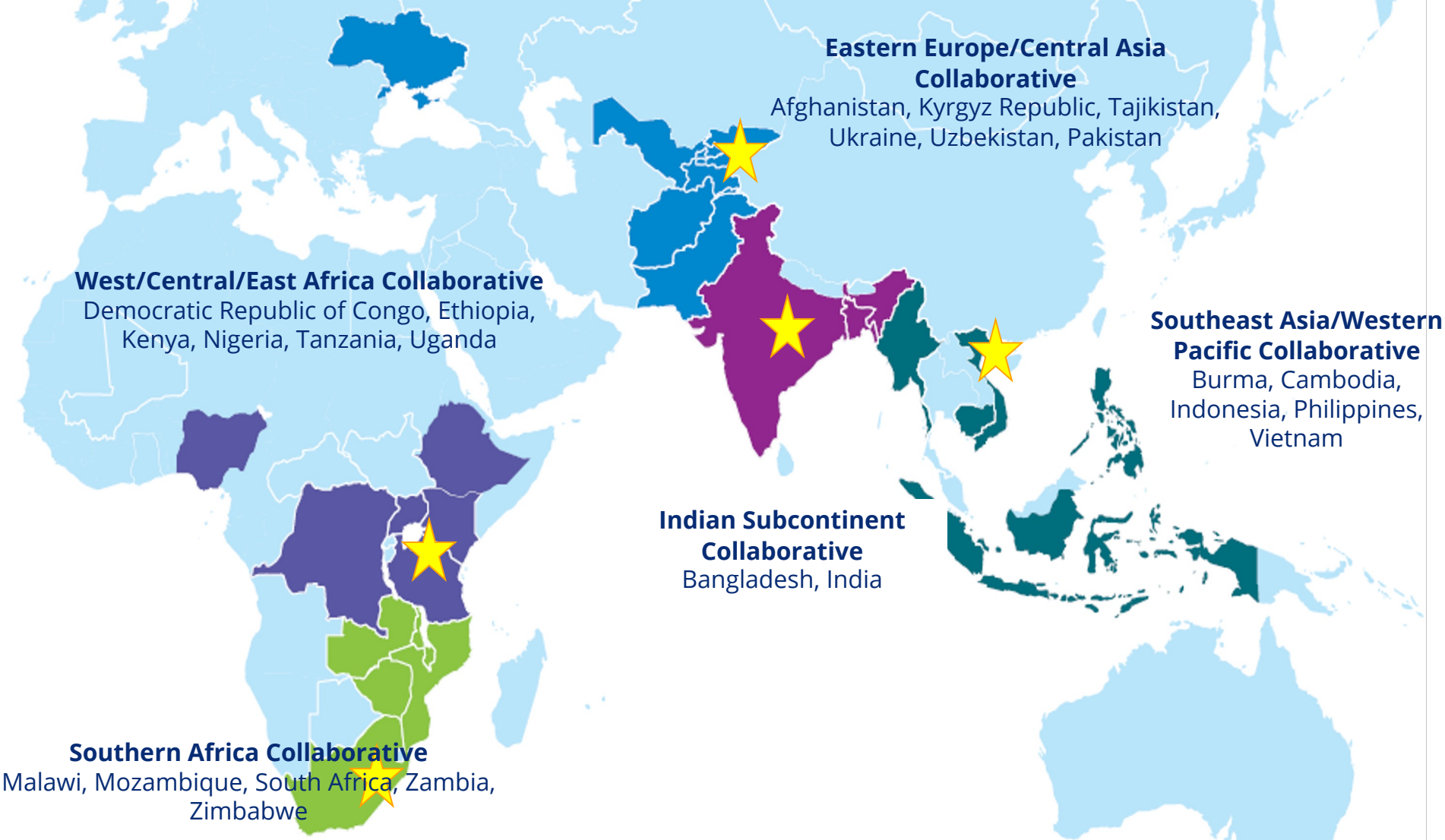
With bilateral mission funds…

TA6: Capacity Strengthening

- Identify early stage investigators working with TA1 and TA2 research teams on global projects and provide mentoring and opportunities to develop individual projects
- Provide a tiered mentorship program to support local investigators in acquiring research leadership skills and developing independent studies that can be funded through SMART4TB funds
- Work through regional collaboratives to offer training and mentoring opportunities

Regional Collaboratives

Proposed Collaborative Regions	Proposed S4TB Collaborative Host
Western/Central/East Africa Collaborative Democratic Republic of Congo, Ethiopia, Kenya, Nigeria, Tanzania, Uganda	Walimu, Kampala – Ugandan NGO affiliated with Makerere University and WHO SupraNational TB Lab, with track record of patient-centered research solutions in Africa.
Southern Africa Collaborative Malawi, Mozambique, South Africa, Zambia, Zimbabwe	Perinatal HIV Research Unit/Wits Health Consortium, Soweto – South African research and capacity strengthening institute with Multiple high-impact projects in women and children.
Indian Subcontinent Collaborative Bangladesh, India	YRG Care, Dehli – Indian NGO engaged in cutting edge infectious disease research, service and capacity strengthening. Extensive ties across the subcontinent.
Southeast Asia/Western Pacific Collaborative Burma, Cambodia, Indonesia, Philippines, Vietnam	VICTORY Network, Hanoi – Vietnamese quasistatal organization serving research and capacity development needs of NTP and SE Asian regional partners.
Eastern Europe/Central Asia Collaborative Afghanistan, Kyrgyz Republic, Tajikistan, Ukraine, Uzbekistan	Kyrgyz State Medical Academy, Bistek – Central Asian training and research institution with strong regional network and TB portfolio.



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Tuberculosis Elimination

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How Will SMART4TB Regional Collaboratives Function?

The SMART4TB Regional Collaboratives will allow consortium partners to more efficiently and effectively interact with local partners

- Organize regional meetings of NTPs, researchers, community
- Coordinate training opportunities, e.g., workshops, symposia, mentoring
- Organize peer support and reviews
- Coordinate capacity strengthening initiatives
- Provide a forum for sharing best practices

Overall Approach

Advance Research

Identify more effective methods to find, treat, and prevent TB

Drive Policy Change

Work with WHO and TB programs and national governments to achieve End TB goals

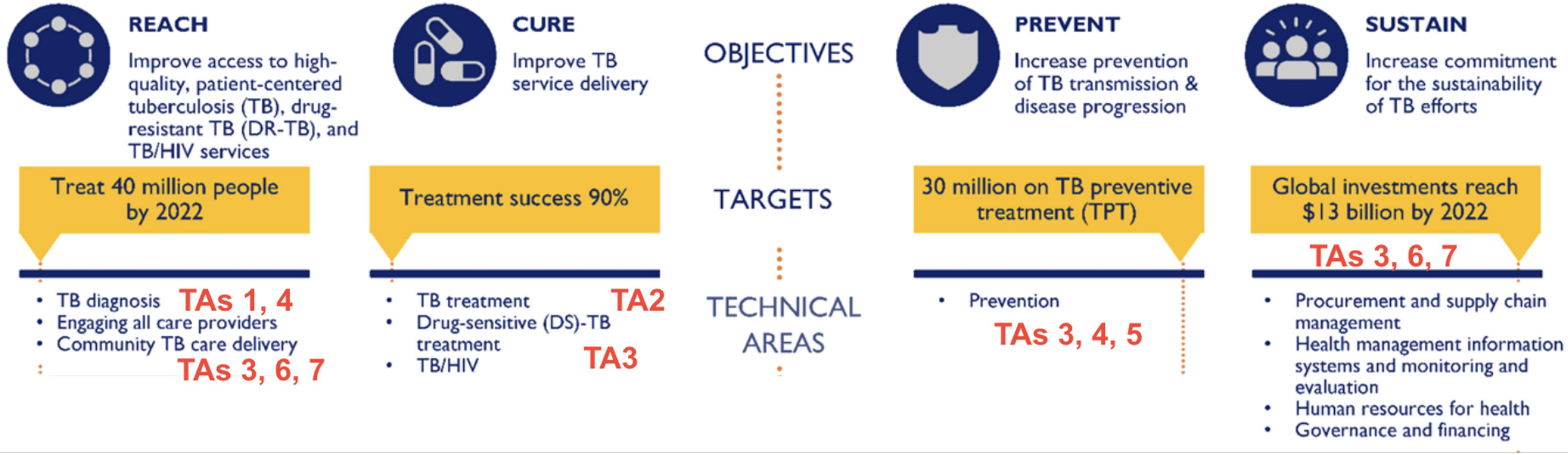
Strengthen Local Capacity

Develop implementing partner and regional hub capacity for designing and conducting high quality research (with funding mechanisms included)

Engage Communities

As partners, to build demand for new tools and interventions

SMART4TB for Global Impact



Performance-based Monitoring and Evaluation Framework:
https://www.tbdiah.org/assessments/pbmef/

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Feedback

Receive feedback on proposed approach

Country Survey: The primary goal of the SMART4TB Country Survey is to get further input from key stakeholders, including USAID Missions, NTPs, and local researchers, on how SMART4TB can best engage with partners in priority countries to further develop and implement its strategic vision.

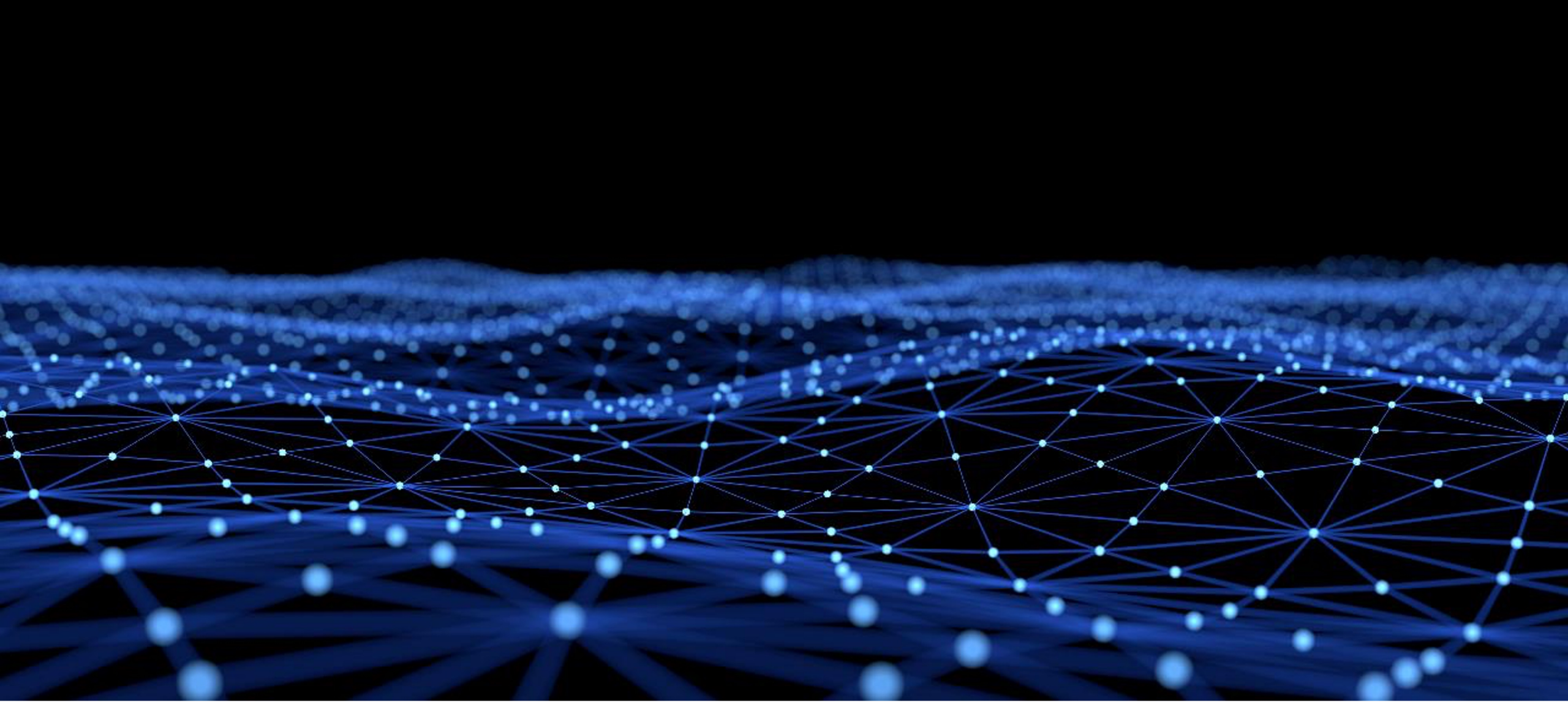
Survey Objectives

1. **To identify country priorities related to research needs for TB diagnosis, treatment, and prevention; capacity strengthening; and policy development and implementation.**
2. **To assess general support for utilizing a regional approach to interact with SMART4TB to plan activities and for sharing knowledge and resources.**
3. **To solicit country recommendations on initial SMART4TB research priorities**

Next steps on proposed approach

1. Analyze webinar feedback and survey data to describe country priorities in relation to the SMART4TB research agenda
2. Analyze webinar feedback and survey data to further develop strategies for regional collaboration
3. Solicit feedback on study sites for USAID-approved protocols (Diagnostics and Therapeutic trials)
4. Propose next steps for engaging with countries on Operational Research and Capacity Strengthening activities

Please note there will be two surveys circulated; the first is to all stakeholders covering research priorities and engagement strategies, and the second is a site survey, sent to investigators to assess readiness to participate in SMART4TB studies.



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Thank you!

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