Substantial progress has been made in the last decade to improve tools and strategies for the diagnosis of tuberculosis (TB). However, great challenges remain. At the international level, researchers are struggling to determine the best available tools for diagnosis of drug-sensitive and drug-resistant TB, as well as the best treatment options for multidrug-resistant TB (MDR-TB) and patients co-infected with TB and HIV (TB/HIV). At the country level, national TB programs (NTPs) are faced with significant programmatic challenges to address TB, including stagnating case detection rates, implementation of MDR-TB patient management activities, addressing the burden of TB/HIV, and optimizing infection control.

To meet these challenges, USAID launched TREAT TB: Technology, Research, Education and Technical Assistance for TB, which aims to address specific research gaps globally in the area of treatment and diagnosis of TB and build operational research and program assessment capacity at the country level among ministries of health and their national TB programs in USAID priority countries.

Importance of Research to TB Control

There is no effective vaccine against TB today, and the limitations of the currently available tools for diagnosis and treatment make standard TB care both demanding and complicated for patients and health care providers, particularly in resource-poor settings. Reliance on available tools, many of them several decades old, has substantially hindered the pace of progress towards global targets to control the disease.

Research focused on the development of new diagnostics, drugs, and vaccines for TB is an essential component of the Stop TB Strategy and is crucial to the success of national TB programs. Research supports countries in their efforts to:

- make the best use of existing tools;
- develop new tools for the diagnosis, treatment, and prevention of TB;
- introduce and roll out new tools across health service delivery systems under real field conditions;
- identify major operational problems of national TB programs and workable solutions to address programmatic challenges.

This five-year initiative led by the International Union Against Tuberculosis and Lung Disease (The Union) engages numerous technical partners working at the international, regional, and national levels to achieve the following objectives:

- Identify evidence-based tools and approaches to enhance the prevention, detection and diagnosis of TB; assess the evidence supporting each tool; and conduct field research to fill any gaps in the available evidence.
- Improve patient management, treatment efficacy, and disease prevention through clinical trials and other patient management research studies.
- Assist USAID missions, NTPs and their local partners to define and address priority needs for operational research and use findings from their own research to guide country-level policies and practices.
The Union and its partners aim to stimulate changes in international standards and practice and contribute new knowledge through field evaluations of diagnostic tools, clinical trials, and operational research.

THE TYPES OF RESEARCH THAT TREAT TB SUPPORTS

TREAT TB Initiative aims to identify, prioritize and address the most important gaps in international TB research efforts. To do this, The Union and its partners facilitates international research that targets global research questions and the most pressing needs for new evidence through systematic reviews, field evaluations, and patient management-related research, including observational studies and clinical trials. International research activities undertaken through TREAT TB also aim to further inform and influence global guidelines and policy for TB control. Through technical assistance, training, and funding to proposing institutions and individuals, the TREAT TB initiative also aims to support country-initiated research activities. The activities aim to increase the capacity of national TB programs to incorporate operational research as a key component of their national strategic plans and to prioritize research needs, build research agendas, implement research protocols, and translate research findings into national policy change, where appropriate.

VALUE OF OPERATIONAL RESEARCH TO TB CONTROL

TREAT TB supports operational research in order to provide a mechanism whereby those working in health systems and services are enabled to formulate and investigate key research questions. This may lead to new knowledge required to overcome challenges and obstacles in improving the quality of health systems and services for TB patients.

WHY SHOULD COUNTRIES DEVELOP NATIONAL PLANS FOR OPERATIONAL RESEARCH?

The goal of National TB Program managers is to ensure that the two key indicators of TB control - the detection of all cases, particularly infectious ones, and the successful completion of treatment - are met. In this way, the health of affected individuals, their families, friends, and ultimately the community, is improved. However, the path to meeting these goals is not always straightforward. Inevitably, questions arise as to why these targets are not being achieved, as well as how efforts to reach them can be improved. Operational research can improve the effectiveness of TB control at country level by seeking and applying knowledge on new tools, interventions, and strategies.
TREAT TB RESEARCH CYCLE: INTERNATIONAL RESEARCH

Under TREAT TB, The Union and its partners work with global and regional technical partners, researchers, and working groups and taskforces of the Stop TB Partnership to identify and address the most important gaps in research and deficiencies in the international evidence base supporting improved TB control. The TREAT TB team undertakes scans, surveys, and consultancies on a continuous basis to inform prioritized research needs. Research activities may include but are not limited to systematic reviews, field evaluations of diagnostic tools and approaches, and patient management studies to improve the delivery of clinical care.

TREAT TB RESEARCH CYCLE: COUNTRY-INITIATED RESEARCH

Under TREAT TB, The Union works collaboratively with its partners to identify and address outstanding needs associated with TB research at country level in USAID priority countries. Research priorities and needs must first be identified by the ministry of health/national TB program within existing national policies and plans for TB control. These priorities must be clearly communicated to the USAID mission for the mission’s consideration for support. Should the USAID mission be positioned to support TB research-related needs, the TREAT TB funding mechanism is in place to facilitate the provision of research assistance to the program and its research partners. A key component of the research cycles is the incorporation of impact assessment and policy-transfer analyses within each research activity. These are vital aspects needed to assess the impact and cost-effectiveness of interventions from the perspectives of both the patient and the health system, as well as the extent to which research findings have the capacity to impact global TB control policy.

For more information about The Union, visit www.theunion.org

To learn more about TREAT TB, please visit www.treattb.org

PHOTOS:
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