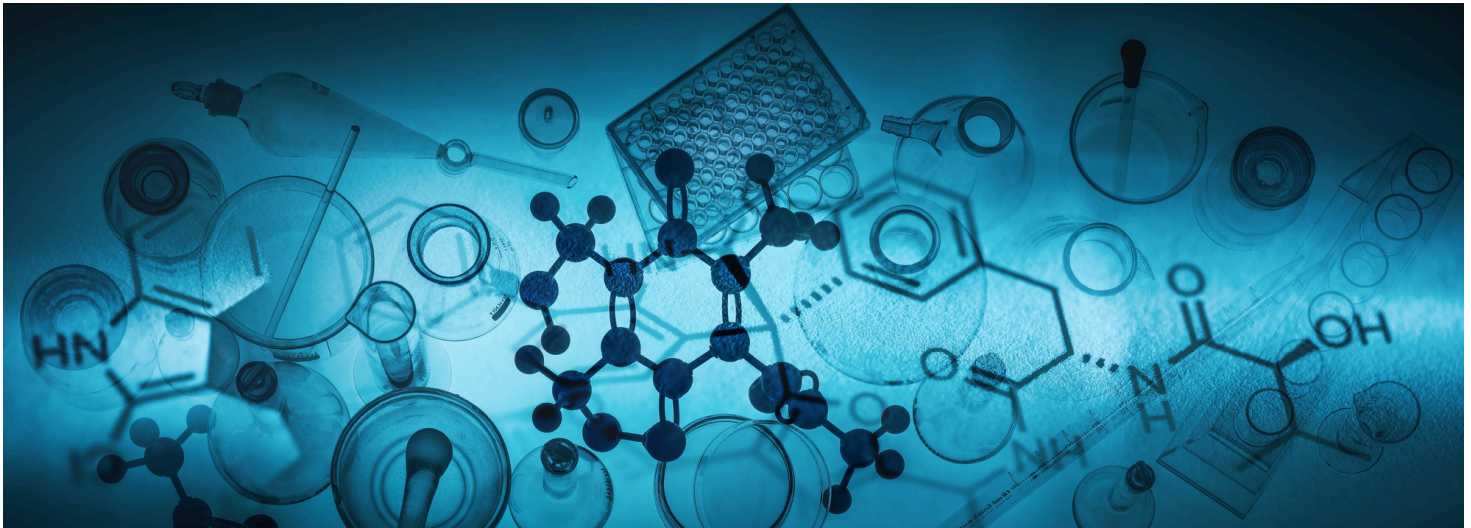


THE MONTHLY DOSE

Official Newsletter of The Mueller Health Foundation



WHAT'S NEW AT THE MUELLER HEALTH FOUNDATION:

At the Mueller Health Foundation, we are thrilled to share that our partnership application to the Stop TB Partnership has been accepted! This global network brings together partners from around the world to support innovative approaches, mobilize resources, and drive impactful advocacy to end tuberculosis.

We look forward to working alongside this incredible community to strengthen TB efforts and make a meaningful difference in the lives of those affected.

Stay tuned for more updates as we continue our work to raise awareness and fight TB!

LATEST NEWS: SHOWCASING STORIES OF TB SURVIVORS

We at The Mueller Health Foundation continue to be deeply committed to sharing personal stories and giving a voice to TB patients, TB survivors, TB practitioners, and all the friends and family members of the people who have been affected by the disease. We are also proud to continue our support of our new HeroRat Tamasha, who has been trained by APOPO, a charity focused on training rats to detect TB in sputum samples across Africa. APOPO has put together a wonderful collection of success stories from TB survivors, and this month we would like to highlight Husna's story, a 32-year-old woman living in Tanzania:

Husna, who is living in Dar es Salaam with her husband and five of his family members, fell ill shortly after her mother-in-law was diagnosed with tuberculosis. Initially, her mother-in-law exhibited flu-like symptoms, including fever, cough, weight loss, and chest pains, that did not improve. Concerned, the family took her to the hospital, where she tested positive for TB and began treatment. Thankfully, her recovery started soon after. Not long after, Husna herself began experiencing troubling symptoms: a persistent cough, joint pain, and excessive sweating. Although her initial test for TB came back negative, her health continued to decline, leaving her unable to manage her household responsibilities or run her small food business in the neighborhood. On some days, she was confined to bed, and her husband had to care for her. Eventually, Husna was informed that her sputum sample had been re-tested using trained rats at a facility in Morogoro. The rats detected tuberculosis, and confirmation testing at APOPO's lab validated the result. The hospital was notified, and Husna was finally able to start treatment. She felt relieved to begin her recovery and return to her daily life. Now, she encourages others who are feeling unwell to visit the same hospital for a check-up. To read her full story, please follow the link here: <https://apopo.org/what-we-do/detecting-tuberculosis/success-stories/husna/>

For more news, please also take a look at our top 3 picks for **May** in this newsletter, where we highlight novel research findings and news about the prevention and treatment of tuberculosis around the world.

MHF TOP PICKS FOR MAY

Every month, we at the Mueller Health Foundation like to showcase interesting news and updates in the field of tuberculosis (TB). Below are our top **3** picks for **May**:

1. New Study Conducts Time-Series Analysis on Tuberculosis Trends in Prisons During COVID-19 in Europe and the Americas

A recent study across 47 countries found that tuberculosis (TB) notifications in prisons dropped sharply during the COVID-19 pandemic—by 26.2% in 2020, 46.4% in 2021, and 48.9% in 2022—despite stable incarceration levels. The study suggests that the observed reductions in TB notifications may be attributed to multiple factors, including missed or delayed diagnoses and the implementation of COVID-19 mitigation measures, such as physical distancing, which could have inadvertently reduced TB transmission. The researchers emphasize the need for greater prioritization of incarcerated populations to ensure adequate access to TB care, particularly in the context of public health emergencies. Furthermore, the researchers advocate for enhanced screening and treatment programs within prisons to prevent further health disparities and to control TB transmission effectively. To learn more, you can access the research study at: [https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667\(24\)00325-6/fulltext](https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(24)00325-6/fulltext)

2. Tulane Researchers Develop Portable Rapid TB Test

Tulane University researchers have developed a handheld diagnostic device, the lab-in-tube assay (LIT), capable of delivering rapid and accurate tuberculosis (TB) diagnoses in under an hour. This smartphone-sized, battery-powered tool is particularly suited for resource-limited areas, as it can detect *Mycobacterium tuberculosis* DNA from saliva, blood, and sputum samples. Saliva-based testing is especially beneficial for children, who often struggle to produce sputum samples. With over 90% of new TB cases occurring in low- and middle-income countries, the LIT device offers a cost-effective solution, priced under \$800, with tests costing less than \$3 each. In contrast, existing devices can cost upwards of \$19,000, with tests around \$100 in certain regions. The development of this device aims to address the significant number of undiagnosed TB cases, which totaled approximately 4.2 million in 2021, and to prevent the further spread of the disease in high-burden areas. To learn more, you can read about the tool here: <https://www.news-medical.net/news/20250409/Tulane-researchers-develop-portable-device-for-rapid-TB-diagnosis.aspx>

3. Study Examines the Costs of Tuberculosis Care on Patients Across the Globe

A systematic review examined the financial burden of tuberculosis (TB) care on patients across low-, middle-, and high-income countries. Analyzing 76 studies, the review found that, despite many countries offering free TB treatment, patients often face significant out-of-pocket expenses. Total mean costs per patient ranged from \$7.13 to \$11,329 USD, with pre-diagnostic costs between \$30.37 and \$1,442 USD, and post-diagnostic costs from \$33.64 to \$5,194 USD. Hospitalization and loss of income were identified as major cost drivers, particularly affecting individuals with drug-resistant TB and those diagnosed through passive case finding. The study suggests that implementing active case finding, enhancing access to drug-resistance testing, and adopting social protection measures could help mitigate these financial burdens. You can read the full paper here: <https://journals.plos.org/globalpublichealth/article?id=10.1371/journal.pgph.0004283>

DID YOU KNOW?

Recent funding cuts to tuberculosis (TB) programs have raised significant concerns about their impact on global TB care, TB incidence rates, and mortality. Key points include:

- **Disruption of Critical Services:** The cessation of USAID funding has led to the suspension of essential TB prevention, testing, and treatment services in 26 high-burden countries, jeopardizing years of progress in combating the disease.
- **Projected Increase in TB Cases and Deaths:** Modeling by the Stop TB Partnership indicates that if funding is not restored within three months, an additional 99,860 deaths and 634,736 TB cases could occur between 2025 and 2030. A delay of one year in resuming funding could result in 268,579 additional deaths and 1,660,036 new TB cases over the same period.
- **Potential for Drug-Resistant TB:** Disruptions in treatment programs heighten the risk of developing and spreading multidrug-resistant TB strains, complicating future treatment efforts and increasing costs.
- **Global Health Security Threats:** The World Health Organization warns that reduced funding may reverse vital health gains, potentially leading to millions of additional TB cases and deaths by 2030, thereby undermining global health security.
- **Economic and Social Implications:** Beyond health impacts, increased TB incidence can strain healthcare systems, reduce workforce productivity, and impede economic development in affected regions.

These developments underscore the critical need for sustained financial support to maintain and advance global TB control efforts.

Information Source:
<https://tb.impactcounter.com>