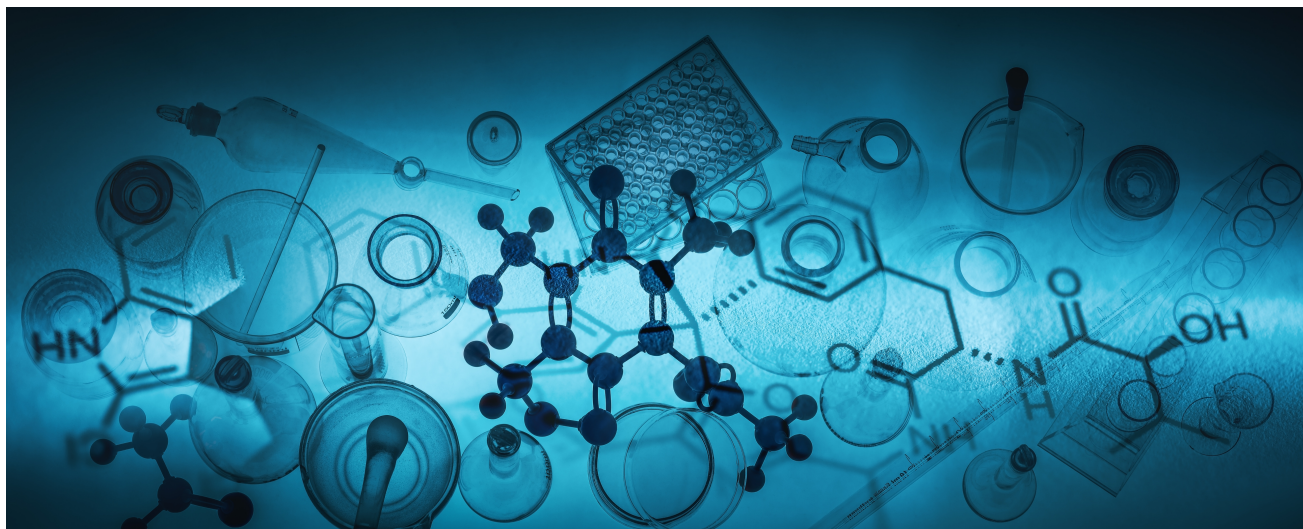


THE MONTHLY DOSE

Official Newsletter of The Mueller Health Foundation



WHAT'S NEW AT THE MUELLER HEALTH FOUNDATION:

To support our efforts in raising awareness around the topic of HIV and tuberculosis co-infection, we are currently working on developing a detailed infographic to highlight the latest statistics and facts around this very important topic.

Stay tuned for more updates!

LATEST NEWS: UNDERSTANDING TUBERCULOSIS AND HIV CO-INFECTION

We at The Mueller Health Foundation find it highly important to raise awareness around the topic of tuberculosis and HIV co-infection. According to the World Health Organization (WHO), around one-third of the 36.9 million people living with HIV and AIDS worldwide are co-infected with TB in 2018. Sub-Saharan Africa is the hardest hit region, as it is home to 70% of all people living with HIV/TB co-infection in the world. Additionally, persons infected with HIV/TB co-infection are exposed to the following risk factors:

- Without treatment, as with any other opportunistic infection, HIV and TB can work together to shorten the life of the person infected;
- Someone with untreated latent TB infection and HIV infection is much more likely to develop active TB disease during his or her lifetime than someone without HIV infection; and
- Among people with latent TB infection, HIV infection is the strongest known risk factor for progressing to active TB disease.

To increase awareness, we have summarized some of the latest statistics in this newsletter. Please also take a look at our top 3 picks for September, where we highlight novel research findings and news around the prevention and treatment of tuberculosis around the world.

Source: WHO Global Tuberculosis Report 2018 and CDC, HIV and TB Co-infection:
https://www.cdc.gov/tb/publications/pamphlets/tb_hivcoinfection/default.htm

MHF TOP PICKS FOR SEPTEMBER

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

1. Town Planners on a Mission Against TB Could Help to Redesign Cities Post-COVID

Dr. Collins, a research fellow and architectural historian at the Architecture Museum at the University of South Australia, discovered town planners became "crusaders" against TB during an outbreak in the city of Adelaide in the 1880s. To combat the spread of the disease, measures they implemented ranged from flattening the slums to creating outdoor areas for recreation. Planners also set out to improve street layout by maximizing air, light and space and minimizing dust and dirt. A century later, as the world battles another airborne disease, the COVID-19 pandemic has pushed planners to improve house design by improving ventilation in bedrooms and bathrooms. There will likely be a shift in urban planning to more green space, common areas for casual interactions with plenty of space for social distancing, and improved access to public transport from the suburbs. You can access the full article at: <https://www.abc.net.au/news/2021-08-25/what-planning-lessons-during-tb-outbreak-teach-us-about-covid19/100348914>

2. Completion Soars With Short Course of TB Prevention for People Living with HIV

People who are HIV positive and living in high tuberculosis-transmission regions of the world are much more likely to finish a TB-prevention regimen lasting just three months, half as long as the standard treatment, a large clinical trial in Africa has found. More than 4,000 people participated in the trial in South Africa, Ethiopia and Mozambique. All were HIV-positive and taking antiretroviral therapy. They were randomized to take a daily dose of isoniazid (INH) for six months or a combination of high doses of INH and rifapentine weekly for three months. Except for when they visited a clinic to pick up their antibiotics, all participants self-administered the medications. Just 50.5% of participants completed the six-month daily treatment, compared to 90.4% who finished the shorter combined-drug strategy. Read the full article here: <https://news.osu.edu/with-short-course-of-tb-prevention-for-people-living-with-hiv-completion-soars/>

3. HIV Infection May be Driving Drug Resistance in Tuberculosis

Results of a study published recently in *The Lancet Microbe* are based on the analysis of 10 years' health data and show that patients who were HIV-positive during previous TB treatment courses were more likely to be infected with genomically unique Mtb strains, which are strains that acquired drug resistance during treatment. It is possible that HIV infection, compounded by advanced immunosuppression and antiretroviral therapy, might lead to lower concentrations and variable metabolism of TB drugs within the body, creating an environment conducive to the development of drug resistance. To learn more, read the full paper here: <https://www.news.uct.ac.za/article/-2021-08-13-hiv-infection-may-be-driving-drug-resistance-in-tuberculosis>

DID YOU KNOW?

This month, we would like to highlight some interesting facts related to tuberculosis and HIV co-infection.

- Tuberculosis is the leading cause of death for people living with HIV.
- In 2019, it is estimated that 208,000 people who had both TB and HIV died globally.
- Africa, with 169,000 deaths, is the region with the highest number of deaths of HIV positive people who also have TB in 2019. South-East Asia is the region with the second highest number of deaths at 20,000 of people living with HIV and TB.
- Globally, 110 102 (7%) of the 1.5 million people who were reported to be newly enrolled in HIV treatment in 2019 were diagnosed with TB during the same year.
- In 2019, out of the 15 high burden HIV/TB countries, Indonesia had the highest percentage of 20% of notified TB cases among those newly enrolled in HIV care, followed by Papua New Guinea at 18% and India at 15%.
- Globally, the treatment success rate for TB patients co-infected with HIV was 76%, compared with 85% for all new and relapse TB patients reported in the same countries in 2018.

Source: WHO Global TB Report 2020
<https://apps.who.int/iris/bitstream/handle/10665/336069/9789240013131-eng.pdf>