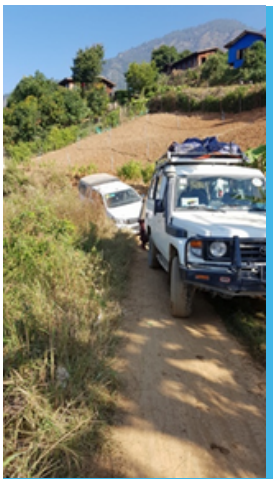
JANUARY 2026 VOL. 35

TRAC Newsletter

Tuberculosis Research Advancement Center
Emory/Georgia



LESSONS FROM THE FIELD: REACHING MISSING TUBERCULOSIS CASES IN REMOTE MYANMAR

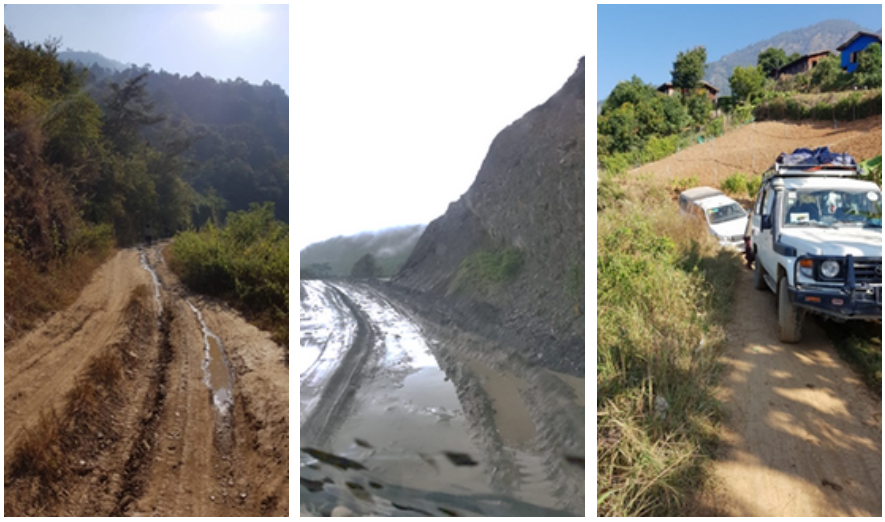
by Dr. Yamin Kyaw Thu, Hubert H. Humphrey Fellow Alumna

IN THIS ISSUE

Traditional mobile tuberculosis (TB) team activities have long been an integral part of accelerated TB case finding interventions. They play a critical role not only in finding the missing TB cases but also in breaking the major barriers such as human resource shortage, geographical challenges, and inequitable access to essential healthcare services. As Myanmar is one of the highest TB burden countries in the world, mobile TB team activities had become one of the most accelerated TB case finding activities nationwide yielding the second highest number of detected TB cases after the community-based TB care (CBTBC) interventions.

As a frontline public health professional working at the state level TB unit in Myanmar between 2018 and 2021, I planned, coordinated, and led the mobile TB team activities. My main duty station was Hakha City in Chin State, but I oversaw TB control and intervention activities across all nine townships in Chin State. Chin State is in the west of the country and is highly mountainous. It is one of the remotest and poorest areas in Myanmar with extremely

poor road infrastructure as shown in **Figure 1**. The roads often become muddy and slippery during the rainy season due to landslides which pose significant challenges to planning and implementing mobile TB trips. Our team faced serious road safety risks, including near-fatal accidents where vehicles were close to falling off steep cliffs (Figure 1c).



(a) Road conditions in Chin State

(b) Muddy mountain road (rainy season)

(c) Vehicles on a narrow cliffside road

Figure 1. Challenging road conditions for the mobile TB teams in Chin State. *Photos by Yamin Kyaw Thu.*

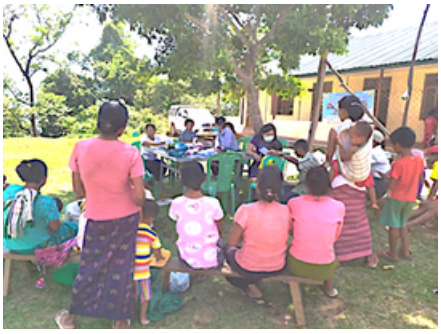
Our primary focus was early TB diagnosis and timely treatment initiation which was achieved through systematic TB screening using portable digital chest X-ray machines and sputum examination with binocular microscopes. We also provided health education sessions and distributed Information, Education, and Communication (IEC) materials on TB to raise community awareness about TB prevention, symptoms, and treatment adherence. All mobile TB activities conducted between 2018 and 2021 were primarily funded by the Global Fund and the Access to Health Fund.

Strategic planning was central to our approach. We prioritized TB mobile trips to hotspot areas with severe shortages of public health professionals and to the most remote villages. Additional challenges included limited electricity supply, and difficulties in transporting logistics and equipment. Between 2018 and February 2020, our team successfully conducted mobile TB trips to 120 villages in Chin State. Over 7,000 people with presumptive TB were screened, resulting in the identification and treatment of 121 active TB patients.

Since the political instability that began on February 1, 2021, accelerated TB case finding activities including the mobile TB activities have been severely disrupted throughout Myanmar, particularly in conflict affected areas. Currently, a few ethnic health organizations continue TB interventions with limited resources under even more challenging conditions than before 2021. Due to road blockades and escalating conflicts, many organizations are now operating with a limited number of traditional, non-artificial intelligence (AI)-integrated chest X-ray machines in such conflict affected areas. As a result, the TB incidence rate increased dramatically from 322 per 100,000 population in

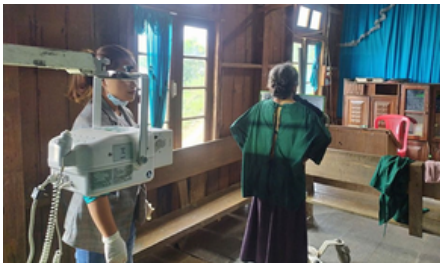
2019 to 558 per 100,000 populations in 2023.

As conflict is a public health concern, no one should be left behind under any circumstances. Immediate and context specific actions must be taken to support and build the capacity of the local teams with effective AI assisted CXR machines in any possible way. The primary objective of integrating AI into TB interventions is to break the existing barriers by improving diagnostic efficiency, reducing human resource constraints, and enabling timely TB detection even in the most challenging and insecure settings. Therefore, to end the TB epidemic in the vulnerable and conflict affected populations in the unreached areas, it is time to collaboratively identify and implement the locally effective strategies for deploying the AI assisted technologies to the local frontline teams.

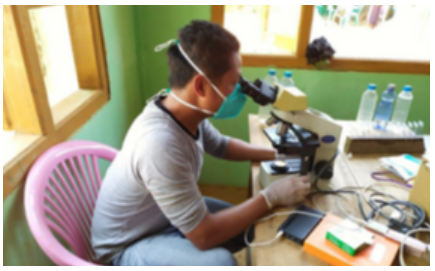


(a) Mobile TB doctors seeing the presumptive TB patients

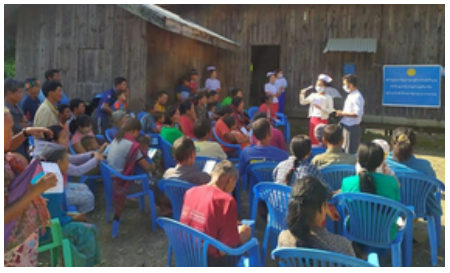
(b) Mobile TB doctors reading the Chest X-rays



(c) Chest X-ray screening



(d) Laboratory Technician examining the sputum smear under binocular microscopes



(e) Public health professionals and TB nurses providing health education on TB

(f) The attendants who received the IEC materials on TB

Figure 2. TB intervention activities during mobile TB trips in Chin State, Myanmar (2018–2020). *Photos taken by the Chin State TB mobile team with informed consent from participants.*

Acknowledgment: I would like to express my heartfelt gratitude to Dr. Kenneth Castro, Co-Director of TRAC at Emory University, and Dr. Lisa Sharling, Program Director of TRAC, for granting me the opportunity to contribute this article. Their generous guidance, expertise, and unwavering support have been instrumental in refining this work.

About the author: Dr. Yamin Kyaw Thu is a Hubert H. Humphrey Fellow Alumna at the Rollins School of Public Health, Emory University. As a former Assistant Director of the Subnational TB Unit in Chin State, Burma (Myanmar), her leadership included successfully organizing mobile TB case-finding across over 100 hard-to-reach villages in highly mountainous Chin State in a two-year time frame, resulting in the screening of more than 7,000 persons suspected to have TB, despite poor infrastructure.

TRAColades

Congratulations to **Cheryl Day, PhD,** and **Matthew Magee, PhD, MPH,** on their successful TRAC Bridge Funding application entitled ***'Immune-mediated mechanisms of inflammation associated with risk of cardiometabolic disease in people with TB infection'***. The bridge project will leverage the recently funded NIH R01 grant titled '*Tuberculosis infection and risk of diabetes mellitus and cardiovascular disease: Epigenetic and cardiometabolic trajectories after TB infection* (TACT)' to collect PBMCs and plasma from TACT study participants. They will utilize immune assays to generate preliminary data that will form the basis of a new NIH R01 proposal focused on defining immune-mediated mechanisms associated with increased cardiometabolic disease risk in people with latent TB infection.

Publication Highlights

We are excited to highlight a publication from the initial round of Emory/GA TRAC pilot awards! **Glyzelle Lagason, MD,** at the De La Salle Health Sciences Institute, Dasmariñas, Philippines, and **Peter Cegielski, MD, MPH,** from Emory University's Rollins School of Public Health were awarded a collaborative TRAC-Global pilot award in May 2023. With support from **Maria Tarcela Gler, MD, MSc,** their project addressed a need to determine the proportion and degree of undernourishment among people with TB in the Philippines to help guide nutritional assessment, counseling, and support. The Philippines ranks among the 30 high TB burden countries and people are vulnerable to undernutrition due to food insecurity. However, a standardized nutritional care program for people with TB in the outpatient setting has not been implemented. Their paper titled ***"Undernutrition Assessment and Nutrient Intake of people with TB in the Philippines"*** was published this month in the International Journal of Tuberculosis and Lung Disease.

Congratulations to **Sarah Zalwango, MD** (Department of Public Health and Environment, Kampala Capital City Authority), **Noah Kiwanuka, PhD, MBChB, MPH** (Makerere University), **Juliet Sekandi, MD, MS, DrPH** (UGA), and **Christopher Whalen, MD, MS** (UGA) on their publication in this month's International Journal of Tuberculosis and Lung Disease. The article is titled ***'Culturally relevant settings for TB transmission in an African city with endemic TB'***. Their study concludes that social settings, such as schools or worship centers, may be appropriate sites to screen for TB. The authors recommend community-based interventions to control TB should consider age, sex, and day of the week to reduce gaps in coverage.

Proceedings from the Third International Post-Tuberculosis Symposium were published in this month's International Journal of Lung Disease. Guided by a 14-member Steering Committee, 9 academic working groups came together to develop key content for plenary sessions and facilitated workshops related to: Patient Engagement, Epidemiology and Modelling, Pathogenesis, Post-TB Lung Disease; Cardiovascular and Pulmonary Vascular Disease; Central Nervous System and Musculoskeletal Disease; Paediatrics Economic; Social and Psychological Sequelae; and Advocacy, Policy, and Stakeholder Engagement. Each group outlined progress within their respective fields and defined key priorities to focus discussion. The Symposium further catalysed coordinated action for the post-TB community of patients, advocates, clinicians, and researchers to define a clear path towards improving outcomes, reducing inequities, and ensuring TB survivors receive the care and support they deserve. Kudos to **Sara Auld, MD, MSc,** (Emory) and **Gregory Bisson MD, MSCE,** (University of Pennsylvania) for their leadership roles in shaping the conference and the field.

Kudos to **Mariana Buziashvili, PhD, MPH** and mentor **Nestani Tukvadze, MD, PhD** for their publication titled '***Analysis of Tuberculosis Preventive Treatment Cascade Among People with Human Immunodeficiency Virus in Georgia: A Mixed-Methods Study***', for which Dr. Buziashvili is first author. The study aimed to explore the tuberculosis preventive treatment (TPT) care cascade among people with HIV in the country of Georgia and found poor TPT coverage and service coordination which was worsened by major data limitations. Several barriers to effective TPT implementation were identified and fell into 3 broad categories: the need for TPT service integration into HIV care, the potential development of an integrated electronic data system, and training gaps. The authors propose enhancing access to care by integrating TPT into HIV care, reducing stigma through streamlined referrals, and strengthening healthcare worker training as critical to increasing TPT uptake and ultimately reducing TB morbidity and mortality among people with HIV in Georgia.

Upcoming Events

TB WORKS IN PROGRESS SEMINAR

LUNG FUNCTION IMPAIRMENT IN TB AND HIV/TB CO-INFECTION: AN OBSERVATIONAL COHORT STUDY IN SOUTH AFRICA

Friday January 23, 2026, 9–10 am EST
RSPH, CNR Room 3001 and Zoom [Flyer]

Michael Marll, MD, is a Pulmonary and Critical Care research fellow at Emory focused on TB and post-TB lung disease. His work integrates hypothesis-driven and unsupervised analytic approaches to define functional and radiographic disease sub-phenotypes, with the goal of identifying pathophysiologically distinct groups that may be targeted with novel therapies.

EMORY INFECTIOUS DISEASES SEMINAR

CUTTING THE FAT: HOW TUBERCULOSIS RESHAPES OUR METABOLISM AND ITS IMPLICATIONS FROM BIOMARKERS TO LONG-TERM HEALTH

Thursday February 5, 2026, 2026, 8-9 am EST
RSPH, CNR Room 1000 and Zoom

Jeffrey Collins, MD, MSc, is an Associate Professor of Medicine in the Emory Division of Infectious Diseases and Co-Director of Emory/GA TRAC's Bioinformatics and Integrated Systems Biology core. His research focuses on using approaches in high-resolution metabolomics and lipidomics to identify novel TB biomarkers and host-pathogen interactions across the spectrum of TB infection and disease.

Bulletin Board

JOHNS HOPKINS BLOOMBERG SCHOOL of PUBLIC HEALTH

Postdoctoral Fellowship:
Developing Models to Assess the Impact & Cost-Effectiveness of Targeted Interventions for Tuberculosis

The Johns Hopkins Center for Tuberculosis Research is expanding its focus on developing novel data-driven models to answer pressing questions about policies and interventions to reduce the burden of TB. As part of this effort, we are searching for an exceptional postdoctoral fellow with strong quantitative and research skills to be at the forefront of our group's expansion.

Applicants should submit the following via email to Dr. Dowdy (ddowdy1@jhmi.edu):

- Cover letter describing research interests, career goals, and prior experience
- Curriculum vitae
- Contact information of 3 references

Applications submitted by January 31 will be given priority. Initial interviews will be held in February 2025. Please contact Dr. Dowdy and/or Dr. Kendall (**ekendall@jhmi.edu**) by email with any questions.

Post Doctoral Fellow Position.

Angela Bengston, PhD, Associate Professor in the Department of Epidemiology, Rollins School of Public Health, is seeking a post-doctoral fellow in **HIV, perinatal epidemiology, and comorbidities**. Current collaborative studies focus on how HIV affects the development and progression of cardiometabolic comorbidities across the life course. Based on background, skills, and interests, the fellow would have the opportunity to work on a range of funded projects including relationships between in utero HIV exposure, early-life infection burden, metabolomic trajectories, and cardiometabolic health in a South African birth cohort; HIV infection and cardiovascular health in women; and incidence and drivers of disparities in cardiometabolic health in a cohort of women of reproductive age with and without HIV. See job posting **here.**

TAG Job Posting | Communications Director

Treatment Action Group (TAG) is an independent, activist, and community-based research and policy think tank committed to racial, gender, and LGBTQ+ equity, social justice, and liberation. TAG is fighting to end HIV, TB, and hepatitis C virus. More info **here.**

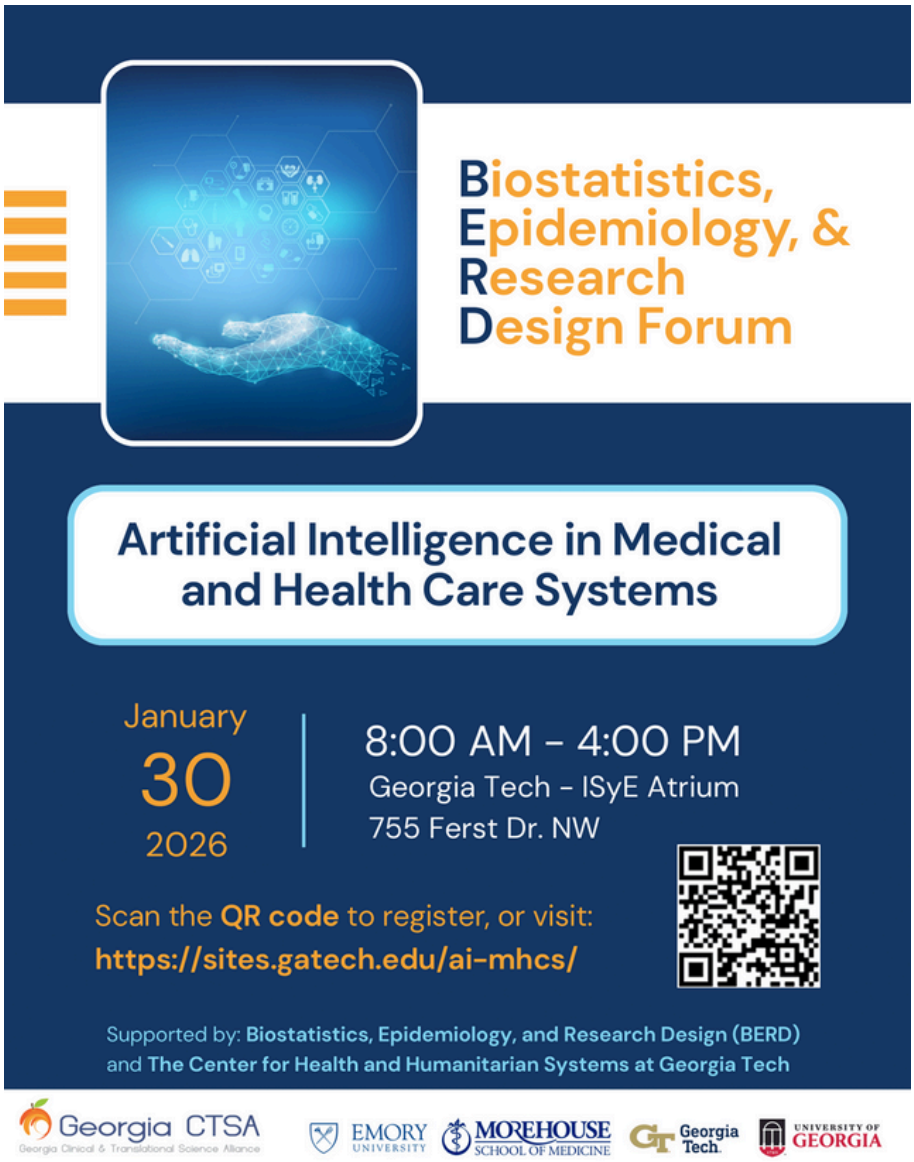
KL2 CLINICAL & TRANSLATIONAL RESEARCH CAREER DEVELOPMENT PROGRAM FOR JUNIOR FACULTY

The goal of the Georgia Clinical & Translational Science Alliance (Georgia CTSA) KL2 Program is to enhance career development for junior faculty committed to a career in clinical and translational research. The KL2 program provides innovative personalized didactic and mentored research training. Junior faculty from a wide variety of disciplines at the Georgia CTSA partner institutions - **Emory University, Morehouse School of Medicine, Georgia Tech, and the University of Georgia - are eligible to apply.** More info **here** and full announcement **here**.

NIH's Implementation of Common Forms for Biographical Sketch and Current and Pending (Other) Support for Due Dates on or after January 25, 2026 (NIH Notice NOT-OD-26-018)

Resources: View the SciENcv FAQs and a document that details the steps for creating SciENcv documents. Currently, there are only instructions for the NSF format OS, but the steps will be the same for the NIH format.

Other helpful how-to guides: SciENcv quick guide for Emory, NIH Common Forms mapping for biosketches.



This one-day workshop brings together experts from Georgia Tech, Emory, UNC, UGA, and Morehouse School of Medicine.

Forum Highlights

- Keynote: Dr. Hongtu Zhu (UNC) on Causal Generalist Medical AI
- Technical talks on topics including medical AI models, wearable sensing, and healthcare analytics
- Panel discussion: AI in Medical and Health Care Systems
- Poster sessions featuring student research and networking opportunities

👉 Register for the forum and submit a poster

👉 View full forum details

NIH Notices and Updates

- **Updated NIH Policy on Foreign Subawards**, NOT-OD-25-104, May 1, 2025
- **New Application Structure for NIH-Funded International Collaborations, NOT-OD-25-155, September 12, 2025**
  - **FAQs for Foreign Subawards** (applications with foreign subawards will be withdrawn for due dates on or after September 25, 2025.
- **Updated NH Processes for No-Cost Extensions**, NOT-OD-25-110, May 7, 2025
- **Update: No-Cost Extension Functionality in eRA**, NOT-OD-25-142, August 7, 2025
- **Early-Stage Investigator (ESI) Eligibility Extension and Reinstatement**. NIH has granted automatic extension of ESI eligibility for those impacted by delays in grant application submissions, peer review, or award processing timelines between January 1 - May 20, 2025. See **FAQs**
- **Supporting Fairness and Originality in NIH Research Applications**, NOT-OF-25-132, July 15, 2025
  - NIH will only accept six new, renewal or revision applications from a PD/PI for all council rounds in a calendar year. See updated **FAQs**.
- **NIH Will Stop Posting Notices of Funding Opportunities in the NIH Guide for Grants and Contracts in FY2026**, NOT-0D-25-143, August 14,2025
- **NIH Director Statement: Advancing NIH's Mission Through a Unified Strategy - NIH Priorities**, August 15, 2025
- **NIH's Implementation of Common Forms for Biographical Sketch and Current and Pending (Other) Support for Due Dates on or after January 25, 2026**, December 2, 2025

Have items to include in a future newsletter? Email: lisa.sharling@emory.edu

December Publications

Buziashvili M, Baliashvili D, Abutidze A, Chkhartishvili N, **Tukvadze N**, Chokoshvili O, DeHovitz J, Djibuti M. *Analysis of Tuberculosis Preventive Treatment Cascade Among People With Human Immunodeficiency Virus in Georgia: A Mixed-Methods Study.* Open Forum Infect Dis. 2026;13(1):ofaf768. DOI: 10.1093/ofid/ofaf768.

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