



# Myo Minn Oo

MBBS, Ph.D.

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Myo-Minn-Oo | myominnoo | myominnoo

*An Epidemiologist, Implementation Scientist, Health Researcher with expertise in STBI/HIV research, using advanced biostatistics and data science to address health inequities in underserved populations. Skilled in R programming and data product development.*

## Education

### Prince of Songkla University

PH.D. EPIDEMIOLOGY

*Hat Yai, Thailand*

*Aug 2018 - Nov 2021*

- Dissertation: "Myanmar Migrants with Tuberculosis: Health Insurance, Delays in Access to Healthcare, Model of Care on Treatment Outcomes and Quality of Life in a Border Area of Thailand and Myanmar"
- Advisor: Prof. Tippawan Liabsuetrakul
- Committee: Dr. François Henry Nosten (Chair), Hon. Prof. Virasakdi Chongsuvivatwong, Prof. Sawitri Assanangkornchai, Dr. Wit Wichaidit
- Passed with excellent evaluation remarks.

### The Union, MSF Luxembourg, WHO-TDR

STRUCTURAL OPERATIONAL RESEARCH INITIATIVE (SORT-IT) TRAINING COURSE

*Nepal & Sri Lanka*

*Mar 2016 - Dec 2016*

- Research project: "Alarming attrition rates among HIV-infected individuals in pre-antiretroviral therapy care in Myanmar, 2011–2014" (doi: 10.3402/gha.v9.31280)

### University of Medicine

MBBS

*Mandalay, Myanmar*

*2007 - 2012*

- Evaluated vital statistics of a remote township in Myanmar that is among the most under-developed and remote areas of the country

## Research Interests

Global Health, Implementation Science, Health Services Research, Data Science, STBI/HIV, TB, Malaria, Underserved Populations (Sex workers, gbMSM, Migrants, Indigenous Peoples).

## Work/Research Experiences

### Waapihk Research (Indigenous-led health economics firm)

DIRECTOR OF RESEARCH

*Winnipeg, CA*

*May 2025 - Present*

- Direct multiple health and education projects at Waapihk Research, one of the largest Indigenous-led health economics firms.
- Provide strategic research direction, oversee design and delivery, and ensure timely, high-quality outputs.
- Lead and mentor a multidisciplinary team while representing the firm with clients, partners, and policymakers.

### Unity Health Toronto | St. Michael's Hospital

SENIOR RESEARCH ASSOCIATE

*Toronto, CA*

*Apr 2024 - Apr 2025*

- Conducting intervention research for HIV/STBI prevention to bridge health inequity gaps.
- Evaluated global evidence on clinical decision tools for predicting HIV risk and PrEP eligibility, laying the groundwork for future HIV prevention research projects and a CIHR grant application.
- Expanding expertise in meta-analysis, latent class analysis, and missing data imputation using MICE.
- Leading quality improvement studies in clinical settings to enhance HIV and sexual healthcare and service delivery.

### Waapihk Research

EPIDEMIOLOGIST

*Winnipeg, CA*

*Oct 2023 - Mar 2024*

- Produced actionable insights for targeted interventions through scoping reviews on harm reduction interventions for underserved populations in remote rural areas.
- Improved the 2018 healthcare fiscal analytics for northern Manitoba communities with recommendation insights for equitable healthcare delivery.
- Produced comprehensive population health reports on northern Manitoba communities for evidence-based decision-making.

## University of Manitoba

POSTDOCTORAL FELLOW

Winnipeg, CA

May 2022 - Oct 2023

- Led epidemiological analysis projects in Kenya on HPV transmission among MSM and female sex workers.
- Set up bioinformatics pipelines for RNAseq analysis and trained students in their use.
- Collaborated with local health organizations (PHDA, HOYMAS) to improve healthcare access and outcomes for marginalized populations in Nairobi.
- Created data products, dashboards and Shiny apps for research monitoring, contributing to peer-reviewed publications and successful grants.

## Swiss Tropical and Public Health Institute | University of Basel

POSTDOCTORAL SCIENTIFIC COLLABORATOR

Basel, Switzerland

Aug 2021 - April 2022

- Conducted feasibility studies on under-five mortality calculation through malaria surveys in Papua New Guinea.
- Produced a technical report on malaria preparedness, providing evidence for national health strategies.

## Papua New Guinea Institute of Medical Research

SENIOR RESEARCH FELLOW

Goroka, Papua New Guinea

Aug 2021 - April 2022

- Directed the 2021 National Health Facility Survey, ensuring timely completion and delivery.
- Developed and implemented an automated dashboard for real-time survey monitoring.
- Delivered technical consultations to the National Technical Working Group on Malaria.
- Completed a draft for an automated report for the 2021 Health Facility Survey.
- Conceptualized a QR linkage system for implementation in the upcoming malaria indicator survey.

## Prince of Songkla University

DOCTORAL STUDENT (CAREER BREAK)

Hat Yai, Thailand

Aug 2018 - Jul 2021

- Completed a PhD with 3-year full scholarship, publishing five first-authored papers on migrant health and health services research.
- Conducted 2-year field research at the border area, contributing to policy recommendations for underserved migrant healthcare.
- Received international recognition for research on health insurance and TB treatment among migrant workers.

## The Union, South-East Asia Office

RESEARCH FELLOW & TECHNICAL AIDE (BASED IN MYANMAR)

Mandalay, Myanmar

Aug 2016 - Jul 2018

- Led/co-led over 20 research projects across Myanmar, Bhutan, Nepal, India, and China.
- Mentored more than 10 professionals in implementation research through the SORT-IT program.
- Authored and contributed to over 25 publications in international peer-reviewed journals.
- Organized and led the third National SORT-IT course, as well as a workshop on TB research agenda in Myanmar.

## The Union, Country Office

MONITORING & EVALUATION OFFICER/MANAGER

Mandalay, Myanmar

May 2014 - Jul 2016

- Spearheaded the Monitoring and Evaluation Unit responsible for maintaining records of 35,000+ clients in HIV/TB programs.
- Enhanced HIV care services by implementing evidence-based practices, including attrition analysis and optimizing the patient tracing system for better retention outcomes.
- Successfully completed a one-year SORT-IT training program and published my first paper as the primary author, overcoming significant health challenges and personal obstacles during that time.

## The Union, Country Office

HIV MEDICAL OFFICER

Mandalay, Myanmar

Feb 2014 - Dec 2015

- Provided direct medical care to over 50 patients daily, managing TB/HIV treatments and other opportunistic infections.
- Authored my first survival analysis study of clients living with HIV who disengaged from care, presenting findings at national conferences.

## Grants, Awards, and Honors

### Canadian Institutes of Health Research

University of Manitoba

TISSUE CORRELATES OF HPV CLEARANCE IN WOMEN: IMPLICATIONS FOR THERAPEUTIC HPV VACCINES.

2023-26

- CIHR Operating Grant: Sexually Transmitted and Blood-Borne Infections (STBBI) Research in Canada: Beyond HIV/AIDS and Hepatitis C.
- PI: Lyle McKinnon | Amount: \$450,000

### Thailand Education Hub for ASEAN Countries (THE-AC)

Thailand

FULL DOCTORAL SCHOLARSHIP

Aug 2018 - Jul 2021

- Awarded a complete three-year scholarship to pursue a Doctoral degree in Epidemiology.
- Produced a technical report and policy document to inform the Thai government on healthcare access issues for marginalized populations, and organized a dissemination meeting with local, regional, and international stakeholders to share our findings and recommendations.

## Health System Research Institute (HSRI), Thailand

Thailand

RESEARCH GRANT (GRANT NUMBER: 62-082)

Jul 2019 - Jan 2021

- Awarded to conduct research and produce policy documents on the topics of health insurance, legal status, and their effects on the health outcomes of Myanmar migrants in Thailand.
- Funding amount: \$20,000 USD

## Fogarty International Center, National Institutes of Health, US

Thailand

RESEARCH GRANT (GRANT NUMBER: D43TW009522)

Jul 2019 - Jan 2021

- Awarded for operational fieldwork in the border area between Thailand and Myanmar.
- Funding amount: \$4,000 USD

## 13th International Post Graduate Forum on Health System and Policy

Yogyakarta, Indonesia

BEST ORAL PRESENTATION AWARD

Jul 2019

- Prize: \$100 USD

## Publications

Since 2016, I have authored **45 peer-reviewed articles**. As of 10 September 2025, my work has an **h-index of 16** and a total of 703 citations, according to Google Scholar. See *my Google Scholar profile*.

### PEER-REVIEWED ARTICLES

1. Omole, T. E., Nguyen, H. M., Marcinow, A., Oo, M. M., Jahan, N., Ssemaganda, A., Severini, G., Thomas, K. K., Celum, C., Mugo, N., et al. (2025). Pre-human immunodeficiency virus (HIV)  $\Delta$ 4 $\Delta$ 7hi CD4+ t cells and HIV risk among heterosexual individuals in africa. *The Journal of Infectious Diseases*, 231(4), e770–e780.
2. Oo, M. M., Rudd, M., Shukalek, C., Kishibe, T., Hull, M., & Tan, D. H.-S. (2025). Diagnostic performance of HIV risk assessment tools for identifying pre-exposure prophylaxis candidates: A systematic review and meta-analysis. *eClinical Medicine*.
3. Ahmed, J. I., Krosta, S. J., Reimer, M. N., Cheung, W., Mesa, C., Lopez, C., Chua, R. J., Alsattari, F., Robinson, A., Manguiat, K., et al. (2025). Improved antibody breadth with an extended primary dose interval of COVID-19 vaccine is overcome by boosters. *Frontiers in Immunology*, 16, 1529134.
4. Minconetti, V., Champagne, C., Muri, M., Are, C., Goi, P., Ura, Y., Kualawi, M., Timbi, D., Giduthuri, J., Oo, M. M., et al. (2025). Health system effectiveness of symptomatic malaria case management in papua new guinea. *BMJ Global Health*, 10(3).
5. Khera, S. S., Mishra, S., Pico Espinosa, O. J., Gough, K., Tan, C., Walmsley, S., Zhabokritsky, A., Sharma, M., Chan, A. K., Leis, J. A., et al. (2025). Early clinical experience using tecovirimat during the 2022 mpox epidemic in toronto underscores ongoing clinical equipoise and the need for randomized trials. *Journal of Antimicrobial Chemotherapy*, 80(4), 935–940.
6. Oo, M. M., Shukalek, C., Kishibe, T., Hull, M., & Tan, D. H. (2024). HIV risk assessment tools for identifying individuals who could benefit from pre-exposure prophylaxis: A systematic review protocol. *BMJ Open*, 14(11), e090565.
7. Oo, M. M., Moore, S., Gibbons, S., Adhiambo, W., Muthoga, P., Siele, N., Akolo, M., Gebrebrhan, H., Sivo, A., Ball, B. T., et al. (2023). High prevalence of vaccine-preventable anal human papillomavirus infections is associated with HIV infection among gay, bisexual, and men who have sex with men in nairobi, kenya. *Cancer Medicine*, 12(12), 13745–13757.
8. Oo, M. M., Liabsuetrakul, T., Boonathapat, N., Aung, H. K. K., & Pungrassami, P. (2022). Association of health insurance and documentation with stigma and social support among myanmar migrants with tuberculosis before and during thailand's policy on border closure due to COVID-19: A cross-sectional study. *Journal of Racial and Ethnic Health Disparities*, 9(6), 2495–2507.
9. Oo, M., Liabsuetrakul, T., Boonathapat, N., Aung, H., & Pungrassami, P. (2022). Treatment success among myanmar migrants with TB in thailand. *The International Journal of Tuberculosis and Lung Disease*, 26(6), 550–557.
10. Oo, M. M., Boonathapat, N., Aung, H. K. K., Pungrassami, P., & Liabsuetrakul, T. (2021). Changes in health-related quality of life and the associated factors among myanmar migrants with tuberculosis: A cohort study. *BMC Infectious Diseases*, 21(1), 377.

11. Feng, N., Edwards, J. K., Owiti, P. O., Zhang, G.-M., Rueda Vallejo, Z. V., Hann, K., Zhou, S.-S., Oo, M. M., Geoffroy, E. M., Ma, C., et al. (2021). Operational research capacity building through the structured operational research training initiative (SORT-IT) in china: Implementation, outcomes and challenges. *Infectious Diseases of Poverty*, 10(1), 80.
12. Giduthuri, J. G., Kualawi, M., Muri, M., ARE, C., GOI, P., OO, M. M., HETZEL, M. W., & POMAT, W. (2021). Papua new guinea national health facility survey 2021: Availability and quality of malaria case management. *Goroka, Papua New Guinea Institute of Medical Research*.
13. Min, K. T., Maung, T. M., Oo, M. M., Oo, T., Lin, Z., Thi, A., & Tripathy, J. P. (2020). Utilization of insecticide-treated bed nets and care-seeking for fever and its associated socio-demographic and geographical factors among under-five children in different regions: Evidence from the myanmar demographic and health survey, 2015–2016. *Malaria Journal*, 19(1), 7.
14. Aye, L. L., Tripathy, J. P., Maung Maung, T., Oo, M. M., Nwe, M. L., Thu, H. M. M., Ko, K., & Kaung, K. K. (2020). Experiences from the pilot implementation of the package of essential non-communicable disease interventions (PEN) in myanmar, 2017-18: A mixed methods study. *PloS One*, 15(2), e0229081.
15. Oo, M. M., Tassanakijpanich, N., Phyu, M. H., Safira, N., Kandel, S., Chumchuen, K., Zhang, L. M., Kyu, H. A., Sriwannawit, P., Bilmumad, B., et al. (2020). Coverage of tuberculosis and diabetes mellitus screening among household contacts of tuberculosis patients: A household-based cross-sectional survey from southern thailand. *BMC Public Health*, 20(1), 957.
16. Oo, M. M., Tun, N. A., Lin, X., & Lucero-Prisno III, D. E. (2020). COVID-19 in myanmar: Spread, actions and opportunities for peace and stability. *Journal of Global Health*, 10(2), 020374.
17. Phyto, K., Oo, M., Harries, A., Saw, S., Aung, T., Moe, J., Thuya, S., Mon, Y., Min, A., Naing, N., et al. (2019). High prevalence and incidence of tuberculosis in people living with the HIV in mandalay, myanmar, 2011–2017. *The International Journal of Tuberculosis and Lung Disease*, 23(3), 349–357.
18. Kyaw, N., Kumar, A., Kyaw, K., Satyanarayana, S., Magee, M., Min, A., Moe, J., Aung, Z., Aung, T., Oo, M., et al. (2019). IPT in people living with HIV in myanmar: A five-fold decrease in incidence of TB disease and all-cause mortality. *The International Journal of Tuberculosis and Lung Disease*, 23(3), 322–330.
19. Htwe, K. K., Kyaw, N. T. T., Kumar, A. M., Kyaw, K. W. Y., Oo, M. M., Thwin, T., Saw, S., & Aung, S. T. (2019). Pre-treatment loss to follow-up and treatment delay among bacteriologically-confirmed tuberculosis patients diagnosed in mandalay region, myanmar. *Tropical Medicine and Health*, 47(1), 30.
20. Htet, K. M., Soe, K. T., Oo, M. M., Hone, S., Majumdar, S. S., & Oo, H. N. (2019). Early success with retention in care among people living with HIV at decentralized ART satellite sites in yangon, myanmar, 2015–2016. *Frontiers in Public Health*, 7, 124.
21. Wang, T., Zhou, S.-S., Feng, J., Oo, M. M., Chen, J., Yan, C.-F., Zhang, Y., & Tie, P. (2019). Monitoring and evaluation of intervals from onset of fever to diagnosis before “1-3-7” approach in malaria elimination: A retrospective study in shanxi province, china from 2013 to 2018. *Malaria Journal*, 18(1), 235.
22. Tenzin, K., Dorji, T., Choeda, T., Wangdi, P., Oo, M. M., Tripathy, J. P., Tenzin, T., & Tobgay, T. (2019). Internet addiction among secondary school adolescents: A mixed methods study. *JNMA: Journal of the Nepal Medical Association*, 57(219), 344.
23. Kyaw, K. W. Y., Mon, A. A., Phyto, K. H., Kyaw, N. T. T., Kumar, A. M., Lwin, T. T., Aung, Z. Z., Aung, T. K., Oo, M. M., Htun, T., et al. (2019). Initiation of antiretroviral therapy or antiretroviral prophylaxis in pregnant women living with HIV registered in five townships of mandalay, myanmar: A cross sectional study. *BMC Pregnancy and Childbirth*, 19(1), 475.
24. Kyaw, N. T. T., Sithu, A., Satyanarayana, S., Kumar, A. M., Thein, S., Thi, A. M., Wai, P. P., Lin, Y. N., Kyaw, K. W. Y., Tun, M. M. T., et al. (2019). Outcomes of community-based systematic screening of household contacts of patients with multidrug-resistant tuberculosis in myanmar. *Tropical Medicine and Infectious Disease*, 5(1), 2.
25. Dorji, T., Das, M., Van den Bergh, R., Oo, M. M., Gyamtsho, S., Tenzin, K., Tshomo, T., & Ugen, S. (2019). “If we miss this chance, it’s futile later on”–late antenatal booking and its determinants in bhutan: A mixed-methods study. *BMC Pregnancy and Childbirth*, 19(1), 158.
26. Pyakurel, P., Tripathy, J. P., Oo, M. M., Acharya, B., Pyakurel, U., Singh, S. B., Subedi, L., Yadav, K. P., Poudel, M., Pandey, D. R., et al. (2018). Catastrophic health expenditure among industrial workers in a large-scale industry in nepal, 2017: A cross-sectional study. *BMJ Open*, 8(11), e022002.
27. Minn, A. C., Kyaw, N. T. T., Aung, T. K., Mon, O. M., Htun, T., Oo, M. M., Moe, J., Mon, A. A., Satyanarayana, S., & Oo, H. N. (2018). Attrition among HIV positive children enrolled under integrated HIV care programme in myanmar: 12 years cohort analysis. *Global Health Action*, 11(1), 1510593.

28. Aung, Z. Z., Oo, M. M., Tripathy, J. P., Kyaw, N. T. T., Hone, S., Oo, H. N., & Majumdar, S. S. (2018). Are death and loss to follow-up still high in people living with HIV on ART after national scale-up and earlier treatment initiation? A large cohort study in government hospital-based setting, myanmar: 2013-2016. *PLoS One*, 13(9), e0204550.
29. Kyaw, K. W. Y., Satyanarayana, S., Phyo, K. H., Kyaw, N. T. T., Mon, A. A., Lwin, T. T., Aung, T. K., Oo, M. M., Aung, Z. Z., Htun, T., et al. (2018). Uptake of antiretroviral therapy in HIV-positive women ever enrolled into 'prevention of mother to child transmission' programme, mandalay, myanmar—a cohort study. *BMC Pregnancy and Childbirth*, 18(1), 474.
30. Aye, S., Majumdar, S. S., Oo, M. M., Tripathy, J. P., Satyanarayana, S., Kyaw, N. T. T., Kyaw, K. W. Y., Oo, N. L., Thein, S., Thu, M. K., et al. (2018). Evaluation of a tuberculosis active case finding project in peri-urban areas, myanmar: 2014-2016. *International Journal of Infectious Diseases*, 70, 93–100.
31. Win, E., Kumar, A., Kyaw, N., Aye, N., Hteik, K., Saw, S., Oo, M., Kyaw, K., Aung, S., & Tun, T. (2018). How many sputum samples should be examined during follow-up of tuberculosis patients in myanmar: Two or one? *Public Health Action*, 8(4), 169–174.
32. Aye, N., Oo, M., Harries, A., Mon, M., Hone, S., Oo, H., & Wan, N. (2018). HIV, HBV and HCV in people who inject drugs and are placed on methadone maintenance therapy, yangon, myanmar. *Public Health Action*, 8(4), 202–210.
33. Kyaw, K. W. Y., Oo, M. M., Kyaw, N. T. T., Phyo, K. H., Aung, T. K., Mya, T., Aung, N., Oo, H. N., & Isaakidis, P. (2017). Low mother-to-child HIV transmission rate but high loss-to-follow-up among mothers and babies in mandalay, myanmar; a cohort study. *PloS One*, 12(9), e0184426.
34. Thiha, S., Shewade, H. D., Philip, S., Aung, T. K., Kyaw, N. T. T., Oo, M. M., Kyaw, K. W. Y., War, M. W., & Oo, H. N. (2017). Early infant diagnosis of HIV in myanmar: Call for innovative interventions to improve uptake and reduce turnaround time. *Global Health Action*, 10(1), 1319616.
35. Wai, P. P., Shewade, H. D., Kyaw, N. T. T., Kyaw, K. W. Y., Thein, S., Si Thu, A., Oo, M. M., Htwe, P. S., Tun, M. M. T., Win Maung, H. M., et al. (2017). Patients with MDR-TB on domiciliary care in programmatic settings in myanmar: Effect of a support package on preventing early deaths. *PLoS One*, 12(12), e0187223.
36. Kyaw, N. T. T., Harries, A. D., Kumar, A. M., Oo, M. M., Kyaw, K. W. Y., Win, T., Aung, T. K., Min, A. C., & Oo, H. N. (2017). High rate of virological failure and low rate of switching to second-line treatment among adolescents and adults living with HIV on first-line ART in myanmar, 2005-2015. *PLoS One*, 12(2).
37. Thiha, S., Shewade, H. D., Philip, S., Aung, T. K., Kyaw, N. T. T., Oo, M. M., Kyaw, K. W. Y., Wint War, M., & Oo, H. N. (2017). Factors associated with long turnaround time for early infant diagnosis of HIV in myanmar. *Global Health Action*, 10(1), 1395657.
38. Kyaw, N. T. T., Kumar, A. M., Oo, M. M., Oo, H. N., Kyaw, K. W. Y., Thiha, S., Aung, T. K., Win, T., Mon, Y. Y., & Harries, A. D. (2017). Long-term outcomes of second-line antiretroviral treatment in an adult and adolescent cohort in myanmar. *Global Health Action*, 10(1), 1290916.
39. Pelzom, D., Isaakidis, P., Oo, M. M., Gurung, M. S., & Yangchen, P. (2017). Alarming prevalence and clustering of modifiable noncommunicable disease risk factors among adults in bhutan: A nationwide cross-sectional community survey. *BMC Public Health*, 17(1), 975.
40. Thiha, S., Shewade, H., Philip, S., Aung, T., Kyaw, N., Oo, M., et al. (2017). *Early infant diagnosis of HIV in myanmar: Call for innovative interventions to improve uptake and reduce turnaround time. Glob health action. 2017; 10 (1): 1319616. Epub 2017/06/03. https://doi. org/10.1080/16549716.2017. 1319616 PMID: 28574336.*
41. Minn Oo, M., Gupta, V., Aung, T. K., Thu Thu Kyaw, N., Nyunt Oo, H., & Kumar, A. M. (2016). Alarming attrition rates among HIV-infected individuals in pre-antiretroviral therapy care in myanmar, 2011–2014. *Global Health Action*, 9(1), 31280.
42. Thi, A., Shewade, H., Kyaw, N., Oo, M., Aung, T., Aung, S., Oo, H., Win, T., & Harries, A. (2016). Timing of antiretroviral therapy and TB treatment outcomes in patients with TB-HIV in myanmar. *Public Health Action*, 6(2), 111–117.
43. SAN SAN, H., Oo, M., Yoshida, Y., Harun-Or-Rashid, M., & Sakamoto, J. (2010). Risk behaviours and associated factors among medical students and community youths in myanmar. *Nagoya Journal of Medical Science*, 72(1-2), 71.

## SUBMITTED

1. Oo, M. M., Kabir-Bahk, C., Brody, A., Bayoumi, A. M., Krahn, T., Mishra, S., & Tan, D. H. S. (2024). Diagnostic value of serum RPR titre and peripheral CD4 cell count for asymptomatic neurosyphilis in people living with HIV: A systematic review and meta-analysis protocol. *Systematic Reviews*.

- Oo, M. M., Hull, M., & Tan, D. (2025). Impact of “absolute” versus “relative” HIV risk communication on pre-exposure prophylaxis interest in canada: A randomized study. *AIDS Care*.
- Oo, M. M., Arulananthan, A., & Tan, D. (2025). Using a paper-based checklist for promoting equitable access to long-acting injectable cabotegravir/rilpivirine among people living with HIV in toronto: Lessons learnt from a quality improvement initiative. *JAMMI*.

## Books

- Oo, M. M. (2024). The need for a paradigm shift to ensure adequate skilled human resources for effective public health practice. In *Principles and application of evidence-based public health practice* (pp. 215–237). Academic Press.
- Oo, M. M. (2020). *A beginner guide to research data collection using EpiData*. Amazon Self-Publishing. <https://www.amazon.com/Beginner-Guide-Research-collection-EpiData/dp/B08F7M67QP>

## Data Projects

### R package | mStats

DATA MANAGEMENT AND EPIDEMIOLOGICAL DATA ANALYSIS INSPIRED BY STATA

### R package | u5mr

ESTIMATING UNDER-FIVE MORTALITY RATES USING INDIRECT METHODS MENTIONED IN UN X MANUAL AND PAPERS BY RAJARATNAM E.T.

### R package | shinyAuthX

SIMPLIFY USER AUTHENTICATION IN SHINY APPS WITH SHINYAUTHX+C6

### Shiny App | SCDCS App

DATABASE APP FOR A CLIENT (SECRET GITHUB)

### Shiny App | Personal Budget Manager

A SHINY BUDGET MANAGEMENT APP BUILT WITH THE GOLEM FRAMEWORK, FREE USER REGISTRATION, PASSCODE AUTHENTICATION

### Shiny App | COVID-19 Antibody Trajectory App

AN EXPLORATORY APP FOR LONGITUDINAL PROFILING OF COVID-19 ANTIBODIES

### Shiny App | XpertMagic

AN APP TO CONVERT RAW OUTPUTS FROM GENE XPERT MACHINE FOR HPV GENOTYPES AND CTNG TO TIDY FORMAT, PRE-SPECIFIED UPLOAD DATA SIZE

### Website | MalCon webpage

A GITHUB STATIC WEBPAGE FOR MALARIA CONTROL UNIT (MALCON) AT PAPUA NEW GUINEA INSTITUTE OF MEDICAL RESEARCH (PNGIMR)

### Dashboard | MalCon Dashboard

AN INTERACTIVE DASHBOARD FOR MONITORING THE HEALTH FACILITY SURVEY 2021 CONDUCTED IN PAPUA NEW GUINEA

### Dashboard | HPV Study Dashboard

DASHBOARD TO MONITOR PROGRESS OF GATES-FUNDED HPV STUDY 2022-23

### Dashboard | IIQ-2 Study

DASHBOARD TO MONITOR PROGRESS OF IIQ-2 STUDY 2023-24

### Website | Personal Webpage

MY OWN PERSONAL WEBPAGE HOSTED IN GITHUB

## Presentations

### CAHR 2023

ORAL PRESENTATION

- Single Cell Transcriptomics Delineate Divergent Localizations Of Tissue-Resident memory T Cells Across The Human Cervical Mucosa

Canada

Apr 2023

## STD/HIV/SRH Collaborative Research Group Annual Review Meeting

Kenya

ORAL PRESENTATION

Jan 2022

- HPV epidemiology and preliminary findings from SWOP HPV Study
- High prevalence of vaccine-preventable anal human papilloma virus infections is associated with treated HIV infection among gay, bisexual, and men who have sex with men in Nairobi, Kenya.

## 14th Postgraduate Forum of Health Systems and Policy

Virtual

ORAL PRESENTATION

Dec 2020

- Health insurance and out-of-pocket expenditure from symptoms to tuberculosis diagnosis among Myanmar migrants in a border area of Thailand

## 51st Union World Conference on Lung Health

Virtual

POSTER PRESENTATION

Oct 2020

- Coverage of health insurance schemes among Myanmar migrants with tuberculosis in a border area of Thailand and its associated factors: An interim analysis

## US CDC Migration Summit

Singapore

ORAL PRESENTATION

Nov 2019

- Cross-border TB referral system: a case study from Thailand

## 7th International Health Literacy Conference

Vietnam

POSTER PRESENTATION

Nov 2019

- Tuberculosis literacy and completion of household contact investigations: A household-based survey from Southern Thailand

## 13th Postgraduate Forum of Health Systems and Policy

Indonesia

ORAL PRESENTATION

Jul 2019

- Unsuccessful treatment outcomes after oral direct-acting antivirals in people with chronic hepatitis C virus infection and its associated factors

## Ph.D. Candidate examination

Thailand

ORAL PRESENTATION

Feb 2019

- Unsuccessful treatment outcomes after oral direct-acting antivirals in people with chronic hepatitis C virus infection and its associated factors

## Mentorship and teaching experiences

### St. Michael's Hospital

Toronto, CA

SUPERVISOR

Jun - Aug 2024

- Supervised/mentored four undergrads summer students.

### University of Nairobi

Nairobi, Kenya

INVITED SPEAKER

44743

- Shared a session on data management and analysis in R.

### Swiss Tropical and Public Health Institute

Basel, Switzerland

INVITED SPEAKER

Oct 2021

- Shared experiences of Thailand/Myanmar border health control with a focus on TB.

### Global Public Service Academies Program (USA)

Mae Sot, Thailand

INSTRUCTOR

Oct 2019 - Feb 2020

- Delivered two lectures on the topic of migration and public health with a focus on tuberculosis control, to high school students from Japan, Australia, Canada, and the United States.

### University of Community Health

Myanmar/Burma

INVITED LECTURER

Feb 2019

- Conducted a two-day training workshop on the application of R for medical statistics.

### SORT IT course

Sri Lanka, China, Myanmar

MENTOR

Mar 2016 - Jul 2018

- Provided mentorship to more than 20 international participants.
- Taught data management and applied statistics.
- Created and delivered a lecture on the subject of Effective Research Communication through Infographics.



- Providing mentoring to improve the quality of abstracts and increase their chance of acceptance.

## Academic and Research Services

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**Academic Editor:** PLoS One (2022 - Present)

**Affiliate:** Prince of Songkla University (2018 - 2021)

**Editorial Board:** Public Health Challenges (2021 - Present)

**Member:** National Technical Working Group (Malaria) (2021 - 2022) • PNGIMR Research Network (2021 - 2022) • SORT-IT OR Network, Myanmar Society of Epidemiology (MSE), Myanmar Medical Association (MMA) (2016 - Present)

**Mentor:** SORT-IT Research Training Courses (2015 - 2018) • The International AIDS Society Conferences (2016 - Present)

**Myanmar R User Group (Monthly Meetup):** Virtual (2022 - 2024)

**Peer Reviewer:** 50+ Verified Reviews in International peer-reviewed journals (2016 - Present) • PLoS One (2016 - Present) • BMC Health Service Research (2016 - Present) • Public Health Action (2016 - Present) • Global Health Research and Policy (2016 - Present) • Journal of Health Research (2016 - Present) • AIDS Research and Human Retroviruses (2016 - Present) • African Journal of AIDS Research (2016 - Present) • International Journal of STD & AIDS (2016 - Present)

**R for Researchers (Monthly Meetup):** University of Manitoba (2022 - 2023)

**Reviewer:** Rady Faculty of Health Sciences Graduate Studentship Program (2022 - 2022)

## Skills

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**Bioinformatics:** Transcriptomics (RNAseq analysis pipelines)

**Data Products:** Dashboard Design (R, Shiny, Flexdashboard) • Web App (Shiny Apps, Auth0, AWS)

**Data Science:** Dimensionality Reduction (PCA, LCA, UMAP, TSNE)

**Development:** Software Development (CI/CD) • Version Control (Git) • Automation & CICD (Travis CI, GitHub Action) • Web Hosting (Netlify, GitHub) • Shiny app (Golem framework (Rhino))

**Language:** Burmese (Native) • Lisu (Native) • English (C2) • Chinese (A2) • Thai (A2) • French (A1) • Tok Pisin (A1) • Swahili (A1)

**Programming Languages:** Python • Database (SQL, MongoDB) • JAVA • JavaScript • BASH • HTML • CSS • Quarto • Markdown • Rmarkdown • YAML

**Research:** Reproducible Research • Systematic Review • Epidemiology in TB • Lab Training in TB Microbiology • Cohort study design and analysis • Epidemiology in Public Health Practice Specialization (Johns Hopkins Bloomberg School of Public Health, 2020)

**Statistical Software:** R • Stata

**Statistics and Data Science:** Longitudinal Data Analysis (GEE, Mixed Models) • Causal Inference (SEM, DAG, causal mediation) • Meta-analysis (Inverse variance) • Epidemiological Methods • Child mortality Estimation • Statistical Modelling • Egocentric Network Analysis • Survey Methods • The Data Scientist's Toolbox (The Johns Hopkins University)

**Text Editors:** Rstudio/Positron • Visual Studio Code

**Communication:** data visualization (ggplot2, arcGIS, qGIS) • peer-reviewed publications (journal, conference)

## Online Tutorials

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1. Create Publication-Ready Tables using `gtsummary`
2. R Webinars



3. Statistics & Public Health Webinars
4. Git & GitHub Basics
5. Making infographics using MS PowerPoint
6. Data entry using EpiData Manager & EntryClient
7. Introduction to R and RStudio
8. Statistics with R - ENGLISH Version
9. Statistics with R - MYANMAR Version

## References

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### **Dr. Darrell HS Tan | Mentor**

ASSOCIATE PROFESSOR & INFECTIOUS DISEASES PHYSICIAN

*St. Michael's Hospital*

*darrell.tan@gmail.com*

### **Prof. Lyle McKinnon | Postdoc Supervisor**

ASSOCIATE PROFESSOR IN MEDICAL MICROBIOLOGY AND INFECTIOUS DISEASES

*University of Manitoba*

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### **Prof. Manuel Hetzel | Postdoc Supervisor**

DEPUTY HEAD OF UNIT & PROFESSOR OF EPIDEMIOLOGY

*Swiss TPH & University of Basel*

*manuel.hetzel@swisstph.ch*

### **Prof. Tippawan Liabsuetrakul | PhD Advisor**

HEAD OF DEPARTMENT OF EPIDEMIOLOGY & DIRECTOR OF WHO-COLLABORATION CENTER ON EPIDEMIOLOGY

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### **Honorary Prof. Virasakdi Chongsuvivatwong | PhD Advisor**

ADVISOR & FORMER HEAD, DEPARTMENT OF EPIDEMIOLOGY

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### **Honorary Prof. Anthony Harries | Mentor**

SENIOR ADVISOR & FORMER DIRECTOR OF RESEARCH

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### **Prof. Suman Majumdar | Colleague**

DEPUTY PROGRAM DIRECTOR (HEALTH SECURITY AND KNOW-C19), CO-HEAD OF THE TUBERCULOSIS ELIMINATION AND IMPLEMENTATION

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*suman.majumdar@burnet.edu.au*

## Note

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This CV is written in RMarkdown and generated using the `vitae` package with the `awesome-cv` template. The complete source code is available on my GitHub repository.