



McGill

**McGill Summer Institute in
Infectious Diseases and
Global Health**

MCGILL UNIVERSITY • MONTREAL • JUNE 10-14, 2024

TB RESEARCH METHODS

DAY 1

Mon • June 10
8:30AM – 5:00PM

Introductions and
overview
Big picture stuff

DAY 2

Tues • June 11
9:00AM – 5:00PM

Randomized
trials

DAY 3

Wed • June 12
9:00AM – 5:00PM

Operational
Research

DAY 4

Thurs • June
9:00AM –

Modeling and
economic
analysis

DAY 5

Fri • June 14
9:00AM – 4:30PM

Systematic reviews
and, controversies

HOSTS



McGill



GLOBAL
HEALTH
PROGRAMS

**Centre
international
de TB McGill**



**McGill
International
TB Centre**

A PAHO/WHO Collaborating Centre for Tuberculosis Research



**MacLean
Centre for
Tropical
Diseases**
McGill University



McGill

M[i]⁴

Interdisciplinary Initiative in
Infection and Immunity

Institut de
recherche
Centre universitaire
de santé McGill



**Research
Institute
McGill University
Health Centre**

Infectious Diseases and Immunity in Global Health Program
Programme en maladies infectieuses et immunité en santé mondiale

OVERVIEW OF SMALL GROUPS

GROUP 1	Randomized trials	<p>Bill Burman</p> <p>(Biostatistician: Nandini Dendukuri)</p> <p>In-person ONLY</p>	<p>Randomized controlled trials remain a critical way to advance TB control and program activities. Fortunately, there has been a substantial increase in randomized controlled trials in TB over the past 20 years. Deciding which clinical trial results to incorporate into TB control programs and the management of individual patients is a key skill for program leaders. This group will do the initial design work on a randomized controlled trial of TB treatment as a way of learning to be critical reviewers of this methodology. Participants should prepare for this small group in advance by performing an (informal and small scale) assessment of the needs of their local TB control program/clinic (What aspects of TB treatment are the highest priority for improvements?)</p>
GROUP 2	Systematic reviews	<p>James Johnston & Mayara Bastos</p> <p>In-person and Online</p>	<p>A choice is offered:</p> <ol style="list-style-type: none"> 1. Practical aspects. Searches, file management, data entry, quality assessment, and meta-analysis. This group will have hands on experience with searches – matching search strategies to the PICO, performing searches in different data bases. Saving searches and using different software to manage title selection. Data entry and meta-analysis using R. 2. Protocol development. If interest - a sub-group will work on developing a systematic review protocol – from PICO to Prospero registration.
GROUP 3	Operational Research Quantitative & Qualitative	<p>Quantitative: IP: Tony Harries, Anete Trajman, Gonzalo Alvarez,</p> <p>Qualitative: IP: Stephanie Law</p> <p>In-person and Online</p>	<p>This group will split into multiple sub-groups for the week, to develop protocols for operational research. Questions will be proposed by participants and shaped into feasible operational research projects by all members of each sub-group, with the help of the facilitators, who will work with the groups – providing different perspectives and experiences. This year we will have ‘quantitative’ OR and qualitative OR sub-groups, lead by facilitators with particular expertise in these methods.</p>
GROUP 4	Costing in Operational Research	<p>Jonathon Campbell,</p> <p>In-person ONLY</p>	<p>This group (which may also split into sub-groups) will work on developing a protocol for operational TB research projects with a focus on the economic or costing aspects. The final protocol will describe the methods used to derive estimates of the true costs of novel programmatic interventions for TB. With the assistance of the facilitators, groups will examine various costs, such as those associated with implementation, capital costs and recurrent or ongoing costs, with the option of examining costs from societal vs health system perspectives. The small group will be guided by a toolkit for estimating costs associated with TB interventions.</p>

All the small groups described above will be offered in-person. Two, that are marked, will also be offered on-line. These will be separate groups with separate moderators for online and in-person, although there will be ‘plenary’ sessions at start of each day, which will be hybrid. An additional fee is charged for those attending online small groups to defray additional expenses for these separate sessions.

DAY 1: MONDAY, JUNE 10

8:30AM

Registration

9:00-9:15AM

Introductions, course objectives and overview

Dick Menzies

9:15-9:50AM

How will research End TB? The “big” questions in TB research

Bill Burman

9:50-10:30AM

How will research End TB? Bridging basic science and clinical research

Marcel Behr

10:30 -11:00AM

How will research end TB? Engaging people affected by TB for an inclusive research agenda

Tenzin Kunor (ZOOM)

11:00-11:15AM

Coffee Break

11:15-11:45AM

How will research End TB? What about kids? Pregnant Women?

Anna Mandalakis (ZOOM)

11:45-12:15PM

How will research end TB? “Bridging The Know-Do Gap in Tuberculosis”

Madhu Pai

12:15–12:45PM

Bridging the North-South gap. Building capacity in LMIC.

Anete Trajman

12:45-1:30PM

Lunch

1:30-1:50PM

A smorgasbord of TB Research methods: 1. Demystifying Pharmacokinetics – How, why, what PK can tell us

Fajri Gafar

1:50 – 2:05PM

Late Breaker 1:

2:05 - 2:15PM

Small groups: Organization – who, where, what?

Dick Menzies

2:15-5:00PM

Small groups (interactive)

(Includes 15 min coffee break)

Overview of each topic by group leaders

Forming sub-groups and selecting objectives

5:00 – 7:00 PM

To be confirmed... 5 a 7 (social hour – this is an informal get together of TBRM group. Cash bar - sorry) Thomson House, 3650 McTavish St,

All TBRM participants and faculty with a passion for TB Research!

DAY 2: TUESDAY, JUNE 11

Time

9:00-9:30AM

DPSICO-TB: Developing study objectives. From a clinical problem to study questions. Matching designs to questions

Dick Menzies

9:30-10:10AM

Trial design and selecting study populations—minimizing bias, maximizing generalizability

Bill Burman

10:10-11:00AM

Clustered trial designs: DOBS vs DOTS

Greg Fox

11:00 - 11:15AM

Coffee Break

11:15–11:45AM

Novel trial designs – pragmatic, or simple trials

Patrick Philips

11:45-12:05PM

Applying RCT results to practice – clinical and public health

Bill Burman

12:05 –12:30PM

“After the researchers pack up and go home” - sustaining/scaling up - example from ACT4

Thu Anh Nguyen

12:30 - 1:15PM

Lunch

1:15 - 1:45PM

A smorgasbord of TB Research methods: 2. Qualitative methods - a complementary approach to researching TB

Stephanie Law

2:00-5:00PM

(Includes 15min coffee break)

Small groups (interactive):

Work on projects

DAY 3 WEDNESDAY, JUNE 12

Time

9:00-9:30AM

Lecture 1: Operational research – what- why and how.

Tony Harries

9:30-10:00AM

Lecture 2: Capacity building for operational research in low- and middle-income countries.

Tony Harries

10:00-10:45AM

Lecture 3: Principles and structure of an operational research protocol

Tony Harries

10:45-11:00 AM

Coffee break

11:00-11:30AM

Lecture 4: From Operational Research to policy and practice.

Tony Harries

11:30 –12:00PM

Examples of Operational research in Canada - that worked!

Gonzalo Alvarez

12:00-12:30PM

Examples of operations research changing policy and practice

Thu Anh Nguyen

12:30-12:40PM

Group photo

12:40-1:15PM

Lunch

1:15 – 1:45PM

All about sample sizes—what, how, how many

Nandini Dendukuri

1:45 - 2:00PM

Late Breaker 2:

2:00 - 5:00PM
(Includes 15min
coffee break)

Small groups (interactive):

Work on projects

DAY 4 THURSDAY, JUNE 13

Time	
9:00-9:30AM	Systematic reviews James Johnston
9:00-9:30AM	Economic analysis—cost effectiveness, cost minimization, cost-outcome descriptions—what’s the difference? Kevin Schwartzman
9:30-10:00AM	All about the money: how to accurately assess the true costs of a new public health/TB program intervention Jonathon Campbell
10:00 -10:30AM	Introduction to modeling—what it can do, what it can’t Alice Zwerling
10:30-11:00AM	<i>Coffee break</i>
11:00 -11:30AM	Decision analysis for economic evaluation—methods, applications, and key studies in TB Alice Zwerling
11:30 - 12:00PM	Modeling TBC by JR Campbell
12:00 – 1:00PM	<i>Lunch</i>
1:00 - 1:30PM	A smorgasbord of TB Research methods: 3. Genomic epidemiology of TB Marcel Behr
1:30-2:00PM	Data analysis 101: Nandini Dendukuri
2:00-5:00PM (Includes 15min coffee break)	Small groups (interactive): Finalizing protocols Preparing presentations

DAY 5 FRIDAY, JUNE 14

Time

9:00-9:30AM

Systematic reviews

James Johnston

9:30-10:00AM

Individual patient data meta-analyses

Mayara Bastos

10:00-10:30AM

A smorgasbord of TB Research methods: 4. Publishing your results (or, getting past those #\$\$@! Reviewers)

Jonathon Campbell

10:30-11:00AM

Coffee Break

11:00-12:00PM

Controversies in TB Research (or Debate): “Are cost-effectiveness studies really informative”

CEA are highly informative, and can shape or change policy - Jonathon Campbell

CEA are pre-determined by the modelers, and irrelevant to practitioners – James Johnston

CEA can be either, or neither (“I agree and disagree”) in LMIC – Anete Trajman

Perspectives from the course participants

12:00 – 12:15PM

Late breaker 3:

12:15 - 1:15 PM

Lunch

1:15 - 4:00PM

(Includes 15min coffee break)

Small groups (interactive):

Presentation of study protocols by small groups

Comments on study protocols

Moderated by: TBC

4:00 - 4:30PM

Course evaluations and closure

Dick Menzies