



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 13
9:00AM – 5:00PM

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

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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	<p>Randomized trials</p>	<p>Bill Burman & Greg Fox (Biostatistician: Andrea Benedetti) 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	<p>Systematic reviews</p>	<p>James Johnston & Mayara Bastos 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	<p>Operational Research Quantitative & Qualitative</p>	<p>Quantitative: online and in-person Tony Harries, Anete Trajman, Gonzalo Alvarez, Qualitative: In-person only Stephanie Law</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	<p>Costing in Operational Research</p>	<p>Jonathon Campbell, 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

10:30-10:50AM

Coffee Break

10:50-11:20AM

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

Tenzin Kunor (ZOOM)

11:20-12:00PM

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

Anna Mandalakis (ZOOM)

12:00–12:45PM

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. Genomic epidemiology of TB

Marcel Behr

1:50 – 2:05PM

Late Breaker 1: Levofloxacin as TPT for MDR Contacts in Vietnam: Results of the VQUIN study.

Greg Fox

2:05 - 2:15PM

Small groups: Organization – who, where, what?

Dick Menzies

2:15-5:00PM

Small groups (interactive)

Overview of each topic by group leaders

Forming sub-groups and selecting objectives

(Includes 15 min coffee break)

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	<i>Coffee Break</i>
11:15–11:45AM	Novel trial designs – pragmatic, or simple trials Patrick Philips (ZOOM)
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	<i>Lunch</i>
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	<i>Coffee break</i>
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
12:30-1:15PM	<i>Lunch</i>
1:15 – 1:45PM	All about sample sizes—what, how, how many Andrea Benedetti
1:45 - 2:00PM	Late Breaker 2: Lessons learned from the ExpandTPT project in Brazil: partial results of an implementation study. Anete Trajman
2:00 - 5:00PM (Includes 15min coffee break)	Small groups (interactive): Work on projects

DAY 4 THURSDAY, JUNE 13

Time	
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	Costs to People Affected by Tuberculosis Carmen Christian
10:30-11:00AM	<i>Coffee break</i>
11:00 -11:30AM	Introduction to modeling—what it can do, what it can’t Alice Zwerling
11:30 - 12:00PM	Decision analysis for economic evaluation—methods, applications, and key studies in TB Alice Zwerling
12:00 – 1:00PM	<i>Lunch</i>
1:00 - 1:30PM	A smorgasbord of TB Research methods: 3. Demystifying Pharmacokinetics – How, why, what PK can tell us Fajri Gafar
1:30-2:00PM	Data analysis 101: Andrea Benedetti
2:00-5:00PM (Includes 15min coffee break)	Small groups (interactive): Finalizing protocols Preparing presentations
5:00 – 7:00 PM	5 a 7 Social hour - an informal get together of TBRM group. (Cash bar - sorry) Thomson House, 3650 McTavish St, <i>All TBRM participants and faculty with a passion for TB Research!</i>

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	<i>Coffee Break</i>
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 <i>Perspectives from the course participants</i>
12:00 – 12:15PM	Late breaker 3: Despite HIV, MTB infection resisters display alveolar lymphocytosis. Erwin Schurr
12:15 - 1:15 PM	<i>Lunch</i>
1:15 - 4:00PM (Includes 15min coffee break)	Small groups (interactive): Presentation of study protocols by small groups Comments on study protocols Moderated by: Course faculty
4:00 - 4:30PM	Course evaluations and closure Dick Menzies & Jonathon Campbell