Simulating Intervention Trials in Infectious Diseases
August 24th-25th, 2016 | Seattle, WA
Fred Hutchinson Cancer Research Center
Thomas Building, Sze Conference Room

DAY 1 - Wednesday, August 24th, 2016

8:30 – 8:35am  Welcome  Betz Halloran
Fred Hutch/U Washington

8:40 – 8:55am  Introductions  Marc Lipsitch
Harvard Chan School

Simulations for Design and Interpretation of Intervention Trials
Chair: Nicole Basta

9:00 – 9:20am  Why Model Complex Infectious Disease Intervention Trials
Marc Lipsitch
Harvard Chan School

9:20 – 9:25am  Discussion

9:25 – 9:45am  Mathematical Modelling of a Trial of Community-Wide Isoniazid Preventive Therapy for Tuberculosis
Emilia Vynnycky
London School of Hygiene and Tropical Medicine

9:45 – 9:50am  Discussion

9:50 – 10:10am  Aged Based Modeling in Designing HIV Prevention Trials
Ron Brookmeyer
UCLA

10:10 – 10:15am  Discussion

10:15 – 10:35am  Modeling an HIV Treatment-as-Prevention Trial in Botswana
George Seage
Harvard Chan School

10:35 – 10:40am  Discussion

10:40am  Coffee

11:10am  Discussion
Stepped Wedge Designs
Chair: Steve Bellan

11:40 – 12:00pm Experience with a SW Trial of an Intervention Designed to Prevent Chlamydia and Gonorrhea in Washington State (Treatment) James Hughes University of Washington

12:00 – 12:05pm Discussion

12:05 – 12:15pm Simulating a Stepped-Wedge Design with an SIS model Tom Smith Swiss TPH

12:20 – 12:40pm Discussion

12:40 – 1:45pm Lunch
Trial Desiderata:
Speed, Efficiency, Accuracy and Ethics
Chair: Alessandro Vespignani

1:45 – 2:05pm
Quantitative Approaches to Assessing Ethical Tradeoffs in Study Design
Steve Bellan
University of Texas and University of Georgia

2:05 – 2:10pm
Discussion

2:10 – 2:30pm
Design and Analysis of Cluster Randomized Vaccine Trials for Emerging Infectious Disease Emergencies
Ira Longini
University of Florida

2:30 – 2:35pm
Discussion

2:35 – 2:55pm
Clinical Trial Designs for Investigational Treatments of Ebola Virus Disease
Ben Cooper
Mahidol-Oxford Research Unit and University of Oxford

3:00pm
Discussion

3:20pm
Coffee
Pathogen Diversity
Chair: Marc Lipsitch

3:50 – 4:10pm
Predicting Overall Vaccine Efficacy in a New Setting by Re-Calibrating Baseline Covariate and Immune Response Endpoint Effect Modifiers of Genotype/Phenotype-Specific Vaccine Efficacy
Peter Gilbert
Fred Hutch/U Washington

4:10 – 4:15pm
Discussion

4:15 – 4:35pm
Optimal estimation of serotype-specific and overall vaccine efficacy against pneumococcal carriage
Kari Auranen
THL and University of Turku, Finland

4:40pm
Discussion

5:10pm
Adjourn

5:45 pm
Pre-dinner gathering
Art Marble 21

6:30pm
Hosted Dinner/Continued Discussion,
Art Marble 21
731 Westlake Ave North
http://www.artmarble21.com/
DAY 2 – Thursday, August 25th, 2016

Network Effects and Spillovers as Estimands and Nuisances (I)

Chair: Betz Halloran

8:40 – 9:15am
Measuring Spillover Effects Through the Randomized Saturation Design
Sarah Baird
George Washington University
Sarah Baird
Berk Özler,
World Bank

9:15 – 9:20am
Discussion

9:20 – 9:40am
Mysteries and Challenges in Measuring the Effectiveness of OCV
Justin Lessler
Johns Hopkins Bloomberg School of Public Health

9:40 – 9:45am
Discussion

9:45 – 9:55am
Modeling Contamination Between Arms in Cluster-Randomised Trials of Vector Control Intervention
Tom Smith
Swiss TPH

10:00am
Discussion

10:30am
Coffee
Network effects and spillovers as estimands and nuisances (II)
Chair: Ron Brookmeyer

10:45 – 11:05am  
Leveraging Contact Network Structure in the Design of Cluster Randomized Trials  
Jukka-Pekka Onnela  
Harvard Chan School

11:05 – 11:10am  
Discussion

11:10 – 11:30am  
Network Science Perspective to the Design and Analysis of Cluster Randomized Trials  
Victor DeGruttola  
Harvard Chan School

11:35 – 11:50am  
Discussion

11:50-12:15pm  
Closing, Discussion of Next Steps  
Betz Halloran  
Fred Hutch/U Washington

12:20pm  
Adjourn