



Georgian Implementation Science Fogarty Training (GIFT) Program
Ilia State University & Yale University

Accelerating Impact: Immersive Summer Bootcamp in Implementation Science and Biostatistics

July 10-12, 2024

A G E N D A



JOIN US!



Venue: G106 Conference Hall, 1 Giorgi Tsereteli St, Tbilisi, Georgia

Facilitator: Nino Makhashvili MD, PhD Professor, Faculty of Natural Science and Medicine

09:00-09:30 REGISTRATION Auditorium G 106

09:30-09:40 **WELCOME MESSAGE**

Prof. Nino Doborjginidze PhD, Rector, Ilia State University

Charles Vitek, MD, MPH, Rear Admiral and Assistant Surgeon General, US Public Health Service, Regional Director, Eastern Europe and Central Asia (EECA) Regional Office, U.S. Centers for Disease Control and Prevention

Ketevan Darakhvelidze MA, Chancellor (Head of Administration) Ilia State University

09:40- 09:45 **OPENING REMARKS**

Frederick Altice, MD, MA Professor of Medicine, Yale School of Medicine and Public Health, USA

Irma Kirtadze MD, PhD Assoc. Professor, Faculty of Arts and Science, Ilia State University

09:45-10:35 **KEYNOTE LECTURE**

An overview of implementation Science: What it is and what it is not!

Luke Davis, MD, Assoc. Professor of Epidemiology and Medicine, Yale School of Medicine and Public Health, USA

10 min for QA

10:35-11:25 **PLENARY LECTURE**

Selecting and Combining Implementation Strategies

Frederick L. Altice, MD, MA, Professor of Medicine and Public Health, Yale University, USA

10 min for QA

11:25-11:40 **COFFEE/TEA BREAK**

11:40-12:30 **PLENARY LECTURE**

Study Designs and Methods for Implementation Research

Denise Esserman, Ph.D. Professor of Biostatistics Yale School of Public Health

Q&A

12:30-12:55 **CASE STUDY ON STUDY DESIGN (IMPACT or Peru)**

TBC

13:00-14:00 **LUNCH BREAK**

14:00-14:50 **PLENARY LECTURE**

Promoting Addiction Treatment in HIV Clinics Informed by Implementation Science: A series of case studies

E. Jennifer Edelman, MD, MHS Professor of Medicine and Public Health, Yale Schools of Medicine and Public Health

Q&A

- 14:50-15:40 **CONSULTATION**
Real-World Implementation Research: MDR-TB problem in EECA (i.e. problems, solutions, benefits)
Veriko Mirtskhulava, MD, PhD KNCV, Epidemiologist, Invited lecturer, School of Public Health Ilia State University
- 15:40-16:30 **PLENARY LECTURE**
Implementation Science in Clinical Care Settings: Dashboards and Decision Support to Guide Implementation
Mona Sharifi, MD, MPH Assoc Professor, Yale University School of Medicine and School of Public Health
- 15:30-16:45 **COFFEE/TEA BREAK**
- 16:45-17:35 **LIVE STREAM LECTURE**
Using Qualitative and Mixed Methods Research to Strengthen Implementation Science
Ashley Hagaman, PhD, MPH Asst. Professor, Yale School of Public Health
- 17:35-18:25 **PLENARY LECTURE**
MSM: Challenges in implementing PrEP across key populations
Frederick L. Altice, MD, MA Professor of Medicine and Public Health, Yale School of Medicine and Public Health
OR
NIATx Primer
Lynn Madden, PhD, MPA
Q&A
- 18:25-19:00 **ASK THE EXPERTS: IMPLEMENTATION RESEARCH CONSULTATION**
- **Denise Esserman**, PhD
- **E. Jennifer Edelman**, MD, MHS
- **Mona Sharifi**, MD, MPH
- **Luke Davis**, MD
- **Frederick Altice**, MD
- **Lynn Madden**, PhD

Facilitator: David Otiashvili, MD, PhD, Assoc. Professor, Faculty of Natural Science and Medicine

09:00 REGISTRATION Auditorium G 106

09:00- 09:05 **OPENING REMARKS**

09:05-10:00 **KEYNOTE LECTURE**

Real-World Implementation During Disruptions: Lessons from COVID-19 and War

Frederick L. Altice, MD, MA

QA

10:00-10:50 **IMPLEMENTATION RESEARCH FROM BASICS TO ADVANCE:
Terminology, Frameworks, and Theories to Guide the Process**

Luke Davis, MD

QA

REAL WORLD CASE EXAMPLES: WHAT GETS IN THE WAY?

10:50-11:50 **REAL WORLD IS**

Implementation of Syringe Vending Machines in Tbilisi, Georgia

Irma Kirtadze, MD, PhD, Assoc. Professor, Faculty of Arts & Science, Faculty of Medicine and Public Health, Ilia State University

Real World IS (TITLE-TBC)

Mona Sharifi MD, PhD, Assoc Professor, Yale University School of Medicine and School of Public Health

11:50-12:05 **COFFEE/TEA BREAK**

12:05-13:00 **CDC LECTURE:
Eliminating Hep C
TBC**

13:00-14:00 **LUNCH BREAK**

14:00-15:15 **METHODOLOGICAL AND STATISTICAL CONSIDERATIONS IN IMPLEMENTATION SCIENCE
Denise Esserman, Ph.D. Professor of Biostatistics, Yale School of Public Health
CASE EXAMPLE**

- 15:15-16:05 **PLENARY LECTURE**
Optimizing Coaching (Facilitation) into Implementation Research
Lynn Madden, PhD
- 16:05-16:55 **LIVE STREAM LECTURE**
How might one assess community effectiveness of vaccines? The test-negative case-control study and a case study of COVID-19
Sten Vermund, MD, PhD, Professor of Public Health, Yale School of Medicine and School of Public Health, USA
- 16:55-17:10 **COFFEE/TEA BREAK**
- 17:10-18:00 **LIVE STREAM LECTURE**
Expanding the HIV Care Cascade: Using Implementation Science to Incorporate NCDs and Related Consequences
Sten Vermund, MD, PhD, Professor of Public Health, Yale School of Medicine and School of Public Health, USA
10 min for QA
- 18:00-19:00 **CASE EXAMPLE:**
Foreseeable & Unforeseen Challenges in Implementation Science
E. Jennifer Edelman, MD, MHS, Professor of Medicine and Public Health, Yale Schools of Medicine and Public Health

Unplugged - Challenges in Setting up a Study
David Otiashvili MD, PhD. Assoc. Professor, Faculty of Natural Science and Medicine, Ilia State University
- 19:00-19:30 **ASK THE EXPERTS: IMPLEMENTATION RESEARCH CONSULTATION**
- Denise Esserman, PhD
- E. Jennifer Edelman, MD, MHS
- Mona Sharifi, MD, MPH
- Luke Davis, MD
- Frederick Altice, MD
- Lynn Madden, PhD

Facilitator: Denise Esserman, *Ph.D. Professor of Biostatistics, Yale School of Public Health*

Two tracks: **Biostatistics** (max number of participants 20) and **Non-Biostatistics** (divided into 2 groups with max. number of participants 40 in each group)

TAs: Eteri Machavariani MD, MPH, Irma Kirtadze MD, PhD

The biostat-workshop will be held in Computer Auditorium, accommodating a limited number of participants (max 20). We've outfitted the room with individual workstations, each pre-loaded with R and RStudio, ready for you to dive right in. Sample datasets will also be provided for practical, hands-on learning and application of session concepts.

BIOSTATISTICS TRACK

09:00-09:50

INTRODUCTION TO SAMPLE SIZE FOR CLINICAL TRIALS

Denise Esserman, PhD

- Importance of estimating sample size in research.
- What goes into a sample size calculation.
- Common sample size calculation methods (means, proportions, etc.).
- Using R packages for sample size calculation (e.g., pwr package)

10:00-11:00 HANDS-ON PRACTICE

- Participants work on sample size exercises using R software.

TAs assist in Q&A

NON-BIostatISTICS TRACK

09:00-09:30

RAPID ASSESSMENT OF BARRIERS AND FACILITATORS ALONG THE SOCIO-ECOLOGICAL MODEL (INCLUDE AN INTRO FOR NGT)

Lynn Madden, PhD

ACTIVITY - Track A

09:30-11:00

Auditorium G 106

Real-World Experience with NGT

COME UP WITH A QUESTION & INVITE PARTICIPANTS

Lynn Madden, Ph.D, MPA, CEO, APT Foundation, Inc. Asst. Professor, Yale University School of Medicine

ACTIVITY - Track B

09:30-11:00

Auditorium T 102

Real-World Experience with NGT

COME UP WITH A QUESTION & INVITE PARTICIPANTS

Frederick L. Altice, MD, MA, Professor of Medicine and Public Health, Yale School of Medicine, and Public Health

11:00-11:15 COFFEE/TEA BREAK

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| 11:15-12:45 | <p>INTRODUCTION TO MORE COMPLEX DESIGNS AND HANDS-ON PRACTICE</p> <ul style="list-style-type: none"> • Discuss the parameters needed for more complex designs. • Designs we will consider include cluster randomized, longitudinal, and stepped wedge designs. <p>Use R packages for sample size calculations (e.g., CRTsize; swCRTdesing)</p> | <p>HOW TO WRITE AN EFFECTIVE MANUSCRIPT FOR PEER REVIEW</p> <p>E. Jennifer Edelman, MD, MHS</p> | <p>HOW TO WRITE AN EFFECTIVE GRANT PROPOSAL</p> <p>Frederick L. Altice, MD, MA</p> |
| 12:45-13:45 | LUNCH | | |
| 13:45-15:15 | <p>INTRODUCTION TO MISSING DATA</p> <ul style="list-style-type: none"> • Introduction <p>HANDS-ON PRACTICE</p> <ul style="list-style-type: none"> • Exercise on missing data <p>MISSING DATA MECHANISMS</p> <ul style="list-style-type: none"> • Missing data mechanisms (MCAR, MAR, MNAR). • Identifying missing data patterns. • Sensible approaches to handle missing data. <p>HANDS-ON PRACTICE</p> <ul style="list-style-type: none"> • Impact on effect estimates in the presence of missing data • Fit models using R <p>IMPUTATION METHODS</p> <ul style="list-style-type: none"> • Single and multiple imputation <p>HANDS-ON PRACTICE</p> <ul style="list-style-type: none"> • Multiple Imputation in R (e.g., mice). • Participants analyze datasets with missing data using R. • Trainer provides feedback and addresses any challenges. <p>METHODS FOR MNAR (if time permits)</p> | <p>NIATx WORKSHOP</p> <p>Unpacking the Implementation Tools from NIATx – a comprehensive implementation strategy.</p> <p>Lynn Madden, PhD</p> | <p>WORKSHOP</p> <p>Selecting & Combining Implementation Strategies in Implementation Science</p> <p>Mona Sharifi, MD, MPH, Assoc Professor, Yale University School of Medicine and School of Public Health</p> <p>Frederick Altice, MD, MA, Professor of Medicine, Yale School of Medicine and Public Health, USA</p> <p>E. Jennifer Edelman, MD, MHS, Professor of Medicine and Public Health, Yale Schools of Medicine and Public Health</p> |
| 15:15-15:30 | COFFEE/TEA BREAK | | |
| 15:30-16:15 | CONTINUED | NIATx Continued | LECTURE Economic Evaluation of Implementation Research: Is Cost a Barrier for LMICs Mona Sharifi MD, PhD |
| 16:15-17:45 | CONTINUED | NIATx Continued | LIBRARIAN How to conduct a Literature Review |
| 17:45-18:00 | WRAP UP & CLOSING REMARKS | | |



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