Georgian Implementation Science Fogarty Training (GIFT)

Ilia State University & Yale University

Summer Bootcamp in Implementation Science & Biostatistics

July 21–24, 2026 | T102 Conference Hall, 1 Giorgi Tsereteli St, Tbilisi, Georgia

DAY 1	DAY 2	DAY 3	DAY 4
Define and document the implementation gap; choose the conceptual tool.	Map determinants to strategies; plan adaptation and fidelity.	Choose the design; build implementation monitoring and rapid learning.	Stress-test sustainment, scale, and equity; complete the NIATx capstone.

DAY 1 | Tuesday, July 21, 2026

Facilitator: Irma Kirtadze, MD, PhD

Morning Core Curriculum — All Participants

Time	Session	Purpose / Content and Faculty
08:30–09:00	Registration and coffee	Arrival, sign-in, and morning coffee/tea in T101 Auditorium.
09:00–09:20	Welcome and opening remarks	Representatives of Ilia State University, Yale University, and invited partners. • Ketevan Darakhvelidze, Chancellor, Ilia State University • Elene Zhuravliova, Dean, School of Natural Sciences and Medicine, Ilia State University • Prof. Frederik L. Altice, Yale University • Prof. Irma Kirtadze, MD, PhD, Ilia State University
09:20–10:10	Didactic 1: Closing the Implementation Gap: Why Evidence Fails to Reach People and Change Policy	Lead: Prof. Frederick Altice. Define implementation science as the study of strategies to close evidence-to-practice gaps; distinguish IS from programme delivery, QI, M&E, and morbidity and mortality review; introduce the "thing versus the stuff" and the know–do gap.
10:10–11:00	Didactic 2: Adaptation Without Drift: Core Components, Adaptable Periphery and Fidelity	Lead: Prof. Luke Davis. Use CFIR/TDF for determinants, EPIS for stages, RE-AIM or Proctor outcomes for evaluation, and IRLM to connect determinants, strategies, mechanisms, and outcomes.
11:00–11:15	Break	
11:15–12:30	Skill Lab 1: From "Interesting Problem" to an Implementation Gap	EXMAT anchor case. Prof. Lynn Madden will document the original OAMT implementation gap and discuss how to elicit determinants and strategies. Participants will practice writing an implementation gap statement, consider how to conduct a landscape analysis and map determinants by domain and stakeholders.

Afternoon Parallel Tracks

Time	Track 1: Implementation Science T102 Auditorium	Track 2: Biostatistics (Core) T301 Auditorium	Track 3: Biostatistics (Advanced) T204 Auditorium
12:30–13:30	**Lunch break in T101 Auditorium**		
14:00–15:35	**Implementation Decision Lab: The HCV Problem in Georgia** Anchor case: Should Georgia invest in improving linkage from inpatient care? **Irina Tskhomelidze** documents the epidemiologic and economic gap; **Davit Baliashvili** maps the care pathway and known or suspected determinants. The case stops before a strategy is selected. • **Decision point:** Define the implementation gap precisely and choose the most useful framework. • Small groups complete the Day 1 worksheet; selected groups report; faculty synthesise why framework choice matters.	**Descriptive Statistics and Probability** Continuous and categorical data; descriptive summaries; probability. • Prof. Tassos Kyriakides, PhD • Lily Katsovich, MS, MBA	**Sample Size and Power for Implementation Research** Introduction and general principles; effect size, power, ICC, design effect; individually randomised trials. • Prof. Denise Esserman, PhD
15:35–16:15	**K43 Scholar Design Clinic: Rural Primary-Care Substance-Use Screening** **Ilia Nadareishvili** presents a tightly structured case: one slide documenting the gap, one slide on determinants, and one unresolved framework or implementation decision. • **Faculty consultation and brief audience application.**	**Hands-on Practice** Application of descriptive statistics and probability. • Prof. Tassos Kyriakides • Lily Katsovich	**Cluster-Randomised Trials** Parallel CRTs; baseline measures; individually randomised group-treatment designs. • Prof. Denise Esserman
16:15–16:30	**Coffee/tea break -** T101 Auditorium.	**Coffee/tea break -** T101 Auditorium.	**Coffee/tea break -** T101 Auditorium.
16:30–17:30	**GIFT Scholar Design Studio: From Gap to Framework** Two short, structured cases: **Tamar Mgebrishvili** on PrEP delivery preferences and **Anzor Chavchavadze** on evidence-based decision-making for HIV programmes among MSM. • Each scholar documents the gap, names the determinant or decision creating uncertainty, and asks one focused consultation question. • **Faculty lead: Profs. Luke Davis or Frederick Altice.**	**Probability and Hands-on Practice** Practice exercises and interpretation. • Prof. Tassos Kyriakides • Lily Katsovich	**Advanced Cluster Designs** Cross-over CRTs; stepped-wedge CRTs; other implementation trial designs; NIH calculators and Shiny App demonstration. • Prof. Denise Esserman
We all are back to T102			
17:30–18:30	**GIFT Implementation Design Forum** **Thea Shengelaia** on applying the RE-AIM framework to integrate alcohol-related interventions into HIV testing and harm reduction services for people who inject drugs (PWID) **Keti Meskhi** on systematic tuberculosis screening and preventive treatment among household contacts of people with infectious tuberculosis and people living with HIV in Georgia. Each scholar presents their research concept in a 15-minute presentation, followed by a 10-minute faculty discussion focused on strengthening the study design, implementation strategy, and next steps. • **Faculty: Profs. Denise Esserman, Lily Katsovich, Tassos Kyriakides, Luke Davis, Frederick Altice, and Lynn Madden.**		

Daily participant product: A one-paragraph implementation gap statement and a justified framework choice.

DAY 2 | Wednesday, July 22, 2026

Facilitator: David Otiashvili, MD, PhD

Morning Core Curriculum — All Participants

Time	Session	Purpose / Content and Faculty
08:30–09:00	Registration and coffee	Arrival, sign-in, and morning coffee/tea in T101 Auditorium.
09:00–9:50	Didactic 3: From Barriers and Facilitators to Implementation Strategies	Lead: Profs. Frederick Altice and/or Luke Davis. Match determinants to strategies; introduce ERIC as a vocabulary rather than a shopping list; use barrier → strategy → mechanism logic.
9:50–10:40	Didactic 4: Frameworks That Do Work: Choosing the Right Implementation Framework for the Job	Lead: Prof. Luke Davis. Distinguish intervention fidelity from implementation-strategy fidelity; document what changed, why, by whom, and with what consequence.
10:40–11:00	Break	
11:00–12:30	Skill Lab 2: Build the Strategy Package and Adaptation Plan	EXMAT anchor case. Prof. Lynn Madden to present the qualitative research from 199 PWID in Ukraine and the first NGT by providers. This will start with the problem and then document the determinants!

Afternoon Parallel Tracks

12:30–13:30	Lunch break in T101 Auditorium		
Time	**Track 1: Implementation Science T102 Auditorium**	**Track 2: Biostatistics (Core) T301 Auditorium**	**Track 3: Biostatistics (Advanced) T204 Auditorium**
13:30-15:30	**Comparative Implementation Priority Forum** Three ten-to-fifteen-minute lightning cases: HBV vaccination among PWID (**Maia Butsashvili**); HBV coinfection and awareness among people with active TB (**George Kanchelashvili**); INTEGRATE-TB preventive therapy in primary care (**Veriko Mirtskhulava**). • Decision point: The Ministry can support only one implementation initiative next year. Groups use burden, equity, readiness, modifiability, feasibility, reach, cost, system fit, and sustainment to justify a priority. Small groups select a two- or three-strategy package and justify each link: determinant → strategy → mechanism → implementation outcome. • Presenter returns briefly to explain the current design and unresolved trade-offs.	**Estimation, Hypothesis Testing, and Comparing Means** Parametric and non-parametric methods. • Prof. Tassos Kyriakides • Lily Katsovich **Hands-on Practice** Applied exercises using the morning methods. • Prof. Tassos Kyriakides • Lily Katsovich	**Introduction to Survival Analysis** Time-to-event data; censoring; survival and hazard functions; Kaplan–Meier estimation; median survival; confidence intervals. • Prof. Denise Esserman **Hands-on Survival Analysis** Comparing survival curves; log-rank test; practical interpretation. • Prof. Denise Esserman
15:30–15:45	**Coffee/tea break -** T101 Auditorium.	**Coffee/tea break -** T101 Auditorium.	**Coffee/tea break -** T101 Auditorium.
15:45–17:00	**Evidence Search for Implementation Decisions** Live-streamed practical session led by **Kate Nyhan**, MLS. Focus on locating evidence for the intervention, determinants, implementation strategies, and comparable contexts—not merely conducting a general literature review. • Participants refine one search question from the Day 2 cases.	**Correlation and Regression: Hands-on Practice** Applied exercises and interpretation. • Prof. Tassos Kyriakides • Lily Katsovich	**Hands-on Survival Analysis in R** Kaplan–Meier curves; log-rank tests; publication-quality plots. • Prof. Denise Esserman
We all are back to T102			

17:00–18:00	**GIFT Implementation Design Forum** **Levan Salamadze** on scaling up opioid agonist treatment (OAT) as an HIV prevention strategy within the Georgian probation system, and **Irakli Natsvlishvili** on implementing evidence-based substance use screening, brief intervention, and referral (SBIRT) within prenatal healthcare services in Georgia. Each scholar presents their research concept in a 10-minute presentation, followed by a 10-minute faculty discussion focused on strengthening the study design, implementation strategy, and next steps. • **Faculty: Profs. Denise Esserman, Lily Katsovich, Tassos Kyriakides, Luke Davis, Frederick Altice, and Lynn Madden.**

Daily participant product: A determinant–strategy–mechanism map and a preliminary adaptation/fidelity plan.

DAY 3 | Thursday, July 23, 2026

Facilitator: Irma Kirtadze, MD, PhD

Morning Core Curriculum — All Participants

Time	Session	Purpose / Content and Faculty
08:30-09:00	**Registration and coffee**	**Arrival, sign-in, and morning coffee/tea in T101 Auditorium.**
09:00–9:50	**Didactic 5: Choosing an Implementation Study Design After You Know the Strategy**	**Lead: Profs. Denise Esserman. Design follows the implementation question; compare individual and cluster randomization, waitlist control, stepped wedge, interrupted time series, controlled pre/post, natural experiments, and hybrid designs.**
9:50–10:40	**Didactic 6: Developing an Implementation Protocol: From Study Design - Filed Ready Trial**	**Lead: Prof. David Otiashvilli. This session is designed to guide investigators through the complex process of protocol development, bridging the gap between epidemiologic study designs and real-world clinical implementation.**
10:40-11:00	**Break**	
11:00–12:30	**Skill Lab 3: Choose the Design and Build the Monitoring Plan**	**EXMAT anchor case. Lynn Madden to transition in with selection of the implementation strategies and then ADAPTATION – what failed when NIATx started (wrong group – NGOs), need for stimulus lectures (Edu/Training) and then Roman can present on disruptions like policy changes → COVID-19 → War. Discussion about study design as an ITS yet compare design options and create a monitoring plan: outcomes, fidelity indicators, data frequency, trigger thresholds, and decision ownership.**

Afternoon Parallel Tracks

12:30–13:30	**Lunch break in T101 Auditorium**		
Time	**Track 1: Implementation Science T102 Auditorium**	**Track 2: Biostatistics (Core) T301 Auditorium**	**Track 3: Biostatistics (Advanced) T204 Auditorium**
14:00–15:15	**Interactive Implementation Design Workshop** **Emeli Anderson** presents the completed needs assessment of health and service access among women who use drugs, then stops at the decision: What implementation study should come next? • Groups define the implementation question, unit and level, strategy package, study design, implementation outcomes, and a minimal monitoring dashboard. • **Faculty synthesis: Prof. Luke Davis.**	**Chi-square Tests and Logistic Regression** Core concepts and applications. • Prof. Tassos Kyriakides • Lily Katsovich	**Cox Proportional Hazards Models** Cox regression; hazard ratios; univariable and multivariable models; variable selection; confounding; proportional-hazards assumptions; Schoenfeld residuals and diagnostics. • Prof. Denise Esserman
15:15–15:30	**Coffee/tea break -** T101 Auditorium.	**Coffee/tea break -** T101 Auditorium.	**Coffee/tea break -** T101 Auditorium.

15:30–16:15	**Implementation Audit: Influenza Vaccination** **Lika Gvinjilia** presents a short audit of the 2025–26 healthcare-worker influenza vaccination programme. • Audience critiques which determinants were targeted, which strategies and adaptations were used, what outcomes were monitored, what was missing, and what should change next cycle.	**Hands-on Practice** Chi-square and logistic-regression exercises. • Prof. Tassos Kyriakides • Lily Katsovich	**Hands-on Cox Modelling in R** Building models; diagnostics; interpretation. • Prof. Denise Esserman
16:15–17:30	**From Stakeholder Priorities to the First Change Cycle** Hands-on nominal group technique and transition to rapid-cycle improvement. • Profs Lynn Madden and Frederick Altice lead a focused NGT exercise to prioritise determinants or strategies. • Groups convert the highest-ranked item into a measurable first-cycle change aim, preparing for the Day 4 NIATx capstone.	**Hands-on Practice** Continued applied work. • Prof. Tassos Kyriakides • Lily Katsovich	**Hands-on Cox Modelling in R** Continued modelling, diagnostics, and interpretation. • Prof. Denise Esserman
We all are back to T102			
17:30–18:30	**GIFT Implementation Design Forum** **Mariam Sherozia** on identifying challenges and facilitators for HIV self-testing (HIVST) among people who inject drugs (PWID) in Georgia, and **Marine Gogia** on a CFIR-guided pre-implementation assessment of the MOTIVES digital HIV testing intervention among key populations in Georgia. Each scholar presents their research concept in a 10-minute presentation, followed by a 10-minute faculty discussion focused on strengthening the study design, implementation strategy, and next steps. • **Faculty: Profs. Denise Esserman, Lily Katsovich, Tassos Kyriakides, Luke Davis, Frederick Altice, and Lynn Madden.**		

Daily participant product: A justified evaluation design and a basic implementation monitoring plan.

DAY 4 | Friday, July 24, 2026

Facilitator: David Otiashvili, MD, PhD

Morning Core Curriculum — All Participants

Time	Session	Purpose / Content and Faculty
08:30–09:00	**Registration and coffee**	**Arrival, sign-in, and morning coffee/tea in T101 Auditorium.**
09:00–9:50	**Didactic 7: Sustainment and Scale-Up: Designing for What Happens After the Grant Ends**	**Lead: Prof. Lynn Madden. Ownership, financing, staffing, workflow embedding, leadership, policy alignment, data systems, maintenance, de-implementation, and transition from emergency adaptations to routine practice.**
9:50–10:40	**Didactic 8: Equity and Context in Implementation: Who Benefits, Who Is Missed, and Who Bears the Burden?**	**Lead: Prof. Frederick Altice. This presentation examines how context shapes health equity and why implementation science must move beyond evidence alone. It highlights structural barriers, local systems, community priorities, and implementation strategies that make interventions reach the people most affected, fit real-world settings, and produce measurable, sustainable improvements in health outcomes and fairness globally.**
10:40–11:00	**Break**	
11:00–12:30	**Skill Lab 4: Sustainment and Equity Stress Test**	**IMPACT anchor case. Eteri Machavariani can state the gap, identify the determinants → select strategies**

Afternoon Parallel Tracks

12:30–13:30	**Lunch break in T101 Auditorium**

Time	Track 1: Implementation Science T102 Auditorium	Track 2: Biostatistics (Core) T301 Auditorium	Track 3: Biostatistics (Advanced) T204 Auditorium
14:00–15:30	**NIATx Capstone Workshop** Prof. Lynn Madden leads participants through process mapping, identification of the primary bottleneck, and development of a specific measurable improvement aim. • Participants select a change idea and design the first rapid-cycle test using a case or project developed earlier in the week.	**Study Design Overview** Review and integration of core design concepts. • Prof. Tassos Kyriakides • Lily Katsovich	**Advanced Survival Analysis for Implementation Science** Time-dependent covariates; frailty models; multi-state models. • Prof. Denise Esserman
15:30–15:45	**Coffee/tea break -** T101 Auditorium.	**Coffee/tea break -** T101 Auditorium.	**Coffee/tea break -** T101 Auditorium.
15:45–17:30	**NIATx Capstone Workshop — Continued** Participants define measures, assign responsibility, anticipate failure modes, and specify how the team will decide whether to adopt, adapt, or abandon the change. • Final product: process map, bottleneck, aim statement, first-cycle test, measures, ownership, and decision rule.	**Repeated Measures and Survival Analysis** Hands-on practice and integration. • Prof. Tassos Kyriakides • Lily Katsovich	**Hands-on Advanced Survival Analysis** Real-world implementation science case using healthcare or clinical data. Model choice; Common pitfalls; Interpretation for publications •Prof. Denise Esserman
We all are back to T102			
17:30–18:30	**Implementation Research Consultation Clinic (advance question submission required)** **Submit your implementation research question in advance via the shared Google document for discussion during the consultation clinic -** https://docs.google.com/document/d/14ZKmM3rfojbeAG2zytT2D4sbyHe-nm72YOuE6FRn_Ns/edit?tab=t.ngbxzo2ysuoj • **Faculty: Profs. Denise Esserman, Lily Katsovich, Tassos Kyriakides, Luke Davis, Frederick Altice, and Lynn Madden.**		

Daily participant product: A sustainment, scale, and equity plan.