

2021 Fogarty GID Postgraduate Web-Based Course: “Evaluation Methods in Implementation Research”

1. Course Description

Implementation research (“IR”) helps to identify the barriers that prevent effective health interventions from reaching the people who need them, and guides the design of innovative strategies to overcome these barriers and ensure that the interventions achieve the intended results. Such strategies include solutions to access and adoption of treatments, diagnostic methods or preventive measures that improve health, as well as effective implementation of programs and policies in public health.

This course reviews the principles, methods, and study designs used in Implementation Research with special emphasis on methods to evaluate existing implementation strategies, as well as the results and effectiveness of implementation of public health strategies. The course describes how basic epidemiologic and clinical research concepts, methods, and study designs can be adapted to address the particular challenges of evaluation in Implementation Research.

The central question we wish to respond during this course, is how to conduct and evaluate research that addresses implementation issues while concurrently measuring the efficacy of the intervention? The skills developed through this course will guide participants in formulating and developing IR projects, and to rigorously evaluate the results of implementation research.

Conceptualizing and measuring implementation processes and contexts, improves understanding and documentation of these processes, and facilitates the replication and scale up of health interventions in new contexts.

2. Target audience

This course is designed for post-graduate students (Master’s and Doctoral) in public health, biomedical sciences or related areas, and post-doctoral investigators. The concepts and methods are also relevant for postgraduate faculty and health researchers interested in implementation science.

3. Course Objectives

This course provides a comprehensive overview of the principles and methods of implementation research, with particular emphasis on the evaluation of IR results and implementation strategies. The course also provides tools to enable the participants to apply the concepts and methods to the design and evaluation of new studies.

After completing this course, students will be able to:

- Understand the core concepts of implementation research
- Identify contextual challenges and assess the relevance of existing implementation strategies
- Formulate implementation research questions and identify multiple approaches to integrate qualitative and quantitative designs
- Understand different frameworks/theories for evaluation in IR

- Identify barriers and facilitators to the adoption and integration of evidence-based interventions into real-world settings
- Design and develop innovative and more effective implementation strategies working with communities and multiple stakeholders
- Identify implementation research outcomes used to evaluate the effectiveness of implementation strategies

4. Methodology

The course methodology includes:

- Weekly web-based lectures on each topic presented by Colombian and international experts and university faculty members.
- Both lectures and student presentations will be delivered within a virtual network of graduate programs in public health and biomedical sciences in Colombia, creating an “inter-institutional classroom”.
- Videos and research articles will be used to illustrate the core concepts of the course. Before each session, students must complete videos and/or readings assignments in the course syllabus, as well as any additional reading assigned by their institutional course coordinator and must submit a report of that review.
- After each session, students are expected to participate in discussions, review research papers, complete homework assignments, etc., as determined by their institutional course coordinator.
- Students will complete a final assessment (test or concept note). The course coordinator at each institution will be responsible for grading his or her students. Participating universities may include additional academic activities and define the criteria for the final grade of students in their graduate programs.
- Four workshops will be conducted in small groups with the accompaniment of the institution coordinator as well as one of the course coordinators and / or lecturers, to discuss key concepts from the readings and lectures with participants.

5. Readings

- All readings for each lecture topic will be distributed via the [Moodle course platform](#)

6. Evaluation

- Attendance: 20%
- Workshop assignments: 50%
- Final assignment: 30%
- Evaluation may also include brief reports of readings prior to each lecture to be submitted to the institutional course coordinator. (To be defined with course coordinator).

7. Credits: 3

8. Language: English / Spanish

9. **Pre-requisites:** Undergraduate degree in a biomedical, public health or other health-related field, or permission of one of the course coordinators.

10. **Course Schedule** (Tuesdays 10 am -12 noon)

Module 1. Introduction to Designing and Planning Implementation Research			
No.	Date	Topic	Potential Lecturers
1	August 10	Principles of Implementation Research (IR)	Phyllis Dako, PhD Universidad de Ghana
2	August 17	Identifying IR problems Needs assessment and context analysis	Jackeline Alger MD, PhD – Hospital Escuela Universitario, IAV /Diana Castro PhD – UdeA-CIDEIM
3	August 24	Planning an implementation research study - Formulating IR questions and introduction to research designs	Neal Alexander PhD / CIDEIM (Yale)
4	August 31	Small groups Workshop 1: Discussion based on specific readings on principles of IR and needs assessment	
5	September 7	Designing Implementation Strategies	Luke Davis MD. /Yale School of Public Health
6	September 14	Planning an implementation research study - Research Designs for IR	Neal Alexander PhD/ CIDEIM
7	September 21	Qualitative and Mixed Methods in Implementation Research	Leslie Curry / Yale School of Public Health
8	September 28	Small groups Workshop 2 Discussion based on specific readings on implementation research questions, research design and research methods	
Module 2. Evaluation Methods in Implementation Research			
9	October 5	Introduction to Evaluation in health interventions	Victoria E. Soto PhD. PROESA – U. Icesi
10	October 12	Evaluation methods in health policies and programs	Norman Maldonado PhD - PROESA – U. Icesi

11	October 19	Evaluation of complex interventions	Ligia de Salazar PhD - U. Del Valle
12	October 26	Small groups Workshop 3 Discussion on economic, policy and programs, and evaluation of complex interventions	
13	November 2	Implementation Research Outcomes (IROs)/ Evaluating implementation strategies	Luke Davis / Yale School of Public Health
14	November 9	Example of Implementation Research Outcomes - measuring fidelity, adaptation, acceptability... in IR	Gloria Sanchez PhD/ UdeA
15	November 16	Using theories/models/frameworks for IR	Yodi Mahendradhata PhD Universitas Gadjah Mada - Yogyakarta Indonesia
16	November 23	Small groups Workshop 4 Discussion on IROs and other evaluation frameworks for IR	
	November 30	Final assignment due date	

11. Course coordinators at CIDEIM

- Neal Alexander, PhD: Course Coordinator, CIDEIM, Cali, Colombia
- María Isabel Echavarría, MPH: Course Coordinator, CIDEIM, Cali, Colombia
- Carlos Rojas, MD, PhD: Course Coordinator at Universidad de Antioquia, Associated researcher CIDEIM, Cali

12. Institutional course coordinators

Medellin	Universidad de Antioquia	Carlos Rojas Profesor Titular Coordinador Grupo Epidemiología/Programa de becas TDR/Programa Manitoba Facultad Nacional de Salud Pública carlos.rojas@udea.edu.co
		Sara Robledo Profesora titular Facultad de Medicina Coordinadora Desarrollo y Servicios para productos Biotecnológicos Universidad de Antioquia sara.robledo@udea.edu.co

	Universidad Pontificia Bolivariana	John Bustamante Director Centro de Bioingeniería Director Grupo de Dinámica Cardiovascular COL0007945 Cat. A Coordinador Doctorado en Ciencias Médicas john.bustamante@upb.edu.co
Cali	Universidad Icesi	Paola Caicedo Directora de las Maestrías en: Biotecnología, modalidad profundización, y Ciencias-Biotecnología, modalidad investigación pacaicedo@icesi.edu.co
	Universidad del Valle	Gloria Inés Palma Profesora Titular Escuela de Ciencias Básicas gloria.palma@correounivalle.edu.co
Bogotá	Universidad del Bosque	Adriana del Pilar Pacheco Directora Doctorado en Salud Pública Facultad de Medicina doctoradosaludpublica@unbosque.edu.co
	Pontificia Universidad Javeriana	Juan Carlos Ulloa Profesor Asociado, Departamento de Microbiología, Laboratorio de Virología Grupo de Enfermedades Infecciosas Facultad de Ciencias julloa@javeriana.edu.co
Bucaramanga	Universidad Industrial de Santander	Gerardo Muñoz, PhD Profesor Doctorado en Ciencias Biomédicas germun@uis.edu.co
Caribe	SUE Caribe (Sistema de Universidades Estatales del Caribe Colombiano – Doctorado de Medicina Tropical)	Doris Gómez Directora Regional Doctorado en Medicina Tropical - SUE Caribe degomez@hotmail.com

Contact:

Alejandra Chamorro
Training Course Portfolio Manager, CIDEIM, Cali, Colombia
achamorro@cideim.org.co