



SPHeRE



Structured Population health, Policy
and Health-services Research Education

SPHeRE Programme
Structured PhD
Training Modules
2026-27



INTRODUCTION

Seven modules are taught on the SPHeRE Programme in Population health, Policy and Health-services research. All modules are delivered in a blended learning format - with a combination of interactive online teaching and face-to-face teaching sessions - allowing for more flexible delivery.

In person teaching takes place each Wednesday (10am-5pm) and occasionally on Thursdays (9am-2pm) from October to May annually. Each module is assessed through a written assignment and/or presentation.

MODULE 1

Population Health and Epidemiology Module Lead: Dr Eithne Sexton, RCSI

This introductory module provides scholars with a comprehensive introduction to population health and epidemiology, with a focus on conceptual, theoretical, and analytical foundations. By the end of the module scholars will be able to describe and explain key concepts, principles and methodological approaches in population health and epidemiology, and critically appraise how health is defined and measured. Scholars will gain an understanding of the complex ways in which health is determined, with a focus on the interplay between individual, social, environmental and structural determinants of health. The module will prepare scholars to understand and apply relevant theoretical and conceptual frameworks in PHHSR. The complexities and challenges involved in generating and interpreting evidence will also be explored, providing a foundation for a more in-depth study of research methodology in subsequent modules. Different cases and core topics are used to frame disciplinary perspectives, helping scholars to understand the multidisciplinary nature of the field and develop a critical PHHSR perspective.

MODULE 2

Study Design and Inference Module Lead: TBC, UCC

This module introduces the principles of Study Design & Inference, focusing on developing effective research questions and selecting appropriate study designs for quantitative, qualitative, and mixed-methods research. Scholars will learn how to construct and evaluate research questions, identify the key components of a research study protocol, and select appropriate outcomes and populations. The module explores core concepts including sampling, experimental design, bias,

variability, and uncertainty, while developing skills to interpret data, draw meaningful conclusions from statistical evidence, and understand the limits of inference. Scholars will critically assess research findings, describe and apply methods commonly used to collect quantitative data in applied health research, and apply study design approaches to real-world problems and evidence-based decision-making.

MODULE 3

Quantitative Research and Applied Data Analysis

Module Lead: Dr Fiona Boland, RCSI

This module introduces scholars to core concepts in research design, data types, and statistical analysis within the context of health and biomedical sciences. Through a combination of lectures, group-based exercises, and hands-on practical sessions, scholars will explore the principles of quantitative research, descriptive and inferential statistics, and regression modelling. Emphasis is placed on understanding epidemiological measures, hypothesis testing, and interpreting statistical outputs to support evidence-based decisionmaking. The module fosters critical thinking and collaborative learning through case-based discussions and applied data analysis.

MODULE 4

Qualitative and Mixed-methods Research

Module Leads: Dr Aisling Walsh, RCSI

This module provides a foundation in qualitative and mixed methods research, with a focus on applications in population health and health services research. Through a combination of lectures, group-based exercises, and hands-on practical sessions, scholars will explore the principles and practices of the primary qualitative research designs, and appropriate uses. The module also introduces key methods of data collection, alongside common approaches to qualitative data analysis. An introduction to qualitative synthesis will also be provided. Scholars will design and implement a qualitative research project.

In addition, students will be introduced to the typologies of mixed methods research, learning how qualitative and quantitative approaches can be integrated to address complex research questions. Emphasis will be placed on understanding methodological rigour, ethical considerations, and the process of designing and justifying a qualitative and mixed methods research project. By the end of the module, students will be equipped with foundational knowledge and skills to critically engage with qualitative and mixed methods research in their own doctoral work.

MODULE 5

Evidence Synthesis

Module Lead: Prof Barbara Clyne, RCSI

In this short module scholars describe the major sources of research evidence (including the grey literature), conduct effective and efficient searches of the literature to the level required for a Cochrane review and critically appraise, summarise and synthesise the literature on a specific topic. They define a health service problem, identify a related research question or questions, discuss and select from appropriate study designs and methods and write a detailed research protocol (for a systematic review or randomised controlled trial) addressing key planning issues including sampling, data access, data collection, data management and research ethics considerations. The experiential approach to learning enables scholars to develop the skills necessary for presenting a successful PhD proposal.

MODULE 6

Health Systems and Policy

Module Lead: Prof Sara Burke and Dr Carlos Bruen, TCD

On completion of this module scholars are able to describe and discuss the structure and operation of health systems globally with specific reference to the Irish health system. They become familiar with the conceptual frameworks from the health systems and policy analysis literature and understand their application in an Irish and global context. As the approach of this module is interactive and discursive, scholars discuss and compare the performance of health systems in different countries. They discuss and appraise the main policy debates relating to human resources motivation, migration and workforce planning as well as focusing on the development and (non) implementation of universal healthcare. As a third feature of this module scholars are introduced to the approaches, structures and practice of healthcare management in an applied and real-world context.

MODULE 7

Health Economics

Module Lead: Dr Bridget Johnston, TCD

In this module scholars are exposed to the uses of economics and econometrics in the analysis and evaluation of health care. The module provides a basis for more advanced study for those likely to use economics in their PhD research. Scholars are introduced to the key principles, concepts and approaches of economic theory before they appraise health systems from the perspective of economics. Key issues such as health financing, equity and resource allocation are discussed, as are the practical methods of economic evaluation.

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