SPHeRE

Structured Population and
Health-services Research Education

SPHeRE Information Package

For Principle Investigators, Employers and other organisations with funding for a PhD student

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Summary

The SPHeRE PhD Programme provides a key infrastructure to support health research in Ireland through its unique and innovative PhD programme. This document provides information on the SPHeRE PhD Programme that people may find useful when completing funding applications or research plans that include possible PhD students researching in the broad area of population health and health services research (PHHSR). This document is aimed at Principle Investigators (PIs), Employers and other organisations with funding for a PhD student, or submitting a funding application that includes an option for recruiting a PhD student.

Why SPHeRE?
- Access to the SPHeRE training programme is free.
- Structured PhD training as part of a cohort has personal and academic advantages over the traditional model of individual training with bespoke modules.
- Inclusion on Sphere opens up many training, supervision and networking opportunities.
- The Health Research Board strongly encourage applicants who want PhD funding in PHHSR to include their students on Sphere.

The SPHeRE PhD Programme provides a national training facility in PHHSR. It is open to the best scholars regardless of institution or funding source. Access to the PhD training is free of charge, and is subject to successful application. PhD students in PHHSR with alternative funding who wish to join the programme can apply for a position on the PhD programme. PIs, Charities, Employers or other organisations with 4-years of funding available can also apply to enrol a registered PhD Scholar, tied to their own projects, on to the SPHeRE Programme.

Recruitment

Application
Recruitment takes place annually. There are two recruitment streams - Student-led and PI, Employer, Other-led:

1. **Student-led**: Student-led recruitment begins in February each year, and remains open for approx. 6 weeks. Applications are submitted online through the [SPHeRE website](#), where applicants are asked to complete an online form an submit a 1pg cover letter and a CV. Applicants select which funding source they wish to be considered under: i) SPHeRE-HRB funding, 3 per annum; ii) Alternative funding, identifying which of the available funding sources they are interested in/can demonstrate the skills for; iii) Self-funding, whereby costs associated with being a PhD student are borne by the person themselves.

2. **PI, Employer, Other-led**: PI, Employer, Other-led applications for a PhD student are accepted on a rolling basis. PIs, employers, and other organisations can opt to advertise and recruit through the Student-led process described above, and/or can recruit a PhD student themselves and put them forward for consideration by the SPHeRE Programme. Recruitment through the Student-led process requires that funding is in place prior to advertising in February. Where PIs, employers, and other organisations have identified a PhD candidate themselves, they can put this candidate forward for consideration up to the start of the academic year (late Sep/early Oct). Queries on PI, Employer, Other-led applications should be sent to Elaine Healy, SPHeRE Programme Manager (elainehealy@rcsi.ie).

Review

Student-led applications go through a three-step review process: an initial screening; a more comprehensive shortlisting; followed by a final round of interviews. Screening is conducted internally to exclude those who do not meet the minimum requirements. Shortlisting is conducted by a panel of academics from the different higher education institutions in Ireland. PIs, Employers, and other organisations recruiting through SPHeRE are invited to be a member of the shortlisting panel. Shortlisted candidates are then put forward for interview, with interviews normally held in May/June. The interview panel is comprised of the three SPHeRE directors, a representative from the HRB, and an external interviewer from outside the Irish HEIs. PIs, Employers, and other organisations recruiting through SPHeRE are invited to sit on the interview panel for potentially suitable shortlisted candidates.

PI, Employer, Other-led recruitment is managed separate to SPHeRE. Once a PI, Employer or other organisation has identified a suitable candidate and have secured 4 years of funding for them, they can put this candidate forward for a short interview with the SPHeRE directors. This interview is conducted to ensure suitability. Candidates should ideally be identified in advance of the academic year so that they can start at the same time as others in their cohort.

PhD Journey

Scholars are in the first instance required to meet all requirements set out by the institution they are registered in. PIs and other funders may have additional requirements of scholars, e.g. modules or workshop training specific to their area of work.

In addition to institutional and funding-associated requirements, the SPHeRE PhD Programme provides access to a comprehensive set of capacity building and training activities to scholars. These activities are organised around expert-led, independent, and peer-led learning processes. These core approaches to teaching and learning underpin the different stages of the PhD journey. Appendix 1 provides a figurative overview of the journey and associated

activities on a full-time basis: people completing on a part-time basis will have longer periods between stages, more details of which [can be found in this guide](#).

Scholars have access to six taught modules in their first year, which must be completed for progression to thesis proposal submission and Year 2 (see Appendix 2 for module descriptors). Once successfully completed, scholars enter a new phase combining structured and independent learning.

Structured learning will be provided across the key stages of progression through delivery of workshops underpinned by three core goals: a) developing advanced research methods skills; b) building deeper understanding of the healthcare context; and c) developing a range of professional skills, including for career development (see Appendix 3 for a of workshops currently). In addition to workshops, SPHeRE-HRB funded scholars are required to undertake a 6 to 8-week national placement in their first year, and a 2-week international placement in either 2nd or 3rd year. Where possible, we recommend that alternatively funded scholars also undertake placements given the academic and networking benefits that can accrue for scholars and supervisors.

Independent learning takes place across all years and relates to core thesis work undertaken by scholars, and completion of annual reports and dissemination milestones. The thesis proposal and subsequent annual reports are reviewed by an Academic Panel of experienced researchers, where this Panel stays with their assigned cohort through to completion. Satisfactory completion of annual reviews is required for progression. All scholars are also required to submit a thesis-related journal article and a thesis-related policy brief. They aim of these milestones is to have students plan dissemination from an early stage in their PhD, and to learn to communicate to different audiences. Workshop training is provided to support these aims. Submission and examination of each thesis is subject to the procedures and regulations of the institution where scholars are registered.
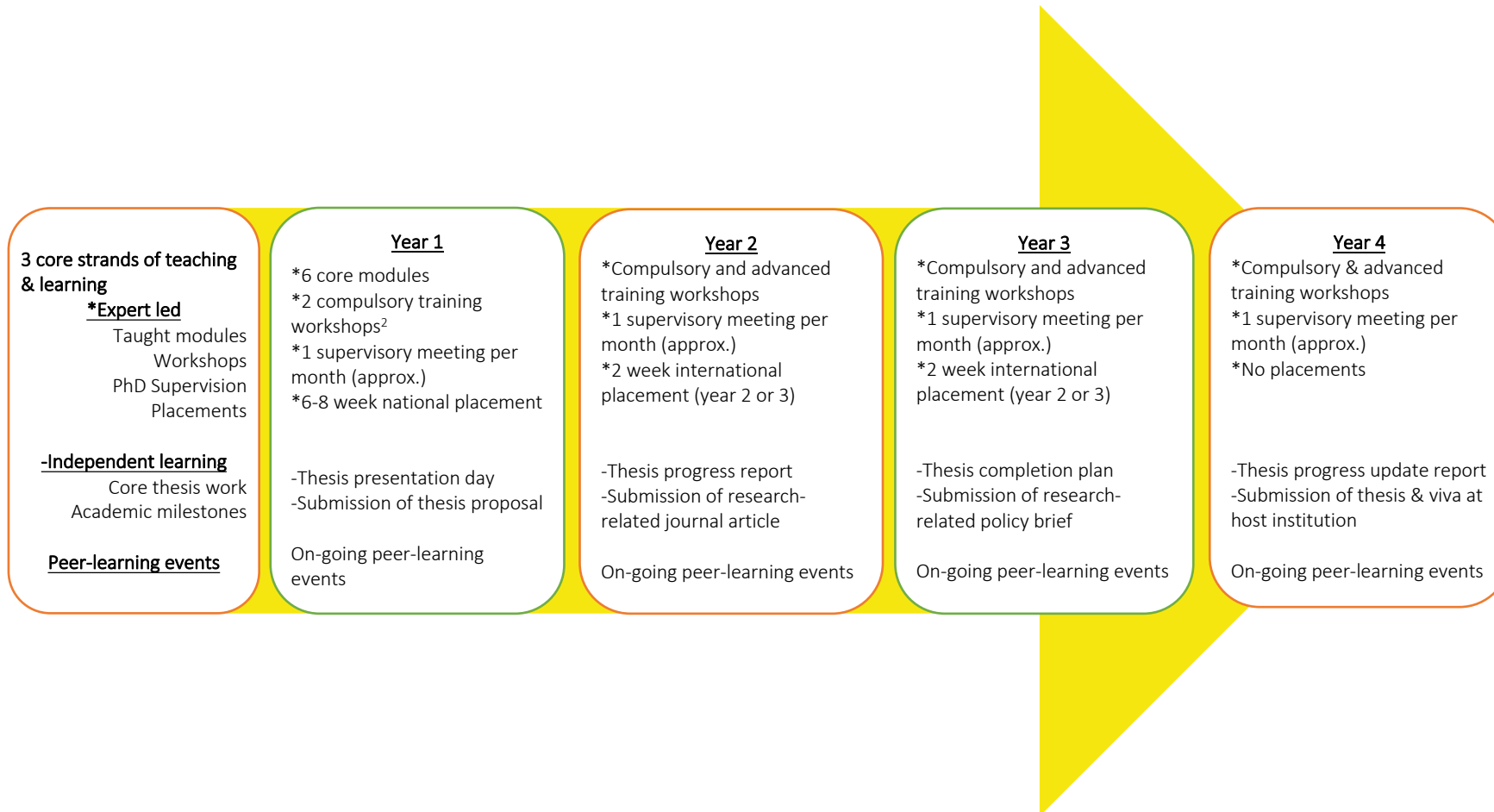
Finance

Table 1 provides a breakdown of costs for a fully funded PhD student, and is intended as a guide for Principle Investigators (PIs), Employers and other organisations seeking to allocate funding for a PhD student. Alternative funding budgets remain separate from the SPHeRE Programme, are managed independently of the SPHeRE Programme, and are subject to the procedures of the grant holding institution and the requirements of PIs. Funding for consumables and training are at a 'ceiling' level, with individual scholar expenditure in these categories managed and determined by PIs. There is no SPHeRE financial support available to alternatively funded scholars. Self-funded scholars can avail of SPHeRE travel support for Yr1 modules delivered in a city other than their registered institution. Appendix 4 sets out the

minimum costs of undertaking a PhD that both alternative and self-funded scholars should expect to cover through an alternat8ive funding source or by themselves.

Table 1: Sample Funding Costs for a Full-Time Scholar

	Yr 1	Yr 2	Yr 3	Yr 4
Stipend	18,000	18,000	18,000	18,000
Fees	7,000	7,000	7,000	7,000
Equipment	2,000	0	0	0
Consumables (Books, travel to Yr1 lectures, printing, data collection Yrs2-4)	2,300	1,200	1,200	1,200
National Placement	0	0	0	0
Travel/Dissemination (conferences, & publishing)	300	2,500	3,000	3,500
Technical Training (Inc international placement in Yr 2-3)	1,000	3,000	4,500	1,000
Institutional Overhead @ 25%	5,400	6,175	6,675	5,925

Appendix 1: PhD Journey[1]

3 core strands of teaching & learning

*Expert led
Taught modules
Workshops
PhD Supervision
Placements

-Independent learning
Core thesis work
Academic milestones

Peer-learning events

Year 1
*6 core modules
*2 compulsory training workshops[2]
*1 supervisory meeting per month (approx.)
*6-8 week national placement

-Thesis presentation day
-Submission of thesis proposal

On-going peer-learning events

Year 2
*Compulsory and advanced training workshops
*1 supervisory meeting per month (approx.)
*2 week international placement (year 2 or 3)

-Thesis progress report
-Submission of research-related journal article

On-going peer-learning events

Year 3
*Compulsory and advanced training workshops
*1 supervisory meeting per month (approx.)
*2 week international placement (year 2 or 3)

-Thesis completion plan
-Submission of research-related policy brief

On-going peer-learning events

Year 4
*Compulsory & advanced training workshops
*1 supervisory meeting per month (approx.)
*No placements

-Thesis progress update report
-Submission of thesis & viva at host institution

On-going peer-learning events

NOTES:

1. This diagram relates to the 4 year, full-time, SPHeRE PhD programme. Scholars undertaking a PhD on a part-time basis may choose a different route to completion and can undertake their core modules over a two year timeframe. The *Routes to Completion* document contains information on undertaking a SPHeRE Programme PhD on a part-time basis.
2. SPHeRE Programme scholars undertake a minimum of 19 training workshops over the duration of their PhD. As 14 workshops are compulsory, scholars enrol for a minimum of 5 advanced workshops spread over years 2 to 4. Please see the *Workshops Policy and Procedures* for details of workshops and information on registration and attendance.

Appendix 2: SPHeRE Programme Structured PhD Training Modules

Six modules are taught in the SPHeRE Programme in Population Health and Health Services Research. Modules are taught in the Royal College of Surgeons in Ireland, Trinity College Dublin and University College Cork though a combination of face-to-face and online learning methods. Each module is assessed through a written assignment and/or presentation.

MODULE 1: PERSPECTIVES ON POPULATION HEALTH & HEALTH SERVICES RESEARCH- LINKING CONTEXT & METHODS
Module Leads: Prof. Anne Hickey (RCSI) & Prof. John Browne (UCC)
This introductory module prepares scholars to describe and discuss the major determinants of health and disease in the population and assess the impact of health services on population health. On completion scholars are able to describe the burden of disease at national and global levels, discuss and distinguish between biological, behavioural and environmental factors in the aetiology of the major diseases and appraise the role of health promotion.

MODULE 2: PRACTICAL APPROACHES TO POPULATION HEALTH & HEALTH SERVICES RESEARCH- METHODS & STUDY DESIGN
Module Leads: Prof. John Browne (UCC) & Dr. Aisling Walsh (RCSI)
This module prepares scholars to describe, discuss, and compare the range of research methods relevant to Population Health and Health Services Research. On completion of the module scholars are expected to demonstrate specific core skills in both quantitative and qualitative methods, e.g. valid techniques for the measurement of health and disease; data collection methods including questionnaires, surveys and sampling; different research paradigms informing qualitative research; and the key stages of qualitative research practice.

MODULE 3: HEALTH SYSTEMS, POLICY AND MANAGEMENT
Module Lead: Dr Sara Burke (TCD)
On completion of this module scholars are able to describe and discuss i) the conceptual frameworks from the health policy analysis literature and understand their application in an Irish context; ii) the structure and operation of the Irish healthcare system and to contextualize it with reference to other European systems and health care provision worldwide; and iii) approaches, structures, issues and practice of healthcare management and healthcare management research within the Irish context.

MODULE 4: SYSTEMATIC REVIEWING & PROTOCOL DEVELOPMENT
Module Lead: Prof. Tom Fahey (RCSI) & Prof Susan Smith (RCSI)
In this 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.

MODULE 5: WORKING WITH HEALTH INFORMATION – INFORMATICS & STATISTICAL ANALYSIS
Module Lead: Prof. Ronán Conroy (RCSI)
The approach of this module is to progressively enable scholars to understand and make the links between the practice and logic of statistics, the analysis of statistical data, and the issues relating to the use of health information and core datasets; these include data quality, accessibility and usability.

MODULE 6: HEALTH ECONOMICS
Module Lead: Dr James O'Mahony (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. Key issues such as health financing, equity and resource allocation are discussed, as are the practical methods of economic evaluation.

Appendix 3: Sample Workshop Schedule

Core Workshops

Cohort Year	Title	Participants	Trainer	Access***
Yr1	The importance of academic feedback*	Yr 1 compulsory	Dr Carlos Bruen (RCSI)	SPHeRE only
	Presentation skills*	Yr 1 compulsory	Brenda Lynch (Irish Times Training)	SPHeRE only
Yr2	Making the transition to Year two	Yr 2 compulsory	Dr Carlos Bruen (RCSI), Eamon O Murchu (HIQA/SPHeRE Scholar)	SPHeRE only
	Ethics applications & data regulation	Yr 2 compulsory	Prof David Smith (RCSI), Mary Kirwin (RCSI)	Limited access for non-SPHeRE Scholars
	Code of good practice in research	Yr 2 compulsory	Prof John Browne (UCC)	Limited access for non-SPHeRE Scholars
	Publishing in a peer review journal	Yr 2 compulsory	Adrian Aldcroft (Editor in Chief, BMJ Open)	Limited access for non-SPHeRE Scholars
	Writing Skills*	Yr 2 compulsory	Prof Ivan Perry (UCC)	Limited access for non-SPHeRE Scholars
	NVivo Day 1 (Basic)	Yr 2 compulsory	Ben Meehan (QDA Training)	Limited access for non-SPHeRE Scholars
	Yr2 Research troubleshooting*	Yr 2compulsory	Prof Anne Hickey (RCSI), Prof Ronan Conroy (RCSI)	Limited access for non-SPHeRE Scholars
	What is your contribution?*	Yr 2 compulsory	Dr Barbara Clyne (RCSI) & Dr Lisa Mellon (RCSI)	Limited access for non-SPHeRE Scholars
Yr3	Yr3 Research troubleshooting*	Yr 3 compulsory	Prof Ruairi Brugha (RCSI), Prof Kathleen Bennett (RCSI), Dr Mary-Ann O'Donovan (TCD)	SPHeRE only
	Getting research into policy*	Yr 3 compulsory	Prof Ruairi Brugha (RCSI)	SPHeRE only
	Communicating your research for policy*	Yr 3 compulsory	Dr Carlos Bruen (RCSI), Dr Conor Keegan (ESRI), Dr Padraic Fleming (HSE)	SPHeRE only
Yr3&4	Becoming a research leader in PHHSR	Yr 3+4 Compulsory	Patricia Kearney (UCC)	Limited access for non-SPHeRE Scholars
	Grant preparation and writing	Yr 3+4 Compulsory	Kathleen Bennett (RCSI)	Limited access for non-SPHeRE Scholars

Advanced Workshops

Frequency	Title	Participants	Trainer	Access***
Biennial	Advanced Health Economics	Optional Years 2-4	Dr James O'Mahony (TCD)	Limited access for non-SPHeRE Scholars
Biennial	Involving the public and patients in PHHSR	Optional Years 1-4	Prof Anne MacFarlane (UL) and Dr Jon Salsberg (UL)	Limited access for non-SPHeRE Scholars
Biennial	Behaviour change interventions	Optional Years 2-4	Prof Molly Byrne (NUIG)	Limited access for non-SPHeRE Scholars

Biennial	Social media for researchers	Optional Years 1-4	Dr Darren Dahly (UCC)	Limited access for non-SPHeRE Scholars
Biennial	Using secondary and administrative data for PHHSR	Optional Years 2-4	Prof Kathleen Bennett (RCSI)	Limited access for non-SPHeRE Scholars
Annual	Stata troubleshooting clinic*	Optional Years 2-4	Prof Ronan Conroy (RCSI)	Limited access for non-SPHeRE Scholars
Biennial	Mixed methods research training*	Optional Years 2-4	Dr Rebecca Johnson (Warwick Medical School)	Limited access for non-SPHeRE Scholars
Biennial	Implementation science & PHHSR	Optional Years 2-4	Dr Sarah Barry (TCD)	Limited access for non-SPHeRE Scholars
Biennial	NVivo Day 2 (Advanced, attendance at NVivo Day 1 required)	Optional (years 2-4)	Ben Meehan (QDA)	Limited access for non-SPHeRE Scholars
Biennial	Multi-level modelling	Optional (years 2-4)	George Leckie (Uni Bristol)	Limited access for non-SPHeRE Scholars
Biennial	Dealing with the media	Optional (years 2-4)	Irish Times Training	Limited access for non-SPHeRE Scholars
Biennial	RCTs: Understanding their potential and potential limitations	Optional (years 2-4)	Susan Smith (RCSI) & Tom Fahy (RCSI)	Limited access for non-SPHeRE Scholars
Biennial	Understanding data linking	Optional (years 2-4)	Kathleen Bennett (RCSI)	Limited access for non-SPHeRE Scholars
Annual	Qualitative troubleshooting clinic*	Optional Years 2-4	Dr Aisling Walsh (RCSI)	Limited access for non-SPHeRE Scholars

Legend

*	Indicates preparatory work required
***	Priority will be given in the first instance to SPHeRE scholars, though where places are available they will be open to non-SPHeRE Scholars to attend.
	Workshops are charged at a nominal rate of €150 (full day) and €75 (half-day), where SPHeRE has incurred direct costs.
	Alumni and non-SPHeRE Scholars interested in attending SPHeRE workshops should contact sphere@rcsi.ie with enquiries.

Appendix 4: Minimum Costs for Alternative and Self-Funded Scholars

			€
Yr 1	Consumables	Yr 1 Book List	400
		Laptop & Software	2,000
		Stata Software	150
		Travel to Orientation Day & Peer Learning Day*	260
		Travel to Yr 1 Modules (from outside Dublin & Cork)	1520
		Travel to Yr 1 Thesis Presentation Day (Dublin)	60
		Travel to Yr 1 Workshops	130
	Training	National Placement Costs**	0
Yr 2	Consumables	Travel to Yr 2 Workshops	440
		Data Collection Costs	
	Travel & Diss	Travel & Dissimination (conferences, publications)	
	Training	Training Costs Including International Placement in yr 2 or 3 (optional, but advised)	2500
Yr 3	Consumables	Travel to Yr 3 Workshops	190
		Data Collection Costs	
	Travel & Diss	Travel & Dissimination (conferences, publications)	
	Training	Training Costs	
Yr 4	Consumables	Travel to Yr 4 Workshops	190
		Data Collection Costs	
	Travel & Diss	Travel & Dissimination (conferences, publications)	
	Training	Training Costs	

*Not including stipend & fees for all years
**Expenses are capped at 60 euro per day or 130 euro per overnight stay
***we advise scholars to carry out their national placement in their home city so
as not to incur additional travel costs. No funding is provided for the national
placement