



SPHeRE

POPULATION HEALTH AND HEALTH SERVICES RESEARCH NETWORK UPDATE

network

SPHeRE Director

Congratulations to Prof Steve Thomas, Trinity College Dublin, who has taken over the role of SPHeRE Programme Director from Prof Anne Hickey, RCSI from 1st July 2015. The SPHeRE Programme operates a two-year rotating directorship between TCD, UCC and RCSI.

The programme are very grateful to Prof Anne Hickey for her excellent

leadership over the past two years which saw the establishment of the new programme, building on the previous HRB Scholars programme, and its successful extension to all higher education institutions in the Republic of Ireland.

We wish Prof Thomas every success in the coming two years.

WELCOME

Welcome to the SPHeRE Network Newsletter. It has been a busy few months for scholar and in this issue you will find news of SPHeRE scholar research, publications, awards and life after the PhD. We also provide news of upcoming events in particular the second SPHeRE Network Conference which will take place on 29th February 2016. The call for abstracts will open on the SPHeRE web-site in early August.



@SPHeREprogramme

SAVE THE DATE

2nd SPHeRE Network Annual Conference

'Population health and health services research in Ireland: current trends and future direction'

MONDAY, FEBRUARY 29TH
2016

in RCSI College Hall,
123, St. Stephen's Green, Dublin

CALL FOR ABSTRACTS OPEN
4TH AUGUST



Prof Steve Thomas (TCD), Prof John Browne (UCC), Prof Nick Black (London School of Hygiene & Tropical Medicine) and Prof Anne Hickey (RCSI),

#sphere16

SCHOLAR PUBLICATIONS

Brennan A, Jackson A, Horgan M, Bergin CJ, and B. JP. 2015. "[Resource utilisation and cost of ambulatory HIV care in a regional HIV centre in Ireland: a micro-costing study.](#)" *BMC Health Services Research* 15(139).

Donnelly, N.-A., A. Hickey, A. Burns, P. Murphy, and F. Doyle. 2015. "[Systematic Review and Meta-Analysis of the Impact of Carer Stress on Subsequent Institutionalisation of Community-Dwelling Older People.](#)" *PLoS ONE* 10(6): e0128213.

Fleming, A., C. Bradley, S. Cullinan, and S. Byrne. 2015a. "[Antibiotic Prescribing in Long-Term Care Facilities: A Meta-synthesis of Qualitative Research.](#)" *Drugs & Aging* 32(4): 295-303.

Fleming, A., A. Tonna, S. O'Connor, S. Byrne, and D. Stewart. 2015b. "[Antimicrobial stewardship activities in hospitals in Ireland and the United Kingdom: a comparison of two national surveys.](#)" *International Journal of Clinical Pharmacy*: 1-6.

CONGRATULATIONS

The HRB Trials Methodology Research Network (HRB-TMRN) and Irish Times ran a national writing competition to mark this year's International Clinical Trials Day.

Congratulations to Programme Scholar **Frank Moriarty (RCSI, 2012)** who has been chosen as the winner of the competition for his submission on why clinical trials should not be random acts of research. Well done Frank! The full article is now available on [the Irish Times website](#).



At the SPHeRE Network Spring Seminar: Prof Steve Thomas (TCD), Dr Donna Tedstone (HRB) Prof John Browne (UCC), Prof Nick Black (London School of Hygiene & Tropical Medicine), Prof Anne Hickey (RCSI), Prof Nancy Edwards (University of Ottawa), Prof Bernie Hannigan (Public Health England), and Dr Teresa Maguire (HRB)

Spring Seminar

To do the service no harm: the dangers of quality assessment

Prof Nick Black

The first SPHeRE Spring Seminar took place on 10th March, with Prof. Nick Black of the London School of Hygiene & Tropical Medicine. Prof Black presented "To do the service no harm: the dangers of quality assessment". Prof Black was the first head of the Health Services Research Unit at the London School of Hygiene and Tropical Medicine. He was Founding Chair of the UK Health Services Research Network and editor of the *Journal of Health Services Research and Policy*. His main research interests are in quality and appropriateness of healthcare. Prof Black chaired the National Advisory Group for Clinical Audit & Enquiries which advises the DH and NHS England and serves on several other national advisory bodies on quality assessment and improvement, playing a leading role in the adoption of patient reported outcome measures.



Prof Nick Black speaking at the first SPHeRE Network Spring Seminar

Integrated care for frail older people

By Lorna Roe, TCD



Within 25 years, our older population is projected to increase from half a million people today to 1.4 million people which has major implications for the healthcare system. Devising ways to manage age-associated chronic and geriatric conditions in the community or 'ageing in place'; is a key aim of Irish and European policy.

Older people rely on their social, psychological and physical resources to support everyday living. Frail older people experience depletion in these resources making them vulnerable to hospitalisations and admission to nursing home care. Consequentially, their timely access to both health and social care services is fundamental to supporting their ability to live at home. Unfortunately the delivery of services to frail older people is compounded by a fragmentation in care and difficulty accessing community supports.

Reform of delivery systems is driven by an 'integrated care' strategy, the aim of which is to better coordinate services for people who have complex needs and require supports from numerous services. Frail people are identified in the literature as a target group for such a strategy.

My thesis firstly examines the conceptual and empirical evidence of integrated care for frail older people and secondly develops an evidence base around the current model of service delivery in Ireland.

As part of the latter objectives; I created a sub-sample of frail older people aged 65 years+ using TILDA data. Using a probability clustering method, I modelled patterns in service use across the whole system of care (17 services from GP, community and hospital care) which identified 4 profiles of service use labelled according to their conditional probabilities (P) of service use. The first and second profiles "Non-Users" (52%) and "Community-Oriented Users (26%) rely primarily on GP care and the provision of informal care only, but have a low probability of hospital use. The next profile "Hospital-Oriented Users" (20%) use hospital services and GP services intensively but are unlikely to see a Public Health Nurse and extremely unlikely to receive community supports. The final profile "Both Community and Hospital-Oriented Users" (2%) are highly likely to receive a Public Health Nurse and use hospital services intensively and have a 50/50 chance of receiving home help or day care services (the highest across the groups).

This analysis presents evidence for better understanding the management of frailty across the whole system of care in Ireland and the identification of sub-groups who appear to rely heavily on the very patterns of care we most want to change. This has important implications for the design of an integrated care approach in Ireland for frail older people.

(Lorna is in Year 4 of her PhD based in RCSI)

Humphries, N., S. McAleese, A. Matthews, and R. Brugha. 2015. ["Emigration is a matter of self-preservation. The working conditions . . . are killing us slowly': qualitative insights into health professional emigration from Ireland."](#) *Human Resources for Health* 13(1): 35.

Keogh C, Wallace E, O'Brien KK, Galvin R, Smith SM, Lewis C, et al. [Developing an International Register of Clinical Prediction Rules for Use in Primary Care: A Descriptive Analysis.](#) *Ann of Fam Med.* 2014;12(4).

Mc Hugh S, O'Neill C, Browne J, Kearney PM (2015) [Influence of partial public reimbursement on vaccination coverage in the older population.](#) *BMC Public Health*

Mellon L, Doyle F, Rohde D, Williams D, and H. A. 2015. ["Stroke warning campaigns: delivering better patient outcomes? A systematic review."](#) *Patient Related Outcome Measures* 6.

Moriarty, F., K. Bennett, T. Fahey, R. Kenny, and C. Cahir. 2015. ["Longitudinal prevalence of potentially inappropriate medicines and potential prescribing omissions in a cohort of community-dwelling older people."](#) *European Journal of Clinical Pharmacology* 71(4): 473-82.

Murphy, C. M., Kearney, P. M., Shelley, E. B., Fahey, T., Dooley, C., & Kenny, R. A. (2015). [Hypertension prevalence, awareness, treatment and control in the over 50s in Ireland: evidence from The Irish Longitudinal Study on Ageing.](#) *J Public Health (Oxf).*

O'Flynn, A. M., S. M. McHugh, J. M. Madden, J. M. Harrington, I. J. Perry, and P. M. Kearney. 2015. ["Applying the Ideal Cardiovascular Health Metrics to Couples: A Cross-Sectional Study in Primary Care."](#) *Clinical Cardiology* 38 (1): 32-38.

How influential is carer stress in long-term care admissions?

By Nora Ann Donnelly, RCSI



Family carers are pertinent to the success of community care policies. Therefore, gerontological researchers have given much attention to the psychological health effects of caregiving,

such as stress and burden. Leading to a contention that such psychological morbidity of the carer could increase the risk of long-term care admission by the care recipient. However, this contention has not been critically examined and so is addressed in the PhD thesis by HRB Scholar Nora-Ann Donnelly. Firstly, through a systematic review and meta-analysis of the prospective association between various forms of carer stress and subsequent institutionalisation of community-dwelling older people. The meta-analysis found that while carer stress has a significant effect on subsequent institutionalisation of care recipients, the overall effect size was negligible. The results suggest a need to re-examine the be-

lief that carer stress could undermine the sustainability of homecare and that other factors are probably more important. These findings are built on in a subsequent study which analyses healthcare professionals and carer's perception of the main factors influencing long-term care admissions. This study offers insights into how staff and service factors interplay in long-term care admissions. Our understanding of these factors is critical if we are to address the key policy objective to support older people to live in their own homes for as long as is possible.

(Nora Ann is in Year 3 of her PhD based in RCSI)

The impact of potentially inappropriate prescribing in middle-aged and older

Prescription of medicines is one of the most common healthcare interventions. While medicines provide many benefits to patients, there is also the potential for harm. This is particularly true in older people, due to physiological changes in ageing which can increase sensitivity to medicines. Also, there is a high burden of multiple chronic illnesses in both middle-aged and older people, which can increase the chance of drug-disease and drug-drug interactions. The sub-optimal use of medicines in such cases can be classified as potentially inappropriate prescribing (or PIP).

PIP can be determined implicitly based on a clinician's own judgement or explicitly through the use of screening tools. These specify circumstances where the use of a particular medicine may be inappropriate. PIP determined by such tools has been shown to be associated with adverse outcomes for patients.

One objective of my thesis is to compare different PIP screening tools to assess their prediction of adverse outcomes for participants in The Irish Longitudinal Study on Ageing. My PhD research also addresses the relationship between PIP and the increasing numbers of prescribed medicines over the last 15 years and the economic impact of a number of the most common forms of PIP in Ireland at the moment.

(Frank is in Year 4 of his PhD, based in RCSI)



SCHOLAR PUBLICATIONS

O'Neill, S. M., A. S. Khashan, L. C. Kenny, P. M. Kearney, P. B. Mortensen, R. A. Greene, E. Agerbo, N. Uldbjerg, and T. B. Henriksen. 2015. "[Time to subsequent live birth according to mode of delivery in the first birth.](#)" *BJOG: An International Journal of Obstetrics & Gynaecology*.

Ohakim, A., L. Mellon, B. Jafar, C. O'Byrne, N. G. McElvaney, L. Cormican, R. McDonnell, and F. Doyle. 2015. "[Smoking, attitudes to smoking and provision of smoking cessation advice in two teaching hospitals in Ireland: do smoke-free policies matter?](#)" *Health Psychology and Behavioral Medicine* 3(1): 142-53.

Sinnott, C., S. M. Hugh, M. B. Boyce, and C. P. Bradley. 2015. "[What to give the patient who has everything? A qualitative study of prescribing for multimorbidity in primary care.](#)"

Dr. Sheena McHugh, UCC



I was one of the first students on the HRB PhD Scholars Programme, now known as SPHeRE. I was and luckily still am based at the Department of Epidemiology & Public Health in UCC. At present I am working as a Research Fellow on the HRB Research Leader Award awarded to Prof Patricia Kearney. The programme of research concentrates on a population approach to prevention and disease control for people with diabetes. I am responsible for the evaluation of the National Clinical Care Programme for Diabetes while also contributing to studies on the prevalence of diabetes and its complications, and the quality of disease management.

I joined the PhD programme with a degree in Psychology from UCD and an MSc in Health Psychology. The structured programme allowed me to sample different disciplines and methodologies. Under the supervision of Prof. Ruairí Brugha I conducted a policy analysis of the Expert Advisory Group for Diabetes and was guided through qualitative research in general practice by Prof. Colin Bradley in UCC. I also carried out an analysis of the quality and organisation of diabetes care under the primary supervision of Prof. Ivan Perry. I graduated in 2012 and took up a post-doctoral position in the department conducting an evaluation of the national breast cancer screening programme commissioned by the Department of Health.

In November 2012, I began working on a project funded by the HRB Interdisci-

plinary Capacity Enhancement Award. The ICE Award is a post-doctoral training scheme, similar to the SPHeRE programme for PhD students. The focus of our three year project was to maximise the use of existing datasets to examine the impact of lifestyle over the life course. I had the opportunity to work on collaborative research projects in TILDA, RAND Europe and the University of Auckland.

This year I was awarded a three year fellowship from CARDI, the Centre for Ageing Research and Development in Ireland. The aim of the project is to develop a falls prevention intervention for older people with diabetes. It will be my first experience as Principle Investigator, but like all of the other projects I have worked on to date I will be advised and supported by a team of experts including Prof Patricia Kearney, Dr Suzanne Timmons and Prof John Browne. The CARDI Fellowship emphasizes the importance of continuing opportunities for career progression and as a result I will take up a three year lecturer position in UCC on completion of the research fellowship. This is a unique and very welcome career path for early and mid-career researchers.

The structured PhD programme introduced me to new concepts and methodologies, some of which I now have skills in and others which I have an appreciation for, enabling me to work in a multidisciplinary environment. Moreover, the programme has introduced me to an invaluable network of friends and colleagues with a range of expertise. These are not only the people I have worked with on grants and publications, but also the ones I have asked questions of, sought career advice from and sat beside at conference dinners. This is the real strength of the SPHeRE network.

(Dr. Sheena McHugh is a HRB Scholar Alumni from University College Cork. The Programme wishes her every success in her new post)

CONGRATULATIONS

Congratulations to Programme Scholar Dr Emma Wallace (RCSI, 2011) for winning not one, but two awards related to her work on the impact of clinical prediction rules, a topic related to but separate from her PhD area at the **Association of University Departments of General Practice in Ireland (AUDGPI) 2015 Conference** which was held in Belfast in March.

Emma was awarded the James McCormack prize for Best Research Presentation for her paper on 'Clinical prediction rules relevant to primary care that have gone through impact analysis'. Emma also won an academic bursary for 'Best overall research'.



Dr. Emma Wallace (RCSI 2011)

Congratulations also to Programme Alumna Sinéad O'Neill Spillane (UCC), who was awarded a two-year Cochrane Fellowship from the HRB to undertake a full Cochrane Review on "Different insulin types and regimens for pregnant women with pre-existing diabetes" with the Cochrane Pregnancy and Childbirth Group.

Congratulations to the following scholars who have recently passed their Viva:

Niamh O'Rourke (RCSI, 2008)
Eithne Sexton (RCSI, 2010)
Aoife McNamara (TCD, 2010)
Padhraig Ryan (TCD, 2010)

At the SPHeRE Spring Seminar



Pictured (l-r) is Prof Cathal Kelly, RCSI; Prof Davinder Sandhu, RCSI Bahrain and Prof John Hyland, RCSI



Pictured (l-r) is Dr. Claire Collins (ICGP), Dr. Bridget Kane, Dr. Sarah Burke (TCD), Laura Murphy (TCD) and Mr. Rory McLaughlin

Upcoming Events

European Forum for Primary Care 2015 Conference "Integrated Primary Care: Research, Policy & Practice" 30 August - 1 September 2015, Amsterdam, The Netherlands

59th Annual Scientific Meeting of the Society for Social Medicine 2-4 September 2015 University College Dublin

1st Clinical Trial Methodology Symposium, 24-25 September 2015, Gibson Hotel, Dublin

2015 IPH Open Conference 13 October 2015, Croke Park, Dublin

8th European Public Health Conference "Health in Europe – from global to local policies, methods and practices" 14-17 October 2015, Milan, Italy

World Obesity Federation, Hot Topic Conference: Obesity and Pregnancy, 29- 30 October 2015, London, UK

International Society for Pharmacoeconomics and Outcomes Research (IPSOR) 18th Annual European Congress "Impacting Health Decision Making With Outcomes Research: Closing the Gap". 7-11 Nov 2015 Milan, Italy

2015 Annual Scientific Meeting of the UK Society for Behavioural Medicine 'Biology, Behaviour & Environment' 8-9 December 2015, Newcastle upon Tyne, UK

Growing Up in Ireland 7th Annual Research Conference 3 December 2015, Dublin Castle

STAY IN TOUCH!

If you'd like more information about the SPHeRE Network or would like to contribute to our next newsletter, please email Margaret Curtin (m.curtin@ucc.ie)

For all the latest updates, follow us on Twitter [@SPHeREprogramme](https://twitter.com/SPHeREprogramme) or visit our website for more information : www.sphereprogramme.ie