



CaHRU receives university team achievement award for research 2022



The Community and Health Research Unit received the team achievement award for research for the seventh successive year for 2022 at this year's university awards ceremony which took place on 10 November at the Engine Shed.

The team includes Profs Niro Siriwardena and Graham Law, Drs Murray Smith, Coral Sirdifield, Zahid Asghar, Stephanie Armstrong, Julie Pattinson, Joseph Akanuwe, Elise Rowan, Vanessa Botan, Guptaeswar Patel, Tom Parkhouse, Mehrshad Parvin Hosseini and Greg Whitley, with Viet-Hai Phung, Despina Lapidou, Priya Sharma and Sue Bowler. It also includes visiting international and associate staff including Dr Dinesh Koggalage, Dr Maria Kordowicz, and Prof Roderick Orner. We were sad to bid farewell to Prof Murray Smith, who was recently promoted to Professor in Rural Health Economics at the University of Aberystwyth in Wales.

Over the past year CaHRU began 16 new externally funded studies and continued more than 30 others, including major COVID programmes and clinical trials. We continued our success in competitive high-quality external research funding despite the pandemic, with 16 successful external funding applications to value of £1.5M with every academic member of CaHRU being a lead or collaborator on a funded study.

Two major textbooks, three book chapters and over 50 peer reviewed research papers were published or accepted in the past year including landmark studies of ambulances attending diabetes emergencies, community first responders, mental health during COVID, GPs in Emergency Departments, ethics of ambulance trials, and psychological treatment of insomnia, in leading journals including Diabetic Medicine, Annals of Emergency Medicine, Age and Ageing and Addiction.

In addition to many long-term collaborations with academic and health service partners in the UK and internationally we have had major new collaborations including the EDGE consortium with McMaster, Canada and at the European Prehospital Research Network. CaHRU was also proud to have been major contributor to REF2021, leading the Allied Health submission, returning six staff, 15 outputs and all three impact case studies.



Professor Gina Agarwal: international visiting fellow, seminar, and public lecture

We were fortunate to host Professor Gina Agarwal, from McMaster University in Canada, who visited CaHRU and the University of Lincoln in September 2022, under the international visiting fellowship programme supported by the Lincoln Institute for Advanced Studies. Gina Agarwal holds a Tier 1 Canada Research Chair in Vulnerable Individuals in Primary Care. Gina is Professor in the Department of Family Medicine and McMaster Family Medicine Levitt Scholar. She has been a practicing Family Physician for 25 years both in the UK and Canada. She is a primary care epidemiologist and Associate Faculty in the Departments of HEI (Health Research Methods, Evidence and Impact) and Health, Aging and Society. She is the Director of the Vulnerable Individuals in Primary Care (VIP) Research Lab, which focuses on improving primary health care access for vulnerable populations. She is the co-founder and co-chair, with Prof Niro Siriwardena, of the Emergency Data Analysis and Geospatial Mapping (EDGE) Consortium, a collaboration initiated between the University of Lincoln, UK and McMaster University, Canada.



Gina gave a seminar on, 'Performing Health Research with Low Income Vulnerable Older Adults'. In the seminar Gina described vulnerable populations in terms of age, frailty, risk and need for care but also in terms of human/social, physical, economic, and environmental vulnerabilities. As an example, she described her work with seniors living in social housing with risks related to age, loneliness, food security, and falls, leading to a high rate of emergency calls, how this led to development of preventive care delivered by community paramedics and how this was evaluated in a cluster randomised controlled trial. A number of related case studies were also presented.

Gina also gave a public lecture, 'Re-shaping care delivery across Canada: the revolutionary CP@clinic Program in which she discussed the Canadian healthcare system, as well as its deficiencies and their impact on vulnerable populations. As Principal Investigator of the McMaster Community Paramedicine Research Program, she described how the evolution of community paramedicine has contributed to reshaping the healthcare system and filled a gap to address some of its shortfalls. The Community Paramedicine at Clinic (CP@clinic) Program is an innovative, research-driven program which focuses on health promotion and disease prevention to address health problems before they become more severe. By improving the health and quality of life of vulnerable populations, the CP@clinic Program contributes to a sustainable healthcare system and is spreading across Canada and beyond.

The rest of the week included a series of meetings with health service and academic partners, including a meeting of the EDGE consortium partners. The final event of the week was CaHRU's awayday, held at the Petwood Hotel in Woodhall Spa, which led to development of CaHRU's strategy and plans for the future. Our thanks from everyone at CaHRU for a fabulous visit!

Improvement Science and Research Methods seminar November 2022: Research on domestic violence and abuse with racially minoritised and seldom heard groups

November's research seminar was presented by Professor Sundari Anitha, Professor of Gender Violence and Work in the School of Social and Political Sciences on her research on domestic violence and abuse with racially minoritised and seldom heard groups: utilising life history interviews with victims/survivors within multi-method qualitative studies

The talk was very well received and generated questions and discussion from the attendees. The presentation explored recent research that Prof Sundari has conducted to uncover little known experiences of domestic violence and abuse (including forced marriage) experienced by racially minoritised and marginalised women in the UK and beyond. It engaged with some of the challenges encountered in the process of seeking to incorporate previously invisibilised voices as well as the ongoing challenge associated with making this research count in bringing about changes in the 'real world'.



If you would like to attend future seminars, please contact Sue Bowler sbowler@lincoln.ac.uk

CaHRU led study of prehospital hypoglycaemia features in NIHR alert



A study which investigated the effects of an information booklet-based intervention, 'Hypos can strike twice', on recurrent hypoglycaemic attendances by ambulance services (Ambu-HS2) features in the latest NIHR alert.

Dr Botan was invited to present at the ACPIC as the winner of the Highest Quality Research prize at the 999 EMS Research Forum conference in 2021.

The study used a non-randomised stepped wedge-controlled design, where the intervention, which consisted in handing out the leaflet to patients following a hypoglycaemic event, was introduced at different times (steps) in different areas (clusters) in the East Midlands region of the UK. Analysis using a generalised linear mixed model showed a reduction in the number of repeat attendances in the final step of the intervention when compared to the first (OR: 0.50, 95%CI: 0.33-0.76, $p=0.001$). This was supported by an interrupted time series analysis which showed a significant decrease in repeat ambulance attendances for hypoglycaemia relative to the pre-intervention trend ($p=0.008$). The quality of care, as measured by a hypoglycaemia care bundle increased significantly to from 63% of attendances in the period prior to the intervention to 71% of attendances during the intervention period ($p<0.001$).

The 'Hypos can strike twice' intervention had a positive effect on reducing numbers of repeat attendances for hypoglycaemia and in achieving the hypoglycaemia care bundle. The study supports the wider use of this intervention to prevent future attendances for recurrent hypoglycaemic events and it re-iterates the importance of informing and educating diabetes patients about the recurrent risks of hypoglycaemia to prevent future episodes. The study has implications for the development of future interventions focusing on providing the necessary tools to patients that can help them to 'live independently and for longer', in line with the NHS Long Term Plan.

For further details of the study please see the recording of the presentation given at the ACPIC and the published article: Botan, V., Law, G. R., Lapidou, D., Rowan, E., Smith, M. D., Ridyard, C., ... & Siriwardena, A. N. (2021). The effects of a leaflet-based intervention, 'Hypos can strike twice', on recurrent hypoglycaemic attendances by ambulance services: A Non-Randomised Stepped Wedge Study. *Diabetic Medicine*, e14612.

Improvement Science and Research Methods seminar October 2022: Recruiting research participants through social media by Dr Joseph Akanuwe

Dr Joseph Akanuwe, Postdoctoral Research Associate at the Community and Health Research Unit (CaHRU), University of Lincoln, gave the CaHRU improvement science and research methods seminar on 12th October 2022.

Joseph started the seminar by stating that social media has been used to support recruitment of participants in recently completed and ongoing studies in CaHRU, and the seminar was an opportunity to share the experience gained. He added that, he hoped the seminar would stimulate discussions and sharing of experiences of using social media.



In his presentation, Joseph highlighted key areas in social media recruitment including a definition of social media, types of social media recruitment, reasons for using social media for research recruitment, potential challenges and ethical considerations relating to social media recruitment for the purpose of research. Joseph also made references to several studies conducted within CaHRU and with collaborators from other universities in the UK, that benefitted from social media recruitment either as a backup or main recruitment method.

Joseph concluded his presentation by stating that using social media to support recruitment can help to address challenges in recruiting enough research participants. With a tight project time and limited funds, social media recruitment can also help to save time and other resources. However, potential challenges such as snowballing effect, inclusion, and diversity as well as potential problems with internet access, should be taken into consideration when planning to use social media for recruitment of research participants.

Please contact Sue Bowler if you would like to attend future seminars sbowler@lincoln.ac.uk.

Professor Mark Ashworth new visiting professor at CaHRU leading Lambeth DataNet collaboration

Professor Mark Ashworth, Professor of Primary Care at Kings College London has been recently appointed Visiting Professor of Primary Care at the University of Lincoln supporting a continuing collaboration between KCL and CaHRU. Mark has been a GP in the Elephant and Castle area of south London for 30 years. He is research lead for Lambeth DataNet, an anonymised primary care database of 1.2 million people, registered at all GP practices in Lambeth since 2005. This dataset has resulted in over 50 research publications and a particular strength is the focus on health inequality data recording. In Lambeth, the largest ethnic minority groups are Black African and Black Caribbean, with also large South American communities and the largest refugee group being Somalis. Primary care data have been used to identify these groups using high levels of recorded ethnicity, country of origin and language preference. The database is also linked with secondary care mental health (the 'CRIS database'), with the South London Stroke Register (SLSR) and soon to be linked with SUS/HES data. Overcoming the Information Governance requirements for data linkage of anonymised primary care data has certainly been a challenge! But this has been achieved and will bring about research fruits of these linkages.



In another area of research interest, the mental health research group chaired by Mark developed the mental health outcome measure, PSYCHLOPS in 2001. This is a patient-generated measure and as such, tends to show greater responsiveness to change than standardised measures, while also capturing qualitative data about patient problems. Since 2015 it has been used by WHO in their PM+ and SH+ programmes, working on mental health interventions in conflict zones and developing countries: <https://www.who.int/publications/i/item/WHO-MSD-MER-16.2> Professor Niro Siriwardena has also used PSYCHLOPS in a large study exploring Sleep outcomes.

In new research, although there are restrictions access to Lambeth DataNet data, Mark has set up a collaboration with Professor Niro Siriwardena and Dr Zahid Asghar at University of Lincoln to use Lambeth DataNet data to explore multimorbidity and health inequalities in the housebound and nursing/care home residents. It is likely that this project will further highlight health inequalities in the management of multimorbidity

CaHRU affiliated with European Prehospital Research Network



CaHRU is proud to be affiliated with the European Prehospital Research Network (EPRN), founded in 2018 to link ambulance clinicians and academics through an international body seeking to improve ambulance care. The EPRN seeks to accelerate the knowledge generation, synthesis, and translation of evidence to practice in the field of ambulance care.

EPRN was created as an open forum to offer inclusive, collaborative approaches for

clinicians and academics to develop research, working towards large-scale robust multi-centre clinical research and translation into practice throughout Europe, with a specific interest in furthering simulation-based research.

The network was founded by Kacper Sumera, a paramedic, researcher, and educator. Kacper is Deputy Head of Education at East Midlands Ambulance Service NHS Trust (UK) and visiting research fellow at CaHRU. EPRN partners are based in the UK (East Midlands Ambulance Service NHS Trust, University of Lincoln, Kingston University & St George's, University of London, Edge Hill University, University of Chester, Nottingham Trent University, Robert Gordon University, Scotland), Poland (Bielsko-Biala University, Jagiellonian University and Poznan University of Medical Sciences), Norway (Oslo Metropolitan University), Canada (McMaster University), and South Africa (University of Johannesburg).



You can learn more about the network on CaHRU's partnership page [here](#) or at the EPRN website

Prof Siriwardena gives invited keynote to College of Medical Administrators of Sri Lanka Annual Scientific Sessions

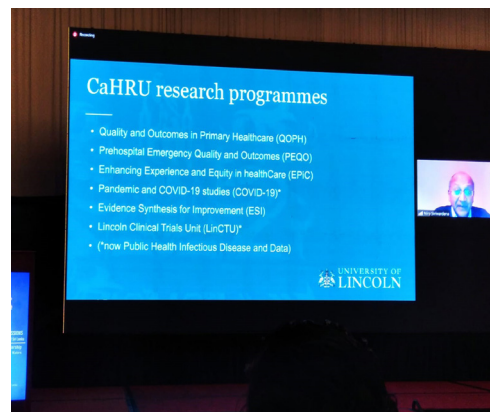


Prof Siriwardena gave an invited lecture at the College of Medical Administrators of Sri Lanka 29th Annual Scientific Sessions, which took place in Battaramulla, Colombo in Sri Lanka in November 2022. The title of the conference was 'Strategic Healthcare Leadership Navigating Through Troubled Waters' and covered the countries Public Health response to the Covid-19 pandemic.

The talk focussed on, 'Meeting the prehospital challenges of the COVID-9 pandemic in the UK', covered how UK ambulance

services responded to the pandemic and took place as a hybrid event. This included a background to CaHRU's work programmes in primary and prehospital care, equity, COVID-19, evidence synthesis and trials, and international collaborations including a longstanding relationship with the Postgraduate Institute of Medicine (PGIM) at the University of Colombo.

The lecture then went on to discuss the importance of Emergency Medical Systems (EMS) to epidemics and pandemics, the potential for EMS to provide early warning of epidemics, examples of ongoing research on the impact of the pandemic on care homes and mental health emergencies and opportunities for research, the importance of organisational preparedness, coordination and systems, and finally, innovations as a result of the pandemic.



Publications

2023

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Funding

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