

Newsletter for Spring 2019



CaHRU Leavers and New-starters

(Pictured here from left to right: Becky Marples, team lunch with Ravindra Pathirathna second left and Mahendra Senevirathna first on the right, Dr Sarathchandra Kumarawansa and Jordan Engel-Stevens).

During the spring, CaHRU bade farewell to three team members and welcomed two new ones! At a farewell lunch on 28th March the team said farewell to two members of CaHRU, **Dr Ravindra (Ravi) Pathirathna** and **Dr Rebecca (Becky) Marples**. Although sad to see both colleagues leave it was a time to celebrate their achievements at CaHRU.

Rebecca worked at CaHRU for two and a half years under Dr Coral Sirdifield on the NIHR Research for Patient Benefit funded study: Improving healthcare commissioning for probation: mapping the landscape. This led to development of a toolkit which will help commissioners and staff delivering health services to effectively measure and improve the quality of probationers' healthcare. Becky has moved to the University of Leeds and is missed by colleagues at CaHRU.

Ravi, who trained in hospital management, completed a two year fellowship at CaHRU funded by the Sri Lankan government through the Postgraduate Institute of Medicine at the University of Colombo. Among other achievements, during his time in CaHRU Ravi completed a peer reviewed publication, contributed to the PhoEBE programme, undertook systematic review training, and conducted improvement projects linked to the new ambulance service in Sri Lanka. He also worked with and supported other members of the team and his fellow international visiting fellows. Ravi has been appointed as Deputy Director of the Specialised Children's Hospital in Peradeniya, one of the two specialized Children's hospitals in Sri Lanka.

We wished both colleagues well, exchanged gifts and enjoyed a convivial lunch overlooking the Brayford.

In May, **Dr Mahendra Senevirathna** who has been an international visiting fellow at CaHRU for the last 12 months, gave a farewell presentation about his experience at the University of Lincoln and the UK in general. In his presentation, Mahendra outlined what he expected to achieve prior to starting his fellowship programme in the UK, which were all met at the end of his fellowship attachment at CaHRU. Some of his learning experiences in the UK included: the readiness of the system or people to accept and apply scientific evidence to policy and practice, effective clinical governance practices in the NHS, research and general life experiences.

Mahendra and his family returned to Sri Lanka in May 2019 where he will complete his postgraduate training and resume his appointment as Medical Superintendent at Nuwara Eliya Base Hospital, Sri Lanka.

Also in May two new members joined the team: Dr Sarathchandra Kumarawansa and Jordan Engel-Stevens.

Dr Sarathchandra Kumarawansa joined CaHRU as an international visiting fellow from the University of Colombo's Postgraduate Institute of Medicine. Kumarawansa graduated as a bachelor of Medicine and bachelor of Surgery in 1997 from the faculty of Medicine, University of Peradeniya. He obtained his first Master Degree (MPH) on Primary Health Care from Mahidol University in Thailand in 2006. Having served as the director of General Hospital Matale he completed his second Master Degree on Health care Management (MSc) in 2012 and MD in 2017 from postgraduate studies at the University of Colombo, Sri Lanka.

Kumarawansa has been working as a divisional level manager of the preventive health care program in central part of Sri Lanka for five years, director of General Hospital Matale for five years and as a deputy provincial director of the Central Province of Sri Lanka until he joined CaHRU.

His main interest is to improve health care quality and patient safety among health institutions of Sri Lanka. Kumarawansa has several publications to his credit in the Sri-Lanka journal of Health Policy and Management and Journal of Health Research central province mainly on interventions carried out to improve Health Care Quality and Patient Safety. He is a member of several academic associations in Sri Lanka including the College of Medical Administrators of Sri Lanka and Sri Lanka Medical Association. He is also a member of research evaluation committee of the central province.

While at CaHRU he plans to: study the NHS, comparing this to the Health System of Sri Lanka; the primary health care system of United Kingdom focusing on the role of the general practitioner as a gate keeper; to study the prehospital ambulance service aiming to enrich the newly introduced ambulance service in Sri Lanka and to study the strategies used in the NHS to improve health care quality focusing on clinical governance. Listening to music and reading biographies of world leaders are his favourite hobbies.

Jordan Engel-Stevens joined CaHRU as research assistant in econometrics and health economics working under the guidance of econometrician, Dr Murray Smith. He aims to work on various different projects at CaHRU using econometric and health economic concepts to underpin analysis and contribute to the research objectives.

He graduated with a BSc (Hons) in Economics from City, University of London in 2017 and recently completed an MSc in Health Economics and Decision Science from University College London in 2018 with grade Merit. He undertook a spell as a Researcher in Public Health in the private sector prior to his appointment to the University of Lincoln, where he evaluated the demand of care villages in the UK using a mixed-methods approach.

His academic interests primarily comprise of econometric modelling applied to health research and he also has experience in the application of econometrics and statistical modelling at degree level. His MSc dissertation identified the cost-effectiveness of antipsychotic-induced movement disorders for patients who have known psychiatric conditions. As part of this MSc course, he chose to elect quantitative modules that span medical statistics, modelling for decision science, and health economics. His BSc dissertation focused on time-series modelling in evaluating whether Wagner's Law holds for the U.S. economy. His studies have enabled him to work on several datasets on different software applications including but not limited to STATA, R and MATLAB.

Aside from academic interests, he enjoys playing golf, where he has been playing since the age of 12. Other hobbies include chess, football, going to the gym, socialising with friends and family and travelling.



CaHRU at Trent Regional SAPC, Nottingham, March 2019

CaHRU was well represented at the recent annual Trent Regional SAPC Conference which this year was held at the East Midlands Conference Centre, Nottingham on 19 March 2019 .

The core of the morning session were the two parallel sessions. Dr Zahid Asghar presented his work on the performance of candidates with dyslexia in the MRCGP clinical skills assessment. In the second of the parallel sessions, Dr Julie Pattinson presented her work on a process evaluation in Sleep Restriction Therapy. Viet-Hai Phung did an oral presentation of a poster of CaHRU's study on diabetes-related emergencies in care homes. Despina Laparidou displayed a poster showcasing her work on systematic review on insomnia in patients with tinnitus.

While there was a significant presence from CaHRU, there were other interesting presentations in the morning and afternoon. Professor Paul Crawford from the University of Nottingham discussed the relatively new field of health humanities. He talked about the potential for the humanities to play a more influential role in informing healthcare. There is a lot more work to be done in respect of this, but it was certainly innovative.

In the afternoon, Dr Helen Garr took time out from being a GP at Cripps Practice at the University of Nottingham to talk about the importance of balancing work and well-being. She used anecdotes from a compelling backstory to provide some context for her interest in this area. It was very evident that Dr Garr was very fond of visuals and audio in her presentation. Not many speakers get their audience up and dancing to Wake Me Up Before You Go Go but she managed it!

By Viet-Hai Phung

CaHRU attends 999EMS Research Forum on advancing patient care

Members of CaHRU, Laura Simmons, Viet-Hai Phung and Prof Niro Siriwardena recently attended the annual 999EMS Research Forum conference, which took place at the Hilton Birmingham Metropole, NEC Birmingham, on 1-2 April 2019. This year's theme was, 'Advancing patient care: taking research to the front line'. Following workshops, focus groups as well as the drinks reception and dinner on the first day, the core of the conference took place on day 2. The morning session was chaired by Professor Niro Siriwardena. Of particular relevance for CaHRU was the talk given by Mark Dixon, a paramedic with East Midlands Ambulance Service, about the RIGHT-2 trial, in which we were involved.



Following the first morning session, delegates were given an opportunity to view posters. The second morning session was chaired by Janette Turner from the University of Sheffield. Johannes von Vopelius-Feldt from the University of the West of England presented on 'The cost-effectiveness of prehospital critical care for out-of-hospital cardiac arrest. Of particular relevance was Ashra Khanom from the University of Swansea, who presented on the experiences of asylum seekers in Wales of accessing emergency health services. After the conclusion of the morning session, lunch was combined with oral poster presentations.

Laura presented part of her doctoral study on, 'Understanding sickness absence in the ambulance service' which used a cross sectional self-administered questionnaire to explore whether and to what extent variation in sickness absence could be explained by a range of independent variables of interest using multiple linear regression. Work and daily stress, coping styles, overtime hours and the presence of a health condition significantly predicted sickness absence ($p = 0.002$). Those with a pre-existing health condition were 10 times more likely, on average, to have a leave of sickness absence.

Viet-Hai Phung presented a poster on, 'Ambulance attendance at diabetes or diabetes-related emergencies in care homes – cross sectional database study. This study, led by Niro Siriwardena, was funded by NIHR CLAHRC East Midlands and included a number of co-investigators from the University of Lincoln, East Midlands Ambulance Service NHS Trust, the Healthier Ageing Patient and Public Involvement Group at the University of Lincoln, Diabetes UK Midlands, University of Nottingham and University of Leicester including Prof Graham Law, Dr Murray D. Smith, Dr Mohammad Iqbal, Ann Spaight, Amanda Brewster, Pauline Mountain, Keith Spurr, Prof Mo Ray, Dr Iskandar Idris and Prof Kamlesh Khunti. The study found that conveyance rates for people with diabetes-related emergencies in care homes compared with community dwellers after taking into account other factors despite access to trained staff. This could be partly due to higher rates of comorbidity or frailty in care home patients. It was proposed that improved training and pathways might reduce conveyance in care home patients enabling safe care in the usual environment.

In the afternoon session, Graham McClelland from North East Ambulance Service recounted his experience of travelling to the Paramedic Australasia conference, which was his reward for winning the 2018 prize for the best oral presentation. Professor Alicia O'Cathain, from the University of Sheffield also presented her work on variation in non-conveyance rates.

Prof Siriwardena also attended in his capacity as a member of the 999EMS Research Forum executive committee. There were further keynote presentations from Prof Adrian Edwards (Cardiff), Dr Mike Smyth (Warwick) and Dr Sarah Black (South West Ambulance Service NHS Foundation Trust).

The conference concluded, as usual, with the prize giving ceremony. This year, Dr Johannes Vopelius-Feldt won the prize for the best oral presentation. As with Graham McClelland from the 2018 conference, his reward was a trip to the Paramedics Australasia conference.

By Viet-Hai Phung

CaHRU attends EMS2019 conference, Madrid

Dr Zahid Asghar and Prof Niro Siriwardena attended the fourth European Emergency Medical Service Congress (EMS2019) which took place in Madrid from Friday to Sunday 24-26 April 2019. The theme of this year's conference was, 'It takes a system to save a life – patients first'. The congress provided an opportunity for leading clinicians, scientists and managers in EMS to share their research.



Prof Siriwardena gave an oral presentation on, 'Predictors and outcomes of ambulance calls to diabetes-related emergencies in care homes – retrospective observational database study' which was one of the fifty best abstracts.

This was a study funded by NIHR CLAHRC East Midlands with co-investigators, Prof Graham Law, Dr Murray D. Smith, Dr Mohammad Iqbal, Viet-Hai Phung, Ann Spaight, Amanda Brewster Pauline Mountain, Keith Spurr, Prof Mo Ray, Dr Iskandar Idris and Prof Kamlesh Khunti from the University of Lincoln, East Midlands Ambulance Service NHS Trust, the Healthier Ageing Patient and Public Involvement Group at the University of Lincoln, Diabetes UK Midlands, University of Nottingham and University of Leicester. The study concluded that conveyance rates for people with diabetes-related emergencies are similar for patients in care homes compared with community dwellers after taking into account other factors despite access to trained staff. This could be partly due to higher rates of comorbidity or frailty in care home patients. It was proposed that improved training and pathways might reduce conveyance in care home patients enabling safe care in usual environment.

Dr Asghar presented a poster on 'Predictors of hospitalisation in people presenting with convulsions to ambulance services: cross sectional study using linked ambulance and hospital data' which also included Anne Spaight, Dr Phil Miller, Dr Frank Coffey, Dr Jon Dickson and Prof Niro Siriwardena, of the University of Lincoln, East Midlands Ambulance Service NHS Trust, Queen's Medical Centre Nottingham and the University of Sheffield. The cross sectional study, which used a dataset combining ambulance records and routine Hospital Episode Statistics found that most patients with convulsions attended by an ambulance were not hospitalised. Male patients were more likely to be admitted and older patients with greater physiological disturbance were more likely to receive intensive care.

There were a number of excellent keynotes, oral presentations and posters with the final day involving a recreation of a mass emergency incident involving the audience, simulated casualties and input from the Madrid Emergency Medical Services.

By Prof Siriwardena

Professor Colin Espie visits CaHRU, LIH and sleep lab to support sleep research at Lincoln

We were proud to welcome Prof Espie to the University of Lincoln as a Lincoln Institute for Advanced Studies Visiting Fellow attached to the Community and Health Research Unit, Lincoln Institute for Health and Lincoln Sleep and Cognition Laboratory during May 2019. He is a world-leading expert in sleep research and sleep medicine. He was Founding Director of the University of Glasgow Sleep Centre (1995-2012), and more recently became Professor of Sleep Medicine at the University of Oxford, where he founded the research programme in Experimental and Clinical Sleep Medicine.



Prof Espie is a Fellow of Somerville College and Senior Clinical Research Fellow at the Department of Psychiatry at Oxford. Prof Espie crosses the boundary between basic and clinical research and is a Fellow of both the British Psychological Society and the Royal Society of Medicine. His particular expertise is in the treatment of insomnia and he currently leads Big Health/Sleepio, which is pioneering online cognitive behavioural therapy (CBT) for the treatment of insomnia and currently being rolled out in the NHS. This is perhaps the most significant development in the widespread treatment of sleep.

During this, his first of two visits to the University of Lincoln, he met with Dr Simon Durrant and Prof Graham Law who will co-direct the new Lincoln Sleep Research Centre (LiSReC), Prof Siriwardena and other sleep researchers. As well as discussion with a number of researchers at Lincoln, Colin heard about the wider developments at Lincoln, joined colleagues to review sleep studies and discussed a number of future projects.

He also gave a seminar entitled 'Digital CBT (dCBT) for insomnia: a scalable solution to a ubiquitous problem'. He discussed how, for many mental health problems, cognitive behavioural therapy (CBT) is included in clinical guidelines as a recommended treatment and for insomnia CBT, rather than medication, is the first-line treatment of choice. He

described the challenge for CBT therefore as not so much in its clinical effectiveness, but in its availability to meet population need. Using insomnia as the exemplar, he showed how fully automated digital CBT (dCBT: web/ mobile) will help to bridge the treatment gap and to deliver clinician and patient choice. Methodological issues and solutions were also discussed. In October Prof Espie will return to give a public lecture supported by LIAS.

Prof Niro Siriwardena

Publications

Asghar Z, Lusignan S, Caballero AG, Grassby P, McKay S, Siriwardena AN. Saving bones without risking brain - bisphosphonates and risk of stroke: matched case-control study. *Osteoporosis International* 2019 (online first).

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Scott EM, Alnaji A, Alrefaai L, Endersby D, Cartland SJ, Gilbey SG, Jennings PE, Murphy HR, Law GR (2019). Gestational diabetes therapy: Right person, right treatment, ‘night’ time. *Diabetes Care*, in press.

Funding

Marciani L, Smith MD et al, Assessment of gut transit in paediatric constipation without ionizing radiation: Magnetic Resonance Imaging transit mini-capsules and methods 2 (MAGIC2 trial): NIHR i4i, £1,200,000.

Notingher I, Smith MD et al, Assessing the feasibility of implementing the Fast Raman device for testing tumour clearance during Mohs micrographic surgery of basal cell carcinoma: NIHR RfPB, £249,000.

Moran G, Smith MD et al, SStopping Aminosalicylate Therapy in Inactive Crohn’s Disease Study (STATIC trial): Rosetrees, £75,000.

Jones, A, Siriwardena AN, Law GR, Smith MS, Robinson H. British Lung Foundation Active Steps Evaluation. BKF, £40,000.

Scott EM, Myers J, Law GR, Saravanan P, Murphy H, Poston L. MICA: “Understanding the glycemic profile of pregnancy: intensive CGM glucose profiling and its relationship to fetal growth.” MRC £620,000.