NIHR Health Protection Research Unit in Gastrointestinal Infections

NHS National Institute for Health Research

Newsletter

Autumn 2015 Issue 02

NEWS



INTRODUCTION TO SYSTEMATIC REVIEWS AND META-ANALYSIS COURSE

The NIHR HPRU in Gastrointestinal Infections recently organised an 'Introduction to Systematic Reviews and Meta-Analysis' course, in Liverpool. The one day course attracted a full house of 40 participants from across HPRUs and was delivered by experienced systematic reviewers in the field of global public health, Dr David Taylor-Robinson and Dr Daniel Pope. The course involved presentations, case-studies and hands-on practical experience, and participant outcomes from the course included the ability to develop and refine research questions for a systematic review and gaining skills in the conduct of meta-analysis using Cochrane RevMan software. The course was also supported by the NIHR HPRU in Emerging and Zoonotic

Public Health England

Public Health England Annual Conference 2015 15-16 September 2015

Home page

Public Health England 2015 brought together over 1400 participants from a wate range of organisations, to learn, meet each other and share knowledge and especience.

bousing on 'evidence into actory'. You can find PDP's of many of the sitters presented at the conference via the Programme page. PDP's of posters will be added shortly. Livel's to video or disone of the sessions will be available shortly. Videos of the keynote presentations can be accessed using a tink on the right. - Hord or hang of the preventions may point an error or watter us many point and error or the many point and the many point a

PUBLIC HEALTH ENGLAND ANNUAL CONFERENCE 2015

Public Health England's third annual conference was held 15-16 September 2015 at the University of Warwick, and brought together over 1,400 participants from a wide range of organisations. The theme for the event was 'Evidence into Action', and keynote speeches were given by PHE's Chief Executive Duncan Selbie and Chief Knowledge Officer John Newton, Minister for Public Health Jane Ellison MP, and Rt Hon Jeremy Hunt MP, Secretary of State for Health. The NIHR HPRU GI's research was featured in a well-attended and received conference session chaired by Professors Sarah O'Brien and Jim McLauchlin, including presentations by Professor Margaret Whitehead and Dr Arjan Narbad.

A flavour of the research is available on YouTube at this <u>link</u>, with further information on the presentations available <u>here</u>.





Infections.









NIHR HPRU GI WEBSITE & TWITTER

Our website address is <u>www.hprugi.nihr.ac.uk</u> and Twitter name is <u>@HPRUgi</u> Please don't forget to let us know about any news items, public engagement events, or anything similar, for the website, Twitter and next edition of this newsletter.

EVENTS

SAVE THE DATE : NIHR HPRU in Gastrointestinal Infections Annual Scientific Meeting

14-15 March 2016, University of Oxford

The 2016 NIHR HPRU in Gastrointestinal Infections Annual Scientific Meeting and External Advisory Panel meeting will be held at the University of Oxford on 14 and 15 March 2016. Keynote speakers will include The Lord Krebs and Professor Mark Achtman.

Call for Abstracts: All NIHR HPRU in Gastrointestinal Infections PhD students, Postdoctoral Researchers and Research Fellows are invited to submit a 300 word abstract for a presentation. The abstract submission form, which has been circulated to PhD students and relevant research staff, should be submitted to <u>hprugi@liverpool.ac.uk</u> by Wednesday 18 November 2015.

Public Health England Applied Epidemiology Scientific Conference 2016

Application of scientific methods to improve and protect health

22-23 March 2016, University of Warwick

The purpose of this conference is to support high quality and innovative science through the sharing of good practice including the work of the NIHR Health Protection Research Units. The meeting will be a mix of plenary sessions, posters and parallel sessions. Abstract submissions to be considered for oral or poster presentation are now invited in a range of categories. The deadline for submissions via the conference website is midnight on Friday 11 December 2015.

For full details on how to submit an abstract, registration fees and to book your place, please visit the <u>conference</u> <u>website</u>.

STUDENTSHIPS

PhD Studentship: ESBL Risk to Cattle Farm Workers
Supervisors: Professor Nicola Williams & Professor Sarah O'Brien
Funded PhD Project (European/UK Students Only)
Stipend: £14,057 pa Closing date: Sunday 29 November 2015











ESBL-producing E. coli have been shown to be present in farmed animals, especially in dairy cows, where the use of cephalosporins for the treatment of mastitis is common. Zoonotic spread of antimicrobial resistance is of concern and there is the potential for this either via direct contact between animals and people or via the food chain. However, the extent to which food animals act as a reservoir of resistant bacteria or resistance determinants, the frequency of transmission, and therefore the risk to public health is not known.

We propose to use farm workers and their households as sentinels for transmission from food animals. We hypothesise that individuals who have close and frequent contact with food animals will have a greater risk of carriage of ESBL-producing bacteria, which are present in food animals. There is currently a paucity of data available on the faecal carriage rate and risk factors for individuals who have frequent contact with food animals or who live on farms. We will achieve this through cross-sectional surveys of cattle farmers, farm workers and resident households. We will also conduct a nested case-control study to determine risk factors for ESBL carriage, including the presence of such bacteria in the cattle on farms, from a selection of farms where the farmers were positive and negative for ESBL-producing bacterial. In addition, a subset of farms where animals are positive for ESBL-producing bacteria will be followed longitudinally to inform the frequency of transmission between animals and in-contact individuals. This will allow us to determine if carriage in animals is a risk factor for carriage in people, and if animals carry the same strains or resistance determinants as workers/household members positive on such farms.

This project will allow an approximation of risk of carriage in individuals with regular food animal contact, furthermore from the farm households we may also be able to determine household spread and transmission. It will determine whether farm workers and their families, are an at risk group for carriage and transmission within households or the community and what interventions may be considered to mitigate this risk, at the farm level. It will also inform on the potential reservoir and likelihood of food animals as a reservoir of such bacteria and the risk of transfer via the food chain.

To apply please visit <u>here</u>.

PhD Studentship: Understanding the human ecology of norovirus infection and outbreaks

Supervisors: Dr Jon Read & Professor Sarah O'Brien

Funded PhD Project (European/UK Students Only)

Stipend: £14,057 pa Closing date: Sunday 29 November 2015

Norovirus is a deadly and hard to control pathogen, and is the third most costly healthcare associated infection in the UK. This project aims to improve our understanding of the epidemiological characteristics of norovirus and its evolutionary dynamics. This will be achieved through a combination of meta-analysis of outbreak and genomic data, and the development of state-of-the-art dynamic transmission models in the community and healthcare settings. This studentship would suit a graduate with strong quantitative skills looking to develop expertise in mathematical modelling, infectious disease outbreak analysis, and viral evolutionary dynamics.

The project will deliver:

- A systematic meta-analysis of community and healthcare outbreaks in UK
- Estimates of reproduction number and efficacy of control interventions in different settings











- Estimation of transmission rates of symptomatic and asymptomatic infection in various settings
- Estimation of seasonal dynamics of norovirus infection
- Insights into evolutionary dynamics and strain competition of norovirus.

To apply please visit <u>here</u>.

STAFF UPDATES

We would like to welcome Anaïs Painset and Melissa Jansen van Rensburg who have started with us as Postdoctoral Research Associates within the Pathogens theme. Anaïs is based at Public Health England, and Melissa is based at the University of Oxford. Welcome also to Lee Kellingray who has been appointed as Research Assistant within the Microbiome theme.

STUDENT NEWS

Welcome to Suzie Rotheram, Clare Barker, Rebecca Inman and Tom Inns who have recently joined us on HPRU GI PhD studentships. Their studies will be featured in a future HPRU GI newsletter.

PUBLIC INVOLVEMENT AND ENGAGEMENT, IMPACT AND KNOWLEDGE EXCHANGE

Public Involvement and Engagement Activities

The NIHR expects that all HPRU researchers are involved in public involvement and engagement. There are numerous ways in which researchers can get involved, as outlined below - please contact Shauna Mahoney for further information.

Engage Conference - Engaging with Impact

The National Co-ordinating Centre for Public Engagement's 2015 conference will be held 2-3 December 2015 in Bristol, and provides an opportunity for all those interested in HEI public engagement to come together, to be inspired, challenged and refreshed. For details of how to register visit their <u>website</u>.

'Meet the Scientists' World Museum Liverpool Programme, World Museum, Liverpool

Weekend family-friendly events focused on key topics researched within the University of Liverpool's Faculty of Health and Life Sciences, including the HPRU GI. Providing an opportunity for visitors to meet real scientists and to find out about the latest research happening at the HPRU, in an informal, interactive and enjoyable way. http://www.liv.ac.uk/health-and-life-sciences/meet-the-scientists/











University of Liverpool - Widening Participation and Outreach

This team at the University of Liverpool aim to inspire, engage and enable all those who would not traditionally consider higher education, to fulfil their potential by raising their awareness, challenging barriers and providing opportunities. They are involved in a variety of projects and initiatives which are targeted at young people in primary schools through to secondary and post-16. The Institute of Infection and Global Health and the HPRU GI has contributed to workshops and summer schools. <u>http://www.liv.ac.uk/widening-participation/</u>

University of Oxford Widening Participation

Oxford offers a variety of admissions events for local students and teachers in Milton Keynes, Oxfordshire and Buckinghamshire. <u>http://www.ox.ac.uk/local-community/outreach-and-education/widening-participation</u>

Institute of Food Research - Inspiring Young Scientists http://www.ifr.ac.uk/science-society/inspiring-young-scientists/

University of East Anglia - Community University Engagement

https://www.uea.ac.uk/community-university-engagement

STEM Ambassador Scheme

STEMNet run the UK's only network of STEM Ambassadors: over 27,000 brilliant and inspiring volunteers. Across the UK, STEM Ambassadors volunteer their time and support to promote STEM subjects to young learners in a vast range of original, creative, practical and engaging ways. They are an invaluable and free resource for teachers, helping to deliver the STEM curriculum and raise awareness of STEM careers, by revealing how essential STEM is throughout the world. Researchers are encouraged to sign up to the scheme which also provides you with a DBS check, public liability coverage and training opportunities. <u>http://www.stemnet.org.uk/</u>

I'm a Scientist, Get me out of Here!

An online public engagement event that gets scientists talking to school students all over the UK. Scientists put up a profile on this site, answer students' questions about science, their research, the universe and beyond. They engage directly with students in live text-based chats. Students vote for their favourite scientist to win £500 to spend on further public engagement. Scientists develop their communication skills, gain a fresh perspective on their work, and find out what young people think about science and the role of scientists. <u>http://imascientist.org.uk/scientists</u>

Science Festivals

A variety of science festivals take place across the UK, calls for which are circulated at various times of the year. Full details can be found at <u>http://sciencecentres.org.uk/events/science_festivals.html</u>

Oxfordshire Science Festival, 23 June-3 July 2016

Call for participation open until Friday 27 November 2015 <u>http://www.oxfordshiresciencefestival.com/</u> Science in Norwich Day, Date TBC <u>http://www.theforumnorwich.co.uk/whatson/science%20festival%202015</u>



Public Health England







British Science Week grants - Deadline 23 November 2015

The British Science Association are offering grants for schools and organisations to develop activities or events for British Science Week 2016. Grants to be awarded range from £200-£700 and can be used to fund activities including inviting a speaker, organising a trip or providing resources. For further information or to submit an application visit the website, or contact Becky Glennon-Alty at bglennon@liv.ac.uk.

On 20 July 2015, Arjan Narbad appeared on Channel 4's Superfoods: The Real Story programme, which was watched by approximately 2 million people. Arjan contributed to an investigation of the health benefits of the fermented milk drink kefir. The programme is available to watch <u>here</u>.

If you are involved in any relevant activities, please inform the HPRU GI Administration Team at <u>hprugi@liverpool.ac.uk</u>. Please provide the activity title, brief description, date, audience (schools, public, etc), audience numbers, and any photographs or additional information.

NIHR COMMUNICATIONS

Below is a summary of how to identify yourself with the NIHR HPRU GI. Using the templates (which have previously been circulated to HPRUGI PIs, staff and students) will create unity and help build a stronger, more recognisable NIHR HPRU brand both within the research community and with patients and the public, industry and charities.

Although we are geographically spread across England we are all One NIHR HPRU, so if you receive funding and support from the HPRU you should adhere to this branding when representing the HPRU.

Below are brief details on how to use the NIHR HPRU logo and design, templates and acknowledgements. The full 82 page NIHR branding guide is available <u>here</u>.

Email Signature

Please ensure your affiliation to the NIHR HPRU is clear and includes the website and Twitter address. For example:

Mr Tom Jones PhD Student National Institute for Health Research Health Protection Research Unit in Gastrointestinal Infections The University of Liverpool Address etc Telephone Email

Website: <u>http://www.hprugi.nihr.ac.uk</u> Follow us on Twitter: <u>https://twitter.com/HPRUgi</u>











Presentations

Presentations relating to the work of the NIHR HRPU should be given on the NIHR presentation template.

NIHR should be acknowledged for their support at the end of the presentation, for example:

"This work was supported by the National Institute for Health Research Health Protection Research Unit in Gastrointestinal Infections."

Posters

Posters relating to the work of the NIHR HRPU should be given on the Poster template and include the NIHR Disclaimer. Templates are in .pptx format.

NIHR Logos

Using the NIHR logo in any other printed material must be approved by the Communications Team <u>comms@nihr-ccf.org.uk</u>

The NIHR have created two 'stamps' that you can use on your slides, stationery and other print or online materials. The 'stamp' works in partnership with the NIHR logo, and can also be used where the logo is not used, to inform others that you are funded by or supported by the NIHR.

For further information regarding NIHR HPRU branding please contact:

Adele Maggs, Senior Manager, NIHR HPRU in Gastrointestinal Infections <u>amaggs@liv.ac.uk</u> or Research Information and Communications Team, NIHR Central Commissioning Facility <u>comms@nihr-ccf.org.uk</u>

PUBLICATIONS

Congratulations to the following who have published in recent months.

Creswell C, Cruddace S, Gerry S, Gitau R, McIntosh E, Mollison J, Murray L, Shafran R, Stein A, <u>Violato M</u>, Voysey M, Willetts L, Williams N, Yu LM, Cooper PJ. **Treatment of childhood anxiety disorder in the context of maternal anxiety disorder: a randomised controlled trial and economic analysis**. Health Technology Assessment. 2015 May;19(38):1-184, vii-viii. doi: 10.3310/hta19380.

Available from: http://www.journalslibrary.nihr.ac.uk/hta/volume-19/issue-38#hometab0

<u>Cody AJ</u>, <u>McCarthy ND</u>, Bray JE, Wimalarathna HM, Colles FM, <u>Jansen van Rensburg MJ</u>, Dingle KE, Waldenström J, <u>Maiden MC</u>. **Wild bird-associated Campylobacter jejuni isolates are a consistent source of human disease, in Oxfordshire, United Kingdom**. Environmental Microbiology Reports. 2015 Oct;7(5):782-8. doi: 10.1111/1758-2229.12314. Epub 2015 Sep 8.

Available from: <u>http://onlinelibrary.wiley.com/doi/10.1111/1758-2229.12314/abstract</u>













Name of presenter NIHR Health Protection Research Unit in Gastrointestinal Infections





Taylor-Robinson D, Wickham S, Barr B. Child health at risk from welfare cuts. BMJ. 2015 Oct 13;351:h5330. doi: 10.1136/bmj.h5330.

Available from: http://www.bmj.com/content/351/bmj.h5330.long

Acknowledging the NIHR HPRU in Publications

Acknowledging the NIHR HPRU is vital as we need to capture all your relevant work. Anything HPRU related, published by any HPRU in Gastrointestinal Infections researcher should have the following included as an address, in addition to your usual address:

- NIHR Health Protection Research Unit in Gastrointestinal Infections, University of Liverpool, L69 7BE
- NIHR Health Protection Research Unit in Gastrointestinal Infections, University of Oxford, UK
- NIHR Health Protection Research Unit in Gastrointestinal Infections, University of East Anglia, UK
- NIHR Health Protection Research Unit in Gastrointestinal Infections, Institute of Food Research, UK
- NIHR Health Protection Research Unit in Gastrointestinal Infections, Porton Down, UK
- NIHR Health Protection Research Unit in Gastrointestinal Infections, Colindale, UK

Where a publication is a result of work directly funded by the NIHR HPRU, this too needs to be acknowledged with the following statement and disclaimer.

- **Funding:** This work was supported by the National Institute for Health Research Health Protection Research Unit in Gastrointestinal Infections at the University of Liverpool.
- <u>Disclaimer</u>: The research was funded by the National Institute for Health Research Health Protection Research Unit (NIHR HPRU) in Gastrointestinal Infections at the University of Liverpool in partnership with Public Health England (PHE), University of East Anglia, University of Oxford and the Institute of Food Research. The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR, the Department of Health or Public Health England.

NIHR HPRU RELATED Publication approval

A draft of research articles/papers should be submitted to the NIHR at the same time as submission for publication or at least 28 days before the date intended for publication, whichever is earlier. This should be done via the HPRU GI Office: <u>hprugi@liv.ac.uk</u>

NB If you have published, but it has not been listed here, please let us know about it!











GRANT SUCCESS

HPRU members have been successful in obtaining the following research funding.

Name	Details	Funder	Award
Professor Martin Maiden Professor Noel McCarthy Professor Sarah O'Brien Dr Kathie Grant Dr Bob Adak	Enhanced molecular-based (MLST/whole genome) surveillance and source attribution of Campylobacter infections in the UK	Food Standards Agency	£1,737,838
Professor Jonathan Wastling	Rapid and high-throughput diagnosis of Onchocerca volvulus infections	Bill & Melinda Gates Foundation	£29,256
Professor Nicola Williams	The emerging problem of antimicrobial resistance in equines: Investigating carriage and infections with multidrug resistant bacteria in horses	The Horse Trust	£523056.26

NEW MEMBERS

- Dr David Taylor-Robinson, Senior Clinical Lecturer in Public Health, Institute of Psychology Health & Society, University of Liverpool
- Dr Simon Funnell, Programme Co-ordinator/Scientific Leader, Public Health England

SUBMIT YOUR NEWS

If you have any items for inclusion in the next newsletter please send them to hprugi@liv.ac.uk

NIHR Health Protection Research Unit in Gastrointestinal Infections

Website | http://www.hprugi.nihr.ac.uk/

Twitter | <u>@HPRUgi</u>









