

Institution: University of Southampton
Unit of Assessment: 2 Public Health, Health Services and Primary Care
<p>a. Context</p> <p>Our UoA2 submission consists of the Primary Care group within the Academic Unit of Primary Care and Population Sciences (PCPS), in the Faculty of Medicine. The vision of the Faculty is <i>to lead innovative learning and discovery for better health across the life course</i>. The aim of PCPS is to produce high quality research of relevance to health professionals and policy-makers to improve patient care. Our growing multidisciplinary Primary Care group, one of only eight in the NIHR National School for Primary Care Research (SPCR), has fostered close collaboration with primary care researchers nationally and internationally, and networks of clinicians in infectious diseases, mental health, complementary health care, and respiratory medicine. The Primary Care group has led interdisciplinary collaborations in the University, with the PCPS Public Health group; the MRC Lifecourse Epidemiology University Unit; the NIHR Nutrition Biomedical Research Centre (BRC); the NIHR Respiratory Biomedical Research Unit (BRU); the Clinical Experimental Sciences Liver Disease group; the Southampton Statistical Sciences Institute (S3RI); the Health Psychology group in the Faculty of Social and Human Sciences, and with the Faculty of Health Sciences.</p> <p>The main non-academic users of our UoA2 research are:</p> <p>Health policy makers, health care commissioners, and health care providers</p> <p>Our research and personal inputs have had direct impacts on government health policy and national and international health guidelines and reports. For example, we have delivered evidence to inform national and international guidelines on antibiotic use for a wide variety of acute infections (see <i>impact case study 11</i>), and to inform NICE guidelines and clinical performance indicators in the national GP contract quality and outcomes framework (QOF) for the assessment of depression at diagnosis and follow-up (see <i>impact case study 12</i>).</p> <p>Public and patients</p> <p>Our research into the management of common conditions in primary care (e.g. respiratory tract infections, urinary tract infection, depression, asthma, and back pain) has had a major impact on the treatment of millions of patients, and their health and quality of life. These include delayed antibiotic prescribing which has reduced prescribing rates; improved assessment of depression and treatment of mild depression in primary care; the use of complementary approaches for chronic back pain (acupuncture, Alexander Technique); and of non-pharmacological treatments for asthma. Thomas is the chief medical advisor to the patient charity Asthma UK. Leydon's research with the Macmillan Cancer Helpline has led to the introduction of training modules and changes in practice to improve the experience of patients and their families using the national Helpline.</p> <p>Clinicians, including the next generation of clinicians</p> <p>We are a key part of a research-led Faculty delivering education in a research-rich environment, providing and informing student teaching by internationally leading researchers. Our research has had a major influence on general practitioners' management of common infections promoted by regional road shows and national online training programmes on antibiotic prescribing led by Little and Moore. Kendrick's research on the assessment of depression fed directly into the introduction of performance indicators in the QOF, influencing all UK practices. Lewith's research in acupuncture led to his active involvement in the development of training for primary care physicians (the establishment of the British Medical Acupuncture Society of 5000 members) and physiotherapists (the Acupuncture Association of Chartered Physiotherapists of 6000 members).</p> <p>b. Approach to impact</p> <p>We encourage our primary care researchers to interact with a wide variety of academic and non-academic groups locally, regionally, nationally, and internationally, to maximise our impact. We use annual appraisal and recognition in academic promotion to achieve this. We liaise closely with the Faculty's press office to ensure impact in local and national media, and internally have a quarterly Unit newsletter, corridor boards which celebrate outputs and news on impact, and a website with an active news feed. All new academic staff are inducted into our communication strategy. Our Research Education Advice and Communication in Health (REACH) group also supports junior researchers in the dissemination, as well as the conduct, of their research.</p> <p>Approach with health policy makers, health care commissioners and health care providers: Little chaired the NICE Guideline Development Group (GDG) on prescribing antibiotics for</p>

respiratory infection 2007-2008. **Kendrick** chaired the NICE GDG on identification and care pathways for common mental health disorders 2009-2011, and is a member of the NICE QOF National Advisory Committee for clinical indicators since 2009. **Thomas** is a member of the NICE Quality Standard Topic Expert Group for asthma since 2012, the DH Clinical Group on Home Oxygen delivery since 2009, the British Thoracic Society/SIGN Asthma GDG since 2007, the European Academy of Allergy and Clinical Immunology rhinosinusitis GDG since 2007, the NICE QOF Advisory Committee expert respiratory group since 2010, and the DH National Asthma Deaths Audit Steering Group since 2010. He was a member of the NICE HTA in Asthma corticosteroids appraisal group in 2008 and the Joint European Respiratory Society/American Thoracic Society Task Force in Asthma Clinical Outcomes 2006-2010. **Williamson** is a member of the UK Otitis Media Group with Harewell Genetics Oxford since 2009, and the RCS England commissioning GDG since 2013. He was a member of the European/USA Consultancy board for Sinusitis Research, 2008-12, and the NICE Grommets review committee in 2008. **Moore** is a member of the NICE GDG on Pneumonia since 2012 and of the ASPIC antimicrobial stewardship guideline group since 2012. **Everitt** wrote guidelines on conjunctivitis for the Health Protection Agency (now Public Health England) and the 2011 Drug and Therapeutics Review.

Locally we developed links with Southampton Primary Care Trust on obesity management, advising on policy, service evaluation and through the use of our Lifeguide obesity website. The website is also being evaluated in the North of England (Teeside) as a population intervention in collaboration with the public health team there. **Kendrick** was Co-Director of the Hampshire and Isle of Wight Comprehensive Local Research Network (H&IoW CLRN) from 2008 to 2010. **Moore** led the local primary care research network as Deputy Director of South West PCRN, is on the Board of the H&IoW CLRN, and contributing to the Collaboration for Leadership in Applied Health Research and Care (CLAHRC) Wessex, leading work on antibiotic prescribing and kidney disease.

Approach to impact with public and patients:

Our research always has patient and public involvement (PPI). This has helped in all stages of the research process, from developing questions, guidance on study materials, and shaping final reports and dissemination of findings. The group has helped implement PPI roles: locally through our NIHR Research Design Service South Central (Director **Mullee**) which has been at the forefront of developing PPI involvement in research applications; and for NIHR funding boards in Efficacy and Mechanism Evaluation, and Programme Grants for Applied Research. There is evidence that, following introduction of delayed prescribing into UK and Israel, population antibiotic use fell significantly which suggests that not only are clinicians using the approach but the public are significantly involved in the decision not to use antibiotics. Inclusion of depression assessment indicators in the QOF has improved the care of around 2.6 million patients. **Leydon's** analysis of Macmillan Cancer Support's more than 100,000 annual helpline calls showed the consistency of data collected could be improved, leading to new staff training workshops to improve patient experiences and outcomes. Our recently appointed primary care research chair and asthma/COPD expert (**Thomas**) is linking with the national patient organisation Asthma UK to disseminate research findings and guided self-help. We involved the Wessex Health Innovation and Education Cluster and several primary care trusts in developing the use of our websites to enable self-management of a range of chronic conditions (e.g. obesity, back pain, and hypertension).

Impact on clinicians and other health professionals:

We have influenced clinicians and pharmacists locally, nationally and internationally about antibiotic use. There has been a series of antibiotic road shows with more than 80 general practices in England, and a very successful internet behavioural intervention to reduce antibiotic prescribing among 246 practices in six European countries. Senior staff also regularly present recent research (e.g. on respiratory and urinary infections, depression, back pain, eczema) and the clear clinical messages arising from it at postgraduate clinical meetings locally, regionally (from Oxford to Exeter), nationally (e.g. Royal College of GPs (RCGP) conference), and internationally (e.g. Clinical Consensus conferences on ENT, and Paediatrics). We have hosted several international placements for visiting researchers (e.g. Per Daniel, GP academic from Gothenburg, and Felicity Goodyear-Smith, GP academic from Auckland) and provide regular input to the international Brisbane initiative for the training of primary care research leaders of the future.

Evidence of follow-through:

Impact in the fields of antibiotic prescribing, and assessment of depression, are detailed in the research impact case studies. The findings on delayed prescribing have been cited in several

international guidelines (e.g. NICE; US; Israel), National Bodies (e.g. Public Health England) and websites (e.g. RCGP). There is evidence that following introduction of delayed prescribing into UK and Israel, the strategy was used to reduce prescribing. We have enhanced the influence and uptake of our antibiotic research (e.g. through **Moore** becoming RCGP Antibiotic Champion). Our research on acupuncture and the Alexander technique has influenced NICE back pain guidelines (CDG88). **Raftery** has influenced the debate on funding of cancer drugs and the multiple sclerosis drugs risk sharing scheme, through several British Medical Journal (BMJ) discussion articles and BMJ blogs. This has led to invitations to address meetings and conferences including the Scottish Medicines Consortium, charities, industry, and to several NICE away days as well as the NICE 2012 annual conference on the proposed changes with the move to Value Based Pricing.

c. Strategy and plans

Our plans are directed at maximising impact from our research and education through a coordinated and focused strategy that includes the following goals:

- **Delivering high quality education and research in our distinctive areas of strength**, with an emphasis on common diseases and translation into clinical practice.
- **Building on strong partnership with the local NHS (both primary and secondary care)** to change practice and to equip the next generation of doctors for life-long learning.
- **Collaborating at the social and life sciences interface** with colleagues in public health, psychology, health sciences, social sciences, geography, mathematics, and computing.
- **Supporting our academics through appraisal and mentoring** on how to maximise impact.
- **Building on existing local, regional, national and international links** to maximise our impact on policy and practice, including:

Locally The Faculty was successful in being awarded two NIHR Biomedical Research Units (BRUs). In 2011 the Respiratory BRU was renewed, and the Nutrition BRU was upgraded to BRC status. We have built on this to create the Southampton Centre for Biomedical Research (SCBR). Primary Care is building links with the SCBR to maximise the opportunities for impact of our research in respiratory disease and nutrition. Our new Chair of Primary Care **Thomas** is integrating research into primary care, community and public health aspects of respiratory disease (asthma, COPD) with our BRU's excellence in basic and early translational respiratory research. **Little** and **Moore** are integrating research on the management of obesity and on under-nutrition in the elderly with the BRC, and **Moore** is working with industry on the duodenal sleeve Endobarrier for obesity.

Regionally We will work with the new Wessex Academic Health Science Network to disseminate our web-based interventions on obesity, back pain, and distress (**Little** and Geraghty); with the CLAHRC to reduce antibiotic prescribing and prevent acute kidney injury (**Moore**) and to evaluate community-based respiratory services (**Thomas**); and with Sheron (CES Liver group), who chairs the Department of Health's Responsibility Deal Committee on Alcohol, to help reduce alcohol use.

Nationally The NIHR School for Primary Care Research (SPCR) provides a range of opportunities on which we will build including: *developing new research themes* (e.g. internet based support for self-care in acute and chronic illness); *developing future leaders* with studentships and fellowships; *enhancing collaboration* with the other seven member departments for a wide range of internal and external grants; and *leading collaborative work of international importance* (e.g. the CANDID cohort, prospectively developing clinical prediction rules for the commonest cancers). A key priority of the Faculty of Medicine has been to strengthen the quality and depth of the primary care group to maximise the likelihood of its continued membership of the NIHR SPCR.

Internationally We led the two largest multicentre trials conducted in respiratory infection (2061 and 4264 patients) by collaborating in the EU Framework 6 GRACE and CHAMP projects. We took advantage of the major opportunities for further collaborations arising from these projects (e.g. the R-GNOSIS urinary infection project) and will build on this in new Framework 7 funding applications.

d. Relationship to case studies

ICS 11 Delayed prescribing of antibiotics (Little, Moore, Williamson, Everitt, and Leydon). Our research into delayed prescribing for acute infections has had substantial impact, contributing to reduced antibiotic use in the UK and a lower risk of antibiotic resistance, being incorporated into national and international guidelines, and informing GP training and practice.

ICS 12 Assessment of depression in primary care (Kendrick, Moore, Leydon and Raftery). Our research into the assessment of depression in primary care informed the NICE depression guidelines, and led to the widespread introduction of performance indicators for the assessment of depression in the general practice contract Quality and Outcomes Framework.