

HEALTH IMPROVEMENT

- ✓ Promoting **HEALTHY LIFESTYLES** and **HEALTHY ENVIRONMENTS**.



- ✓ Encompassing issues of **INEQUALITY** and the wider **DETERMINANTS OF HEALTH**.



HEALTH PROTECTION

INCLUDES:

- ✓ Immunisation and vaccination.
- ✓ Screening.
- ✓ Injury prevention.
- ✓ Control of infectious diseases.
- ✓ Emergency planning.



HEALTH SERVICE IMPROVEMENT

- ✓ Bringing in **EVIDENCE-BASED** population perspective to planning.
- ✓ Commissioning and evaluating services and interventions to ensure they are **EFFECTIVE, HIGH QUALITY, SAFE AND ACCESSIBLE**.



Figure adapted from [1]

Our New Public Health Theme



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Public Health, alongside Social Care, is one of the new cross-cutting themes in ARC WM, starting in early 2020 (see our [previous news article](#), pp 27-8).

Public health is often defined as the science and art of preventing disease, prolonging life, and promoting health and wellbeing through the organised efforts of society (see [FPH Strategy 2020-2025](#)). It encapsulates three distinct domains (see above figure):

- **Health improvement**, which means promoting healthy lifestyles, healthy contexts and healthy environments, as well as tackling inequalities.
- **Health protection**, which means prevention, preparedness for, screening and response to infectious diseases and other threats to health.
- **Health service improvement**, which involves providing public health expertise to inform the effective and efficient planning and delivery of healthcare.

Public health feeds into every aspect of health and health care. Our unique selling point is that we take a population view.

Okay, so that's the background and definitions – what are we *actually doing in our theme*? Some stand-out projects are currently running in Warwick and Birmingham covering all three domains, alongside plenty of art and some science!!! We currently have 24 projects registered on our database of Public Health projects across our themes, including:

- A very large and wide-ranging network meta-analysis on primary prevention in cardiovascular disease, which is investigating a wide range of factors thought to be associated with cardiovascular disease morbidity and mortality. It is aiming to assess the factors that have the greatest influence. This work is being led by Dr Ola Uthman and funded by NIHR HTA, and the results will be of interest to the long-term conditions theme.
- Another large and international systematic review on factors affecting uptake of breast

cancer screening. A sneak preview suggests that ethnicity appears to be an important factor, as does higher social class in France! But watch this space...

- A new international project led by Dr Lena Al-Khudairy on developing standards for informed consent in screening for Public Health England, working with colleagues in Australia, New Zealand, Canada, the Netherlands and Scandinavia. This will be of interest to both the Acute Care Interfaces theme and Organisational Science theme.
- We have started two full systematic reviews regarding COVID-19, completing one in just a week and a half! Our review of droplet spread in resuscitation for the Resuscitation Council, has already been published though it was only started in April 2020.[2] The other is a review of Vitamin D and its influence on severity and outcomes in COVID-19. Both show that research on COVID-19 is still in its infancy, but will yield valuable insights in the months to come as we update them regularly.
- A prestigious, fully-funded post-doctoral career advancement fellowship held by Dr Amy Grove, which is looking at leadership in reducing variation in orthopaedic care, alongside Prof Graeme Currie, who leads the Organisational Science theme.
- A doctoral research fellowship held by Karoline Freeman, which is looking at real life use of testing to inform referral in primary care, and how traditional testing metrics on the quality of a test or on its cost-effectiveness do not begin to translate into the real life activities of referring GPs. This work will be of real interest to the Acute Care Interfaces theme.
- Work on an outreach intervention for homeless people in Warwickshire, which is being led by Paul Bird from the Research Methodology, Informatics and Rapid Response theme. With the advent of COVID-19 this study potentially offers an opportunity to track some of the impact of the “Everybody In” campaign that aimed to

house rough sleepers during this period.

- A large trial of an assets-based infant feeding intervention, led by Prof Kate Jolly along with members of the Maternity theme.
- The Long-Term Conditions theme are undertaking research on the promotion of physical activity, and are developing a clinical pharmacist intervention to reduce opioid prescribing in primary care.

So our aim as a cross-cutting theme is to weave our work in with all the other ARC WM themes. We are working with the Research Methodology and Informatics theme on wellbeing in the workplace, and on behavioural interventions in COVID-19 messaging. We also have two projects starting up on social prescribing, which should weave in nicely to the Social Care theme. One is led by Dr Lena Al-Khudairy and is looking at the Social Prescribing link worker model and how routine data can be used to evaluate that model; while the other at Birmingham is an evaluation of social prescribing involving Prof Kate Jolly.

We have other research projects that encompass work with the Maternity theme and look forward to working with the Integrated Care in Youth Mental Health theme as we take forward our work on wellbeing.

We are actively looking for collaboration with other themes and other researchers, and are particularly looking forward to working on the nationwide ARC cross-cutting themes on Inequalities, Population Health, Behavioural Science and Prevention.

Please don't hesitate to contact us.

References:

1. Griffiths S, Jewell T, Donnelley P. [Public health in practice: the three domains of public health](#). *Public Health*. 2005; **119**(10):907-13.
2. Couper K, Taylor-Phillips S, Grove A, et al. [COVID-19 in Cardiac Arrest and Infection Risk to Rescuers: A Systematic Review](#). *Resus*. 2020; **151**: 59-66.