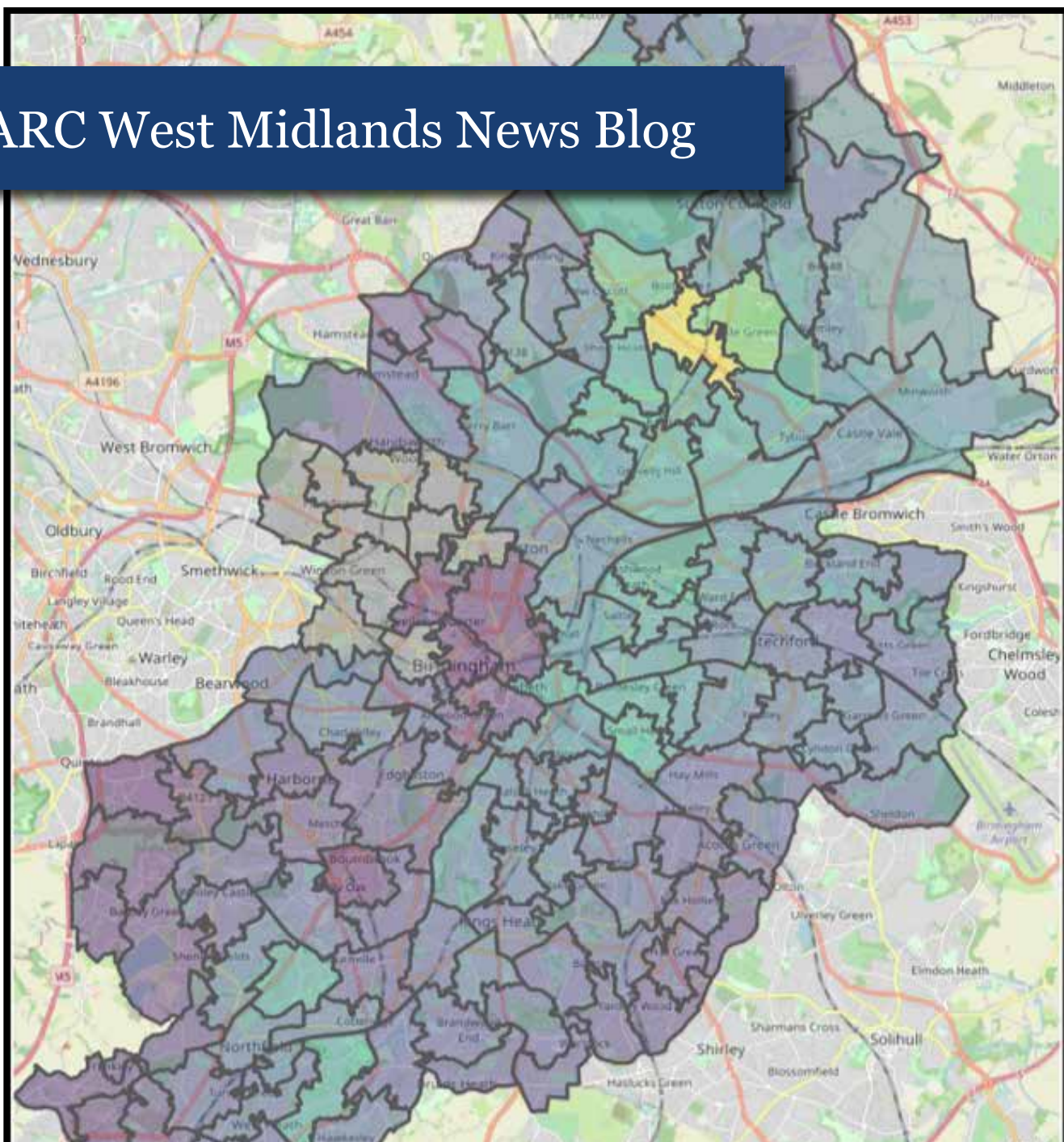


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ARC West Midlands News Blog



The Land War in the Fight Against COVID-19

*Richard Lilford, ARC WM Director; Sam Watson, Senior Lecturer;
Peter Diggle, Distinguished Professor at Lancaster University*

One are the days of thinking there is a quick fix to the COVID-19 pandemic. Another country-wide lockdown would reduce COVID-19 infection, but at the same time would damage the economy and pose a threat to other long-term health conditions, with disproportionate effects on the more disadvantaged groups in society. The *Great Barrington Declaration* – aiming for herd immunity while sequestering high-risk people – does not bear close examination.[1] Vaccination is not an automatic get out of jail card – we do not yet know when vaccination will be available at the required volume, nor what degree of protection it will confer. So, this is the land war. We must work on supply chains, procedures, detection and contact tracing, getting ever slicker at the operation. Personal protection, social distancing and graded lockdowns can all play a part, but only if they are accepted by the general public, who deserve clear explanations of when, where and why unwelcome restrictions will be imposed and what these restrictions are intended to achieve.

While central government has an obvious role to play, it has become clear that the battle must go local; and the more local the better. The risk of being hospitalised with COVID-19 in Birmingham varies dramatically across the various electoral wards, with the seven-day rolling rate of new cases (for week ending 14 October 2020) ranging from 43.8 per 100,000 in Nechells, to 825.8 in Selly Oak.[2] So, supported by the MRC, NIHR ARC West Midlands and our host hospital (University Hospitals Birmingham NHS Foundation Trust) we are developing a computer application to track the evolving

pattern of the COVID-19 pandemic. We have developed software that uses geostatistical models to identify “hot spots”, however one defines them, across a broad space such as an urban conurbation or a country. Within such a space we identify localities at whatever scale is relevant for local decision-making and that the data can support. We can map rates of infection per unit of population in real time on these maps to show the current state of the epidemic and its direction of travel (see *Example*). These maps can direct decision-makers to specific localities where incidence is increasing rapidly and hence where urgent action is needed.

But there is a problem with policy action directed at small areas and particular communities – dictatorial edicts are likely to provoke resentment rather than effective action, especially when carried out at a very local level. It is one thing to place restrictions across a whole country or even a large city, but quite another to try to lockdown an area such as Lady Pool in Birmingham or Chapel Town in Leeds. Indeed, the disease has highest incidence in BAME communities who may feel victimised or disenfranchised. Already only 18% of people fully comply with UK regulations regarding self-isolation.[3] So here we come to the second use of our application and the maps it produces.

We think that policy-makers should increasingly turn to local communities and ask them to be the architects, not recipients, of policy. In essence we are arguing for an ‘assets-based’ or ‘participatory’ approach based on ‘co-invention’. And here our application can help by providing scientific data at a local level in a form that can be easily assimilated. We are arguing at a

local level for the type of thing that Prof Chris Whitty used at a national level in his Downing Street presentation with the Prime Minister and Chancellor (12 October 2020). There is evidence that populations relate well to local maps and they are sometimes used in qualitative research as a method to promote discussion among people.[4] The approach we are advocating here, of high-risk spatio-temporal identification, followed by case-area targeted intervention, has proven effective in limiting the spread of cholera outbreaks,[5] and we advocate a similar approach with respect to the COVID-19 pandemic.

We would be pleased to hear from news blog readers regarding:

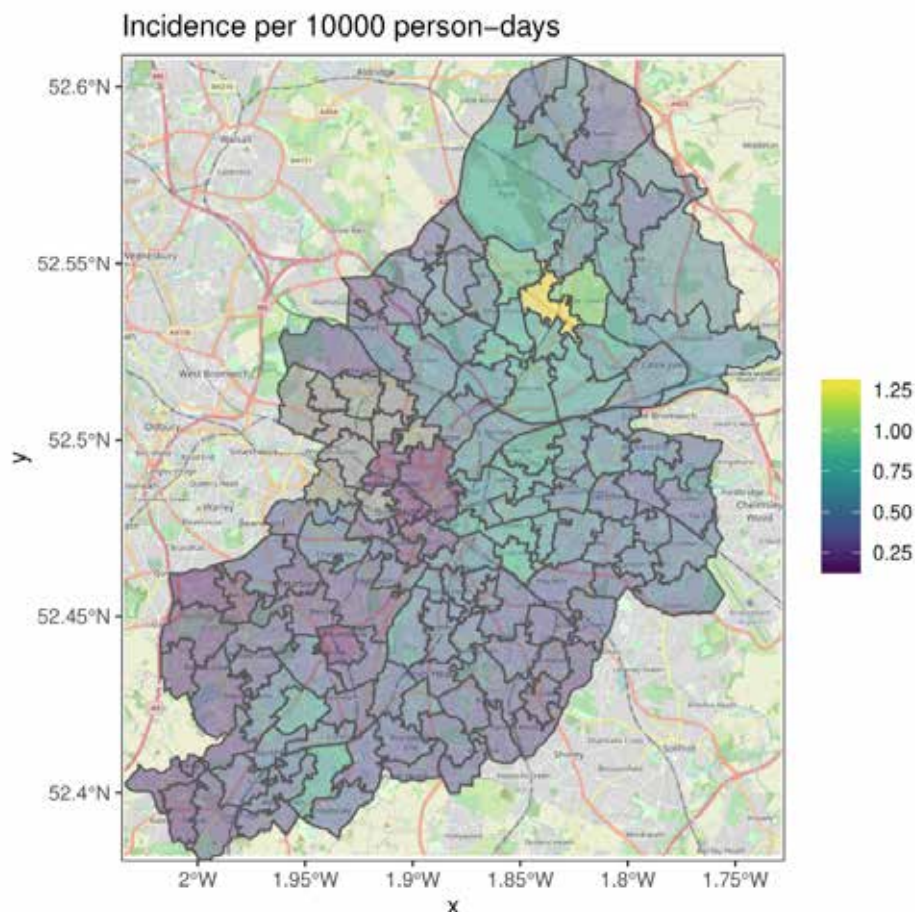
1. Your opinions and advice.
2. Whether you would like to hear more or use the application when it is developed.
3. Whether you have examples of similar initiatives elsewhere in the world.
4. Whether you would like to collaborate.

You can contact us at ARCWM@warwick.ac.uk.

Example of Real-Time Surveillance of COVID-19

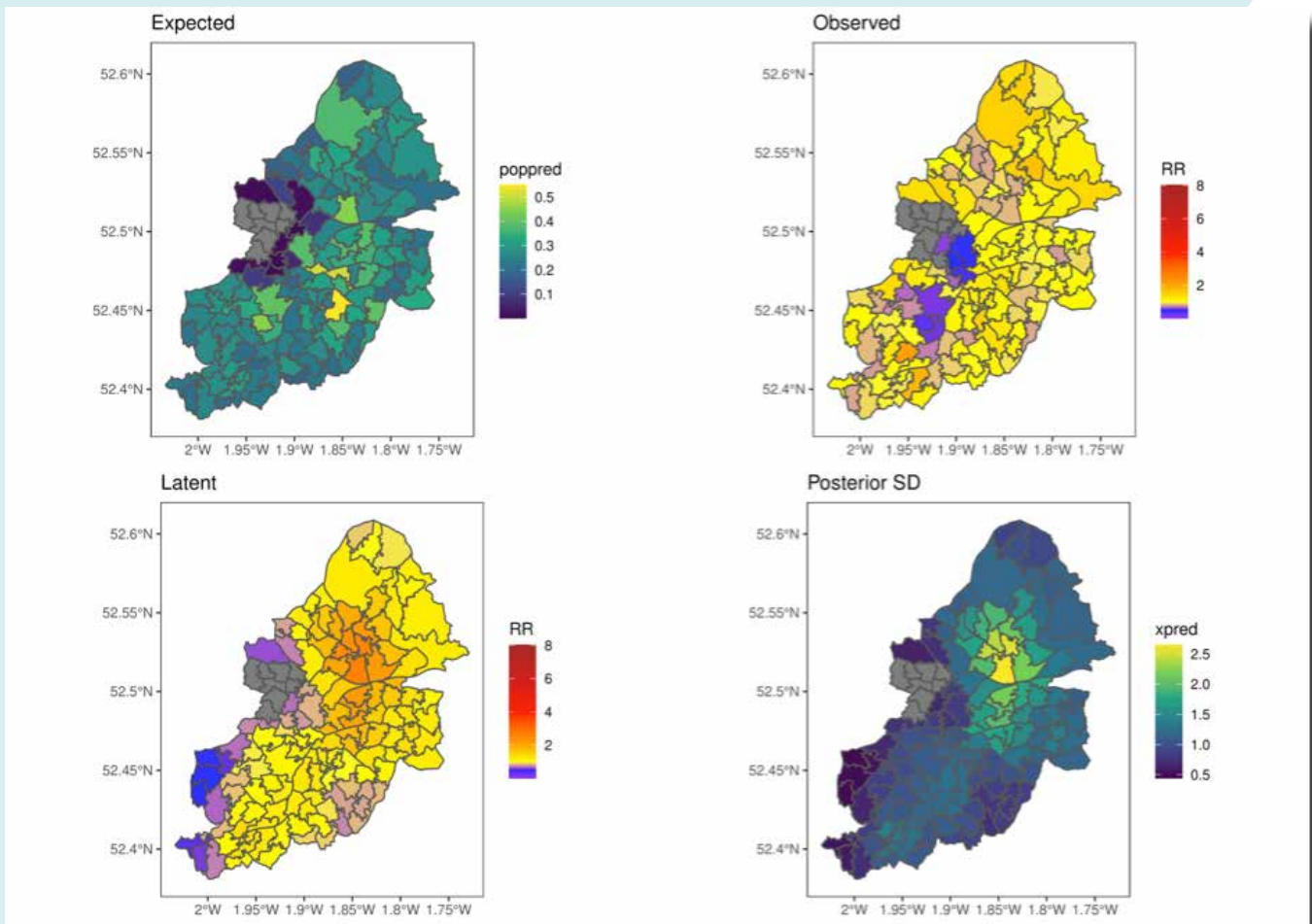
For this example we have aggregated the results to MSOA (middle-layer Super Output Area) level across the catchment area of University Hospitals Birmingham NHS Foundation Trust, although we have retained other areas of Birmingham to make the boundary of the city clear. One could aggregate to smaller or larger levels as needed. A case here is an admission to hospital for COVID-19.

We have produced these outputs as if we were working on March 26 2020 using data from the preceding two weeks. The first thing someone interested in tracking COVID-19 in the city might ask is what is the incidence of the disease that day?



There is a lot of variation across the different MSOAs, with one area standing out as being high (yellow area). The variation here could be explained by differences in demographics or

socioeconomic status, and we might want to ask whether any differences are for unexpected reasons. We can break down the incidence into different components:



Where:

- **Expected** is the number of cases we would expect that day from each area based on the size of its population.
- **Observed** shows the relative risk in each area associated with observable characteristics (age, ethnicity, and deprivation). For example, consider if the average incidence across the city were one case per 10,000 person-days. An area with a larger proportion of older residents would have a high risk; if this risk were double the average then it would have a relative risk of two.

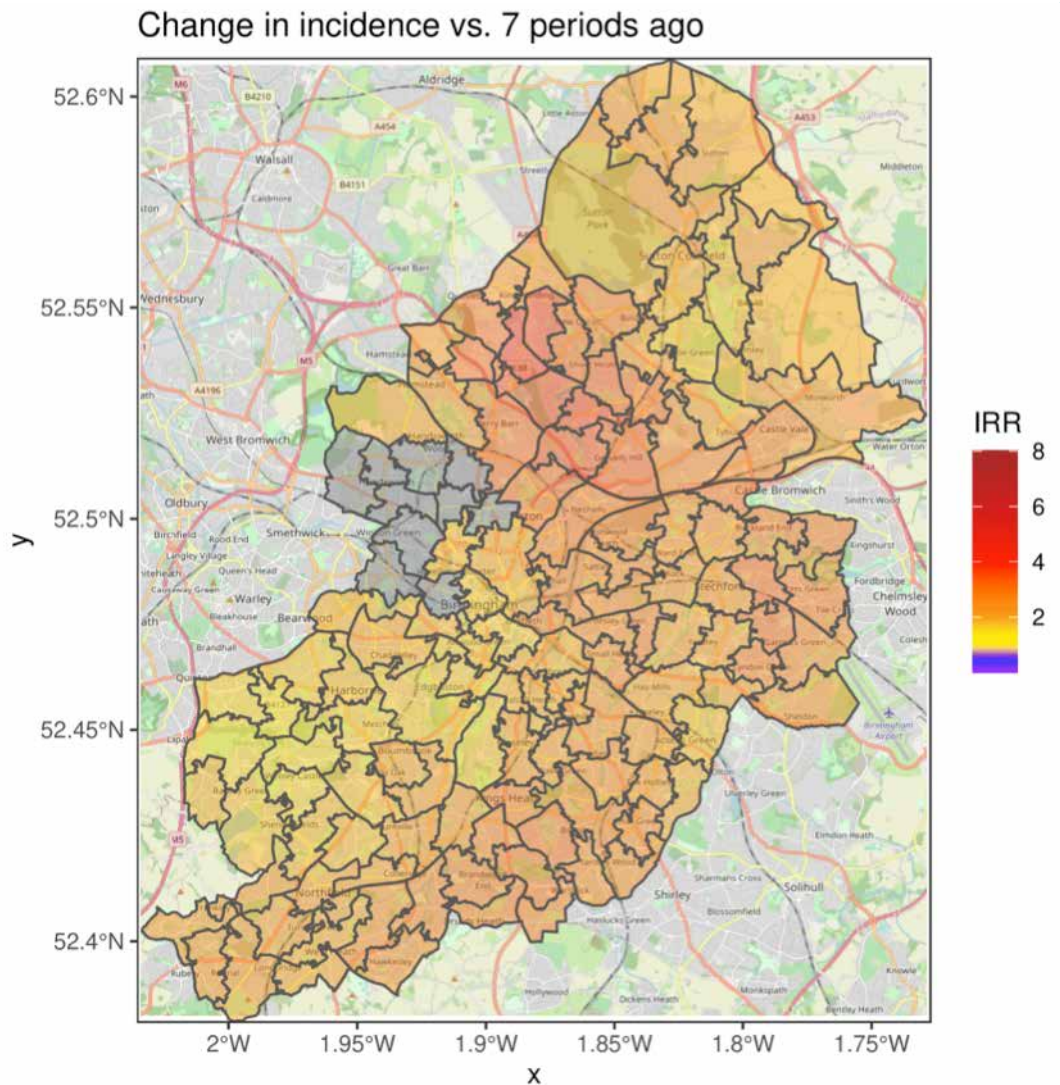
- **Latent** is the relative risks in each area due to unexplained factors or unobserved variables. Our area with more older people may have an expected incidence of two cases per 10,000 person-days (a 'baseline' of 1 per 10,000 person-days times a relative risk of two), but if we observe an average rate of four cases per 10,000 person-days, then there is an additional unexplained relative risk of 2.
- **Posterior SD** indicates the predictive variance.

So based on these plots the area with high incidence in the North of Birmingham would appear to be higher than we would expect based on the observed variables by factor of 2 or 3.

This may indicate the need for public health intervention. We might finally ask, how this compares to previous days?

The next plot shows the incidence rate ratio, which here is the ratio of incidence compared to seven days prior for each area. A value of one

indicates no change, two a doubling, and so forth. One can clearly see that it is above one, i.e. it is increasing, city-wide. The greatest relative increases are centred on the area we identified as being of high concern.



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On the Need for a New National and International Funding Model for Applied Health Research

Richard Lilford, ARC WM Director

Research funders frequently issue calls that encourage or require the development and evaluation of interventions. Indeed, integration of the development, deployment and evaluation of service interventions is the essence in ‘implementation science’. However, research funders seldom include sufficient funds for all but the least expensive interventions. Thus, the research funding envelope will typically include a funding envelop that could support educational interventions or simple innovations such as addition of decision support to an existing I.T. system. Research funds are seldom sufficient to support whole-scale service, such as a change in the nurse patient ratio or a new community outreach team. In short, research managers wish to encourage implementation science but do not typically wish to set aside sufficient funds for any but the least expensive interventions.[1]

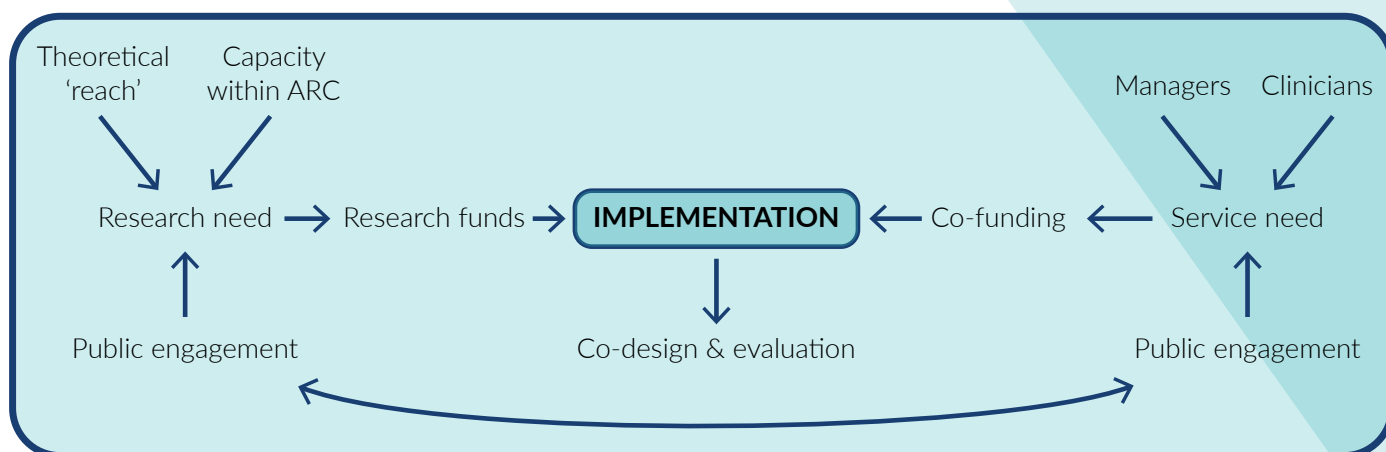
There are exceptions to the above rule. For example the Bill and Melinda Gates Foundation sponsored the development and evaluation of a number of water and sanitation interventions to the tune of about \$100 million a piece. These initiatives required this level of funding to support intervention design, implementation and evaluation as part of a single funding package. What the Bill and Melinda Gates Foundation sponsored was implementation of a large-scale intervention within the context of a formal, independent, prospective evaluation. Such, is the exception. Either interventions are implemented with evaluation as an afterthought, or research is funded in the absence of funding for the intervention.

But there is a problem with the model whereby the research funder stumps up the money for the intervention that the service will support but which it has not originated. This problem relates to sustainability. If the service has not originated the project, then it may not 'own' it. As a result, there is a serious risk that the intervention will not be sustained on completion of the project. The best one can hope is that service providers somewhere in the world will adopt the intervention, given a favourable study outcome. Here the funder is relying on a type of supplier-induced demand. Knowledge is supplied by the researcher in the hope that this will generate demand. The case for adoption may be strengthened, at least in theory, by a favourable health economic evaluation.

This takes us full circle: research funders do not typically have the wherewithal to fund large-scale interventions and, even if they did, they are not ideally placed to do so since there may be little demand for their knowledge product. The result is that most large-scale evaluations are evaluated retrospectively. Such evaluations typically have inadequate base-line data, are not experimental, and do not include the full set of desirable observations (especially process and qualitative observations) that buttress causal inferences. So the ultimate solution would seem to be one in which the service funds the intervention and the research funder supports

the evaluation of the intervention. However, achieving synchrony between these two funders is no simple matter. There may be problems of culture and perspective, but I think the biggest problem is logistical – how to synchronise the two funding streams.

One of the best examples of a funding system to address this problem is the Applied Research Collaborations (ARCs) funded by the National Institute of Health Research (NIHR) in England. These organisations require a prior commitment from the health service that they will provide co-funding. This dual-funding model provides the flexibility to respond to service need, and integrate research and service improvement interventions. The model is very simple and is represented by the diagram below. The service provides the money for the intervention, while the NIHR provides funds for academic support and evaluation through the ARC. The ARC can move quickly, since the funding has already been allocated through a competitive process, and the service has committed itself to make a complementary investment. In Box 1 we supply an example of how the flexibility offered by this dual, but separate, funding system has enabled us to evaluate interventions funded by the service.



Box 1. Vaccine Trials

In April 2018 we were approached by our local hospital trust to provide support in designing and evaluating an intervention regarding their influenza vaccination campaign for front-line staff. The intervention was to begin in October, i.e. five months, so a rapid response was required. By August we had published a protocol and obtained ethical approval, and by September had randomised 8,000 staff. Our study evaluated the effectiveness of four different reminder letters informed by ‘nudge theory’, along with a ‘no letter’ control group, on vaccination uptake. We found that uptake did not significantly differ between letter groups, while there was also no difference in uptake between those who were and were not sent a letter. Our paper was submitted by February.[2]

There are many other models that seek to bring funding for interventions and prospective evaluation of those interventions into line. The UK government has been something of a trail blazer in this respect.[3] Broadly speaking, departments of the English government fund evaluations of their innovations in one of three ways.

① Government may contract with an external organisation to evaluate one of its interventions. For example, building on an initial investment by NIHR ARC West Midlands the Workers Health Unit commissioned a consortium of organisations to conduct a cluster randomised trial of 100 small- and medium-size enterprises to evaluate a government intervention to incentivise firms to promote the health of their workforces.

② Government may create an outside organisation to both implement and evaluate interventions. An excellent example is the Education Endowment Fund, which was created to conduct experimental evaluations of educational interventions.[3]

③ Government may conduct intra-mural evaluations. This type of evaluation is somewhat more problematic, as it may be seen to lack independence and currently, at least, departments are not obliged to publish their evaluations (although the data are available through a Freedom of Information Request).

The above examples show encouraging signs that the UK government are waking up to the

need to integrate research and service delivery innovations. There are also good examples abroad. For example, the US Congress funded a randomised controlled trial of a voucher system to enable children from poor neighbourhoods to attend private schools. Interestingly, educational outcomes after one year were better for the government-funded schools. However, the examples given here are broadly the exception to the rule. Under the ARC model in the West Midlands, service managers use service money to develop the services in collaboration with their academic partners. Researchers supply some of the service knowledge needs, co-develop interventions, and conduct rigorous evaluations (such as that reported in the Box).

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Looking Back at the PINCER Study

Richard Lilford, ARC WM Director; Tony Avery, Prof of Primary Health Care

Right back in the early years of the millennium, the ARC WM Director led the Patient Safety commissioning programme that had been established by Sir Liam Donaldson, then the Chief Medical Officer. One of the many studies we funded was PINCER, a pharmacist-led IT-based intervention to reduce clinically important medication errors in general practice. The study was led by Professor Tony Avery, professor of primary health care at the University of Nottingham. The study consisted of a cluster RCT and showed that the intervention was effective in reducing errors, with findings published in the *Lancet*.^[1] The investigators then obtained funding from Health Foundation and AHSN East Midlands to roll the intervention out across over 350 (94%) general practices in three counties of the East Midlands, demonstrating that the intervention was effective at scale.

Since 2015, PINCER has been incorporated into the NICE '*Medicines Optimisation Clinical Guideline*'. In 2017, the World Health Organization identified '*Medication without Harm*' as the theme for their third Global Patient Safety Challenge. The then Secretary of State for Health set up a Task and Finish group to respond to this and PINCER was identified as one of the ways for primary care to respond to the challenge. Subsequently the AHSN and PRIMIS (University of Nottingham) have been funded to roll out PINCER across England.

As of 7 October 2020, 2,617 general practices (patient population 25m) located within 103 (76%) Clinical Commissioning Groups (CCGs) in England had implemented PINCER to identify instances of potentially hazardous prescribing using 13 prescribing safety indicators. In total,

196,632 at-risk patients were identified in at least one prescribing safety indicator at baseline. Analysis of follow-up data from 1,060 practices showed a reduction in the absolute number of at-risk patients identified in at least one prescribing safety indicator of 13,387 patients (-14.4%). Greatest reductions could be seen for those indicators associated with gastrointestinal bleeding, which showed a decrease of 10,559 at-risk patients (-25.9%).

This work has been well recognised. The research team were selected as the regional (Midlands and East) winner in "*The Excellence in Primary Care Award*" category of the 2018 NHS70 Parliamentary Awards. The team has also been shortlisted for the HSJ Patient Safety Awards 2020 in the category of Patient Safety Team of the Year.

It is satisfying to see the major impact that has flowed from the original funding for a rigorous evaluation. People sometimes tell me that academic rigour gets in the way of implementation and impact. This story shows that the reverse is true.

The ARC WM director would like to thank Tony Avery for sharing this case study in impact.

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Speaking to Hearts Before Minds: Increasing Influenza Vaccine Uptake During COVID-19

Kelly Ann Schmidtke (Assistant Professor) and Laura Kudrna (Research Fellow)

In 2019, the UK health secretary Matt Hancock said that he is “open” to making vaccines compulsory, and Labour MP Paul Sweeney argued that failure to vaccinate children should be a “*criminal offence*”. But mandates are difficult to enforce, and punishments diminish public trust. In addition, people still opt out of mandatory policies, and effectiveness increases when people freely comply.[1] Instead of mandates, we advocate behavioural approaches that preserve individual freedom,[2] and agree with Professor Heidi Larson that additional emphasis should be placed on public perspectives when planning vaccine policies and programs.[3]

Public health messaging about vaccines is particularly important in light of the COVID-19 pandemic. In April 2020, the United Kingdom’s ‘Vaccine Taskforce’ convened, and, in May 2020, the United States’ ‘Operation Warp

Speed’ took off. This speed elicited optimism among some, but handed a megaphone to the anti-vaccination movement. Del Bigtree, founder of the Information Consent Action Network, cautioned that, “*You shouldn’t rush to create a product you can inject into perfectly healthy people without doing proper safety studies*”. Here, identical factual information – a vaccine is being developed quickly – elicited reasoned responses that were both optimistic and pessimistic. However, intuitions come first and strategic reasoning comes second. [4] Where public health messages do not align with people’s automatic intuitions, factual and reasoned information may fall on deaf ears.

On September 21, we conducted an online experiment to determine if public health messages aligned with people’s political intuitions influenced their intentions to take up the influenza vaccine.[5] Influenza vaccinations



Fig 1. Left-Wing Message (aligned with Labour)

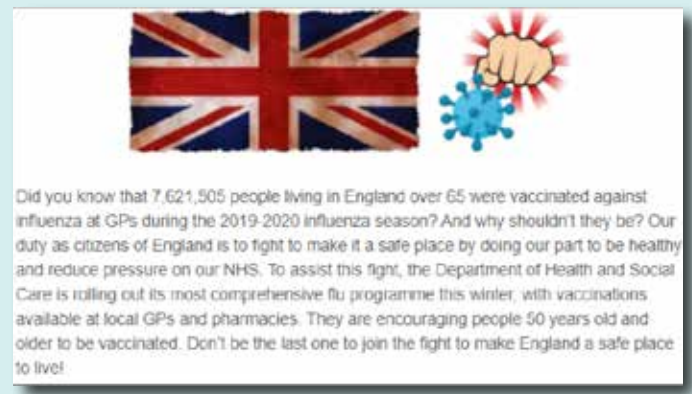


Fig 2. Right-Wing Message (aligned with Conservative)

have long been important, but are particularly important now in the context of COVID-19 because co-infection increases mortality rates.[6] We recruited 192 participants living in England, aged 50 years+, who had not already vaccinated this season. Half of these participants identified as being affiliated with the Labour party, and half with the Conservative party. Participants viewed a message either aligned or unaligned with their automatic political intuitions (see Figures 1 and 2). Then they stated how much they agreed with a statement about their intentions to take up the influenza vaccine this season on a 7-point scale, where higher numbers indicated more positive intentions.

Professor Jonathan Haidt describes the automatic intuitions we set out to influence as moral foundations.[4] Typically, people who identify as being more left-wing are most strongly influenced by their care and fairness intuitions (a desire to prevent harm to others and to ensure equality). In contrast, people who identify as being more right-wing are more strongly influenced by the remaining foundations: purity (a desire to avoid contaminants), authority (to preserve traditions), loyalty (to strengthen group bonds), and liberty (to preserve individual freedom).

Research conducted in the United States and Australia has already identified some of the foundations associated with parental vaccine hesitancy, and suggests that public health

messages can be framed to increase parents' intentions.[7,8] For example, a message designed to promote purity might say: *Boost your child's natural defenses against diseases! – Vaccinate!* These proposals are a good start, but without evidence that they are likely to be effective, public health practitioners have little reason to prefer them to the messages developed in-house. The messages used in the present study were informed by messages used in a previous study that significantly altered people's intentions to recycle.[9]

Our main prediction was that our left-wing message would increase labour participants' intentions, and our right-wing message would increase conservative participants' intentions. We did not find this. As shown in Figure 3 (overleaf), there was no substantial effect of the messages. One explanation is that the moral foundations used in our advertisements were not relevant in a UK context, which we plan to address in future work. We aim to conduct a general UK survey describing moral foundations in the population and use the survey results to inform a collaborative online workshop with public contributors and health specialists, which is in keeping with Professor Heidi Larson's calls to involve public perspectives. This pilot study lays the groundwork for such future research.

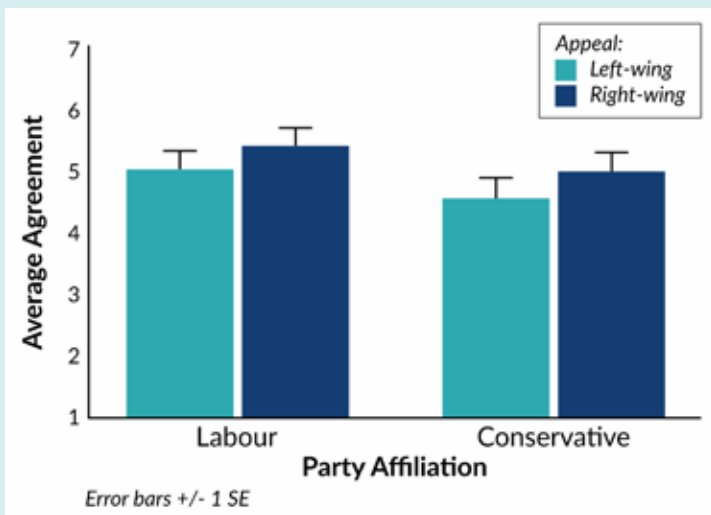


Fig 3: Results of the study testing the effects of messages on vaccination intentions as measured by average agreement with the statement: “I intend to receive an influenza vaccination this season [2020/21].”

We asked people some follow up questions too. In a free-text box, participants were asked to explain their intentions to (or not to) vaccinate. Their explanations largely fell within five categories, which, in addition to their foundations, may have been influenced by the messages they read: *Protect Self, Protect Others, Protect the NHS, Being Eligible/Invited, and Habits*. We also asked questions about people’s intentions of taking up a COVID-19 vaccination and wearing a face mask. Similar to recent research,[10] people were more likely to express intentions to take up a future COVID-19 vaccination (72%) than the current influenza vaccination (65%). We suspect that these expressed intentions may be a bit optimistic. Indeed, most participants (89%) also expressed that they would wear a face mask in a store that did not require them to do so, which is higher than our casual observations at the grocery store around the time of the experiment (before additional penalties were introduced). Acquiescence bias may have led our participants to be agreeable in this survey, particularly as participants just saw messages promoting health-related behaviour. But this need not preclude identifying meaningful differences between randomised conditions. Our research team looks forward to better understanding the intuitive influences on vaccination behaviour.

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The Use of Jargon Depends on the Status of a Person

Peter Chilton, Research Fellow

Jargon (i.e. words/phrases used by certain groups/professions that are difficult for ‘outsiders’ to understand) is something that most of us use in our writing or speech, be it in order to communicate in an adequate and efficient manner, or just to signal that we belong to a certain group. However, could there be a reason why some people use it more than others?

The authors of a recent study in *Organizational Behaviour and Human Decision Processes* were interested in the use of jargon as a compensation function for status. They conducted a number of studies looking at their hypothesis that people of lower-status were more likely to use jargon than those of higher-status. This was based on the assumption that people of lower-status would be more concerned with signalling a high status to others, and that use of jargon would be a means to achieve this.

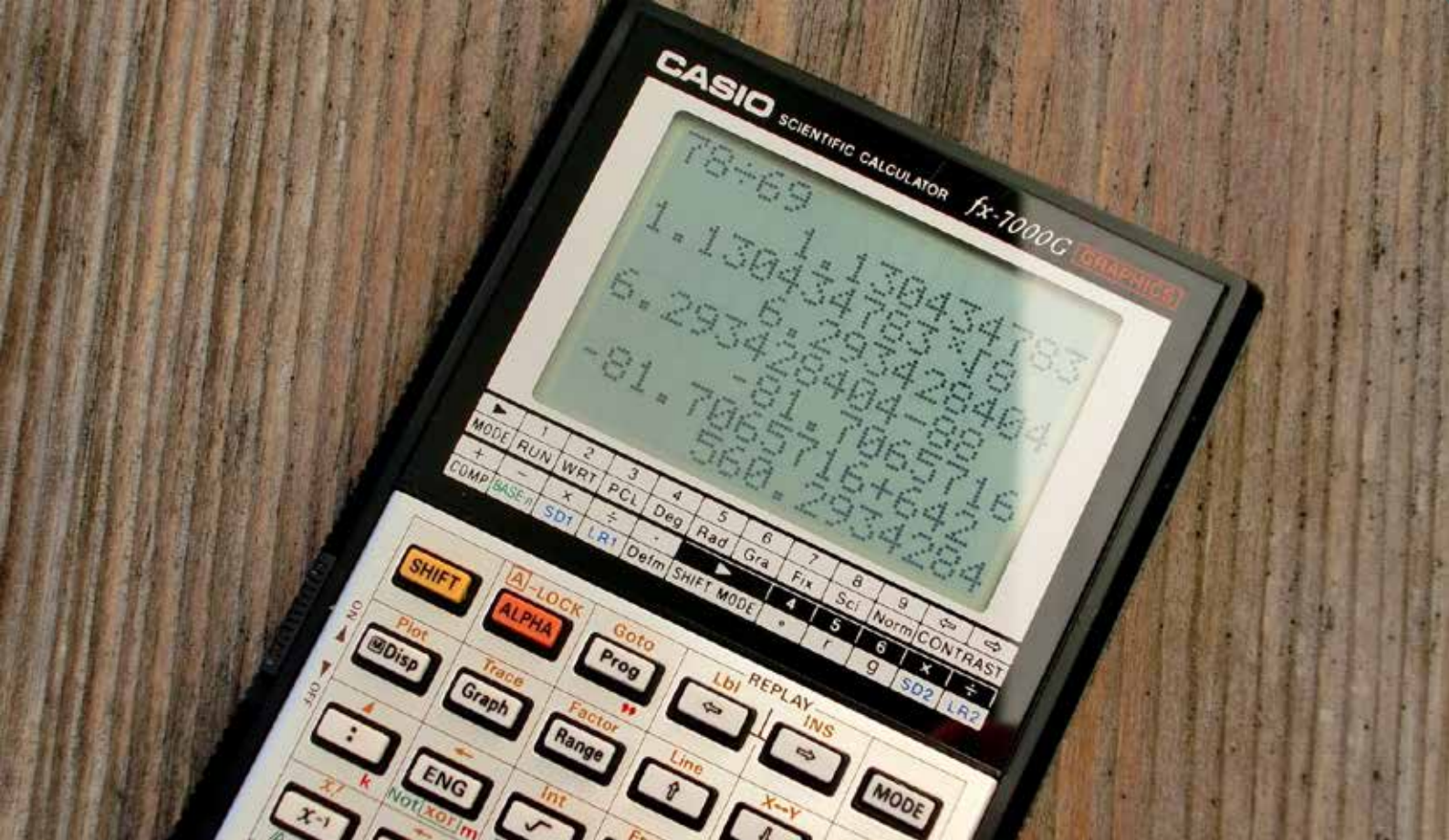
Firstly, the authors set about analysing the text from 64,000 dissertations and master’s theses. They found that those produced by authors in schools that were of a lower-status included statistically more jargon (both in the form of acronyms and complex language) than those

from authors of higher-status schools. This effect still held after adjusting for number of pages, degree type and publication year.

Following this the authors investigated the correlational nature of the data through experimental manipulations of students. They manipulated the relative status of participants by randomly assigning them to a status group and providing a description of the participant’s competitors as either being higher, equivalent or lower-status (e.g. established competitors, peers, undergraduates), before asking them to select a pitch for a hypothetical start-up company. Comparison between groups showed that those who perceived they were of lower-status were more likely to choose the pitch with a higher amount of jargon. Further experiments replicated these findings.

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Economic Determinants of Educational Outcomes

Richard Lilford, ARC WM Director

Readers know that, from time to time, I comment on the education research literature. Education and health researchers have much to learn from one another. Among the many similarities is the issue of nature and its interaction with nurture. Right back in the late 1920s, Barbara Burks studied children brought up in foster care compared to those in home care in an attempt to separate out the genetic and social environmental components to intelligence.[1] She found that the social environment contributed to two-thirds of the variance while genetics contributed only one-third. In the process, she was probably the first person to describe collider bias.[2]

A recent, fascinating Center for Global Development report tried to separate out the relative contributions of country versus family income in predicting maths scores on a widely used international test.[3, 4] They wanted to include poor countries that seldom use the international examination. These poor countries do, however, participate in regional tests. So they set up a study in which the same students did both tests. This allowed the authors to adjust regional test scores. They called the study a ‘Rosetta stone for human capital’.

Their study reproduces the well-known gradient of performance when children of the same age take a standardised maths test. Singapore and South Korea scored highest, at about 600,

and Yemen lowest, at about 250. There is a strong correlation between per capita GDP and performance. There is also a correlation within country, between annual household income and performance. In Japan, Germany and the USA, this household wealth effect accounts for about 50 points on the above scale. However, in Brazil it accounts for 100 points. Thus, there is a very big difference in scores across countries, and for both rich and poor people within those countries. However, differences within countries across the wealth range are smaller when the country as a whole has a more equal spread of income.

One corollary of these findings is that people enter university and the labour market with very different levels of educational attainment across the various countries. On the other hand, university placements are more difficult to achieve in many low-income countries than in high-income countries; this might reduce disparities in educational attainment, especially in highly selective subjects such as medicine.

References:

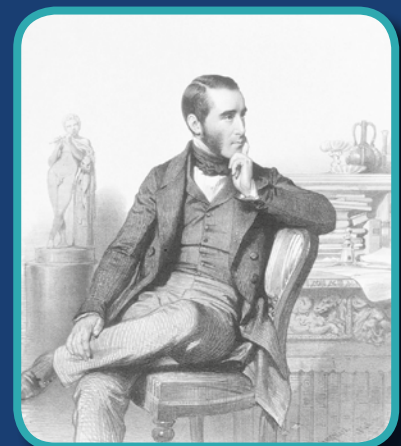
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ARC WM Quiz

Who was the first Chief Medical Officer in England, holding this position from 1855 - 1876?

email your answer to:
ARCWM@warwick.ac.uk

Answer to previous quiz: Christiaan Barnard was the surgeon who was quoted as saying “stupid doctors become surgeons – all we have to do is cut things out, put things in and sew things up”. Congratulations to those who answered correctly.





Genetic Influence of COVID-19 Severity

Peter Chilton, Research Fellow

During the COVID-19 pandemic there has been considerable variation in how the disease has affected patients. An international collaboration, the Severe Covid-19 GWAS Group, have recently reported on using genome-wide association analysis to identify any potential genetic factors that are involved in the body's response to COVID-19 infection.

Comparison of 1,610 patients with COVID-19 and respiratory failure with 2,205 controls identified a cluster of genes on chromosome 3 (locus 3p21.31) and chromosome 9 (locus 9q34.2) that were significantly associated with respiratory failure (odds ratio 1.77, 95% CI 1.48-2.11; and 1.32, 95% CI 1.20-1.47 respectively). While the association spanned various genes at locus 3p21.31, the signal at locus 9q34.2 coincided with the ABO blood group locus.

Further analysis showed there was a higher risk of respiratory failure in patients who had blood type A (odds ratio 1.45, 95% CI 1.20-1.75), and a lower risk in patients of blood type O (odds ratio 0.65, 95% CI 0.53-0.79).

Reference:

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Latest News

Congratulations

Congratulations to Prof Sara Kenyon, who has recently been awarded an Honorary Fellowship from the Royal College of Obstetrics

& Gynaecologists. Sara is already a Fellow of the Royal College of Midwives and is the only midwife to hold a Fellowship in both Colleges.

PhD Studentships

ARC West Midlands currently have three PhD studentships available, both fully-funded, full-time, three-year studentships:

1. One based in our **Integrated Care in Youth Mental Health** theme at Warwick Medical School. This is focussed on the *design, implementation and evaluation of digital strategies for youth mental health in school and educational settings*. Closing date for applications is **30 October 2020**, with online interviews on 12 November 2020. For more information, [please visit this link](#).
2. One based in our **Maternity** theme at the University of Birmingham. This is focussed on the *new universal 6-8 week check being introduced for new mothers in England*. For more information, [please visit this link](#).
3. One based at Warwick Medical School, with a focus on one of: supporting workplace health and wellbeing initiatives; knowledge required to evaluate health technologies; impact of HTA research from the NICE Technology Appraisal programme; implementation of co-production; or monitoring systems in 'hospital at home' care models. Closing date for applications is **27 November 2020**. For more information, [please visit this link](#).

National NIHR ARC Newsletter



The October issue of the national NIHR ARC newsletter is now [available online](#).

To subscribe to future issues, please visit: <https://tinyurl.com/ARCsnewsletter>.

Events & Funding Opportunities

Midlands Biobank Event

The Midlands Health Alliance, Midlands Innovation Health, and the Tissue Directory Coordinating Centre are hosting a Midlands Biobank Event from 9-12 November, entitled ‘*The Future of Midlands Biobanking*’.

Anyone involved or interested in biobanking, tissue or sample storage and what the plans are for the Midlands in this space are welcome.

More information and how to book are available at: eventbrite.co.uk/e/the-future-of-midlands-biobanking-tickets-119465864617



9 Nov, 13:30-15:30: Introduction to the Midlands Biobank Concept

10 Nov, 13:30-15:00: Common Access Models

11 Nov, 13:30-15:00: Sample Storage

12 Nov, 13:30-15:00: Regionalism & Next Steps

NIHR Research for Social Care

This call is to support research that generates evidence to improve, expand and strengthen the way adult social care is delivered for users of care services, carers and the public. The funding available for individual projects is up to £350,000 (FEC) for up to 36 months.

The Stage 1 deadline is **20 January 2021**. Expressions of Interest are due by 12.00pm on Monday 9 November. More information at: nihr.ac.uk/explore-nihr/funding-programmes/research-for-social-care.htm

The Department of Health and Social Care have pre-announced an NIHR/UKRI call on the long-term physical and mental effects of COVID-19 on non-hospitalised patients. This will be advertised in late October, for projects starting in the new year.

Long-term effects of COVID-19

Further information will be available at: nihr.ac.uk/funding/research-into-the-longer-term-effects-of-covid-19-in-non-hospitalised-individuals/25904

NIHR Health Technology Assessment Programme

The NIHR HTA Programme is accepting stage 1 applications for the following topics in the areas of primary research and evidence synthesis:

- 20/110 Prophylactic antibiotics in chronic obstructive pulmonary disease. Deadline is 1pm on **31 March 2021**.
- 20/109 Shorter vs longer fixed-course antibiotic treatments. Deadline is 1pm on **5 May 2021**.

Recent Publications

Achana F, Petrou S, Madan J, Khan K, Ji C, Hossain A, Lall R, Slowther AM, Deakin CD, Quinn T, Nolan JP, Pocock H, Rees N, Smyth M, Gates S, Gardiner D, Perkins GD; for the PARAMEDIC2 Collaborators. Cost-effectiveness of adrenaline for out-of-hospital cardiac arrest. *Crit Care.* 2020;**24**:579.

Appleton R, Mughal F, Giacco D, Tuomainen H, Winsper C, Singh SP. New models of care in general practice for the youth mental health transition boundary. *BJGP Open.* 2020.

Calvert MJ, Marston E, Samuels M, Rivera SC, Torlinska B, Oliver K, Denniston AK, Hoare S. Advancing UK regulatory science and innovation in healthcare. *J Roy Soc Med.* 2020.

Couper K, Quinn T, Booth K, Lall R, Devrell A, Orriss B, Regan S, Yeung J, Perkins GD. Mechanical versus manual chest compressions in the treatment of in-hospital cardiac arrest patients in a non-shockable rhythm: A multi-centre feasibility randomised controlled trial (COMPRESS-RCT). *Resus.* 2020.

Couper K, Putt O, Field R, Poole K, Bradlow W, Clarke A, Perkins GD, Royle P, Yeung J, Taylor-Phillips S. Incidence of sudden cardiac death in the young: a systematic review. *BMJ Open.* 2020;**10**(10):e040815.

Devi R, Martin G, Banerjee J, Butler L, Pattison T, Cruickshank L, Maries-Tillott C, Wilson T, Damery S, Meyer J, Poot A, Chamberlain P, Harvey D, Giebel C, Hinsliff-Smith K, Chadborn N, Lee Gordon A. Improving the Quality of Care in Care Homes Using the Quality Improvement Collaborative Approach: Lessons Learnt from Six Projects Conducted in the UK and The Netherlands. *Int J Environ Res Public Health.* 2020; **17**(20):7601.

Fraze TK, Beidler LB, Briggs ADM, Colla CH. Translating Evidence into Practice: ACOs' Use

of Care Plans for Patients with Complex Health Needs. *J Gen Intern Med.* 2020.

Griffiths SL, Birchwood M, Khan A, Wood SJ. Predictors of social and role outcomes in first episode psychosis: A prospective 12-month study of social cognition, neurocognition and symptoms. *Early Interv Psychiatry.* 2020.

Moore AJ, Holden MA, Foster NE, Jinks C. Therapeutic alliance facilitates adherence to physiotherapy-led exercise and physical activity for older adults with knee pain: a longitudinal qualitative study. *J Physiother.* 2020;**66**(1):45-53.

Nicodemo C, Barzin S, Cavalli N, Lasserson D, Moscone F, Redding S, Shaikh M. Measuring geographical disparities in England at the time of COVID-19: results using a composite indicator of population vulnerability. *BMJ Open.* 2020;**10**:e039749.

Reschen ME, Bowen J, Singh S, Rajwani M, Giles M, Price J, Lasserson D, O'Callaghan CA. Process of care and activity in a clinically inclusive ambulatory emergency care unit: progressive effect over time on clinical outcomes and acute medical admissions. *Future Healthc J.* 2020; **7**(3): 234-40.

Taj U, Schmidtke KA, Vlaev I, Read D. Choice of methods can determine which behavioral determinates are identified for targeting. *J Health Psychol.* 2020.

Thomson G, Ingram J, Clarke JL, Johnson D, Trickey H, Dombrowski SU, Hoddinott P, Darwent K, Jolly K; on behalf of the ABA Research Group. Exploring the use and experience of an infant feeding genogram to facilitate an assets-based approach to support infant feeding. *BMC Pregnancy Childbirth.* 2020;**20**:569.