1. Tracking Health and Care Partnerships in England
2. The Holy Grail of Quality Measurement
3. ARC WM Quiz
4. Walking Through the Digital Door
5. Changing the Message to Change the Response
6. When is 80% Greater Than 81.64%?
7. Shared Decision Making
8. Plant vs. Animal Derived Proteins
9. Latest News
10. Latest Funding Opportunities
11. Recent Publications
NHS England published their Long Term Plan in 2019 – a document outlining their ambitions for the coming ten years following a £20.5bn funding increase between 2019/20 and 2023/24.

The Plan includes the aim that the entire country will be covered by one of around 40 integrated care systems (ICS) by April 2021. ICSs are the latest effort in over 40 years of policies aimed at encouraging NHS and non-NHS organisations and services to work together more effectively (see figure).[1,2] They bring together NHS organisations, community groups, and local government to “provide stronger foundations for working with local government and voluntary sector partners on the broader agenda of prevention and health inequalities.” This is alongside ambitions to improve care outcomes, improve population health, and better manage resources.[3]

Such organisational partnerships have rarely been so important. The acute and long-term impact of COVID-19 will be better addressed by health and care organisations working together rather than separately, and ICSs provide a ready-made vehicle for this. Yet strong partnerships are difficult to achieve and often rely on personal relationships.[4-6] Furthermore, it is poorly understood what aspects of an organisation or partnership relate to what eventually happens – what are the key determinants of success and failure?[7]

To better understand this problem we are planning a new research programme called TRACE: TRacking health And Care partnerships in England. The aim, as ever, is to support better policy-making. Ideally, if we can identify which aspects of a policy or its implementation relate to intended outcomes (and why), then more targeted and effective policies can be designed. Further, by systematically tracking changes in health and care partnerships over time we can, not only learn from previous success and failure, but develop a unique database of organisational reform in a sector where staff turnover is high and organisational memory is short.

However, the relationship between policy and outcome is rarely straightforward. Policy implementation is messy and complex, effects are diffuse, and local context is crucial. In the West Midlands there are no fewer than six STPs, each with different governance structures, operational processes, and history of partnership working. As such, their evaluation will also be messy and complex, requiring both qualitative and quantitative analyses focusing as much on organisational processes, as patient or population outcomes.[8]

In March this year, we launched TRACE with a virtual round-table of academics from health and management, members of the public, think tanks, and service providers. The aim was to learn from previous health and care policy evaluations and to see if such an ambitious national research programme is feasible. Presentations included colleagues from the London School of Hygiene and Tropical Medicine explaining the benefits and challenges of using surveys, and the importance of collecting data on how processes change – what’s done differently following a new policy aimed at encouraging closer health and care services.[9] Further, Prof Elliott Fisher from the Dartmouth Institute shared his extensive experiences of evaluating health service reform in the US, emphasising that, whilst such evaluations are complicated...
and resource intensive, the policy insights can be significant.[10]

So what’s next? Rather than launch into a full-scale national research programme, we’ve developed a list of smaller potential projects that will help to develop methods and provide some initial learning. Based on this, we will be in a better place to know whether a larger-scale project is feasible and warranted. ARC West Midlands provides a unique setting to start this work – six STPs, strong relationships with local and national service providers, and academic expertise and collaborators from across health, social care, and management.

The national response to COVID-19 requires the entire health and care system to work more closely together. Understanding why policies aimed at facilitating such partnerships succeed or fail will be key to ensuring that we’re better placed to deal with the next national emergency.

Fig 1: History of NHS integrated care reforms in England. Reproduced from [2]

References:


Writing in JAMA, Austin and Kachalia argue for automation of quality measurements.\[1\] We ourselves have argued that the proliferation of routine quality measures is getting out of hand.\[2\]

The authors argue, as we have argued, that using quality measures to incentivise organisations is a blunt tool, subject to gaming. Far better, is to use quality measures in real-time to prompt doctors to provide high quality care.

In fact, this is what computerised decision support offers. There is considerable empirical support for use of this type of decision tool. Working with Prof Aziz Sheikh and colleagues NIHR ARC West Midlands has investigated decision support for prescribing [3] and we are now investigating its use in antibiotic stewardship.\[4\] We are entirely in support of the use of decision support to improve care in real-time.

However, we question the idea that the majority of healthcare can be guided by online decision support. Working with Prof Timothy Hofer in Michigan, ARC WM co-investigators have shown that the measurement of the quality of hospital care is extremely unreliable.\[5\] Kappa measures of agreement between reviewers were about 20%. This means that seven reviewers would be needed for each case note, to achieve a reliability of 80%.

That is to say, that for much of medical care, there is no agreed standard. Truly, the majority of medical care is more art than science.

We think that the time has arrived to abandon hubristic notions about standardising and quality assuring the generality of clinical care. Medicine is not like aviation. Commercial aviation is almost entirely computerised. Emergencies aside, the whole process can be guided algorithmically. Our paper in Milbank Quarterly, shows quite clearly that this is not the case for medicine.\[5\]
Working with Prof Julian Bion, the ARC WM Director had an opportunity to audit numerous case notes from patients with sepsis.[6] The idea was to observe quality of care against a package of evidence-based criteria. Many of these criteria was based on actions that should be carried out within a specified time from diagnosis. The exercise proved almost impossible, since the point of diagnosis was ephemeral. In most cases there was no clear point to start the clock and the very diagnosis of sepsis had to be reverse-engineered from the time at which a sepsis-associated action took place! This exercise provided eloquent testimony to the judgemental, rather than rules-based, nature of much medical practice. We should use algorithmic decision support where clear rules exist, but we must stop pretending that the whole of medicine can be guided in this way. Perhaps we should just stand back a little, and accept some of the imperfections in our systems. Like a harm-free world, perfection will always lie beyond our grasp.[7]

References:


ARC WM Quiz

Born on 24 July 1914, Dr Frances Oldham Kelsey famously refused to authorise which drug for market in the USA due to concerns about its safety?

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

Answer to previous quiz: The wet bulb temperature is that measured by a thermometer covered in water-soaked cloth over which air is passed.

Congratulations to those who answered correctly.
The “NHS Long-Term Plan” (2019) is a five-year plan describing how NHS services should be redesigned for the next decade. This plan includes making better use of digital technologies, such as video consultations. While video consultations have potential advantages for patients and hospital systems, they may make patients uncomfortable. If patients do not walk through the ‘digital door’ to attend a video consultation, then potential advantages cannot be realised. Likely the motto of “build it and they will come” is insufficient. Instead, we need to support patients so that they come the first time and return after that.

What support that patients need is, at least in part, an empirical question that we plan to address in a future study. One way to support attendance may be with the behavioural science principle of ‘defaults’ - people tend to ‘go with the flow’ of pre-set options. Defaults have been used to influence organ donations by adding the word ‘don’t’ to an application, i.e. “If you want to be an organ donor, please check here,” vs. “If you don’t want to be an organ donor, please check here”. In a simulated study, 42% of people opted-in to become organ donors given the original phrasing, and 82% did not opt-out given the second. In other words, the realised organ donation rate nearly doubled by changing the default option. Until April 2020 England had an opt-in system with 38% of people having opted-in to become organ donors. When England’s law changed to an opt-out system in May 2020 the assumed donor rate has increased instantly. Time will tell how many people fill out the form to opt-out, but the present authors suspect the resultant donor rate to remain higher than 38%.

Defaults have been used to influence people’s behaviour in many contexts, e.g. how much money people save for retirement.
An ideal experimental test of the default effect on out-patient appointment attendance would occur in the field setting, similar to our work on influenza vaccination letters.[9] But (without tremendous follow-up efforts) this approach provides a limited ability to explore barriers and facilitators patients believe influence their choices. These beliefs undoubtably influence whether patients attend. To explore how default options and beliefs influence whether patients accept an invitation to attend a video consultation, we will conduct a simulated study with patients from the site Prolific Academic. Prolific Academic contains thousands of people prepared to answer researchers’ questions who can be filtered on criteria such as health status, age, and education. Our research will utilise an online experiment with quantitative and qualitative items. We plan to compare our findings to real hospital data on video consultations before and after COVID-19, which may have provided the impetus for more patients to engage in digital healthcare.

Conversations with researchers across ARC WM’s themes and with public contributors suggest several barriers and facilitators to the uptake of video consultations. For instance, while the location of in-person consultations was obvious, video consultations require patients to make an additional choice about where they feel comfortable attending. Whether attending from home or work, new privacy concerns arise regarding what other people can overhear across physical and digital space. Our research will show how much such concerns matter to patients, and suggest what additional support should be offered to increase patients’ attendance within their invitation to attend. If COVID-19 hasn’t provided the push that patients need to walk through the digital door, this research will help us understand why. Equally, if it has, we will be better equipped to sustain and expand the shift, and in so doing help realise the NHS Long-Term Plan.

References:


The way in which a government communicates can shape people’s responses. Psychological and behavioural research reveals that the same objective information can elicit different responses when presented in different ways, an effect called ‘framing’. [1] For example, one study compared describing blood donations as either a way to “prevent a death” or “save a life”. [2] While preventing death and saving life are two sides of the same coin, “prevent a death” triggered more donations. These results are explained, at least in part, by a prevalent loss-aversion bias. As Kahneman and Tversky (1979) explain: losses loom larger than gains. [3]

In 1981, Kahneman and Tversky asked people to imagine that the US was preparing for a disease outbreak that was expected to kill 600 people. [1] Participants were asked to choose between two government programmes. In one scenario, participants considered saving lives: given programme A, 200 lives would be saved; and given programme B, there was a 1/3 probability that 600 lives would be saved and 2/3 probability that no lives would be saved. While mathematically these programmes are equivalent, 72% preferred programme A (109/152 participants). A second group of participants considered preventing deaths: given programme C, 400 would die; and given programme D, there was a 1/3 probability that nobody would die and 2/3 probability that 600 people will die. This time, 78% chose programme D (121/155 participants). Flipping the vocabulary coin flipped people’s preferences.

In March 2020, we set out to test whether these results would hold when applied to COVID-19. We created two scenarios with identical options to Kahneman and Tversky’s but changed the wording to be about COVID-19 and social/physical distancing. The study was ethically approved and in early July we invited UK participants via Prolific Academic to respond to a randomly allocated scenario. The data were collected in less than two hours. The pattern of results held – participants preferred programme A over B (21/30 = 70%) and D over C (23/30 = 77%). Interesting, but perhaps insufficient to inform the way messages are presented to the public to influence their more personal decisions, such as about visitors at home.

The UK government’s initial messaging strategy about personal decisions emphasised that people needed to say home in order to “save lives”. A later campaign framed this differently, stressing that “people will die” if they go out. Does flipping the vocabulary coin here matter? We, and others, suspect that it does. There have been several opinion pieces on psychologically informed messaging, [4] although we are unaware of any published research results that have tested framing effects in the context of COVID-19.

We created six further personal scenarios. These scenarios varied across three situations and two frames. Participants were asked whether they would be willing to have a friend over (yes/no), attend a crowded work meeting (yes/no), and download a contact tracing app (yes/no). Each situation was framed in two ways – as about a choice to save lives or prevent deaths. An excerpt from the story about inviting a friend over is provided here:
Imagine that the town of Pleasantville... is preparing for the outbreak of the Coronavirus (COVID-19), which is expected to kill 600 people. They decide to adopt a social/physical distancing programme to prevent the spread of COVID-19 that is expected to [save 200 lives / prevent 400 deaths]. Social/physical distancing is when people reduce social interaction to stop the spread of a disease, such as by working from home and avoiding gatherings in public spaces. Your good friend calls you and says they want to come over to discuss the announcement...

What do you say to your friend? Yes, come over / No, don’t come over

If losses loom larger than gains in more personal scenarios, then we should expect messages framed as ‘preventing death’ to have stronger effects across situations. The pilot results are shown in Figure 1. There was no substantial effect of message framing, although the situation made some difference. Nobody was willing to let a friend visit their home, some people said they would attend a work meeting, and the majority would download a contact tracing app.

What can explain these results? One possibility is social desirability bias. People may wish to appear as if they would take action to prevent COVID-19 spreading, even if they would not in everyday life.

Fig 1: Results of the study testing framing effects about saving lives versus preventing death
Timing may also matter. When we conducted our study, people may have been sufficiently fearful of the consequences of COVID-19 that they were willing to comply with guidelines and recommendations, regardless of the message framing. It is possible that earlier on in the pandemic, we would have found different results.

Another explanation is that, unlike the government programmes scenarios, the alternative options in the more personal scenarios did not state certain and probabilistic qualities. For the government programme scenarios, when the options were framed as saving lives, participants wanted to secure the safe-but-sure option. One participant explained their response by saying, “The $1/3$ probability means the same 200 die but the [other] option appears to guarantee saved lives”. Alternatively, when the options are framed negatively, people wanted to roll the proverbial dice. One participant explained that, “The overall odds are the same but the chance for no one dying is worthwhile”. In contrast, the risk regarding personal decisions is uncertain because many outcomes for COVID-19 are uncertain. It may be that loss aversion is more pronounced when people make policy choices between certain and probabilistic outcomes.

Our study only scratches the surface of possibilities for message testing. We wonder what research may have shown about alternatives to ‘Stay Alert’. Perhaps some of its criticisms could have been avoided, such as with messages to help manage the anxieties associated with the uncertainty of lifting a lockdown. Certainly, public messages can be efficiently tested before they are publicly disseminated – even during a crisis.

References:


N.B. This blog post has also been cross-posted at: blogs.lse.ac.uk/politicsandpolicy/changing-the-message-to-change-the-response-psychological-framing-effects-during-covid-19/
In this issue of the News Blog we talk about how framing of information (either in a positive or negative manner) can influence a person’s behaviours.[1] In a similar vein, a study recently published in *Organizational Behavior and Human Decision Processes* investigated how the precision of results can also influence people’s perceptions.[2]

The authors were interested in comparing the impact of round (defined as ending in zero) vs. non-round numbers on various topics, and conducted a number of studies using American participants from Amazon Mechanical Turk and university students.

They found that people perceived a non-round number to be poorer, even though the non-round numbers used were objectively better (e.g. that a student scoring 81.64% correct had a poorer performance than one scoring 80%). Further research using eye-tracking suggested that the uniqueness of non-round numbers required people to pay greater attention, which led to them making comparisons against ideal reference points (i.e. comparing 81.64% unfavourably against 100%), and there was thus an increased framing effect. Interestingly the effect was greatest when looking at negatively expressed framing.

The findings from this study could be utilised whether using positively or negatively expressed framing, for example if the goal of a public health message was to highlight negative effects then saying “7.69% of people will die from XXX” could be more effective than saying “around 8% of people will die...” Similarly for a positive effect, such as success rate of a vaccine, it could be more beneficial to use rounded numbers.

**References:**


Kunneman and colleagues recently conducted a multi-centre randomised trial of 921 patients with atrial fibrillation covering no less than 151 doctors.\cite{1} The patients were randomised to have, or not have, a shared decision making tool. The purpose of the tool was to help the patient decide whether or not to have anticoagulant therapy. This can be quite a difficult decision when the baseline risk of stroke is low due to the inconvenience and side effects of the anticoagulation. Nevertheless, anticoagulation does reduce the risk of stroke and so there is a trade-off involved. It is a split-choice decision.\cite{2}

The decision aid provided the patient with a personalised risk of stroke, with and without anticoagulation prophylaxis. Both clinician and patient satisfaction was higher when the decision aid was used. Patient involvement in decision making, assessed by scoring video recordings of the consultations, was higher in the intervention arm. There was no difference in the length of the consultations. Strangely, the proportion of patients who opted for treatment was not recorded.

References:
Existing studies have shown that there are links between a diet high in protein and weight loss and reduction of fat mass; as well as improvements in cardiovascular-related measurements. Following on from this the authors of a recent study in JAMA Internal Medicine were interested in comparing the source of dietary protein and whether there was any significant differences in effects of animal- (red meat, white meat, dairy, eggs) vs. plant- (e.g. bread, cereal, pasta, nuts, beans & legumes) derived protein.[1]

This study analysed data from over 400,000 adults (median age 62) who had taken part in a US diet and health study from 1995-2011, with around 78,000 deaths occurring. After adjusting for various clinical and risk factors (e.g. BMI, alcohol consumption, physical activity), they found that an increased intake of dietary plant protein was significantly associated with a small reduction in overall mortality for both males (hazard ratio 0.95 [95% CI 0.94-0.97]) and females (HR 0.95 [95% CI 0.93-0.96]). This corresponded to an absolute risk difference (per 1 SD) of 36% for men and 33% for women. The association held across subgroups of smoking status, diabetes, fruit consumption, use of vitamin supplements, and self-reported health status. The authors estimate that replacing 3% of energy intake from animal to plant protein reduced the risk of overall mortality by 10% and of cardiovascular mortality by 11-12% (in men and women respectively). Further analyses indicated that the reduction in risk of overall mortality was primarily attributable to substitution of egg protein and red meat protein.

It seems then that making modifying a person’s diet with regards to choice of protein sources may promote health and longevity.

Reference:
Latest News

Award Congratulations

Congratulations to Professor Mel Calvert who has been awarded the prestigious Health Assessment Lab/Medical Outcomes Trust John Ware and Alvin Tarlov Career Achievement Prize in Patient-Reported Outcomes Measures and will deliver a keynote speech at ISQua in Florence 2021. Prof Calvert is only the second person to receive this award in the UK. Please click here for more information.

Shortlist Congratulations

The NIHR ARC WM together with Birmingham Women’s and Children’s NHS Foundation Trust and West Midlands Academic Health Science Network is delighted to announce that the Birmingham Symptom specific Obstetric Triage System (BSOTS) has been short-listed for both the Maternity and Midwifery Services Initiative of the Year and Patient Safety Initiative of the Year at this year’s HSJ Patient Safety Awards, recognising their outstanding contribution to healthcare.

ARC WM Researcher’s Creative Approach to Engagement About Face Masks

Dr Beck Taylor, researcher and public health doctor from ARC WM Maternity Theme, and her daughter, Edie, have been keeping busy during lockdown. Together, they have produced an excellent video explaining the importance of wearing a face mask, and provide a practical guide on how to make them at home.

This short video from Beck and Edie is very timely: from 24 July it has now been made compulsory to wear a face mask in shops in England, and a recent systematic review published in the Lancet (2020; 395: 1973-87) reported that, in addition to physical distancing of more than 1m, wearing face masks is associated with protection from person-to-person transmission of COVID19, although much of the evidence was on people using masks within households and among contacts of cases.

The video has been very popular, and has already had over 7.5 thousand views!

ARC WM Director on Tackling Health Policy in LMICs

Prof Richard Lilford, ARC West Midlands Director, recently took part in an online discussion regarding mobilising UK Health Services Research capacity and learning to build partnerships for tackling health policy and systems challenges in low and middle-income countries. A recording of the session is now available online at: hsruk.org/conference-2020/sessions/mobilising-uk-hsr-capacity-and-learning-build-partnerships-tackling-health.
A recent ARC WM supported study, which found that most patients in India are given inadequate medical information when they leave hospital, has recently been included as an NIHR Evidence Alert. This Alert can be found at: evidence.nihr.ac.uk/alert/most-patients-leaving-hospital-in-india-are-given-inadequate-medical-information/.

National NIHR Newsletter on COVID-19

The latest newsletter covering all of the NIHR ARCs has recently been released. The July issue details the various works that the ARCs are conducting, and is available at: http://eepurl.com/g9goM5.

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

Factors That Determine O₂ Therapy of COVID-19 Patients

New research has been launched by experts at University Hospitals Birmingham NHS Foundation Trust and University of Warwick to explore factors that influence how well oxygen is used across hospital wards where treatments take place. Evidence in other medical conditions shows that over-oxygenation can have negative health outcomes. The research is supported by the Health Foundation and a number of the researchers are supported by ARC West Midlands. For more information, please click here.

NHS COVID-19 Vaccine Research Registry

The NHS have recently launched their COVID-19 Vaccine Research Registry, which aims to recruit over half a million people from the UK. This registry allows people to be put in touch with vaccine trials. Researchers are looking for people from all backgrounds, ages (18+) and parts of the UK, including both people with or without existing health conditions, to make sure that any vaccines developed will work for everyone. For more information, please click here.

To sign up to the registry, please visit: nhs.uk/researchcontact.
NIHR PHR Programme

The NIHR Public Health Research programme funds research to generate evidence to inform the delivery of non-NHS interventions intended to improve the health of the public and reduce inequalities in health.

They are accepting stage 1 applications to their commissioned work-stream for: Targeted mass media interventions for Black, Asian and Minority Ethnic populations (20/68).

Although the research brief was prepared before the advent of the Covid-19 viral pandemic, it addresses an issue that is arguably now more pertinent as a result of recent statistics highlighting the disproportionate effects of Covid-19 risk of infection and death in people from black, Asian and minority ethnic (BAME) communities. Deadline for proposals is 1pm on 17 November 2020.

NIHR HS&DR Programme

The Health Services and Delivery Research programme aims to produce rigorous and relevant evidence to improve the quality, accessibility and organisation of health and social care services.

They are accepting stage 1 applications to their commissioned work-stream for: Self-neglect in the community (20/70).

The scope of this call includes self-neglect of all forms, encompassing different manifestations such as hoarding behaviour, squalor and infestation in relation to a variety of underlying conditions such as psychological or psychiatric conditions or cognitive impairment. These may result from any cause e.g. dementia, trauma or learning disability as well as self-neglecting behaviour where the underlying cause is not known. Other conditions may also be considered, such as self-neglect associated with frailty or obesity making it difficult to self-care and keeping the surrounding environment clean.

Deadline for proposals is 1pm on 28 January 2021.


