NIHR CLAHRC West Midlands News Blog

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Welcome to the latest issue of your NIHR CLAHRC West Midlands News Blog.

Welcome to the latest issue of our News Blog, where we tackle the problem of cracks in care between healthcare institutions. We also look at recent work on the effects of education on violence and pregnancy; the nature of the P value; the evolutionary effect of Caesarean sections; how cash transfers to the poor are spent; month of conception and risk of autism; and a comparison of narrative syntheses and meta-analyses.

Further, we bring you the latest news; profile Rachel Adams; feature a reply to a previous blog; and detail some of our latest publications. Finally we also have our latest quiz question.

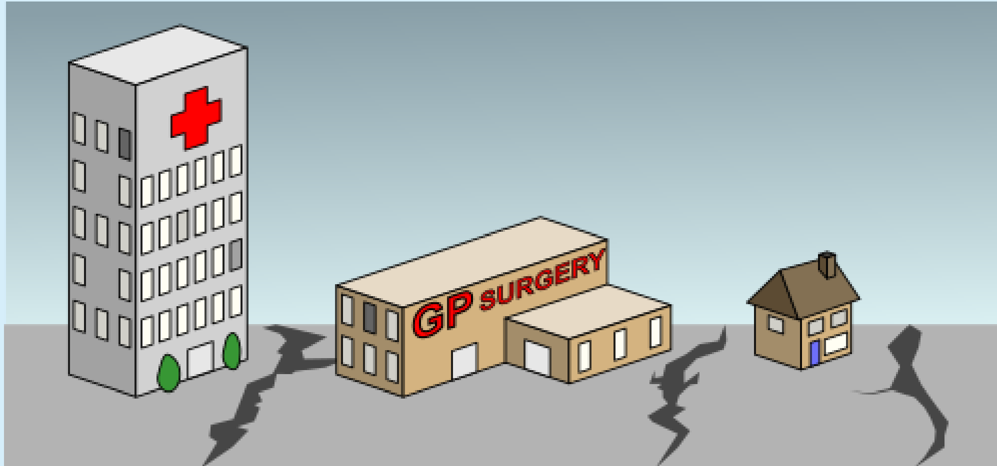
We hope that you find these posts of interest, and we welcome any comments. You can find previous issues of our News Blog here.

Due to the Christmas break our next issue will be sent out on 13 January 2017. We hope you have a Merry Christmas and a Happy New Year!

depending on your email, adding us may ensure that pictures load automatically.

Director's Blog

I Know that Cracks in Care Between Institutions Undermine Patient Safety, But How Can I Rectify the Problem?



Cracks between institutions

It is well known that danger arises when care is fragmented over many organisations (hospital, general practice, community care, social services, care home, etc.). With the rise in the proportion of patients with chronic and multiple diseases, fragmented care may have become the number one safety issue in modern health care. Confusion of responsibility, silo thinking, contradictory instructions, and over and under treatment are all heightened risks when care is shared between multiple providers – patients will tell you that. The risk is clearly identified, but how can it be mitigated? There is a limit to what can be achieved by structural change – Accountable Care Organisations featured in a recent blog, for instance.[1] Irrespective of the way care is structured, front line staff need to learn how to function in a multidisciplinary, inter-agency setting so that they can properly care for people with complex needs. Simply studying different ways of organising care, as recommended by NICE,[2] does not get to the heart of the problem in our view. The business aphorism "*culture eats strategy for breakfast*" applies equally to inter-sectoral working in health and social care. Studying how care givers in different places can better work in teams to provide integrated care is hard, but the need to do so cannot be ignored; we must try. We propose first, a method to enhance performance at the sharp end of care, and second, a system to sustain the improvement.

Improving performance

Improving performance of clinicians who need to work as a team, when the members of the team are scattered across different places, and patients have different, complex needs, is a challenge. For a start, there is no fixed syllabus based on 'proverbial knowledge'. Guidelines deal with conditions one at a time.[3] There can

be no set of guidelines that reconciles all possible combinations of disease-specific guidelines for patients suffering from many diseases.[4] [5] Everything is a matter of balance – the need to avoid giving patients more medicines than they can cope with is in tension with the need to provide evidence-based medicines for each condition. The greater the number of medicines prescribed, the lower is the adherence rate to each prescribed medicine, but it is not possible to pre-specify where the optimal prescribing threshold lies.[6] The lack of a specifiable syllabus does not mean performance cannot be enhanced – it is not just proverbial knowledge that can be enhanced through education, tacit knowledge can be too.[7-9] There is an extensive theoretical and empirical literature concerning the teaching of tacit skills; the central idea is for people to work together in solving the kinds of problems they will encounter in the real world.[10] In the process some, previously tacit, knowledge may be abstracted from deliberations to become proverbial (for an example, see box). Management is a topic that is hard to codify. So (highly remunerated) business schools use case studies as the basis for discussion in the expectation that tacit knowledge will be enhanced. We plan to build on theory and experience to implement learning in facilitated groups to help clinical staff provide better integrated care – we will create opportunities for staff of different types to work through scenarios from real life in facilitated groups. We will use published case studies [11] as a template for further scenario development. Group deliberations will be informed by published guidelines that aim to enhance care of patients with multi-morbidity (although these have been written to guide individual consultations rather than to assist management across sectors).[11-13] In the process group members will gain tacit knowledge (and perhaps some proverbial knowledge will emerge as in the example in the box). CLAHRC WM is implementing this method in a study funded by an NIHR Programme Development grant.[14] But how can it be made sustainable?

Box: Hypothetical Scenario Where Proverbial Knowledge Emerges from Discussion of a Complex Topic

The topic of conflicting information came up in a facilitated work group. A general practitioner argued that this was a difficult problem to avoid, since a practitioner could not know what a patient may have been told by another of their many care-givers. One of the patient participants observed that contradictory advice was not just confusing, but distressing. A community physiotherapist said that he usually elicited previous advice from patients so that he would not inadvertently contradict, or appear to contradict, previous advice. The group deliberated the point and concluded that finding out what advice a patient had received was a good idea, and should be included as a default tenet of good practice.

Sustainability

Again we turn to management theory – there are lots to choose from, but they embody similar ideas. We will take for Ferlie and Shortell.[15] To make a method stick, three organisational levels must be synchronised:

1. Practitioners at the sharp end who must implement change. They will be invited to join multi-disciplinary groupings and participate in the proposed work groups, as above.

2. The middle level of management who can facilitate or frustrate a new initiative must make staff development an on-going priority, for example by scheduling team-building activities in time tables. Our CLAHRC is conducting a project on making care safer in care homes, where much can be done to reduce risk at interfaces in care.
3. The highest levels of management, who can commit resources and drive culture change by force of personality and the authority of high office, must be engaged. This includes hospitals at board levels and local authorities. Patients have a big role to play – they are the only people who experience the entire care pathway and hence who are experts in it. They can campaign for change and for buy-in from top managers.

CLAHRC WM has deep commitment from major participating hospitals in the West Midlands, from Clinical Commissioning Groups, and local authorities. These organisations are all actively engaged in improving interfaces in care, and the draft Sustainability and Transferability Partnership strategy for Birmingham and Solihull includes plans to better integrate care. We will build on these changes to promote and sustain bottom-up education, supported by the Behavioural Psychology group at Warwick Business School, to drive forward this most challenging but important of all initiatives – improving safety across interfaces in care.

-- Richard Lilford, CLAHRC WM Director

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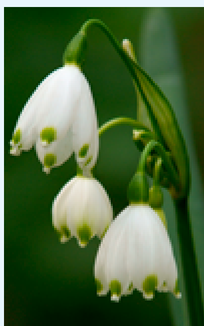

CLAHRC WM Quiz

What chemical found in snowdrops can be used to treat the symptoms of mild to moderate dementia related to Alzheimer's disease?

Email CLAHRC WM your answer.

Answer to our previous quiz: The highest density of physicians can be found in **Qatar**, where there are 7.739 physicians per 1,000 population. They are followed by Monaco, with 7.167 and Cuba, with 6.723 (data from WHO). Congratulations to Alan Hargreaves and Keith Elder who were first to answer correctly.

Director's Choice - From the Journals

If You Want to Reduce Partner Violence or Teenage Pregnancy Then Teach Algebra and History?

There is little doubt that highly educated men are less likely than poorly educated men to perpetrate violence against their partners,[1] and that highly educated women are less likely than poorly educated women to get pregnant in their teens.[2] But what is going on here – which way does causality run? Certainly, an educated man is likely to earn more than one less educated. More money means less stress, and since stress is a harbinger of partner violence, it is plausible that education leads to less violence through this mediating (intervening) variable. Alternatively, the kind of person who acquires education may be the sort of person who is less innately pre-disposed to violence than a person who does not acquire education. A person who seeks out education may have greater mental resources, such that a wider range of responses are available to him – and hence he is less likely to lash out. But could it be that education per se increases moral rectitude, even when the education is *not* targeted at moral behaviour? One can devise a theory for such an effect. Algebra, history and other 'academic' subjects exercise the capacity for abstract thought. Could the capacity spill over from the topic of instruction to influence behaviour more generally? Compassion, for example, is abstract – it requires the ability to *imagine* what another person is feeling. Teaching abstract academic subjects may spill over in to heightened sensitivity to the suffering of others. This hypothesis could be tested neurophysiologically – highly educated persons, on average, may manifest greater specific responses on functional neuro-imaging than those of similar IQ, but lower educational attainment, when confronted with a compassion-arousing event. The brain, after all, is a learning machine that is permanently altered by education. This might explain why sex education has a rather small effect on teenage pregnancy, but being educated is associated with a large effect. It is sometimes said that education refers to what is left when all the facts have been forgotten, or to quote BF Skinner more accurately, "*Education is what survives when what has been learnt has been forgotten*"?

-- Richard Lilford, CLAHRC WM Director

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P Values – Yet Again This Deceptively Slippery Concept

The nature of the P value has recent come up in the New England Journal of Medicine. Pocock, a statistician, is quoted as saying that "a P value of 0.05 carries a 5% risk of a false positive result."[1]

Such a statement is obviously wrong, and Daniel Hu complains, correctly, that it is a "misconception".[2] So Pocock and Stone reply that the p value of 0.05 carries a 5% risk of carrying a false positive result "*when there is no true difference between treatments.*"[3] This is correct, provided it is understood that false positive does not mean that the probability that the treatment is not effective is 5%. When is it reasonable to suppose that there is absolutely no true difference between

treatments? Hardly ever. So the P value is not very useful to decision makers. The CLAHRC WM Director cautions statisticians not to discount prior consideration of how likely/ realistic a null hypothesis is. Homeopathy aside, it is seldom a plausible prior hypothesis.

-- Richard Lilford, CLAHRC WM Director

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Hidden Disadvantage to Caesarean Section

Some modern health care may end up changing the genetics of the human race. For example, the CLAHRC WM Director established a genetic basis for male infertility,[1] and sure enough, children born following injection of sperm into the mother's egg have an increased risk of infertility.[2] What about Caesarean section? Childbirth is a struggle because, compared to all other animals (primates included), the baby's head is big relative to the size of the mother's pelvis. Evolution allows this to continue under an equilibrium where the distribution of pelvic sizes is maintained at a level where the beneficial effects of big brain/head balances the risk of catastrophic birth from a pelvis below the threshold where risk rises rapidly. Caesarean section skews natural selection and pelvic sizes according to this elegant mathematical model.[3] But are pelvic sizes indeed becoming smaller?

-- Richard Lilford, CLAHRC WM Director

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Do Cash Transfers to the Poor Encourage Feckless Behaviour?

In a brilliant working paper, Evans and Popova consider whether non-conditional cash transfers encourage people in low-income countries to increase their use of ‘temptation goods’, such as tobacco and alcohol.[1] Their systematic review found 19 studies. The answer to the question is 'no', there is no positive effect on consumption of temptation goods. This effect is confirmed if the analysis is confined to randomised trials. In fact the point estimate signifies lower consumption of the temptation goods in association cash transfers. The extra money provided by the cash transfers seems to be wisely invested, for example, in childhood education. Of course, this does not mean that there are no instances where someone (usually a man I am afraid) took money (which is usually given to a woman) in order to go drinking. But then, it is a poor heart that *never* rejoices!

-- Richard Lilford, CLAHRC WM Director

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Reference

Season of Conception/Birth and Learning Disability

The CLAHRC WM Director was long aware that the season of conception/birth is correlated with the risk of developing schizophrenia.[1] That autism is also correlated with reproductive chronicity comes as a surprise to him.[2] It seems, however, to be a robust finding, since it is supported by a Scottish linkage study across educational and maternity records.[3] There was a highly statistically significant increased risk of autism and dyslexia among children conceived in the first quarter of the year, and this was not present for other neurological disorders, such as motor disorders ('cerebral palsy'). The effect size was modest (about 11% relative risk increase) in this study of over 800,000 children. The cause of the association is unclear, but some viral infections and low vitamin D levels in mid-Winter are obvious (and potentially remediable) candidates. In the first News Blog of 2017 we shall discuss further a methodological limitation of database studies and how this problem may be mitigated. In the meantime, let's add the above paper to our ever-growing list of imaginative and important linkage studies.

-- Richard Lilford, CLAHRC WM Director

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Narrative Syntheses vs. Meta-Analyses: Different Epistemologies?

In our list of recent publications we include one Lancet (our fourth this year) and one PLoS Medicine paper. We recommend them thoroughly, but the one that piqued my interest was a paper by GJ Melendez-Torres and colleagues.[1] They considered 106 systematic reviews of health place promotion and compare the type (mode) of reasoning used in narrative syntheses vs. meta-analyses. About a quarter of the studies were meta-analyses, and the remainder were narrative syntheses. The narrative syntheses often justify not doing a quantitative meta-analysis, and when they do so, the justification was based on various forms of study heterogeneity in each case. The study is deeply philosophical, and I will have to read it a few more times before I really get it. Meta-analyses are more stylised and more clearly separate the 'warrant', or bridge linking data to conclusion, whereas this linkage is integral to the argument (and not clearly separated within it) in the case of narrative reviews. Narrative synthesis seems more 'emergent' [my word] as the writer tries to make sense of the data – a method typical of history I think. In any event the reasoning processes seem different across the methods. I think that much narrative synthesis takes place in both types of research, but it is often taken as a given in more quantitative studies. In any event, this paper takes me back to a previous News Blog where I make a plea that more attention should be paid to philosophical underpinnings of applied research.[2]

-- Richard Lilford, CLAHRC WM Director

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PPI

New Advisor

We are pleased to announce that we have recruited a new Advisor for Theme 4 (Chronic Diseases), **John Wright**. John brings a wealth of personal experience of living with a chronic condition. In addition, he has been active in patient and public involvement, chairs the Solihull National Rheumatoid Arthritis Society (NRAS) group, and is also Chair of Hall Green Health Patient Participation Group (PPG). Prior to his retirement, John spent 40 years working for West Midlands Travel, working through the ranks from Driver, to Inspector, to Traffic Superintendent to Manager. John also served for 22 years in the WM Police Special Constabulary, attaining the rank of Divisional Commandant at Steelhouse Lane Police Station.

We look forward to welcoming John to our PPI meetings next year, chaired by Francesca Taylor (Theme 4 PPI Liaison), and to John making valuable contributions to our research projects.

John would like to add "*I look forward to meeting everyone and to being part of the team, hopefully contributing in a positive and professional manner to issues that are raised*".

-- Magdalena Skrybant, PPIE Lead

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Profile

Rachel Adams

Dr Rachel Adams is the coordinator for the NIHR CLAHRC WM Theme 1, Maternity & Child Health team.

Rachel began her career in healthcare as a student nurse (adult) in 1987. Her first research project was as a newly qualified nurse examining the pros and cons of nurses' hats. As a result hospital policy was changed and nurses were no longer required to wear hats. Rachel then completed an undergraduate degree in Medical Anthropology at University of Durham's Stockton Campus as a part-time mature student whilst still nursing in Newcastle upon Tyne. In 2002 Rachel secured her first research post, at the University of Newcastle upon Tyne conducting qualitative analysis of patients' experiences of COPD exacerbations, and subsequent experiences of GP appraisal. She went on to join the University of Warwick in 2005.

At the University of Warwick, Rachel worked on a number of studies relating to decision-making before securing a PhD stipend at University of Birmingham to conduct a qualitative, linguistic analysis of doctor-patient decision-making within consultations in primary care. Throughout this time Rachel continued to work in the NHS as a bank nurse, and in Birmingham she was able to join the research network's nurse bank, based at the University. Here she was able to gain experience of working on a range of clinical trials, primarily those relating to smoking cessation. Whilst undertaking her doctoral studies Rachel also became a mother. On completing her doctoral studies Rachel joined the cessation team as a part-time research nurse. Rachel joined CLAHRC WM as this trial came to an end. She continues to work part-time, sharing the role with a newly appointed part-time administrator, Vanessa Rouse. On her term-time days off Rachel takes the opportunity to pursue other academic interests.

Away from academia, Rachel spends much time in her car – on the motorway to North Wales to visit her partner where the family (including the dog) enjoy visiting castles and other monuments, walking and going to the beach. Additionally, she spends time taxiing her daughter to a raft of after school and high adrenaline activities – recent trips have included Legoland, various European waterparks and the largest zip zone in Europe at Zip World in Wales; Alton Towers is next. The family also fly around Europe to visit friends. Rachel is also a member of a local book club, enjoys keep fit, and uses the bike to commute as much as possible. As for sitting still – the thing she most looks forward to is choosing the next jazzy gel polish colour for her nails.

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News

Job Opportunity - Research Fellow

There is a job opportunity at the University of Warwick for a Research Fellow with experience of systematic reviewing and a strong interest in developing new methods. The role will be to lead a large systematic review of previous systematic reviews evaluating screening, and research papers evaluating the benefits and harms of a range of screening programmes. Building on this, new methods can be developed to evaluate changess of screening programmes, and translated into changes in UK standard evidence review methods. This is a 3 year fixed-term contract. The **closing date** is **Saturday 7 January 2017**. For more information and to apply, please click here.

Job Opportunity - Research Project Administrator

There is a job opportunity at the University of Warwick for a Research Project Administrator to provide support to the Warwick International Centre for Applied Health and Delivery (W-CAHRD). This is a 2 year fixed-term contract until 31

December 2018. The **closing date** is **Monday 3 January 2017**. For more information and to apply, please click here. *Previous applicants need not apply*.

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Selected Replies

Re: Future Trends in NHS

As usual, Richard displays his clarity of thought and great insight into healthcare. I still remember his opening slide to a talk a couple of decades back marking his home town in South Africa on a world map except the map was “upside down”. As he pointed out, who gets to be at the top of the map is a subjective perspective. Keep turning the world upside down Richard! John.
-- Prof Sir John Burn

Lovely to hear from you Sir John *-- Richard Lilford*

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Recent Publications

Aveyard P, Lewis A, Tearne S, Hood K, Christian-Brown A, Adab P, Begh R, Jolly K, Daley A, Farley A, Lycett D, Nickless A, Yu L-M, Retat L, Webber L, Pimpin L, Jebb SA. Effectiveness of screening and brief intervention for obesity in primary care: a randomised trial. *Lancet*. 2016; **388**: 2492-2500.

Campbell P, Hill JC, Protheroe J, Afolabi EK, Lewis M, Beardmore R, Hay EM, Mallen CD, Bartlam B, Saunders B, van der Windt DA, Jowett S, Foster NE, Dunn KM. Keele Aches and Pains Study protocol: validity, acceptability, and feasibility of the Keele STarT MSK tool for subgrouping musculoskeletal patients in primary care. *J Pain Res*. 2016; **9**: 807-18.

Crossan C, Lord J, Nherera L, Ryan R, Marshall T. Cost effectiveness of case finding strategies for primary prevention of cardiovascular disease: a modelling study. *Br J Gen Pract*. 2016. [ePub].

Damery S, Flanagan S, Combes G. Does integrated care reduce hospital activity for patients with chronic diseases? An umbrella review of systematic reviews. *BMJ Open*. 2016; **6**(11): e011952.

Finnikin S, Ryan R, Marshall T. Cohort study investigating the relationship between cholesterol, cardiovascular risk score and the prescribing of statins in UK primary

care: study protocol. *BMJ Open*. 2016; **6**: e013120.

Fraccaro P, Kontopantelis E, Sperrin M, Peek N, Mallen C, Urban P, Buchan IE, Mamas MA. Predicting mortality from change-over-time in the Charlson Comorbidity Index: A retrospective cohort study in a data-intensive UK health system. *Medicine*. 2016; **95**(43): e4973.

Freeman K, Connock M, Auguste P, Taylor-Phillips S, Mistry H, Shyangdan D, Court R, Arasaradnam R, Sutcliffe P, Clarke A. Clinical effectiveness and cost-effectiveness of use of therapeutic monitoring of tumour necrosis factor alpha (TNF-a) inhibitors [LISA-TRACKER® enzyme-linked immunosorbent assay (ELISA) kits, TNF-a-Blocker ELISA kits and Promonitor® ELISA kits] versus standard care in patients with Crohn s disease: systematic reviews and economic modelling. *Health Technol Assess*. 2016; **20**(83): 1-288.

Kenyon SL, Johns N, Duggal S, Hewston R, Gale N. Improving the care pathway for women who request Caesarean section: an experience-based co-design study. *BMC Pregnancy Childbirth*. 2016; **16**: 348.

Melendez-Torres GJ, O'Mara-Eves A, Thomas J, Brunton G, Caird J, Petticrew M. Interpretive analysis of 85 systematic reviews suggests that narrative syntheses and meta-analyses are incommensurate in argumentation. *Res Synth Methods*. 2016. [ePub].

Taylor F, Hare J, Combes G. Exploring patients' attitudes to different intervention approaches for supporting psychological needs. *J Renal Care*. 2016; **42**(4): 212-22.

Turner GM, Calvery M, Feltham MG, Ryan R, Fitzmaurice D, Cheng KK, Marshall T. Under-prescribing of Prevention Drugs for the Primary Prevention of Stroke and Transient Ischemic Attack in UK General Practice: Retrospective Analysis. *PLoS Med*. 2016; **13**(11): e1002169.

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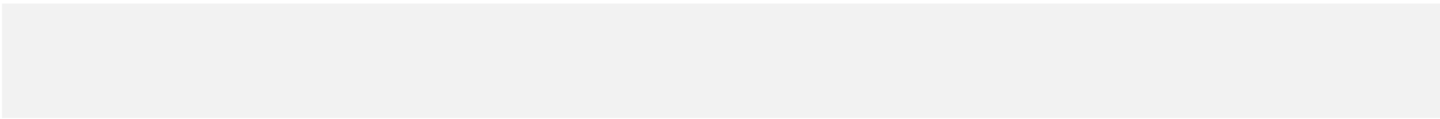

Available at: http://eepurl.com/cq9w-L