

**WOLFSON INSTITUTE OF POPULATION HEALTH
NEWSLETTER
ISSUE 53: 15 APRIL 2024**

In this issue of our Wolfson Institute of Population Health Newsletter, we celebrate the achievements and work of staff and students in the second half of March and early weeks of April.

FROM OUR DIRECTOR

Dear Colleagues

In today's newsletter it's great to see the impact of our work at local, as well as national and international levels. Our teams have not only been busy in the academic press, but also at conferences and in the media - well done to all.

As we have had some changes among our support staff, may I remind everyone that Dr Natalie McCloskey is our Interim Institute Manager, and is on site Tuesdays at Whitechapel and Thursdays at Charterhouse Square. Farzeena Khanom and Emily McLean (Centre Administrator and Centre Manager for CEM) both go on maternity leave soon, and we wish them a happy and productive time. To cover their posts, we welcome Yasemin Hozie and Nicola Tingley as Centre Administrator and Centre Manager, respectively, at CEM. A new Centre Administrator at CPHP and Receptionist/Admin Assistant at Charterhouse Square are also due to start shortly.

Finally, we recognise that we are spread across several sites, making informal meetings between people based on different campuses and buildings tricky. Please do take the numerous opportunities coming up over the next few months to meet WIPH colleagues.

As a reminder, Alastair Noyce will deliver his inaugural lecture, *PRE-occupied by Parkinson's* on Thursday 18 April at 5:15pm in the Perrin Lecture Theatre, Blizard Building, Whitechapel - please support him. And everyone should have our WIPH Annual Showcase on Tuesday 18 June in their diaries. Please make time to join us for the informal conversations as well as the more formal presentations. We will be launching our 2024 WIPH Staff Awards nominations soon!

With best wishes

Fiona



MEET WIPH

MEET – Caitlin Fierheller (Centre for Cancer Screening, Detection and Early Diagnosis)

How would you describe your roles and responsibilities?

My main role in the Women's Precision Prevention (WPP) team, led by Prof Ranjit Manchanda, is as a postdoctoral researcher working on the PROTECT-C study. My responsibilities include, but are of course not limited to, database development and curation, data analysis, document development, manuscript preparation, and delivery of PPIE workshops. I also provide support for all other ongoing clinical trials and studies in the WPP team, and I am a PhD supervisor and MBBS academic advisor.

What has been your greatest professional achievement?

Definitely receiving my PhD! When you are surrounded by so many academics and brilliant minds it can be easy to forget that it is a behemoth undertaking, and I'm very proud of it.

What aspects of your role do you enjoy the most?

I love the opportunity to be able to travel for conferences and explore new cities. It's also fantastic to meet and collaborate with so many people with different experiences and viewpoints.

What would be your second choice as a profession?

I did get accepted to go to York University in Toronto, Canada to become a dance teacher, so that would be my second choice.

What do you enjoy doing outside work?

I like to stay active by either hitting the gym for some weightlifting, dancing to Just Dance, or exploring outside. I've always loved sports and enjoy finding new ways to exercise.

Something most people don't know about you?

I have always loved to read, but recently fell in love with it again during lockdown(s). I will read anything and enjoy trying new genres, but my favourite is fantasy! Always happy for more book recommendations too.



FROM OUR LEADERSHIP TEAMS

RESEARCH NEWS (from Tor Kemp and the Research Team)

There have been some great skills/bid development sessions recently, and more to come in the pipeline. It's an absolute pleasure working with academic colleagues to bring these initiatives to life - a huge thank you to all involved.

We had another WIPH Whiteboard, chaired by Jianhua Wu, with Harriet Larvin presenting on "The effect of Periodontal Treatment On Cardiovascular Disease Prevention Using A Causal Inference Approach". If you would like to present at our monthly Whiteboard please contact [Tor](#) with a very brief outline of your embryonic idea. These are excellent discussions, and for ECRs, a great opportunity to contribute to and observe group peer review!

We've delivered another successful Health Inequalities Grant Clinic, thanks to the generosity of our HE Advisor, John Ford. We had a very engaged discussion of Mel Ramasawmy's work investigating health inequalities in the use of patient-facing AI tools such as advice and triage chatbots. If you would like to present at our monthly clinic please contact [Tor](#).

We had another writing retreat earlier this month, with thanks to Belinda Nedjai for leading. The next retreat will be June 27 in the basement of Empire House. Previous attendees have said that the retreat helped with productivity "...because I was in a

dedicated, distraction-free environment surrounded by others doing the same thing”. Come and join us for the next retreat!

GENERAL INSTITUTE NEWS

EUROGIN 2024 International Multidisciplinary HPV Congress

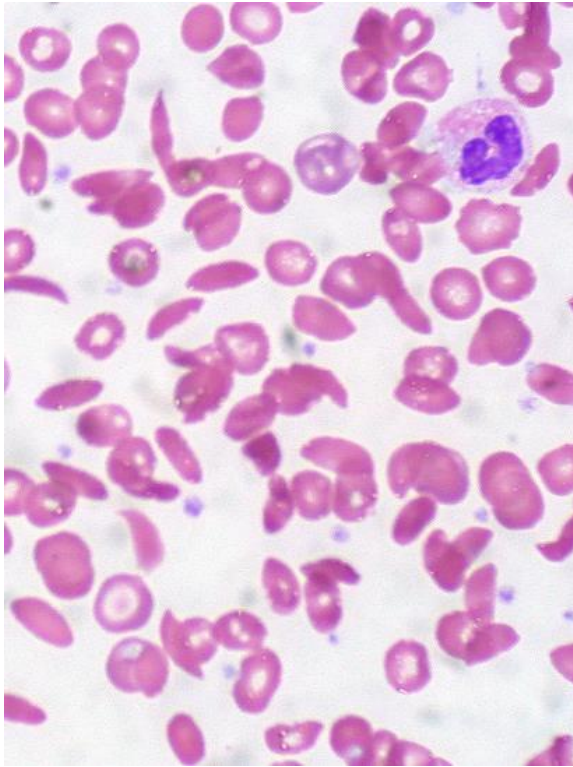
16-19 March (Belinda Nedjai, Dorota Scibior-Bentkowska, Sofia Vidali, Efthymios Ladoukakis, Zhe Yang (Scott) Yim. Centre for Cancer Screening, Prevention and Early Diagnosis)

A team led by Belinda Nedjai from the Molecular Epidemiology Lab presented work on different approaches to identifying epigenetic biomarkers for the early detection of cancers and their application in the clinical setting, at the EUROGIN International Multidisciplinary HPV Congress in Stockholm. Belinda presented on the exploration of biomarkers in multizonal intraepithelial neoplasia, and was also a jury member for the Young Scientists Award. Dorota's featured work was on Host and viral genome methylation in detection of anal high-grade squamous intraepithelial lesions, and Sofia delivered a presentation on the Predictors 5.2 study. Efthymios discussed how a novel DNA methylation predictor for CIN3 progression of hr-HPV positive women can help in the early detection of cervical cancer risk, and Zhe spoke on high-risk HPV genotypes as potential biomarkers in early cervical cancer diagnosis.



The acute pain crisis in sickle cell disease

19 March (Stephen Hibbs. Centre for Primary Care)



Guidelines for management of acute pain crisis, the commonest complication of sickle cell disease, are often not followed. A literature review identifies evidence-based interventions to improve care and potentially make a difference to the patient experience, including availability and accessibility of individual care plans agreed between patient and treating specialist, innovative means of delivering initial opioids to reduce time to first analgesia, and availability of a specialist unit away from the emergency department, where expert care can be delivered in a more compassionate environment. Authors conclude that evidence of improved outcomes and health economic advantage from these interventions is inadequate, and that this is hampering their implementation into health care systems.

How specialist dementia nurses maintain their skills and competencies

22 March (Claudia Cooper. Centre for Psychiatry and Mental Health)

For conditions such as dementia, specialist nursing intervention is recommended in the UK. A survey of 68 Admiral Nurses (the largest UK group of specialist dementia nurses) with, an average 24yrs of nursing experience, explores how they met and were supported to meet competencies (defined in the Admiral Nurse Competency Framework) and to develop and maintain skills as dementia specialists. Results showed that their nursing roles enabled respondents to develop as autonomous practitioners, and to access resources that supported them to build and sustain their dementia specialist practice. Learning was practice based, through partnerships with family carer clients, peer support and self-directed learning. Researchers conclude that specialist nursing models may help address the global health workforce emergency, through enabling creative practice development and valued roles



What is an Admiral Nurse and how can they help?



that support retention of experienced nurses.

Global Parkinson's Genetics Programme (GP2) Training in Kyrgyzstan

25-27 March (Alastair Noyce, Sumit Dey, Teresa Tocino. Centre for Preventive Neurology)



Alastair, Sumit, and Teresa have delivered the first Global Parkinson's Genetics Programme (GP2) Regional Training Initiative at the Kyrgyz State Medical Academy in Bishkek, Kyrgyzstan. The 3-day training included lectures on Parkinson's disease (PD) and neurogenetics, diagnostic skills for PD in developing contexts, and clinical practice sessions. The course concluded with a focus on research skills relevant to the genetics and epidemiology of PD, patient enrolment, and data collection. The team also met with officials at the Kyrgyz State Medical Academy to discuss the training and research opportunities in the country. GP2 is a resource programme of the aligning Science Across Parkinson's (ASAP) initiative, focused on improving the understanding of the genetic architecture of PD. This training initiative is part of a 2-year programme with 2 in-person workshops and monthly webinars.



PhD success

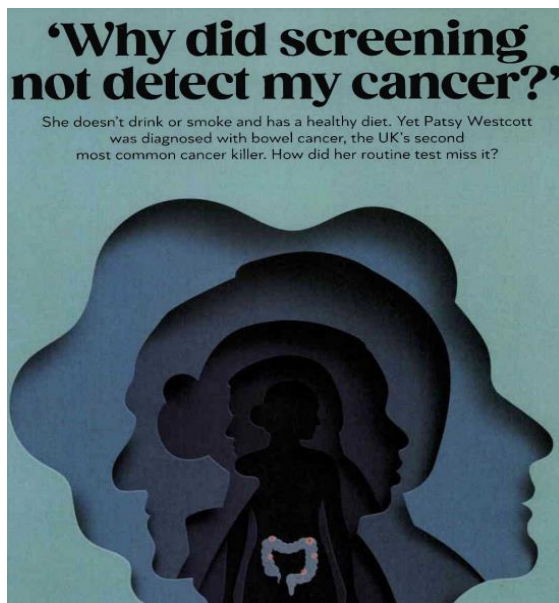
26 March (Esca van Blarikom. Centre for Primary Care)

Congratulations to Esca van Blarikom on passing her PhD on the experiences of working-age adults living with multimorbidity in Tower Hamlets. Funded by NIHR ARC North Thames and a Currier's Millenium Trust bursary, and under supervision from Deborah Swinglehurst and Nina Fudge, Esca's research included a conceptual literature review, interviews with patients experiencing long-term physical and mental health conditions, ethnographic observations, a photography project and co-production (with research participants) of a 20-minute film. Her PhD draws attention to multimorbidity as 'chronic crisis', identifies ways in which multimorbidity brings about existential 'stuckness', and includes a new definition of multimorbidity. She has published in BioSocieties and Sociology of Health and Illness, and presented at numerous international conferences.



Screening for colorectal cancer - Could a blood test work?

26 March (Oleg Blyuss. Centre for Cancer Screening, Prevention, and Early Diagnosis)

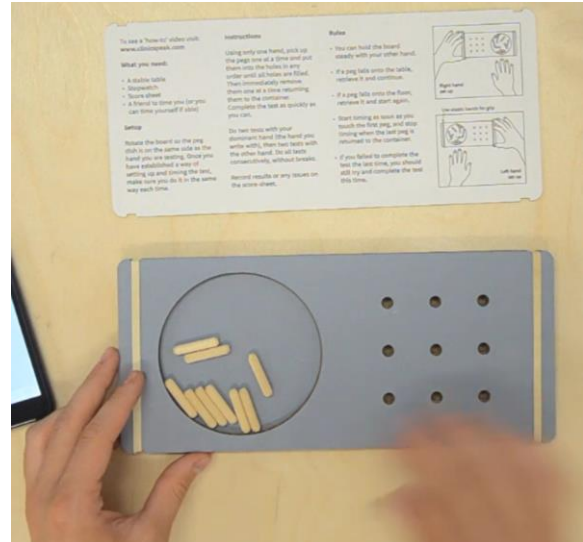


A personal account of how fecal immunochemical screening did not detect bowel cancer for one screening participant notes that the test is not diagnostic, and poses the question 'Could a blood test work?'. The article in Saga magazine cites a study led by Oleg Blyuss that aims to pinpoint new molecular signatures found in blood, tissue, and other samples. Oleg explained: 'We hope detecting new patterns of molecules could predict who is most likely to develop bowel cancer'. The study is supported by the BowelBabe fund set up by CRUK in honour of Dame Deborah James.

Cardboard 9-hole peg test selected as a world leading product design

27 March (Alison Thomson. Centre for Preventive Neurology)

A project set up by Alison Thomson to create and validate an environmentally friendly and affordable version of the upper limb outcome measure (the 9-hole peg test) for use by MS patients in their own homes features as a world leading product design in a book to be published in the summer. Phaidon's new *Designed for Life: The world's best product designers* includes the test and the design consultants (The Agency of Design), who manufactured the cardboard test, in its showcase of current work at the forefront of contemporary product design.



Monitoring primary care patients with depression in the PROMDEP trial

27 March (Beth Stuart. Centre for Evaluation and Methods)

PROMDEP

Patient-reported outcome measures for monitoring primary care patients with depression – randomised controlled trial.

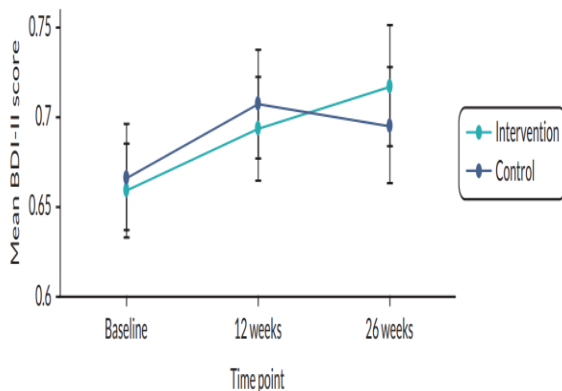


FIGURE 7 Mean EQ-5D-5L utility scores at baseline and at 12- and 26-week follow-ups.

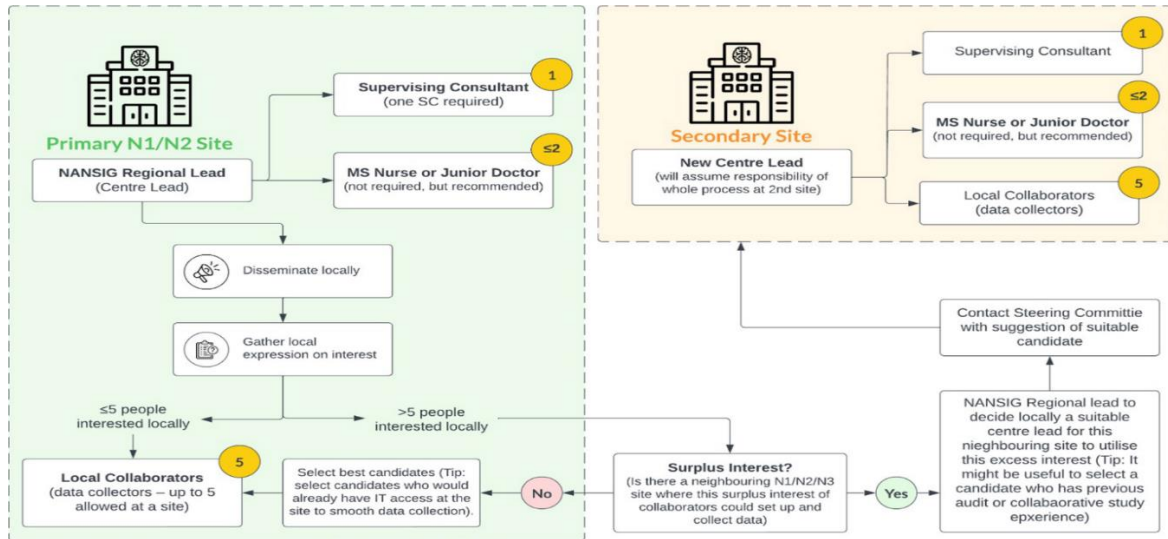
Testing whether using a patient-reported outcome measure in general practice helps people with depression get better more quickly, the PROMDEP trial compared 2 groups of people with depression: one in which patients completed a health questionnaire (PHQ-9) measuring 9 symptoms of depression, and the other where patients were treated as usual. Results showed no differences between the PHQ-9 group and the control group in level of depression, work or social life, satisfaction with care from their practice, or use of medicines, therapy or specialist care for depression. However, researchers did find that, in the PHQ-9 group, quality of life was improved at 6 months, and the costs of the NHS services used were lower, and they suggest that the PHQ-9 may perhaps make patients more aware of improvement in their depression symptoms, and therefore less anxious.

Delays In Multiple Sclerosis diagnosis study (DIMES) Protocol

28 March (Ashvin Kuri, Ruth Dobson. Centre for Preventive Neurology)

Early diagnosis and treatment improve long-term outcomes for multiple sclerosis (MS), but the diagnostic pathway is increasingly complex, and factors causing delays are understudied. DIMES, a multicentre observational retrospective study

being conducted in hospitals providing MS diagnostic services in the UK and ROI, aims to collect data on 1) time from symptoms prompting neurology referral to MS diagnosis, and from neurology referral for suspected MS to MS diagnosis. Multivariable models will be used to investigate the association of demographic and clinical factors with time to diagnosis. Researchers say that the data collected will provide insights unavailable from contemporary registries, and the findings will inform future approaches to MS services.



Centre for Youth Bipolar Disorder 2024 Research Symposium

28 March (Irene Gonzalez Calvo. Centre for Psychiatry and Mental Health)

Irene Gonzalez Calvo (CPMH Asset Research Group) presented her poster *Perinatal Risk Factors and Subclinical Hypomania: A Prospective Cohort Study* at the Centre for Bipolar Disorder 2024 Research Symposium in Toronto, Canada. Her poster showed that little is known about the established perinatal risk factors (eg. prenatal alcohol exposure) in the context of hypomania and bipolar disorder. The symposium brought together researchers to take part in presentations and discussions on current research in bipolar disorder, with a special emphasis on youth bipolar disorder.



Adolescent school-based mental health intervention in Vietnam

28 March (Fiona Samuels. Centre for Public Health and Policy)



Mental health and psychosocial well-being among adolescents in Viet Nam

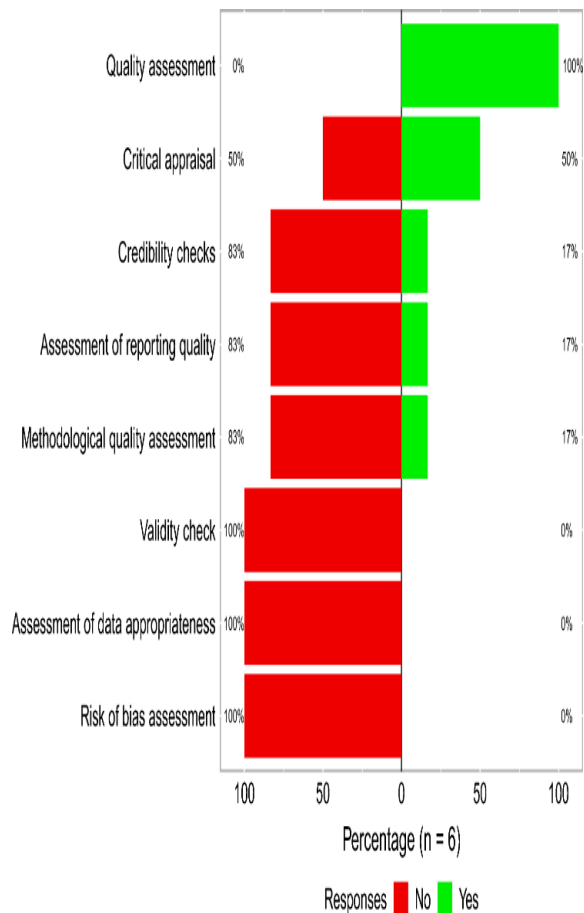
by Fiona Samuels, Jose Manuel Roche et al

Findings from a programme co-creating and piloting in-person and digital approaches for an adolescent school-based mental health intervention in Vietnam are presented in a new [ODI report](#). This report is the final product of a 2020-23 programme of work addressing the mental health needs of young people (aged 10-19) in Tanzania and Vietnam through the co-creation and piloting of in-person and digital approaches. In Vietnam the study focused on 8 schools in Vinh City and Nha Trang.

QA in systematic reviews of studies generating health state utility values

29 March (Yan Feng, Centre for Evaluation and Methods)

Increasing numbers of studies generate health state utility values (HSAVs), and the impact of HSAVs on cost-utility analyses necessitates a robust tailored quality appraisal (QA) tool for systematic reviews of these studies. To address conceptual issues of QA in systematic reviews of studies producing HSAVs, a new [paper](#) establishes a consensus on the definitions, dimensions and scope of a QA tool specific to this context. An international multidisciplinary panel of experts completed 2 anonymous online survey rounds, receiving controlled feedback after each round to allow them to re-evaluate and adjust their positions based on collective insights. The process culminated in a consensus on the definitions of scientific quality, QA, the three QA dimensions (reporting, relevance and methodological quality). Authors say that this consensus marks a pivotal step towards developing a QA tool specific to systematic reviews of studies eliciting HSUVs.



Health Related Utility Scores for Mastectomy & SalpingoOophorectomy

30 March (Samuel Oxley, Xia Wei, Michail Sideris, Oleg Blyuss, Ashwin Kalra, Jacqueline Sia, Subhasheene Ganesan, Caitlin Fierheller, Ranjit Manchanda, Rosa Legood. Centre for Cancer Screening, Prevention and Early Diagnosis)

The recommended tool to assess the quality of life and determine health-related utility scores (HRUS) is EQ-5D, but there are no published EQ-5D HRUS after risk reducing mastectomy (RRM) and salpingoOophorectomy (RRSO) to prevent breast and ovarian cancer. Using a systematic review of quality of life questionnaires given to patients following these surgeries, authors converted data into utility scores, as recommended by the national guidelines. Results show that RRM is associated with a long-term utility score of 0.92 and RRSO has a score of 0.97, indicating a mild–moderate impact. Authors say that higher-quality studies, using EQ-5D, are needed to characterise quality of life at different timepoints and inform doctors counselling patients about cancer prevention options.

EQ-5D



Is private cancer screening to determine cancer risks worthwhile?

30 March (Stephen Duffy. Centre for Cancer Screening, Prevention and Early Diagnosis)

MailOnline



How Kate Middleton's shock cancer news prompted me to pay £800 to discover my own risk of the disease... and I bumped into a friend doing exactly the same thing

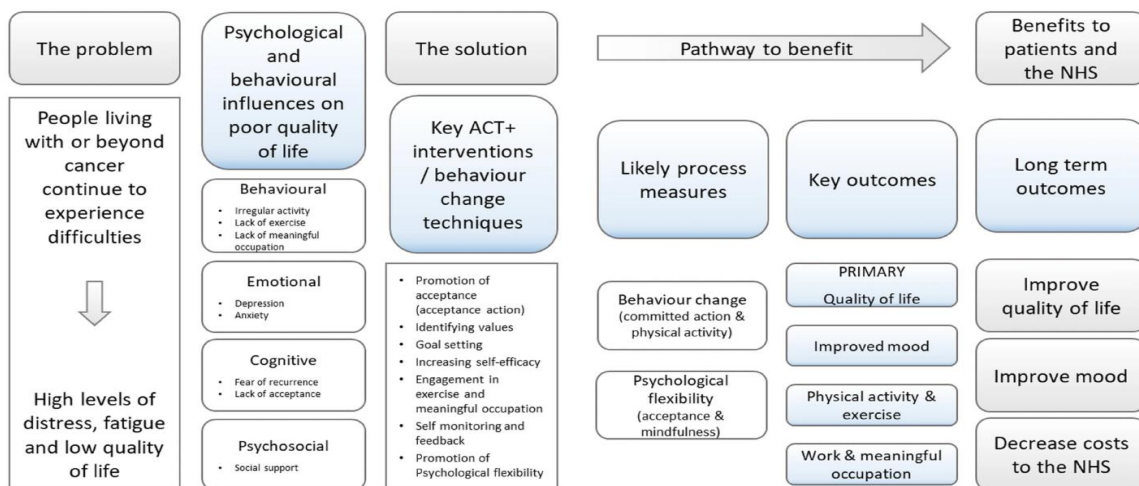
By CHARLOTTE GRIFFITHS

Comments from Stephen Duffy on private cancer screening, reported in the Daily Mail, suggest that it may be a good thing that people cannot rush to the NHS for a cancer check whenever they feel like it. He told the Mail: 'The only cancer screening programmes that the NHS offers are ones which have been definitively shown to save lives and help people escape severe illness. Many of these private cancer tests you can buy on the High Street are not proven to work. If you get a scary result, it can often lead to needless anxiety and pointless physical investigations which can be unpleasant and painful. You know your body better than anyone else. If you notice any changes, contact your GP and get yourself checked. In the vast majority of cases, there will be nothing to worry about, but in the rare case where it is cancer, quick action can save your life.'

SURvivors' Rehabilitation Evaluation after CANcer (SURECAN) trial protocol

2 April (Imran Khan, Steph Taylor, Clare Robinson, Elisavet Moschopoulou, Sheila Donovan, Anya Korszun, Olivier Quentin. Centres for Primary Care/Evaluation and Methods/Psychiatry and Mental Health)

The protocol for a multi-centre RCT to evaluate an intervention to improve quality of life for cancer survivors describes a trial to assess whether an intervention based on acceptance and commitment therapy (ACT) and usual aftercare is more effective and cost-effective than usual aftercare alone. Recognising the importance of exercise and vocational activity on QoL, the study will integrate options for physical activity and return to work/vocational support to ACT (ACT+). Among 344 participants living with or beyond cancer, researchers will consider quality of life outcomes and provide high quality evidence of the effectiveness and cost-effectiveness of adding ACT+ to usual aftercare provided by the NHS. If shown to be effective and cost-effective this information will be useful to commissioners, providers and cancer charities seeking to improve QoL in cancer survivors and their families.

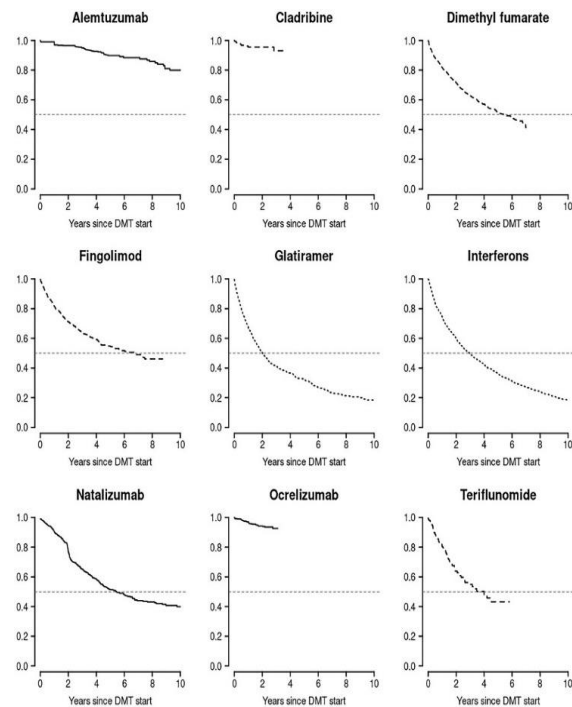


Logic model for the ACT+ intervention

Real-world persistence of MS disease-modifying therapies

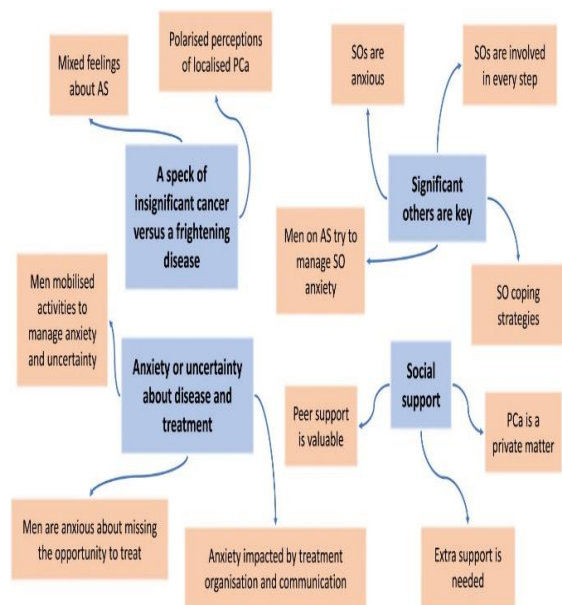
3 April (Ruth Dobson. Centre for Preventive Neurology)

To describe real-world rates of persistence on disease modifying therapies (DMTs) for people with multiple sclerosis (pwMS) and reasons for DMT discontinuation, researchers pooled treatment data on 4366 people with relapse-onset MS from 13 UK specialist centres. In 6997 treatment events (1.6/per person) median time spent on any single maintenance DMT was 4.3yrs. Commonest reasons for DMT discontinuation were adverse events (35%) and lack of efficacy (30.3%). After 10yrs, 20% of people treated with alemtuzumab had received another subsequent DMT, v 82% of those treated with interferon or glatiramer acetate. Authors conclude that immune reconstituting DMTs may have the highest potential to offer a single treatment for relapsing MS.



Experiences of active surveillance for prostate cancer

3 April (Beth Stuart. Centre for Evaluation and Methods)



Living with an untreated cancer can have negative psychological impacts on both the patient and their significant other (SO). A literature review synthesises qualitative data on the experiences of active surveillance (AS) for prostate cancer for both men and their SO. Researchers found that throughout every part of the prostate cancer journey, and couples presented as a unit on AS together. Although both patients and SOs expressed a need for more support, and highly valued peer support, men expressed a dislike towards 'support groups'. Increased recognition of SO involvement in AS is needed in clinical practice.

Schizophrenia International Research Society Annual Congress

3-7 April (Erin Lawrence. Centre for Psychiatry and Mental Health)

A poster on *Understanding the Demographic and Psychosocial Risk Factors for Physical Multimorbidity in Severe Mental Illness: A Systematic Review* was presented by Erin Lawrence, of the CPMH Asset Research Group, at the Schizophrenia International Research Society (SIRS) Annual Congress in Florence, Italy. Erin's poster investigated the psychosocial and demographic risk factors for physical multimorbidity among people with severe mental illness, demonstrating that little is known about the demographic and psychosocial factors (eg. stress) that might increase the risk of physical multimorbidity in this group. The theme of this year's SIRS congress was 'Responding to Challenges in a Changing World.'



Blood tests to detect dementia?

4 April (Charles Marshall. Centre for Preventive Neurology)



THURSDAY APRIL 4 2024

HEALTH

Thousands to be offered blood tests for Alzheimer's in UK trial

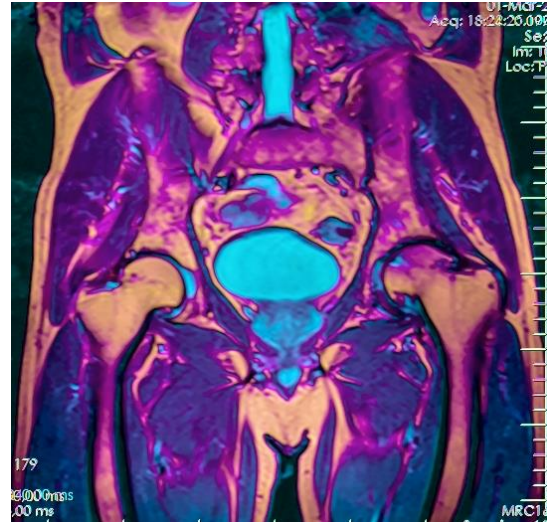
Britons who are worried about their risk of dementia will be able to take part in one of two studies that doctors hope will revolutionise diagnosis on the NHS

In comments for the Times about trials of new blood tests for dementia, Charles Marshall said that, with our current understanding, the tests are not ready to be used as general screening tools in the otherwise healthy: 'These new blood tests are exciting because they could be used in any NHS setting to confirm that someone has an accumulation of the proteins that cause Alzheimer's disease in their brain. However, we know that many people have a build-up of these proteins in their brain and never develop dementia. We will therefore need to ensure that when they become available, they are used as part of a more thorough assessment. Without this, there is a risk that people are incorrectly given a diagnosis of Alzheimer's disease on the basis of a blood test, when they might never develop symptoms of the condition.'

Acceptability of MRI for prostate cancer diagnosis

4 April (Fiona Walter. Centre for Cancer Screening, Prevention and Early Diagnosis)

In a qualitative interview study of men who had undergone a prostate MRI for possible prostate cancer, and GPs who had referred at least one man for possible prostate cancer in the previous 12 months, researchers aimed to understand the acceptability of MRI for both patients and GPs. Results showed that prostate MRI was broadly acceptable for most patients, but GPs had more varied views, with some expressing concerns about additional clinical responsibility and local MRI if direct access to prostate MRI in primary care were to be introduced.



BRCA awareness and testing experience in the UK Jewish population

4 April (Katrina Sarig, Samuel Oxley, Ashwin Kalra, Monika Sobocan, Caitlin Fierheller, Michail Sideris, Tamar Gootzen, Samantha Quaife, Ranjit Manchanda. Centre for Cancer Screening, Prevention and Early Diagnosis)

A qualitative study published in *J Med Genetics* by Ranjit Manchanda and his team reports overall high satisfaction with the experience of BRCA testing in the UK Jewish population. The interview study reports historic experiences with NHS/non-NHS testing prior to the new population testing programme. Testing was largely triggered by connecting information to a personal/family history of cancer. No participants reported decision-regret, although there was substantial variation in satisfaction. Researchers say there is a need to improve UK Jewish community BRCA awareness, and to highlight personal relevance of testing for individuals without a personal or family history of cancer.

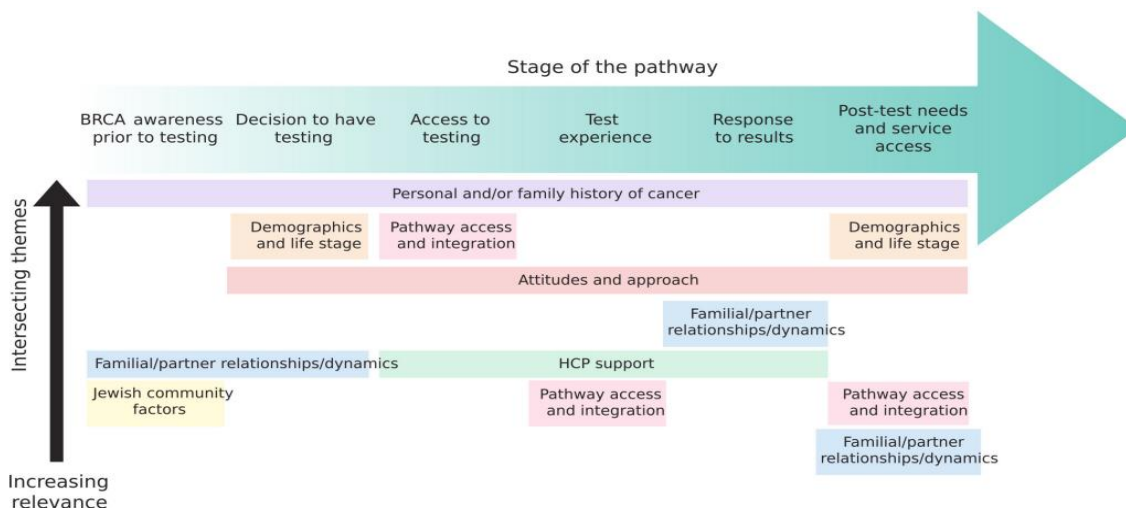
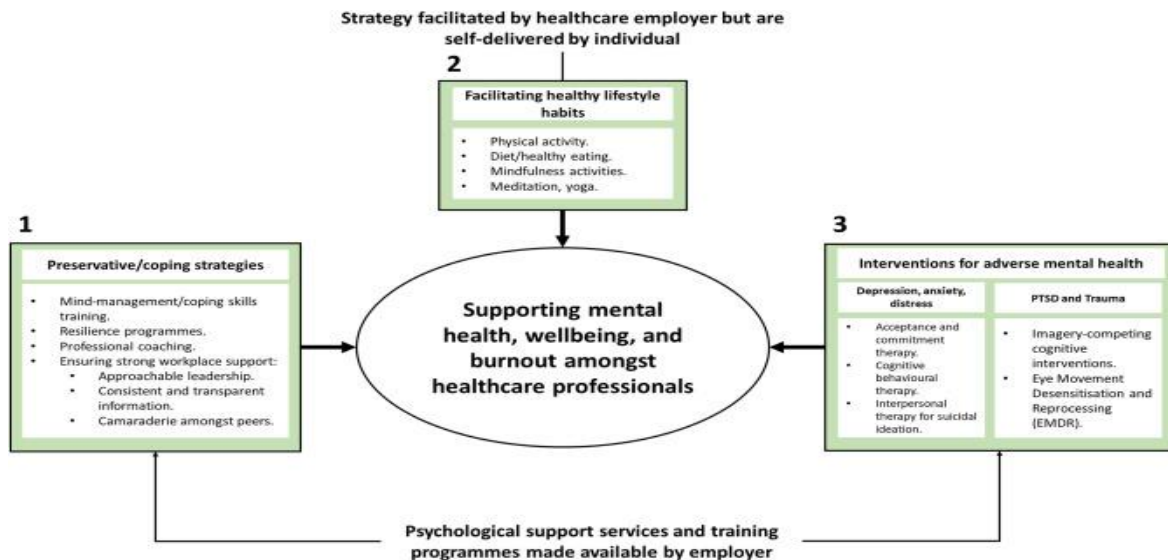


Figure 1 Chronology of testing pathway from awareness through to post-testing needs, with key intersecting themes at each stage. The most relevant themes at each stage are presented at the top. HCP, healthcare professional.

Strategies to support mental health among healthcare professionals

6 April (Ania Korszun. Centre for Psychiatry and Mental Health)

The psychological toll of prolonged stressful conditions experienced by healthcare professionals may lead to increased staff attrition, adversely impacting the quality of patient care and work security. A new study shows that, to help mitigate this, current evidence is strongly supportive of healthcare providers consistently adopting programmes fostering improvement in coping and resilience, facilitating healthy lifestyle, and allocating resources for therapeutic strategies (eg CBT-based strategies) which can be delivered by trained professionals. Investment in these strategies is expected to reduce long term staff attrition and add to the cost-effectiveness of overall healthcare budgetary allocation.



International Affairs Early Career Prize 2024

8 April (Andreas Papamichail. Centre for Public Health and Policy)

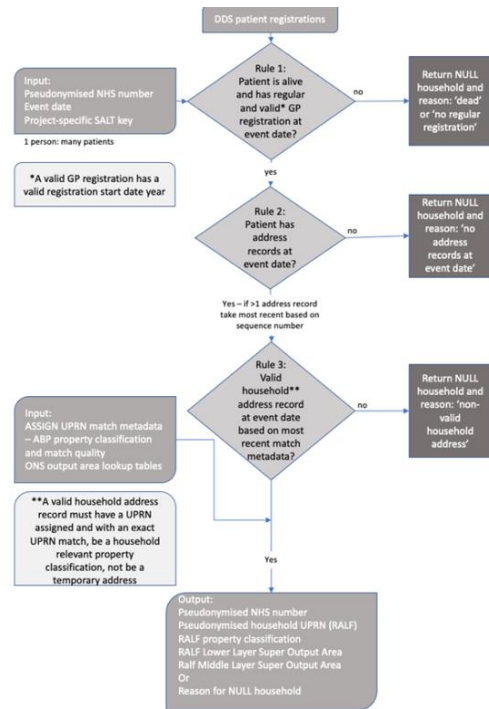


Congratulations to Andreas Papamichail who was awarded the 2024 International Affairs Early Career prize for his paper *Reinscribing global hierarchies: COVID-19 racial capitalism and the liberal international order*. Exploring the political economy of 3 dynamics of the global response to the COVID-19 pandemic (lockdowns, border controls and vaccine distribution), the paper argues that COVID-19 has reinscribed various domestic and global racial hierarchies. The prize is awarded annually to an author whose work shows innovative thinking on an issue and offers a valuable contribution to the field.

Identifying household units from patient addresses in GP health records

9 April (Gill Harper, Nicola Firman, Marta Wilk, Milena Marszalek, Kelvin Smith, Carol Dezateux. Centre for Primary Care)

A new method of grouping patient records into households using Unique Property Reference Numbers opens new possibilities for studying the wider determinants of health quickly and frequently. Most population health research to-date has used average values from postcodes, areas, or regions, but knowing the demographic, health and property context for a household unit provides more granular insight into the factors influencing the health of residents. The WIPH team who developed the tool say that it provides a robust, standardised way to create household units of analysis, will strengthen knowledge and understanding of how the household context affects health, and how it can be improved.



CEG releases updated software tool to optimise treatment for people with AF

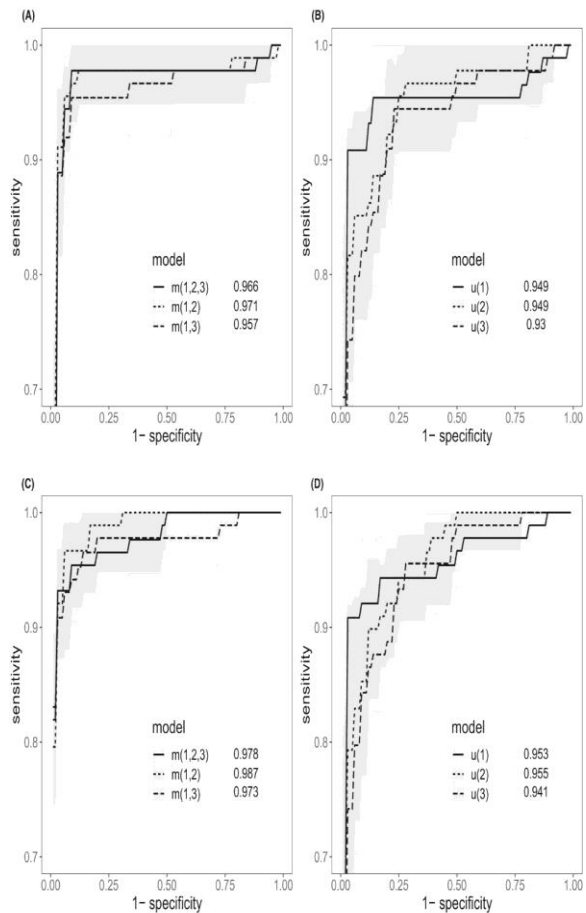
10 April (John Robson, Zaheer Ahmed, Isabel Dostal, Karishma Bhuruth, Mike O'Hanlon, Anna Billington. Centre for Primary Care)

The 'Active Patient Link tool for Atrial Fibrillation' (APL-AF), developed in 2016 by the Clinical Effectiveness Group (CEG), helps GPs and pharmacists to review their patients with AF efficiently, and ensure that they are on the safest, most effective medication. The tool has since supported award-winning initiatives to increase the use of anticoagulant medications to prevent stroke. The CEG has now released version 4 of the tool, by email, to GP practices across N.E. London. The updated version uses SNOMED clinical terms, and has new features including the ability to export patient lists for bulk text messaging, making it easier to invite filtered cohorts of people for medication review. Further details are available about the tool here.

Multivariable models and candidate biomarkers to increase ovarian cancer detection

10 April (Oleg Blyuss. Centre for Cancer Screening, Prevention and Early Diagnosis)

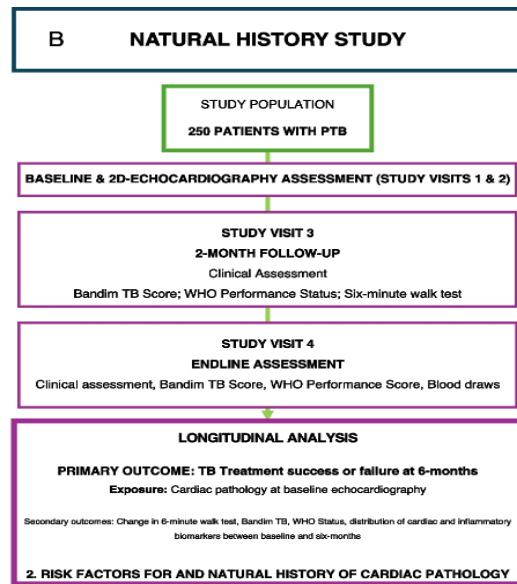
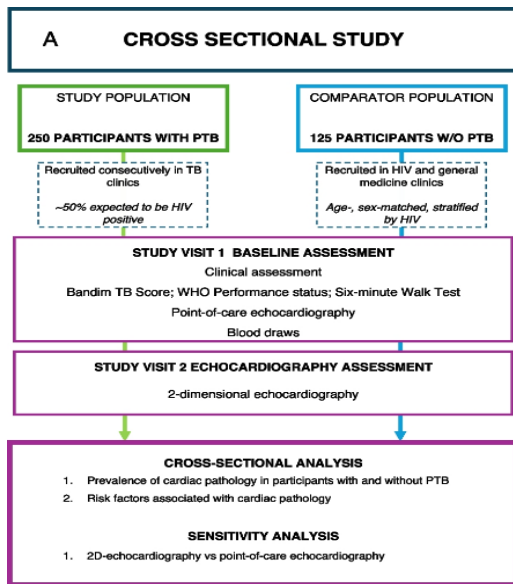
CA125 is the best-performing ovarian cancer biomarker, but is still not effective as a screening test in the general population. Recent literature reports additional biomarkers with the potential to improve on CA125 for early detection when using longitudinal multimarker models. Using serum samples from controls and cases in the multimodal arm of the UK Collaborative Trial of Ovarian Cancer Screening, researchers identified and tested different combinations of biomarkers using longitudinal multivariable models. Results showed significantly higher performance for the CA125-HE4 model using both the Bayesian change-point model and recurrent neural networks approaches. At 1yr pre-diagnosis the CA125-HE4 model ranked as the best, though at 2yrs pre-diagnosis no multimarker model outperformed CA125. The study shows the potential of multivariable models and candidate biomarkers to increase the detection rate of ovarian cancer.



Protocol for the TB-Heart study in Zambia

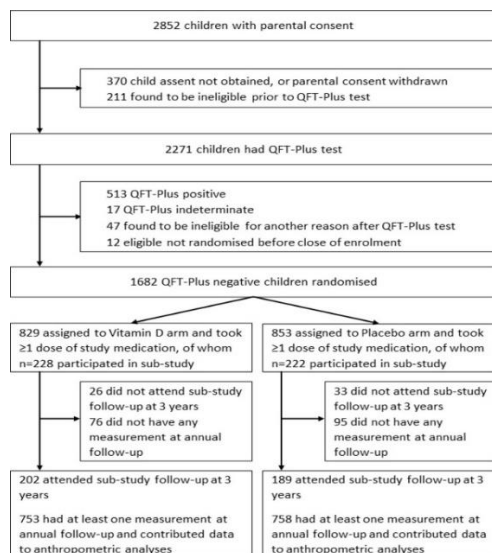
10 April (Dominik Zenner. Centre for Public Health and Policy)

The protocol has been published for a study aiming to improve understanding of the burden of cardiac pathology in pulmonary tuberculosis (PTB) in those living with and without HIV in a high-burden setting (Lusaka, Zambia). The cross-sectional and natural history study will consecutively recruit participants with PTB, with and without HIV, alongside age- and sex-matched TB-uninfected comparators on a 2:1 basis. Baseline assessments will collect clinical, socio-demographic, functional, laboratory and TB disease impact data, followed by point-of-care and standard echocardiography, and participants with PTB will undergo repeat clinical and functional examination at 2 and 6 months. Those with cardiac pathology at baseline will undergo repeat echocardiography at 6 months.



ViDiKids RCT of vitamin D supplementation in South African schoolchildren

10 April (Neil Walker. Centre for Evaluation and Methods)



A double-blind, randomised, placebo-controlled trial of 1682 schoolchildren conducted in Cape Town to determine whether weekly oral vitamin D supplementation influences growth, body composition, pubertal development or spirometric outcomes finds no statistically significant differences in height-for-age z-score or body mass index-for-age z-score between supplemented and placebo groups. A sub-study showed no influence of vitamin D on pubertal development scores, spirometric outcomes, or fat mass or fat-free mass.

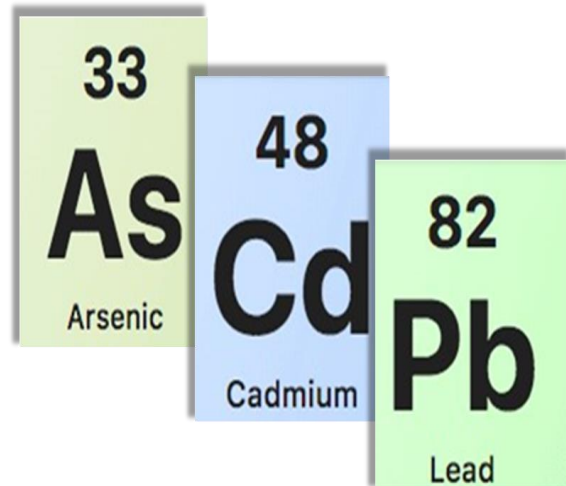
Toxic metals and lung health: silent poisons?

10 April (Seif Shaheen. Centre for Preventive Neurology)

In a *Thorax* editorial, Seif Shaheen introduces a new paper from Yu et al, measuring the effects of exposure to 27 metals on lung health in >2000 adults in China. Noting the paucity of population-based studies of toxic metal exposure and lung function, he welcomes this addition to the literature, and hopes the findings stimulate further epidemiological investigation in LMICs to clarify consequences of these exposures for



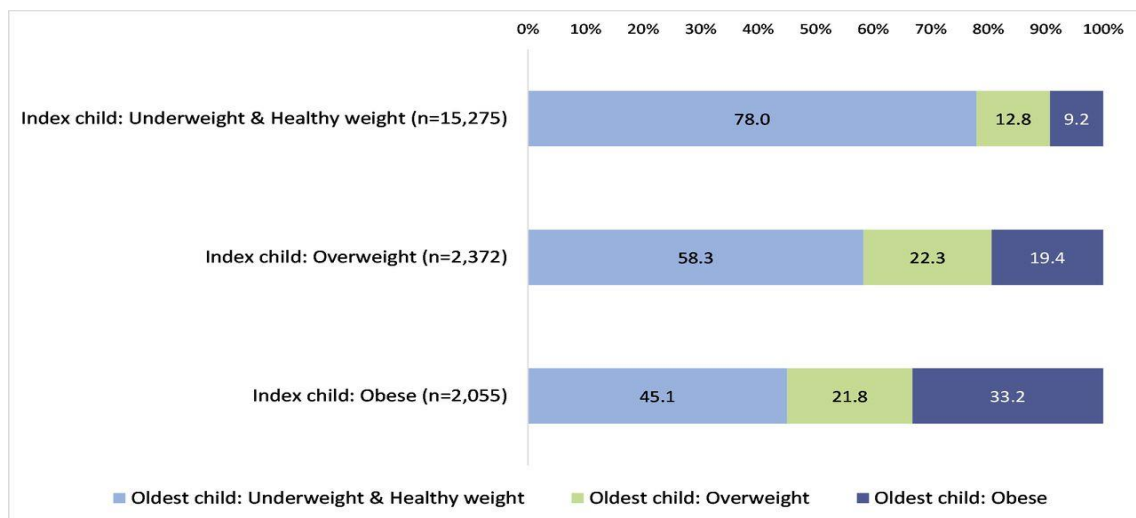
lung health, preferably using longitudinal study designs. In high income countries he suggests that important questions regarding chronic low-level toxic metal exposure include: What are contemporary levels of toxic metal exposure? Is chronic low-level exposure, especially in early life, associated with adverse respiratory, cognitive and cardiovascular outcomes and contributing to social and ethnic health inequalities? Seif concludes that these major knowledge gaps are being addressed in an ongoing MRC-funded UK study focusing on lead, cadmium, and arsenic exposure, and that understanding the health effects of these hidden poisons deserves to be a higher public health priority globally.



Likelihood of obesity among children living with an older child with obesity

10 April (Nicola Firman, Marta Wilk, Milena Marszalek, Gill Harper, Carol Dezateux. Centre for Primary Care)

Using electronic health records of 126,829 children in the National Child Measurement Programme, researchers have estimated the likelihood of obesity in children living with an older child with obesity. Identifying children sharing households by linking primary care and school records, they compared the oldest and youngest children in households in 4 London boroughs. Results showed that 33% of youngest children with obesity shared a household with another child with obesity, compared with 9.2% of youngest children with a healthy weight. Authors say that household factors are potentially more modifiable than genetic or prenatal influences. Taking a household level approach could potentially reach more children living with and at risk of obesity.



Study Protocol: Resilience in black and S. Asian Muslim children in E. London

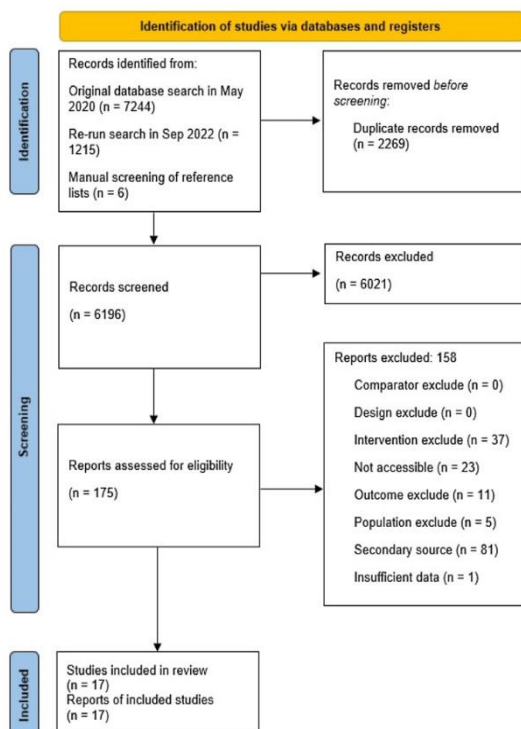
10 April (Aisling Murray, Faiza Durrani, Eleanor Keiller, Maria Grazia Turri, Jennifer Lau. Centres for Psychiatry and Mental Health/Preventive Neurology)

To explore lived experiences and perceptions of resilience in black and South Asian Muslim children living in East London, a qualitative study will use participatory and arts-based methods in a workshop held at an Islamic community centre with children and their parents/carers. Participants will be English-speaking Muslims who identify as being black or S. Asian and have a child aged 8-12 identified from East London community settings. Participants will also complete a demographic survey. Researchers aim to identify the factors and resources which constrain and contribute to resilience among black and S. Asian Muslim children living in East London.



Vestibular stimulation in post-stroke visual neglect

12 April (Laura Smith. Centre for Preventive Neurology)



Unilateral visual neglect negatively affects the lives of many stroke survivors. To determine whether people with post-stroke unilateral spatial neglect who receive vestibular stimulation show improvement in neglect symptomology and activities of daily living, researchers conducted a systematic review. From 17 relevant studies of 180 participants, meta-analyses showed no difference between galvanic vestibular stimulation and sham conditions on outcomes, but caloric vestibular stimulation led to improvement compared with pre-stimulation scores. Narrative syntheses showed mixed results. Authors say that vestibular stimulation, most notably caloric vestibular stimulation, shows promise as a potential treatment for post-stroke neglect, but conclusions are limited by clinical and methodological heterogeneity.

Protocol for the STAMINA RCT

12 April (Steph Taylor. Centre for Primary Care)

UK guidelines recommend that men with prostate cancer on androgen deprivation therapy are offered twice weekly supervised exercise to address iatrogenic harm caused by treatment. An RCT to determine the clinical and cost effectiveness of the Supported exercise TrAining for Men with prostate caNcer on Androgen deprivation therapy (STAMINA) lifestyle intervention will evaluate its effects in improving cancer-specific quality of life and/or reducing fatigue compared with optimised usual care. The published [protocol](#) describes how the trial will identify 697 men with prostate cancer on androgen deprivation therapy from 12+ NHS trusts. Authors say findings could provide a blueprint for the integration of supervised exercise and behavioural support into other cancer and/or clinical services.

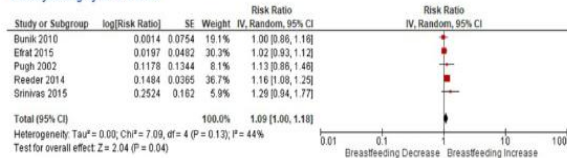


Breastfeeding in low-income women in high income countries

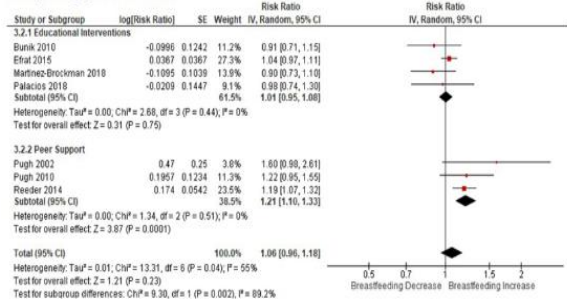
13 April (Mohammad Talaei. Centre for Preventive Neurology)

Many mothers in high-income countries (HICs), particularly those on low incomes, do not breastfeed to the WHO recommended 2yrs. To determine whether teleinterventions increase breastfeeding among low income women (LIW) in HICs, a [meta-analysis](#) identifies 9 US RCTs assessing breastfeeding teleinterventions (6 providing telephone calls, 2 providing text messages, and one an online support group). All 9 studies had small sample sizes and a high risk of bias. Pooled results indicate teleinterventions modestly increase breastfeeding at all time points, with a statistically significant increase in 'exclusive' breastfeeding after 3-4 months. Despite insufficient high-quality research, teleinterventions may improve breastfeeding, and authors say these results require further exploration by larger, methodologically sound trials in other HICs.

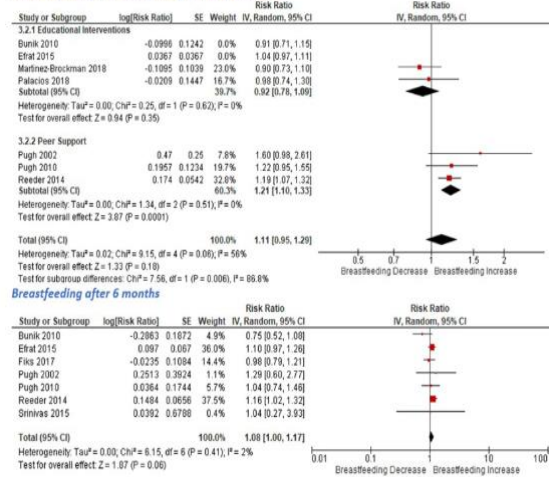
Breastfeeding after 1 month



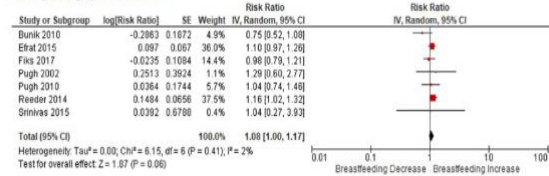
Breastfeeding after 3-4 months



Sensitivity Analysis: Breastfeeding after 3-4 months



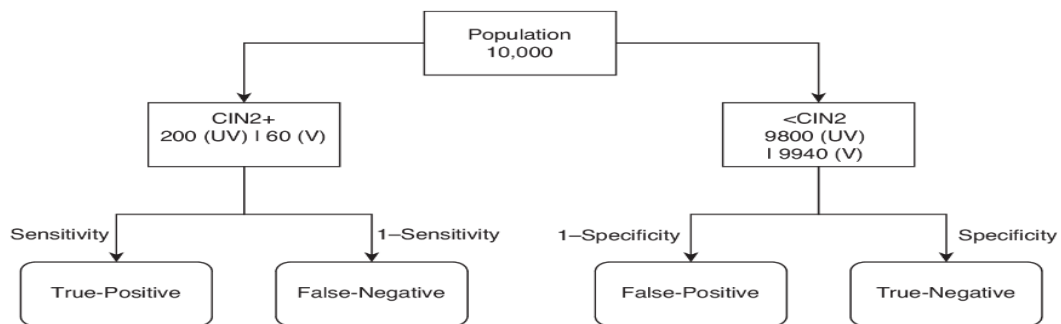
Breastfeeding after 6 months



Changes in the accuracy of HPV testing after vaccination

13 April (Matejka Rebolj, Adam Brentnall. Centres for Cancer Screening, Prevention and Early Diagnosis/Evaluation and Methods)

Vaccination against human papillomavirus (HPV) is changing the performance of cytology as a cervical screening test. A review of the effect of HPV16/18 vaccination on the the detection of HPV infections and high-grade cervical lesions (CIN2+) evaluates the likely direction of changes in HPV test accuracy. Findings show that HPV test performance in vaccinated cohorts is likely to differ from that in unvaccinated cohorts due to the direct protective effect against HPV16/18, and cross-protection, viral unmasking, and clinical unmasking affecting the epidemiology of non-16/18 high-risk HPV genotypes. The effect of HPV16/18 vaccination on HPV test sensitivity is difficult to predict based on these changes alone, but authors suggest that programmes relying on HPV detection for primary screening should monitor the frequency of false-positive and false-negative tests in vaccinated (younger) vs. unvaccinated (older) cohorts, to assess the outcomes and performance of their service. Development of HPV test evaluation and validation frameworks in vaccinated cohorts would help collect such evidence and is therefore urgently needed.



Population	Sensitivity	Specificity	TP	FN	FP	TN	FP+TP	PPV
Unvaccinated	95%	90%	190	10	980	8820	1170	16%
Vaccinated	95%	93%	57	3	696	9244	753	8%
Vaccinated	95%	96%	57	3	398	9542	455	13%
Vaccinated	95%	90%	57	3	994	8946	1051	5%
Vaccinated	80%	93%	48	12	696	9244	744	6%
Vaccinated	80%	96%	48	12	398	9542	446	11%
Vaccinated	80%	90%	48	12	994	9846	1042	5%

FORTHCOMING EVENTS

Inaugural Lecture: Alastair Noyce 18 April, 5:15pm

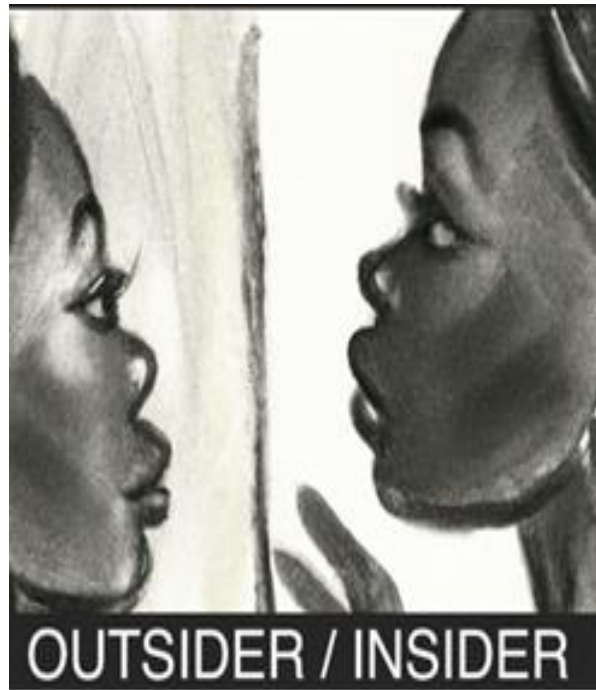
Alastair Noyce will deliver his inaugural lecture: 'PRE-occupied by Parkinson's', on Thursday 18 April at 5:15pm in the Perrin Lecture Theatre, Blizard Building, Whitechapel. His lecture will cover early detection of Parkinson's, with a view to better treatment, risk factors, improving our understanding in under-served global populations, training the next generation of researchers, and imagining a future with fewer patients. Click below to register.

[Register](#)



Mad Hearts 2024: The Art of Mental Health (6-7 June)

All are welcome to attend Mad Hearts 2024: The Art of Mental Health, on 6-7 June at ArtsOne (Mile End Campus), a collaborative conference on the theme of Outsider/Insider. Participants are invited to consider, re-frame and discuss - whatever this opposition might mean, and wherever we choose to place ourselves: outsiders, insiders, both & in between. This year, Mad Hearts joins with PsychArt to explore this theme. This event explores productive, radical, contemporary encounters between the arts and mental health, bringing together clinical, artistic and research perspectives that offer a re-interpretation of contemporary mental health science and practice, with a view of imagining a different future. Sign up [here](#). For more information contact [Maria Turri](#).



Many thanks to all who so enthusiastically contribute. Please send any news items for the next newsletter to j.a.mackie@qmul.ac.uk