

WOLFSON INSTITUTE OF POPULATION HEALTH NEWSLETTER ISSUE 48: 11 JANUARY 2024

In this first 2024 issue of our Wolfson Institute of Population Health Newsletter, we celebrate the achievements and work of staff and students since mid-December.

FROM OUR DIRECTOR

Dear Colleagues

Let me start by sending everyone best wishes for a 2024 which I hope will be a fulfilling and productive year for all.

Next, some good news: Dr Afia Ali (CPMH - Clinical Reader in Intellectual Disability and Honorary Consultant Psychiatrist), and Dr Jamie Ross (CPC - Senior Lecturer in Primary Care Sciences) have been appointed Co-Directors of Graduate Studies from the start of this year. They will be supported by Dr Nina Fudge (CPC - Lecturer in Social Science) as Deputy DGS. Patrick Mullan (Director's Office - Research Administrator) will continue to provide his excellent support for all our PGR students, who now number almost 100. Congratulations to all, and we look forward to working with the new team who, I am certain, will make significant contributions to the role and to WIPH. I would like to thank Dr Ruth Taylor (CPMH) for all her hard work for WIPH as DGS over recent years. In particular, the annual student showcases have been widely appreciated by both students and supervisors - our thanks to Ruth.



Finally, our Centre for Cancer Screening, Prevention and Early Diagnosis holds its Celebration Event at Charterhouse Square on 16 and 17 January. The Centre is celebrating its renewal and launch following the arrival of Peter Sasieni, Jo Waller, and their teams, as well as the move of the CRUK Cancer Prevention Trials Unit from KCL to QM. We will also be recognising the marvellous careers of Jack Cuzick and Stephen Duffy as they approach retirement. If you haven't already done so, please book your place, and do come and join us.

Very best wishes

Fiona

MEET WIPH

MEET Natalie Shoham (Senior Clinical Lecturer, CPMH)

How would you describe your roles and responsibilities?

I work half the week as a psychiatrist in a community team in East London. The other half I spend with WIPH, for teaching and research. I joined recently so am hoping someone will fund my research! I would like to look at building a model to predict who can stop medications and stay well. I am also proposing a new Masters module.

What has been your greatest professional achievement?

I think this was receiving NIHR funding for my PhD, because it opened up the chance to work in clinical academia for me.

What aspects of your role do you enjoy the most?

So far, I have really enjoyed meeting colleagues and medical students. I like it when a paper starts to come together! I've also learned a lot from my patients.

What would be your second choice as a profession?

I would love to be a writer if lack of novels was no barrier.

What do you enjoy doing outside work?

I like spending time with my young daughter, and spending time with anyone who can help me look after my young daughter.

Something about you that most people don't know?

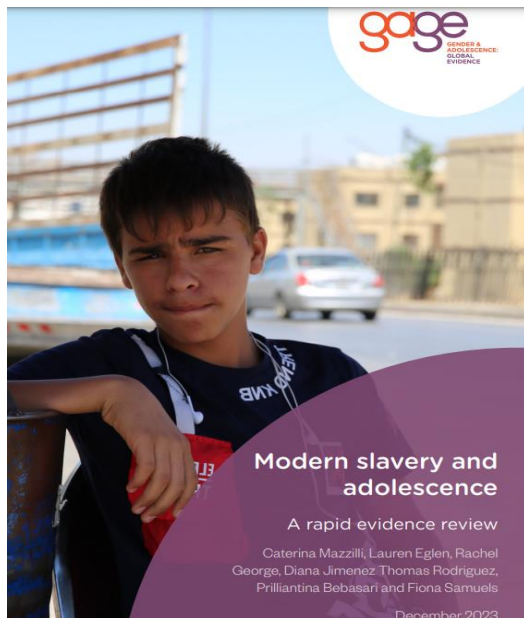
I have a running problem and have done three marathons... I'd say I am recovered and run in moderation now.



GENERAL INSTITUTE NEWS

Adolescent experiences of modern slavery

8 December (Fiona Samuels. Centre for Public Health and Policy)



As part of the Gender and Adolescence Global Evidence (GAGE) 10yr mixed methods longitudinal research and evaluation study, a new evidence review assesses existing academic and grey literature on adolescent experiences of modern slavery in Bangladesh, Ethiopia, Jordan, Lebanon, Nepal, Palestine, and Rwanda. Authors examine the broader dynamics and drivers of modern slavery (migration, conflict, poverty, and family dynamics, with a focus on gender), existing legal frameworks, and evidence of preventive, remedial, rescue, and legal/policy initiatives, concluding with recommendations for programme design and delivery, policies, and research.

Effectiveness of the NHS Diabetes Prevention Programme

11 December (Jamie Ross. Centre for Primary Care)

An NIHR case study reflects on the results of the DIPLOMA research programme, a £2.75million 6yr independent evaluation of the effectiveness of the NHS Diabetes Prevention Programme in England, which offered people with pre-diabetes a 9-month behaviour change programme supporting healthier diet and exercise choices. The DIPLOMA study found that, 3yrs after referral, participants in the NHS programme were 20% less likely to have type 2 diabetes than a similar person not referred, with >30,000 of the 1.2 million participants being spared the consequences of diabetes. The findings supported the decision to continue the NHS Diabetes Prevention Programme, increase the number of places, and promote the online version.

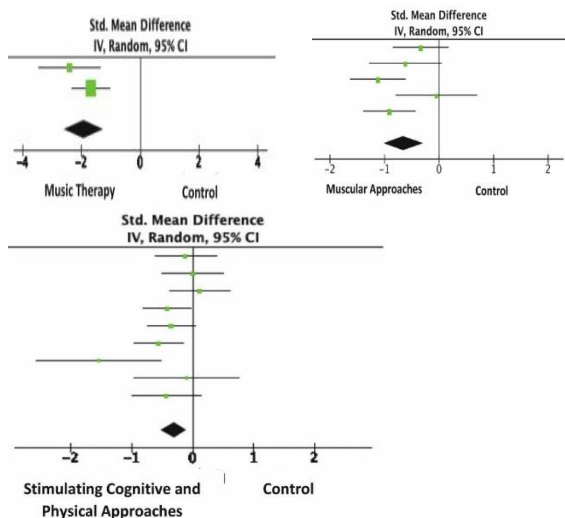
NHS programme linked to 20% reduction in risk of diabetes



An NIHR-funded evaluation revealed that referring people with pre-diabetes to the NHS Diabetes Prevention Programme reduced their risk of progressing to diabetes by 20%. Their findings supported expansion of the programme which is helping hundreds of thousands of people to lead healthier lives.

Treatments to manage anxiety in people living with dementia

12 December (Claudia Cooper. Centre for Psychiatry and Mental Health)



Researchers investigating the effectiveness of treatments for the management of anxiety in people with dementia have found that non-pharmacological interventions, including music therapy, muscular and stimulating cognitive and physical activities, are effective in reducing anxiety. A systematic review and meta-analysis of 31 studies found that, while some pharmacological interventions demonstrated potential effectiveness, cognitive approaches and sensory stimulation did not.

CPMH MSc Students' Research Showcase

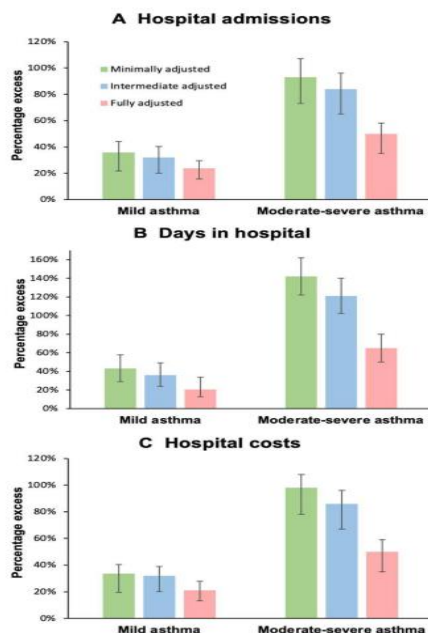
13 December (Martyna Lipinska, Matilda Hall Condon, Rosie Davis, Emma McNair Cragg, Sharri Obeng. Centre for Psychiatry and Mental Health)

At a CPMH seminar on 13 December, five 2023 MSc students presented their dissertation research projects from the programmes in Creative Arts & Mental Health, Forensic Psychology & Mental Health, Cultural Psychology & Psychiatry, and Psychological Therapies. Topics included: A thematic analysis of drag makeover shows; The role of social support in reducing suicide in UK Prisons; and systematic reviews of The experiences of women and girls with attention-deficit/hyperactivity disorder; The effectiveness and acceptability of Equine-Assisted Psychotherapy as a treatment for children and adolescents with complex trauma; and Contributing factors affecting the mental well-being of young Lesbian, Gay, Bisexual, Trans and Queer+ People of Colour.



Asthma severity and all-cause hospital care use and costs in the UK

14 December (Anya Jacobs, Runguo Wu, Florian Tomini, Anna De Simoni, Boby Mihaylova. Centres for Primary Care/Evaluation and Methods)



An assessment of hospital care use and costs associated with asthma severity using data from 25031 UK biobank participants finds that compared with asthma-free individuals, people with mild asthma experienced on average 36% more admissions, 43% more days in hospital, and 36% higher hospital costs annually, while those with moderate-to-severe asthma experienced excesses of 93%, 142%, and 98%, respectively. Authors say that significant cost savings can be made through early detection of asthma patients at risk of progressing to more severe forms of the disease, and targeting preventive therapies to these at-risk populations.

Improving MS care for people from minoritised ethnic backgrounds

14 December (Alison Thomson. Centre for Preventive Neurology)

Alison Thomson's MS-Society funded participatory research project has been featured in the MS Society December MS Matters magazine. She told interviewers that participatory research methods put people with lived experience of MS at the centre of research, including them in writing grant applications, being in steering groups and collecting and analysing data with the researchers. Access to MS care and services can be affected by someone's culture, language barriers, religious beliefs, and historical experiences of healthcare systems and racial discrimination. 'Our peer researchers are people affected by MS from non-white backgrounds. We provide research training for them, for example in interviewing and analysing data. So people can become a peer researcher even if they don't have experience working in research.'



“ We want to know what barriers and challenges people from minoritised ethnic backgrounds experience when accessing treatment and support for their MS. And come up with tangible plans of how we can improve services to make them more accessible and useful. ”

LISS DTP Winter Gathering

14 December (Abi Thomson, Erin Lawrence, Irene Gonzalez Calvo. Centre for Psychiatry and Mental Health)



Three CPMH PhD students presented their work at a London Interdisciplinary Social Science Doctoral Training Partnership “Winter gathering” on 14 December. Abi Thomson, Erin Lawrence, and Irene Gonzalez Calvo presented on topics including emotion regulation, multimorbidity, and hypomania. Watch for papers to come in 2024!

Best poster: International Asian Conference on Cancer Screening

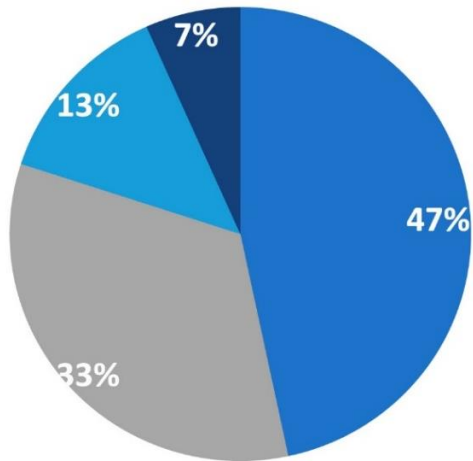
16 December (Tom Duffy. Centre for Evaluation and Methods)

Congratulations to Tom Duffy, who was awarded first prize for the best poster at the 14th International Asian Conference on Cancer Screening in Tokyo on 16 December. Tom's poster was entitled 'A health education service on bowel cancer screening delivered in mosques in East London'.



Individualised goal setting for people with dementia and their family carers

17 December (Jessica Budgett, Claudia Cooper. Centre for Psychiatry and Mental Health)

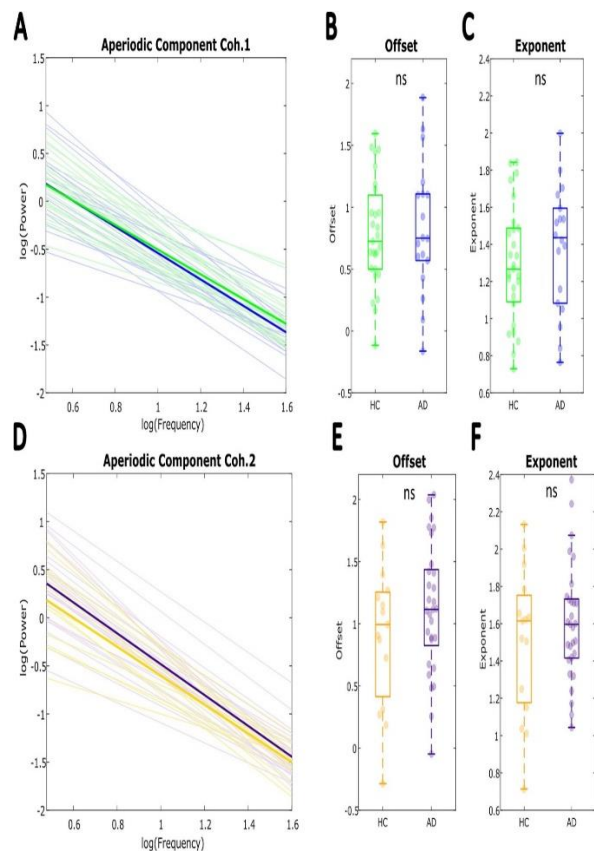


A systematic review evaluating validity, reliability, and feasibility of goal setting outcomes for people living with dementia or their family carers finds moderate quality evidence for good content and construct validity and feasibility for three goal setting outcome measures: Goal Attainment Scaling (GAS), Bangor Goal Setting Interview (BGSi), and Canadian Occupational Performance Measure (COPM). Authors recommend that future trials consider using individualised goal setting measures, to report the effect of interventions on outcomes that are most meaningful to people living with dementia and their families.

Resting-state EEG signatures of Alzheimer's disease

17 December (Laura Smith. Centre for Preventive Neurology)

A study of the underlying mechanisms for electroencephalography (EEG) alterations associated with Alzheimer's disease (AD) examines data across 2 independent datasets to determine whether resting-state EEG changes linked to AD reflect true oscillatory (periodic) changes, changes in the aperiodic (non-oscillatory) signal, or a combination of both. Results showed that the alterations are purely periodic, with decreases in oscillatory power at alpha and beta frequencies (AD < Healthy controls) leading to lower (alpha+beta) / (delta+theta) power ratios in AD. Aperiodic EEG features did not differ between AD and controls. Authors say that clarification of the alterations underlying the neural dynamics in AD and the apparent robustness of oscillatory AD signatures may further be used as potential prognostic or interventional targets in future clinical investigations.



Mobilising context in evaluations of complex health interventions

18 December (Sara Papparini, Centre for Public Health and Policy)

TRIPLE C

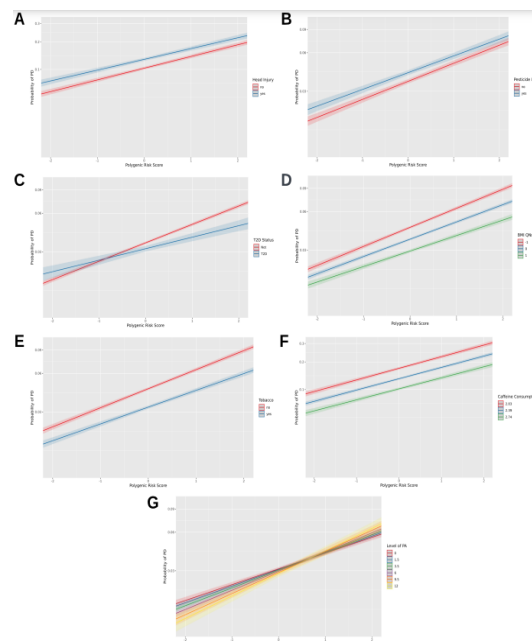


The relationship between healthcare interventions and context involves complex and dynamic interactions over time, but evaluations of health interventions frequently fail to mobilise this complexity. As part of the MRC-funded Triple C study (Case study, Context and Complex interventions) study, a workshop was held to discuss how to conceptualise and operationalise context within case study evaluations of complex health interventions. From the ensuing discussions, researchers conclude that evaluations of complex health interventions urgently require wide-scale critical reflection on how context is mobilised - by funders, health services researchers, journal editors and policymakers.

Gene-environment interactions for Parkinson's disease

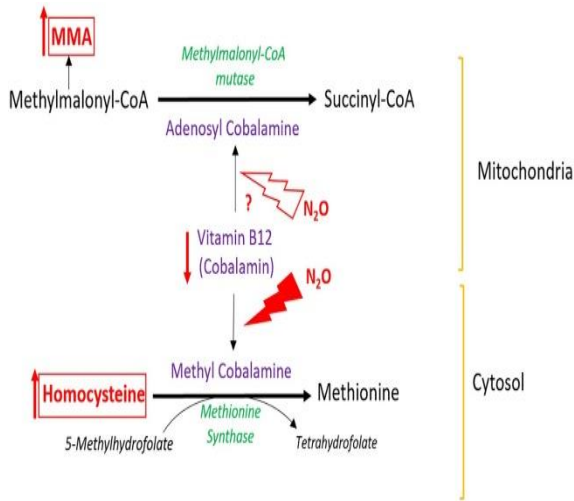
19 December (Roberta Torricelli, Ben Jacobs, Al Noyce, Centre for Preventive Neurology)

A study exploring interactions between genetic susceptibility factors for Parkinson's disease (PD) and 7 life-style and environmental factors using 23andMe data finds that type2 diabetes, higher BMI, caffeine consumption, and tobacco use are associated with lower odds of PD. Head injury, pesticide exposure, GBA carrier status, and PD polygenic risk score were associated with higher odds. No significant association was observed with physical activity. Authors say the results provide preliminary evidence that associations between some environmental and lifestyle factors and PD may be modified by genotype.



Biological markers for diagnosis and monitoring of nitrous oxide abuse

20 December (Alastair Noyce, Centre for Preventive Neurology)



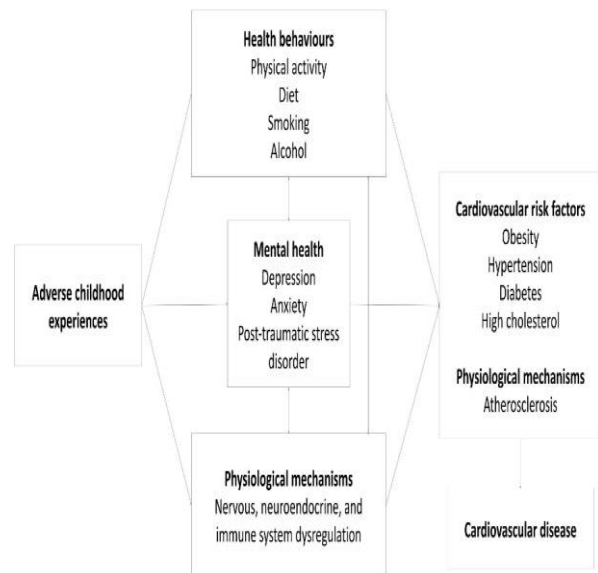
Clinicians considering how to distinguish Guillain-Barré syndrome from Nitrous Oxide (N₂O)-induced neuropathy suggest that the pathophysiology of N₂O exposure demonstrates that vitamin B12 is not an appropriate biomarker. Homocysteine is a sensitive biomarker for recent N₂O consumption but lacks specificity, and although plasma MMA is a reliable marker of functional vitamin B12 deficiency and can aid evaluation of clinical severity, it lacks sensitivity in N₂O intoxication as its elevation is not consistent. In the context of N₂O consumption, authors recommend a combination of biomarkers. The Eur. Federation of Laboratory Medicine is currently formulating guidelines on biological parameters for initial evaluation and follow-up of N₂O intoxication. Professor Noyce is a member of the EFLM Task and Finish group.



Pathways linking adverse childhood experiences with cardiovascular disease

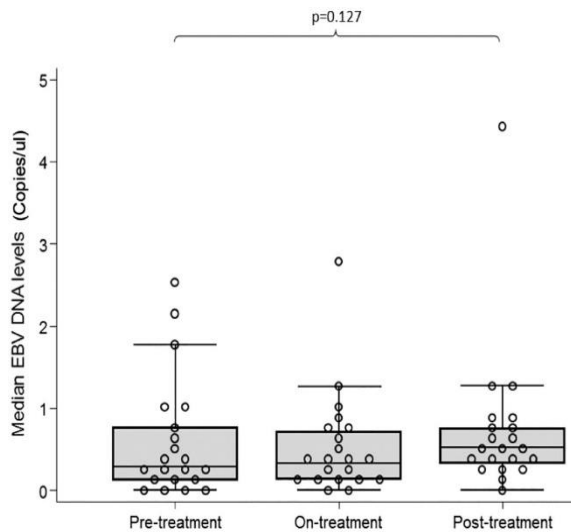
21 December (John Ford. Centre for Primary Care)

To address uncertainty about which factors mediate the association between adverse childhood experiences (ACEs) and cardiovascular disease (CVD), researchers measured retrospective exposure to 12 ACEs, current exposure to potential mediators (smoking, physical activity, alcohol consumption, BMI, depression, and C-reactive protein), and incident CVD, in a cohort of 4547 individuals. In 45% of the cohort at least one ACE had been experienced, and 24% developed incident CVD (median follow-up 9.7yrs). Results show that experiencing ≥4 ACEs (v 0) was associated with incident CVD. The association of 1-3 ACEs (v 0) was non-significant. Authors conclude that inflammation and depression partially mediated the ACE-CVD association, and that targeting these factors may reduce future CVD incidence.



Effect of famciclovir on EBV shedding in patients with MS

22 December (Ruth Dobson, Nicky Vickaryous, Jon Bestwick, Katila George. Centre for Preventive Neurology)

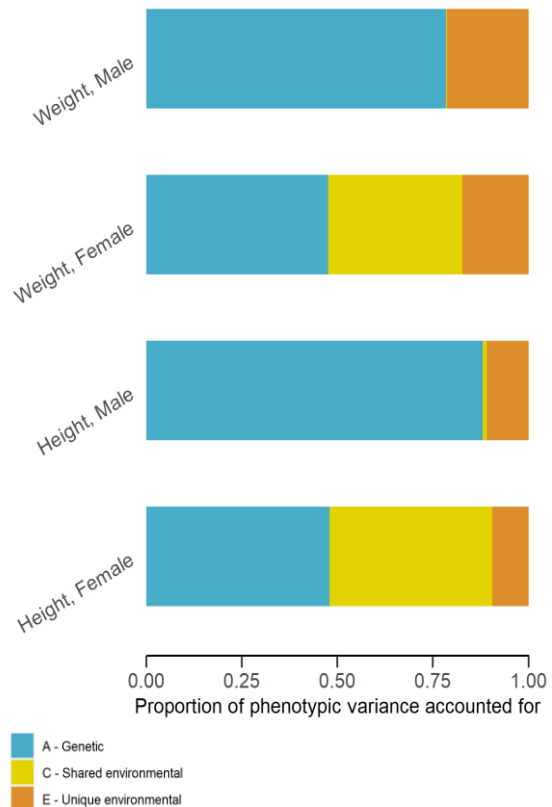


A small pilot study has found no significant effect of famciclovir on salivary Epstein Barr virus (EBV) shedding in people with Multiple Sclerosis (MS). Despite increasing evidence that EBV plays a causal role in MS, no treatments have been shown to reduce EBV turnover. Authors note that, given the low numbers in this study (21 participants provided at least one usable saliva sample in all epochs), a small effect of famciclovir cannot be ruled out, and that salivary shedding in this natalizumab-treated MS cohort was lower than in previous studies.

Aetiology of dietary choices and cardio-metabolic risk factors in Sri Lanka

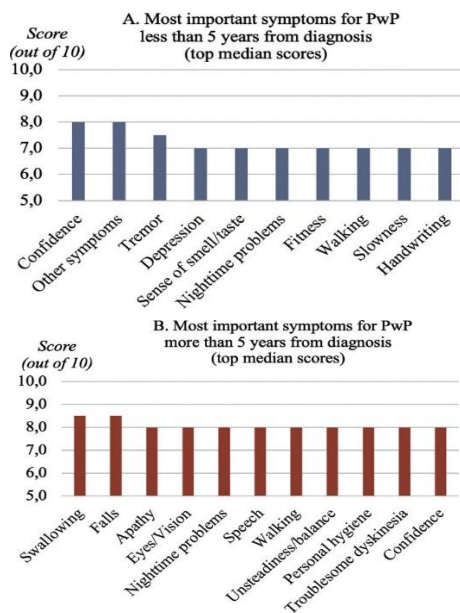
22 December (Laura Riddleston. Centre for Psychiatry and Mental Health)

Although typically considered an environmental risk factor, dietary choice has been shown to be genetically influenced, and genes associated with this behaviour correlate with metabolic risk indicators. Researchers investigating the aetiology of dietary choices and cardio-metabolic phenotypes in COTASS, a population-based twin and singleton sample in Sri Lanka, used questionnaire responses to assess frequency of intake of 14 food groups. Anthropometric and cardio-metabolic phenotypes (weight, blood pressure, cholesterol, fasting plasma glucose and triglycerides) were collected. Frequency of consumption of most food items was found to be largely environmental in origin, with modest genetic influences for some food groups (eg. fruits/leafy greens). Cardio-metabolic phenotypes showed moderate genetic influences with some shared environmental influence for BMI, blood pressure and triglycerides.



Patient-centred primary outcome measure for Parkinson's trials

22 December (Brooke Huxford, Alastair Noyce. Centre for Preventive Neurology)



A group of experts in Parkinson's disease (PD), statistics, and health economics, and patient and public involvement and engagement (PPIE) representatives have selected the Movement Disorder Society Unified Parkinson's Disease Rating Scale (MDS-UPRS) Parts I + II sum score as the most appropriate patient-centred primary outcome measure for Parkinson's disease modification trials over three or more years. A larger PPIE group provided input, and feasibility, clinimetric properties, and relevance to patients were assessed and synthesised to reach the selection of the score.

Changing attitudes to sexual and reproductive health in Cuba

24 December (Fiona Samuels. Centre for Public Health and Policy)

Using primary data collected in Cuba, researchers explore the experiences of adolescent girls and young women and the contradictions they face as they negotiate attitudes and behaviours towards sexual and reproductive health. Covering sexual and reproductive knowledge, misconceptions and attitudes, sex education, adolescent pregnancy and decision making, abortion as birth control, and ideals of womanhood, the analysis highlights how, despite the family planning services and educational opportunities made available to them, young women's reproductive and sexual choices are often determined by men and by values that accord primacy to marriage and motherhood, as conservative values are increasingly gaining a foothold. The paper forms part of a wider study on family, sexuality and SRH and young women's economic empowerment in Cuba.



Lived experience codesign of self-harm interventions

27 December (Natalia Lopez Chemas, Claudia Cooper. Centre for Psychiatry and Mental Health)



A scoping review of publications describing how people with lived experience of self-harm (first hand or caregiver) have engaged in codesigning self-harm interventions identifies 22 codesigned interventions across mobile health, educational settings, prisons and emergency departments. Few studies included contributors from a minoritised ethnic or LGBTQIA+ group. Authors note that to realise the potential of codesign to improve self-harm interventions, people with lived experience must be representative of those who use services. This requires processes that reassure potential contributors and referrers that codesigners will be safeguarded, remunerated, and their contributions used and valued.

Community pharmacy care provision to marginalised communities

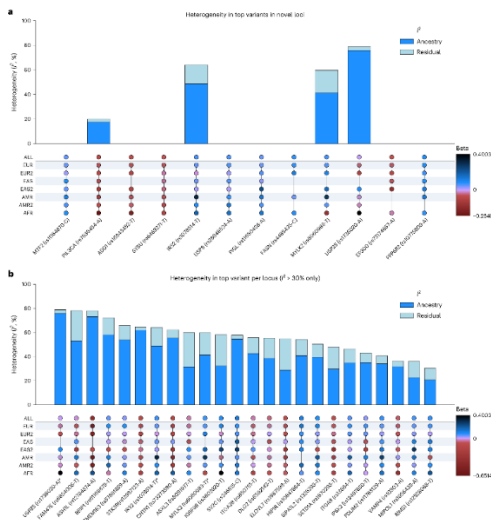
28 December (Nina Fudge. Centre for Primary Care)

An interview study exploring the experiences and needs of UK community pharmacy teams in providing care for marginalised groups since the pandemic finds that pharmacies have become busier since COVID-19 because of increased footfall, compounded by patient difficulties in navigating remote digital systems. Researchers identified opportunities to better utilise community pharmacy team skills, including access to translation services, and interventions to enable better communication with other primary care services (eg. general practice).



Multi-ancestry meta-analysis identifies potentially novel Parkinson's loci

28 December (Jeff Kim, Alastair Noyce. Centre for Preventive Neurology)



A large-scale multi-ancestry meta-analysis of Parkinson’s disease (PD) in individuals of European, E. Asian, and Latin American ancestry identifies 78 independent genome-wide significant loci, including 12 that are potentially novel. Combining the results from 49,049 PD cases, 18,785 proxy cases and 2,458,063 controls with publicly available data, researchers identified 25 putative risk genes in the novel loci. The results lay the groundwork for identifying PD loci in non-European populations.

Screen early to detect cancers, experts urge

29 December (Ranjit Manchanda. Centre for Cancer Screening, Prevention and Early Diagnosis)

An article in China Daily (Hong Kong) on early screening for cancer detection extensively quotes Ranjit Manchanda as the expert leading the effort to develop risk-stratification modelling to allocate screening resources to high-risk populations. Ranjit notes that the new PROTECT-C trial will test women in the general population for a list of genes associated with breast, ovarian, womb and bowel cancer, and provide personalized risk assessment for breast and ovarian cancer to identify those at higher-risk who can benefit from targeted screening and preventive interventions.



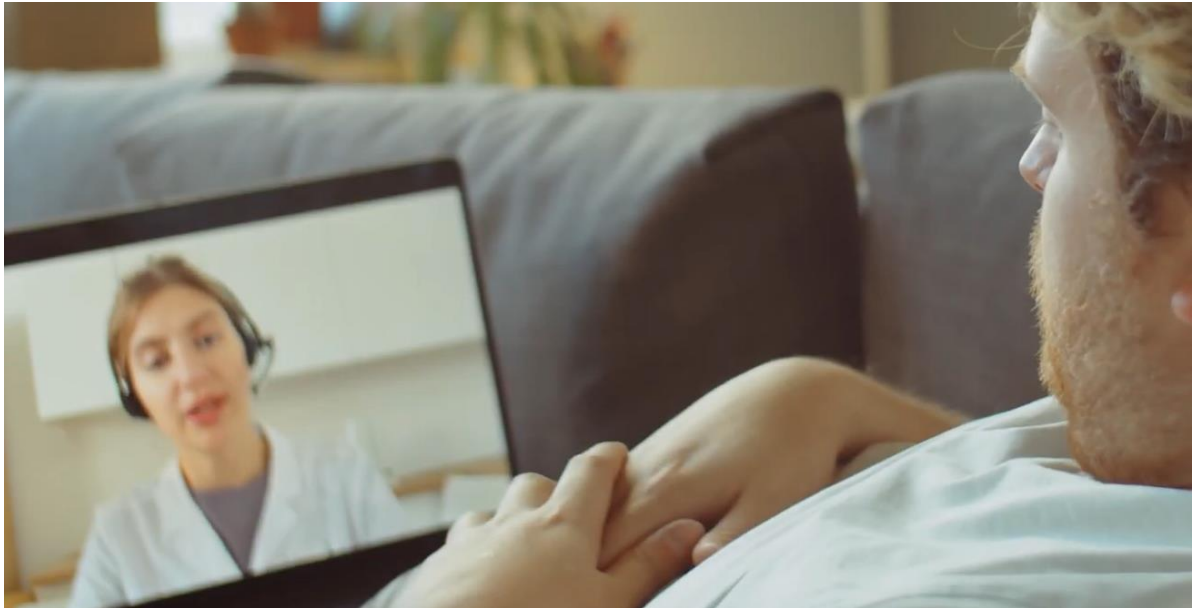
AI includes complex mathematical modeling. These tools are valuable in selected screening strategies, for example, in screening for some cancers and also for predicting risk for some cancers. These have been and are being used in trials for screening and also predicting cancer



Satisfaction with telemedicine use during the pandemic

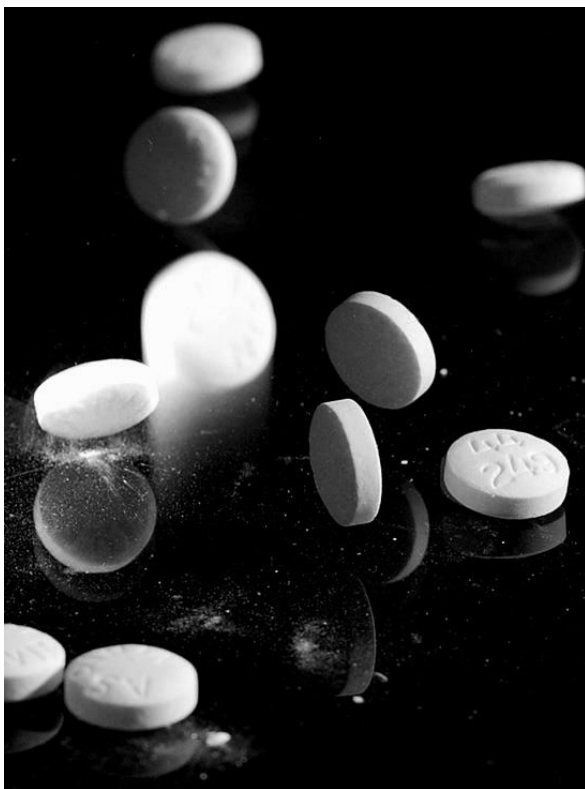
31 December (Wiam Alashek. Centre for Public Health and Policy)

A review of 27 studies evaluates satisfaction of healthcare users and providers with use of telemedicine during the COVID-19 pandemic. Data were gathered from emergency and non-emergency departments of primary, secondary, and specialised healthcare, with almost all studies undertaken in the NHS. Satisfaction among recipients of healthcare scored highly (73.3-100%), and satisfaction of clinicians was high throughout specialties despite some connection failure and confidentiality concerns. Convenience was highly rated in all specialties examined, although studies reported perception of increased barriers to accessing care and inequalities for vulnerable patients, especially the elderly. Authors conclude that telemedicine provided continued care throughout the pandemic, while maintaining social distancing.



NSAID prescribing and adverse outcomes in common infections

2 January (Beth Stuart. Centre for Evaluation and Methods)

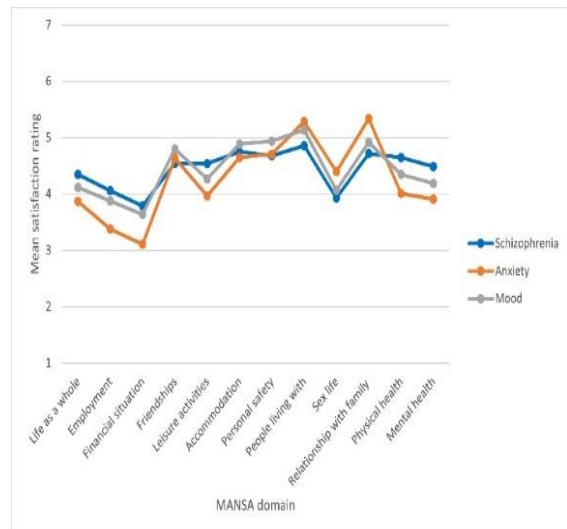


To determine whether NSAID prescribing in primary care is associated with adverse outcomes for respiratory (RTIs) or urinary tract (UTI) infections, researchers evaluate electronic health records for 142,925 patients consulting for these infections in 87 UK general practices against repeat consultations, hospitalisation or death <30 days after initial consultation. Results show an increase in hospital admission/death for acute NSAID prescriptions (RR 2.73) and repeat NSAID prescriptions (6.47) in RTI patients, and for acute NSAID prescriptions for UTI (RR 3.03). While NSAID prescribing data can only detect a signal, not a full picture of the impact, because of over-the-counter access, this study shows that prescription of NSAIDs at consultations for RTI or UTIs in primary care is infrequent but may be associated with increased risk of hospital admission.

Subjective quality of life domains in schizophrenia, mood, & anxiety disorders

3 January (Vicky Bird. Centre for Psychiatry and Mental Health)

Combining samples from 4 studies, researchers comparing satisfaction with subjective quality of life domains in 5329 individuals with schizophrenia or mood or anxiety disorders. Results show that those with an anxiety disorder had the widest range of scores and reported lower satisfaction in most domains, and this group rated domains to do with 'others' (eg: relationships with family, sex life) lower than individuals with a mood or anxiety disorder. Ratings were often more affected by personal characteristics (eg: employment status) than by diagnostic category.



Assessing Radiological Response to Immunotherapy in Lung Cancer

3 January (Michail Sideris. Centre for Cancer Screening, Prevention and Early Diagnosis)

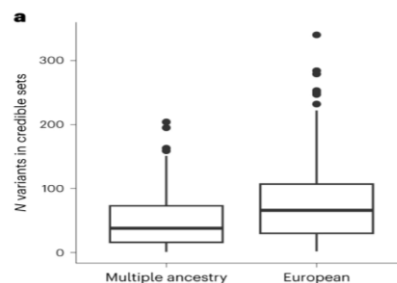


Immune checkpoint inhibitors have led to significant survival benefits for patients with advanced and metastatic non-small-cell lung cancer, but have also created new challenges. Atypical immunotherapy response patterns and immune-related adverse events create a need for new methods to predict patient response to treatment. A new review considers response evaluation criteria relevant to unique radiological findings in these patients.

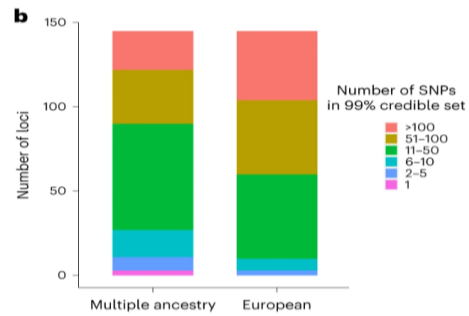
Multi-ancestry genome-wide association study of major depression

4 January (Sarah Finan. Centre for Primary Care)

A multi-ancestry genome-wide association study of major depression (MD), adding data from 21 cohorts with 88,316 MD cases and 902,757 controls to previously reported data, identifies 53 significantly associated novel loci. The study included samples from African (36% of effective sample size), East Asian (26%) and South Asian (6%) ancestry and Hispanic/Latin American participants (32%). A transcriptome-wide association study identified 205 significantly associated novel genes. Findings suggest that, for MD, increasing



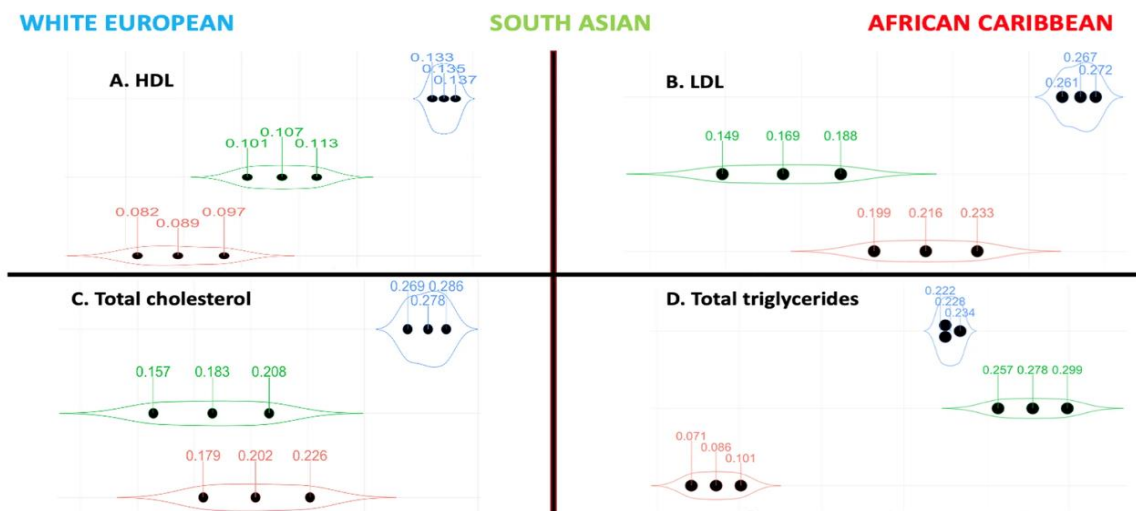
ancestral and global diversity in genetic studies may be particularly important to ensure discovery of core genes and inform about transferability of findings.



European-centric cardiometabolic polygenic risk scores

5 January (Rohini Mathur. Centre for Primary Care)

A study evaluating polygenic risk scores (PGS) performance for glycaemic traits, cardiometabolic risk factors and cardiovascular diseases in people of White European, South Asian, and African Caribbean ethnicity in the UK Biobank finds that PGS derived mostly from European populations had an overall better performance in White Europeans compared with S. Asians and African Caribbeans. Authors conclude that, as cardiometabolic diseases disproportionately affect people of non-European ancestry, multi-ancestry genome-wide ancestry study data are needed to derive ancestry stratified PGSs to tackle health inequalities.



Expert Opinion on anti-smoking pill Cytisine

7 January (Peter Hajek. Centre for Public Health and Policy)

New anti-smoking pill set for NHS postcode lottery

EXCLUSIVE

The cost of cytisine pills - £115 for a 25-day course of 100 pills - may put some areas off from providing the medicine as part of their health services



More than 6 million people in the UK smoke while smoking remains the leading cause of cancer causing around 150 new cases a day. (Photo by JUSTIN TALLIS/AFP via Getty Images)

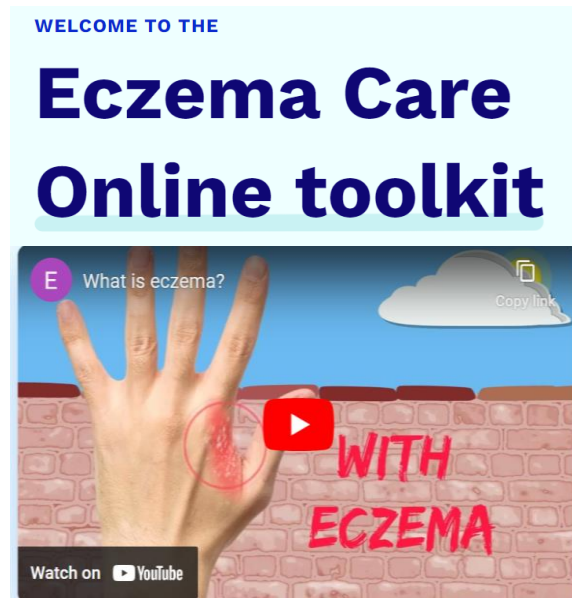
Cytisine, a new pill recently approved by the regulators and shown to help smokers quit, will become available on the NHS from 22 January, but costs (£115 for a 25-day course) may deter some health services from providing it. In expert advice published in *i-news*, Peter Hajek said 'Compared with medications for stopping smoking, low-risk nicotine delivery devices such as vapes are helping a much larger proportion of smokers, but medical treatments are still needed for those who do not find vapes helpful or do not want to continue nicotine use.'

Cost-effectiveness of two online interventions supporting self-care for eczema 9 January (Beth Stuart. Centre for Evaluation and Methods)

To estimate cost-effectiveness of online behavioural interventions designed to support eczema self-care management for parents/carer/young people from an NHS perspective, 2 within-trial economic evaluations were undertaken alongside 2 parallel group RCTs, among parents/carers of children aged 0-12 (trial 1) and people aged 13-25 with eczema scored ≥ 5 on the Patient-Oriented Eczema Measure. The intervention was cost saving and more effective, with a high probability of cost-effectiveness ($> 68\%$) in most analyses. Authors conclude that the free at point of use online eczema self-management intervention was low cost to run and cost-effective.

WELCOME TO THE

Eczema Care Online toolkit



What is eczema?

Copy link

WITH ECZEMA

Watch on YouTube

FORTHCOMING EVENTS

CCSPED Celebration Event: 16 and 17 January

All are cordially invited to join this two-day event, celebrating the launch of the Centre for Cancer Screening, Prevention and Early Diagnosis, and the distinguished careers of Professors Stephen Duffy and Jack Cuzick. Featuring UK and international speakers over multiple sessions, this mini-symposium to be held at Charterhouse Square will showcase the breadth and depth of our research. Please book to reserve your place and to see the agenda.



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