

**WOLFSON INSTITUTE OF POPULATION HEALTH
NEWSLETTER
ISSUE 69: 10 January 2025**

In this first 2025 issue of our Wolfson Institute of Population Health Newsletter, we celebrate the achievements and work of staff and students in the second half of December 2024, and to date so far in 2025.

FROM OUR DEPUTY INSTITUTE DIRECTOR

Dear Colleagues

In today's MEET WIPH, Dr Hajar Hajmohammadi, senior data analyst from CPC, shares her role and impressive achievements. Dr Hajmohammadi enjoys the multidisciplinary nature of her work. Here for all our enjoyment are just some of the new applied, multidisciplinary WIPH research findings published this month. They include evidence supporting effective MS treatment during pregnancy, cervical cancer screening and lung cancer early detection, and strategies to help children to communicate feelings of stress. Other new publications look at abstinence after e-cigarette trials, increasing fruit and vegetable consumption in deprived communities and oral health of people leaving prison. We celebrate the wonderful news that Emeritus Professor Jack Cuzick and Professor Peter Sasieni were recognised in the King's New Year Honours list. Jack received a Knighthood for services to cancer prevention, and Peter a CBE for services to cancer early detection and prevention.

A warm welcome back, refreshed from sabbatical, to Dr Meg Clinch, Institute Director of Education! It is a busy time for teaching teams preparing for term two, with many new innovative projects, including the MSc psychological therapies launch of a new Severe Mental Illness module - I'm looking forward to teaching on it!

At our January all-staff meeting, Elizabeth Sampson and Adam Gordon, the two new WIPH-based ACHA Professors, shared their exciting plans for clinical healthy ageing research embedded in North East London services and populations. As WIPH research and teaching soar, I'll appropriately end with Liz, Adam and Nathan on the Royal London Hospital Helipad, with acute care colleagues from NE London, during a visit to discuss new clinical research programmes - exciting times ahead!

With best wishes

Claudia



MEET WIPH

MEET - Hajar Hajmohammadi (Centre for Primary Care)

How would you describe your roles and responsibilities?

I am a Senior Data Scientist at CPC, a Research Fellow at the Asthma UK Centre for Applied Research, and Co-Lead of the Health Economics and Data Theme at NIHR Applied Research Collaboration North Thames. My responsibilities include designing and conducting data analysis and statistical modelling for research projects, authoring scientific papers and developing grant proposals, coordinating interdisciplinary research projects across air pollution, data linkage, and applied research methods, and building partnerships with stakeholders, policymakers, and healthcare providers to drive impactful collaborations.

What has been your greatest professional achievement?

My greatest professional achievement is fostering a friendly and supportive network with colleagues, both within QM and externally with institutions such as Imperial College London and UCL. These connections have been instrumental in advancing my career and broadening opportunities for impactful collaborations.

What aspects of your role do you enjoy the most?

I enjoy the multidisciplinary nature of my work, which allows me to engage with diverse fields and perspectives.

What would be your second choice as a profession?

I would pursue a career as a transport modeller, combining my passion for data and systems analysis with real-world applications.

What do you enjoy doing outside work?

I enjoy reading, running, and spending quality time with my family.

Something most people don't know about you?

I'm passionate about fashion and love designing dresses as a creative hobby. I enjoy experimenting with fabrics, colours, and styles, and even design bespoke pieces for family and friends on special occasions.

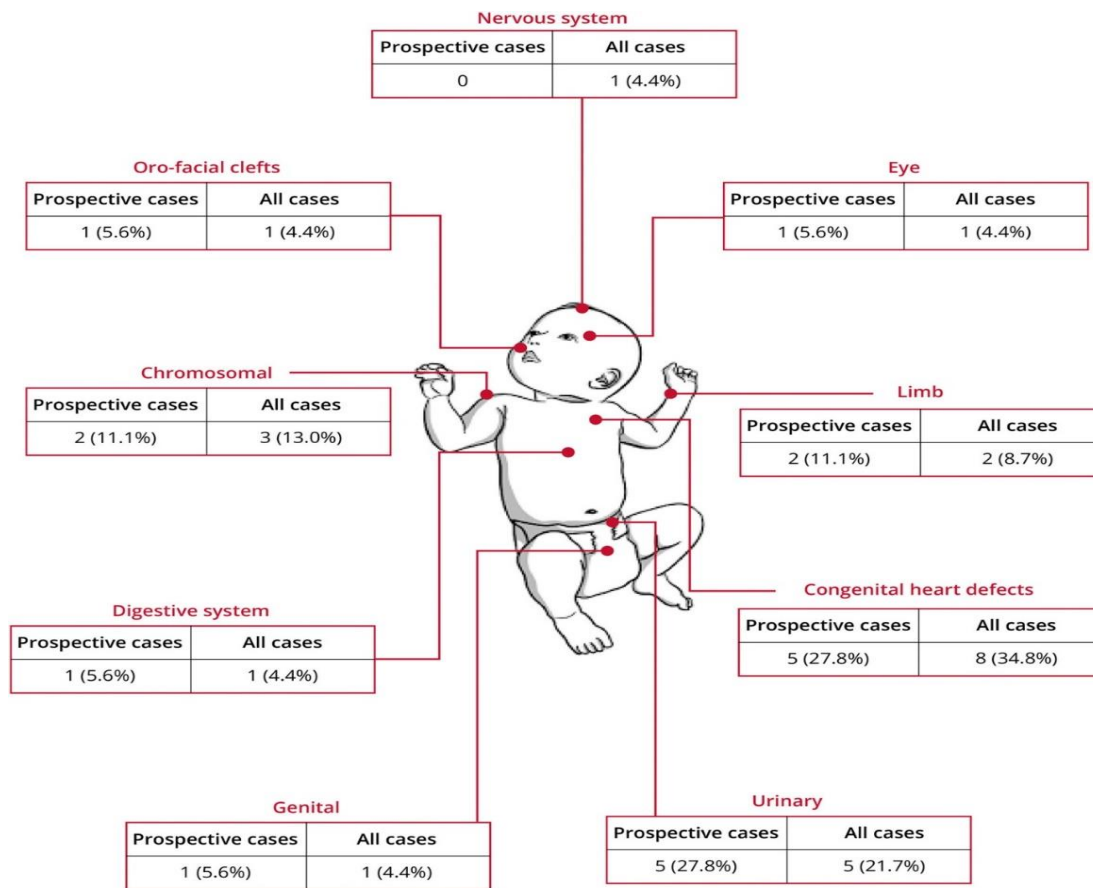


GENERAL INSTITUTE NEWS

Pregnancy and infant outcomes in women with MS using ocrelizumab

17 December (Ruth Dobson, Centre for Preventive Neurology)

Contraception is advised for women during ocrelizumab treatment and for 6-12 months thereafter. To understand pregnancy and infant outcomes in women with multiple sclerosis (MS) after ocrelizumab exposure, researchers analysed exposures reported to Roche global pharmacovigilance. From 3244 reported pregnancies in women with MS receiving ocrelizumab, exposed and nonexposed groups had similar proportions of preterm births and spontaneous abortions. The proportion of LBs with MCAs was similar between the exposed and nonexposed groups and within epidemiologic background rates. Authors conclude that in utero exposure to ocrelizumab was not associated with an increased risk of adverse pregnancy or infant outcomes, and hope that these data will enable neurologists and women with MS to make more informed decisions around family planning, balancing safety risks to the fetus/infant against the importance of disease control in the mother.



Cybercrime victimisation among older adults

18 December (Claudia Cooper, Alex Burton. Centre for Psychiatry and Mental Health)



Investigating cybercrime, repeat victimisation and associated financial loss among people who have used the internet in the past year, researchers analysed responses from the 2019/20 Crime Survey for England and Wales. Despite being at lower risk of reporting any cybercrime in the past year, people aged 75+ were more likely to report financial loss resulting from cybercrime victimisation and repeat cybercrime victimisation than younger people. Men and those from mixed or Black ethnic groups, more deprived areas, managerial professional groups, and with worse health were at greater cybercrime risk. Understanding why poor health predicts cybercrime could inform prevention initiatives to benefit older age groups and mitigate risks of growing internet use among older adults. This paper was covered in 11 news outlets in the 2 days after publication.

DNA methylation markers for cervical cancer in self-sampling

18 December (Zhe Yang Yim, Hannah Mohy-Eldin, Belinda Nedjai. Centre for Cancer Screening, Prevention and Early Diagnosis)

Self-sampling may increase uptake of cervical cancer screening in Low- and Middle-Income Countries (LMICs) and is being implemented in screening programmes worldwide. DNA methylation, a novel biomarker, could be used for triage of self-collected samples that test positive for high-risk types of Human Papillomavirus. A review of studies assessing the efficacy of DNA methylation markers to detect cervical intraepithelial neoplasia (CIN) in self-collected cervicovaginal swabs or urine finds that DNA methylation, together with self-sampling, could perform as well as cytology in the detection of CIN, improve screening uptake, and reduce loss to follow up, especially in LMICs. Authors say future studies should assess DNA methylation and self-sampling in large, diverse screening cohorts to determine which tests are most efficacious.



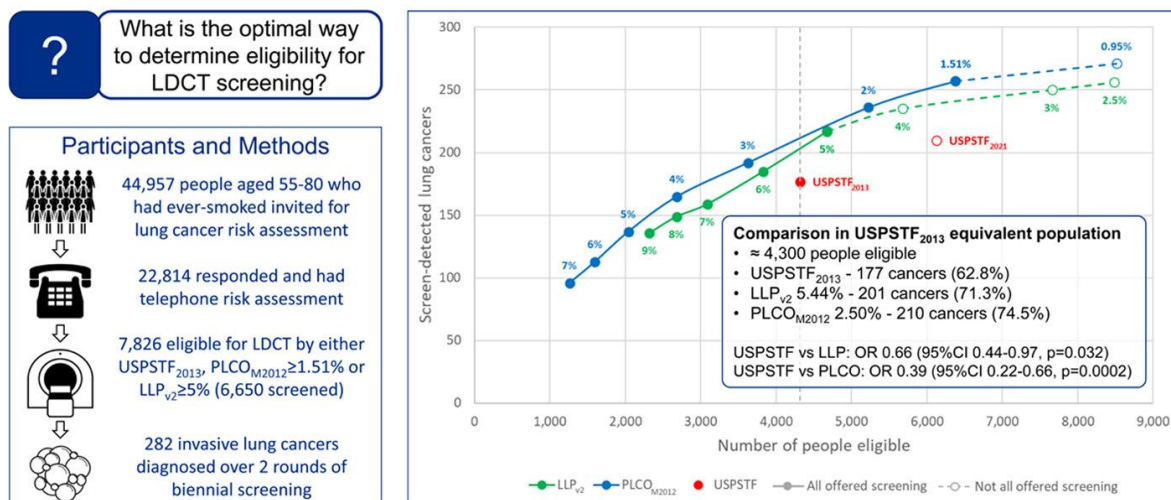
Yorkshire Lung Screening Trial: screening eligibility and detection

19 December (Rhian Gabe, Daniel Vulkan, Sammy Quaife. Centres for Evaluation and Methods/Cancer Screening, Prevention and Early Diagnosis)

Addressing a lack of consensus on optimal eligibility criteria for lung cancer screening, the Yorkshire Lung Screening Trial (YLST) prospectively evaluated 3 eligibility criteria. Using the Prostate, Lung, Colorectal and Ovarian study model (PLCO_{M2012}) $\geq 1.51\%$, the Liverpool Lung Project model (LLP_{v2}) $\geq 5\%$, and US Preventive Services Task Force 2013 screening recommendations (USPSTF₂₀₁₃), 7826 individuals were eligible under any of the three criteria. Results show that the PLCO_{M2012} $\geq 1.51\%$ criteria identified more people eligible for screening in YLST and resulted in more screen-detected lung cancers than LLP_{v2} $\geq 5\%$ or USPSTF₂₀₁₃. When compared in equivalent populations, there was no significant difference between risk models in terms of lung cancer detection and each appeared more efficient at screening population selection than USPSTF₂₀₁₃.

Prospective evaluation of lung cancer screening eligibility criteria and lung cancer detection in the Yorkshire Lung Screening Trial.

Journal of
Thoracic
Oncology



CONCLUSION: PLCO_{M2012} and LLP_{v2} detect more lung cancers than USPSTF₂₀₁₃ in an equivalent population



Gabe et al. *J Thorac Onc* (2024)

Acceptability of DIALOG+ in patients with chronic physical illnesses in Uganda

19 December (Francois van Loggerenberg, Vicki Bird. Centre for Psychiatry and Mental Health)

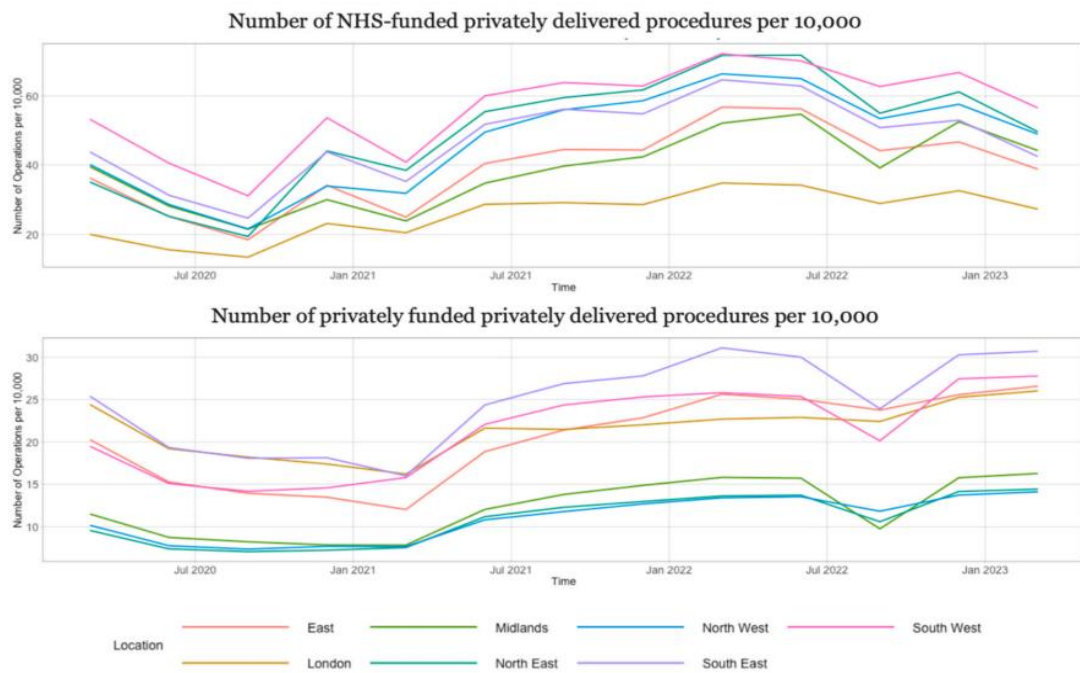


To assess the acceptability of the DIALOG+ intervention among patients with chronic physical illnesses in Uganda, researchers conducted interviews with patients and clinicians, and focus group discussions with patients at chronic physical illness out-patient clinics at two hospitals. DIALOG+ uses existing personal and social resources to improve the quality of life of patients with illness-related psychological distress. Results supported the acceptability of the intervention, evidenced by willingness to participate, better relationships between patients and clinicians, and improved control of both physical illnesses and psychological distress. Participants also talked about ways in which the implementation of DIALOG + could be improved.

Trends in NHS-funded privately delivered orthopaedic procedures in England

24 December (Lucy McCann, Helena Painter, John Ford. Centre for Primary Care)

A comparison of geographical trends in privately funded v NHS-funded but privately delivered orthopaedic procedures finds that more privately funded procedures were performed in the South of England (23 v 12 per 10,000 procedures) than the North, but more NHS-funded private procedures were performed in the North than the South (45 vs 40 per 10,000). From 2019-2023, the North of England had consistently shorter waiting times than the South (though with considerable variation across regions), and London had fewer NHS-funded procedures compared with other regions. Authors say that relying on the private sector to reduce waiting lists, without oversight, may exacerbate regional and socio-economic differences, and that policymakers should consider how the unequal distribution of funding and NHS-funded procedures could perpetuate inequalities.



Achieving earlier diagnosis of symptomatic lung cancer

26 December (Georgia Black, Sammy Quaife. Centre for Cancer Screening, Prevention, and Early Diagnosis)

Marked improvement in outcomes with modern treatment mean that early identification of lung cancer in symptomatic people, before they become unfit for treatment, is increasingly important. An expert group (the Roy Castle Lung Cancer Foundation working group on symptomatic diagnosis) has produced a set of recommendations for enhancing messaging to increase awareness of symptoms, and motivate and empower people to act, should symptoms arise. In addition, the group recommends safety netting, so that patients with normal initial imaging can receive further assessment should symptoms persist or worsen.

Box 1. Summary of recommendations

Promoting symptom awareness and help-seeking

- Campaigns should be endorsed by health authorities and assure patients that help seeking is encouraged.
- Messaging needs to be clear and designed to reach people who have never smoked, as well as those who have.
- Awareness campaigns should be funded as a long-term commitment, with continuous evaluation and regular refinement and updating of content.

Facilitating prompt investigation for possible symptoms of lung cancer

- Provide accessible data on imaging utilisation (for example, annual number of CXRs requested by general practices) to identify services where patients may benefit from increased opportunistic investigation.
- Facilitate access to investigation through patient-initiated pathways (for example, self-request CXR or lung cancer hotline).
- Formulate clear guidance for GPs on when to use direct access to CT using expert consensus where robust evidence is not available.

Mitigating diagnostic delays in those at low risk and who have had negative initial investigation

- Promote consideration of imaging for those at low risk (including never smokers) who have symptoms, particularly if persistent and/or patient/clinician concern.
- Provide guidance for GPs, through expert consensus if insufficient evidence available, on patients for whom CT should be considered following a negative CXR.
- Support GPs to provide specific 'safety-netting' advice to encourage patients to re-present if symptoms persist or evolve.

CT = computed tomography. CXR = chest X-ray.

WIPH Professors recognised in 2025 New Year Honours

30 December (Jack Cuzick, Peter Sasieni. Centre for Cancer Screening, Prevention and Early Diagnosis)

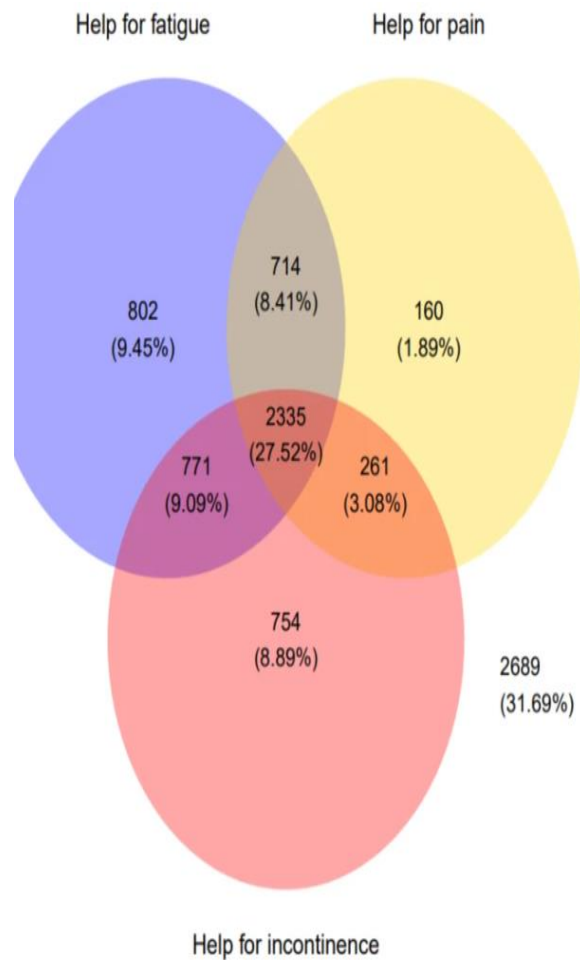
Emeritus Professor Jack Cuzick and Professor Peter Sasieni were both recognised in The King's New Year Honours list 2025. Jack received a Knighthood for services to cancer prevention, and Peter was awarded a CBE for services to cancer early detection and prevention. The New Year Honours list recognises the achievements and service of extraordinary people across the UK. Jack and Peter have worked together for over 25 years, particularly on HPV testing for cervical cancer screening, with Peter's clinical trials unit running Jack's trials on tamoxifen and anastrozole in breast cancer prevention.



Fatigue, pain and faecal incontinence in people with IBD

31 December (Laura Miller, Fionn Büttner, Thomas Hamborg, Bobby Mihaylova, Chris Roukas. Centres for Psychiatry and Mental Health/Evaluation and Methods)

Investigating the co-existence of fatigue, pain, and faecal incontinence in inflammatory bowel disease (IBD), researchers invited adults with IBD to complete questionnaires on symptom severity and impact, disease activity, anxiety and depression, and their desire for help with these symptoms. In 8486 responses, 54% reported faecal incontinence, 24% fatigue, 21% pain; 10% reported all 3 symptoms in the past week, and 29% reported none. On a severity scale, participants scored fatigue highest, followed by incontinence, then pain. For impact, participants scored incontinence highest, followed by fatigue then pain. Some 56% of respondents 'definitely' wanted help for fatigue; 53% for incontinence; 42% for pain, and 29% 'definitely' wanted help with all three symptoms. Authors conclude that there is a substantial currently unmet need for help for these symptoms, and that anxiety and depression are common, underdiagnosed, and independently associated with these symptoms.



Barriers to follow-up colonoscopy: behaviour change techniques

31 December (Stephen Duffy. Centre for Cancer Screening, Prevention and Early Diagnosis)



To address colonoscopy non-attendance and associated reduced colorectal cancer (CRC) survival, researchers conducted 2 studies to quantify barriers to colonoscopy, and test the effectiveness of 12 behaviour change techniques (BCTs) to address them. Study 1 participants were asked to imagine their next CRC screening result was abnormal, shown the English CRC Screening Programme abnormal result letter, and asked to complete a survey. Study 1 identified 5 items associated with intentions: 'Lack of understanding that CRC can be asymptomatic', 'Perceived importance of screening', 'Transport/travel', 'Shared decision making and family influenced participation', and 'Fear of pain and discomfort'. In study 2 participants received modified versions of the letter, incorporating one or more BCTs designed to target barriers identified in study 1, and then completed the same survey. Results from study 2 showed that inclusion of a social support message targeting 'shared decision-making and family influenced participation' facilitated independent decision making and increased intentions.

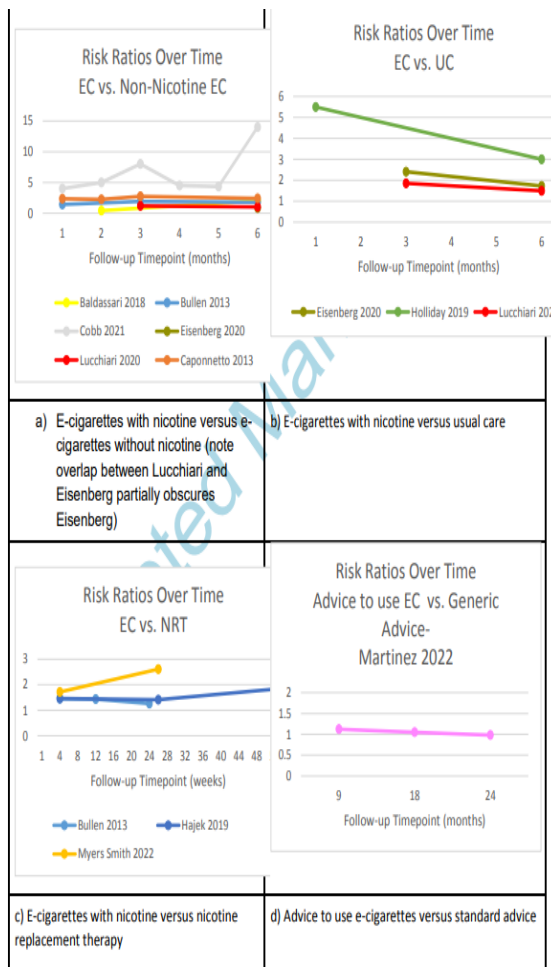
Pilot RCT: Fresh Street household fruit and vegetable vouchers

3 January (Clare Relton, Gemma Bridge, Darren Umney, Steph Taylor, Boby Mihaylova, Chris Griffiths, Richard Hooper, Rachel Phillips, Annette Gamston. Centres for Evaluation and Methods/Primary Care)

A pilot RCT in Tower Hamlets, Bradford, and Doncaster (inner city areas of high socioeconomic deprivation) assesses a new system for managing, printing and distributing Fresh Street fruit and vegetable paper vouchers, redeemable with local independent (non-supermarket) vendors. Weekly envelopes of 5x£1 vouchers, a healthy seasonal recipe, and brief nutritional information were offered to all households in 9 intervention streets, with 9 control streets receiving no intervention. Results show that the scheme was well received by households, local vendors and local public health teams, with highest household uptake in Tower Hamlets (75%) and Bradford (83%). Researchers suggest that future trials consider alternative methods of assessing household impact, but conclude that the system is potentially scalable in a full RCT.



Smoking abstinence patterns in trials of e-cigarettes for smoking cessation
4 January (Francesca Pesola. Peter Hajek. Centre for Public Health and Policy)



To better understand patterns of smoking abstinence and relapse in trials of e-cigarettes for smoking cessation, researchers conducted a secondary analysis of studies from a Cochrane review. Using the Cochrane risk of bias tool v1, of 15 studies (7233 participants) selected, 5 were at high risk of bias, 8 at low risk, and 2 had unclear risk. Results showed that while absolute continuous abstinence rates tended to decline over time, slopes varied. For absolute point prevalence abstinence over time, 3 studies demonstrated a shallow decline, 2 a steep decline, and 3 showed an increase in abstinence over time. Authors say their empirical investigation found considerable variation in smoking trajectories in e-cigarette trials, with data suggesting that risk ratios may not be stable over time and may increase or decrease in favour of e-cigarettes, depending on the study. Further data, especially on relapse rates in early quitters who use e-cigarettes versus those who use other or no stop-smoking aids, are needed.

My Story, My Words, My Mouth

6 January (Heather McMullen. Centre for Public Health and Policy)

Addressing a lack of research on oral health in community returners before and after they transition out of prison, researchers and 5 community returners co-designed a film showcasing dental experiences. In virtual workshops, community returners designed the storyboard and developed fictional characters incorporating their own lived experiences, portrayed in the film by professional actors who had contact with the justice system. 'My Story, My Words, My Mouth' explores themes of self-care oral health behaviours, dental care provision in prison, access to healthcare, stigmatisation, disclosure and improving oral health to support societal reintegration. In a Q&A session following the screening, video recordings were

Opening Night Reflections

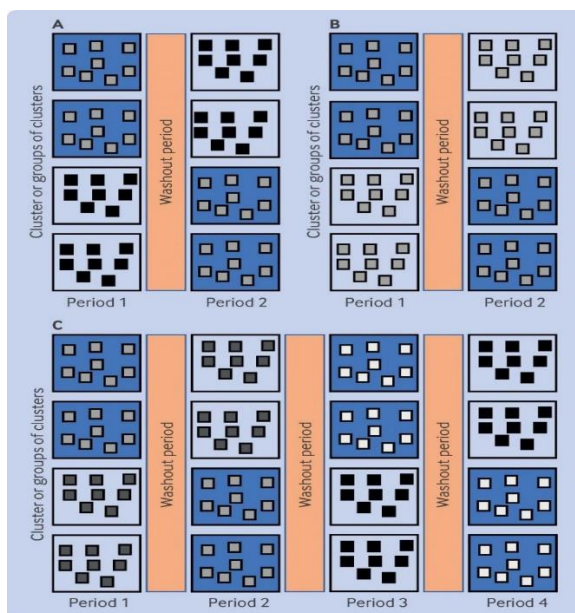
made of viewers sharing feedback, to inform future research projects. Authors say co-design can be an empowering platform to hear community returner voices and that, using the medium of film, an oral health promotion tool can build understanding about the health needs of underrepresented groups.



My Story, My Words, My Mouth

CONSORT extension for reporting cluster randomised crossover trials

6 January (Sandra Eldridge, Richard Hooper. Centre for Evaluation and Methods)

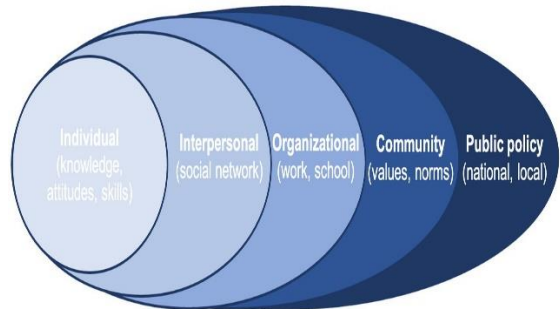


A BMJ article [presents](#) a CONSORT (consolidated standards of reporting trials) extension for cluster randomised crossover trials (CRCTs), which involve randomisation of groups of individuals (clusters) to different sequences of interventions over time. The design of CRCTs largely overcomes the loss in power due to clustering in parallel cluster trials, but has many methodological complexities, requiring tailored reporting guidance. The extension to the guidelines includes a checklist of 28 items, along with a separate checklist for journal and conference abstracts, and sample size items.

Body mapping to identify concepts of resilience in children

6 January (Aisling Murray, Francois van Loggerenberg, Dennis Ougrin, Jennifer Lau. Centre for Psychiatry and Mental Health)

Researchers working on the Development of Emotional Resilience (DEER) study have used body mapping as a novel approach to understand concepts of resilience in 196 children aged 7-10 from diverse ethnicities in East London. Participants drew a resilience symbol, wrote recent worries, and applied colour on an A4-sized body map to signal where they embodied stress. Content analysis identified 4 thematic categories related to worries, somatic stress, and resilience, and identified concepts of resilience included perseverance and metaphorical representations of personal strength. Authors conclude that, through prioritising children's perspectives, body mapping holds promise in clinical and educational settings.

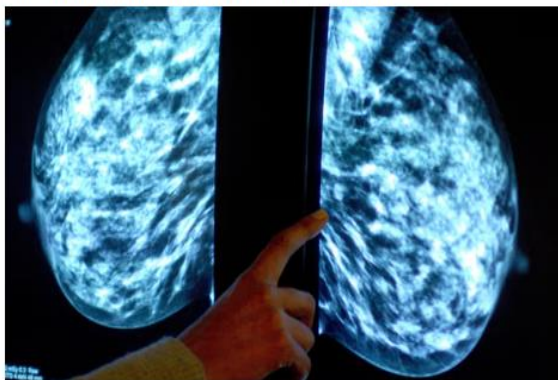


Guardian article: More breast cancer cases found when AI used in screening
 7 January (Stephen Duffy. Centre for Cancer Screening, Prevention and Early Diagnosis)



More breast cancer cases found when AI used in screenings, study finds

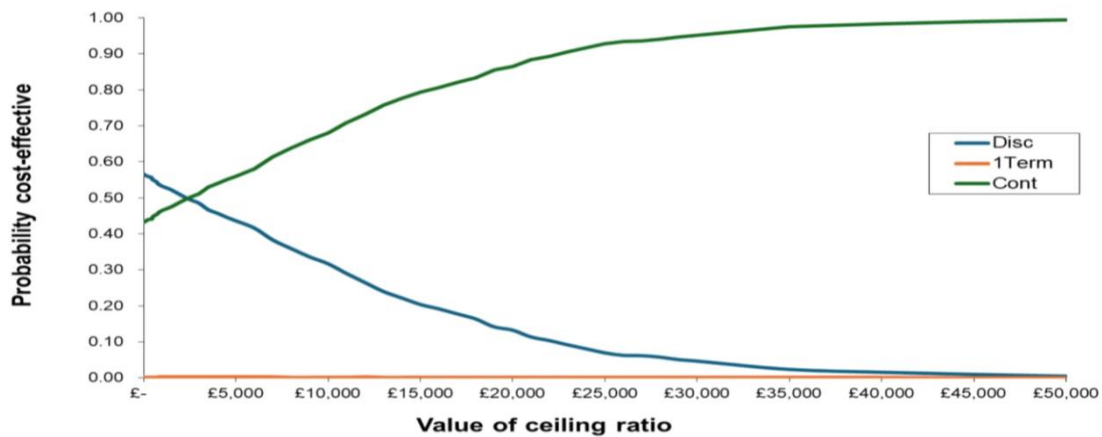
First real-world test finds approach has higher detection rate without having a higher rate of false positives



Stephen Duffy provided expert comments for the Guardian on a new study in Nature Medicine about the use of artificial intelligence in breast screening. The study found that the detection rate, after taking into account factors such as the women's age and the radiologists involved, was 17.6% higher for the AI group at 6.70/1000 v 5.70/1000 women for the standard group. Importantly, the rate at which women were recalled for further investigation as a result of a suspicious scan was about the same in both groups. Stephen Duffy, Emeritus Professor of Cancer Screening at QMUL said the results were credible and impressive: 'Here in the UK, there is specific interest in whether use of AI plus a single radiologist can safely replace reading by two radiologists. The sooner this is researched definitively the better.'

Cost effectiveness of natalizumab treatment for pregnant women with MS
 7 January (Ruth Dobson. Centre for Preventive Neurology)

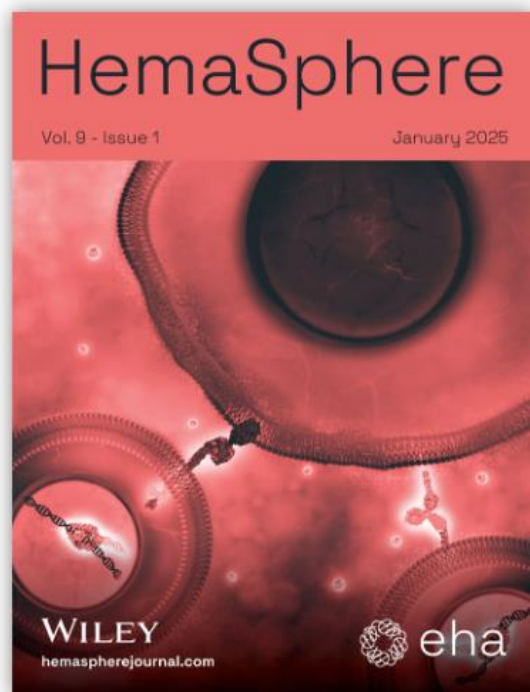
An evaluation of the cost-effectiveness of three natalizumab treatment strategies during pregnancy for women with multiple sclerosis (MS): continuous treatment through pregnancy, treatment into the first trimester followed by discontinuation, and discontinuation at conception with resumption post-pregnancy shows that continuous treatment through pregnancy is the most cost-effective approach. Authors say that their findings should inform clinical guidelines and support healthcare providers and women with MS planning their family in making evidence-based decisions to improve the management of MS during pregnancy.



"Low-risk" myelodysplastic neoplasm (MDS)

7 January (Stephen Hibbs. Centre for Primary Care)

Arguing that disease names matter, authors of an editorial revisit the language used to describe myelodysplastic neoplasia (MDS), the rationale and consequences of the WHO renaming of myelodysplastic *syndrome* as *neoplasia*, (whilst still, confusingly, retaining the acronym MDS) and the label of "low risk" MDS (for which average survival is just over 5yrs). They suggest that clinicians consider the positive and negative implications for patients of the renaming of MDS as a neoplasm, and that removing the misleading 'low-risk' label could helpfully shift perceptions and priorities, strengthen the case for addressing unmet needs through research, and support clinicians to holistically discuss illness experience and treatment options.



Feasibility within-subject RCT of neuromuscular electrical stimulation

8 January (Adam Gordon. Centre for Primary Care)



A feasibility study examining whether neuromuscular electrical stimulation (NMES) may be a potentially effective intervention to improve outcomes after a fragility fracture finds that, while evaluation of the effect of NMES in fragility fracture patients in a multi-centre trial using home-based NMES would be feasible, it would be possible only in a minority of mildly frail fragility fracture patients with little premorbid disability. While 53% of the 29 patients recruited achieved the target of 24 NMES sessions, 5/29 withdrew due to intolerance of NMES. Results showed that leg muscle strength improved in both treated and untreated legs, with marginally greater improvement observed in the tibialis anterior of treated legs.










Public understanding of preventing neurodegenerative disorders

8 January (Alison Thomson, Charlotte Kenten, Sallyann Browning, Tommy Pouncey, Rachel Horne, Claudia Cooper. Centres for Preventive Neurology/Psychiatry and Mental Health)

Discussing the shift towards prevention in the NHS, authors of an editorial highlight a goal to reduce the number of people (nearly a million in England) living with neurodegenerative diseases, which are major causes of long-term disability and ill-health. A policy report by the authors investigates public awareness and expectation around prevention of the 3 most common of these diseases, with a commissioned survey of 1740 people showing that awareness of possible preventive measures was highest for dementia (43% said they knew what to do to prevent it or had some knowledge), but fewer (<10%) knew about preventive measures for MS and Parkinson's. Around half of respondents expressed willingness to participate in prevention research for these disorders. Authors say that combined prevention and cure would be a transformative agenda and that their research suggests it would be understood and embraced by the public.

Measures to Prevent Disease

How might we help move up the knowledge ladder?

	Dementia	Parkinson's	Multiple Sclerosis
Know what to do	 5%	 2%	 2%
Have some knowledge	 38%	 8%	 7%
Don't know or don't know much	 57%	 90%	 92%

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