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Abstracts

Theme 1

Prevention, Addiction & Health Risks

1. Using behavioural science to design and mainstream a self-service, digitally enabled NHS Health Check model for lower-uptake working-age adults

Paul R. Stokes (Cambridgeshire County Council)

Purpose: Uptake of NHS Health Checks remains lowest among routine and manual workers, particularly men. This implementation pilot in Cambridgeshire and Peterborough explored behavioural and system-level barriers affecting access and tested whether a self-service, digitally enabled NHS Health Check model could improve reach, engagement and early identification of cardiovascular risk.

Intervention / Implementation: A self-service, digitally enabled NHS Health Check model was implemented across 55 workplace and community settings, delivered through Health Check Stations (using SiSU technology). The pilot was based on an evidence-informed behavioural hypothesis that workplace access would reduce barriers relating to time, convenience and perceived risk. COM-B was used as an interpretive lens to understand capability, opportunity and motivational drivers.

Impact / learning: The pilot delivered 15,278 self-service checks to 12,317 adults, with strong engagement from working-age men and younger adults. One-third of participants were from the most deprived quintiles; 13 percent recorded high blood pressure and 67 percent had overweight or obesity. A total of 4,210 checks triggered a GP follow-up action. Observed patterns of high engagement suggest that workplace delivery may reduce practical barriers seen in traditional appointments, while immediate feedback appears to support motivation to participate. Engagement patterns, user feedback and risk-prevalence data guided iterative adaptation.

Next steps: Learning from the pilot has informed the new local Behaviour Change Service, where self-service Health Check kiosks now form a core component alongside GP and outreach delivery. Next steps include linking kiosk data into GP systems, continuing behavioural refinements to on-screen messages, and developing a call-back pathway that connects users to a behaviour change practitioner for follow-up support.

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2. From Insights to Impact: Applied Behavioural Science in Primary Care

Kate Abendstern (Caja Ltd)

Purpose: Access to primary care across the UK is increasingly constrained, driving dissatisfaction, inappropriate demand, and avoidable pressure on urgent and emergency services. The project aimed to apply behavioural science systematically to reshape patient decision-making, optimise demand routing, and improve both access and patient experience within general practice. Partnering with Staffordshire and Stoke ICB, the objective was to develop and test a theory-driven, ethically aligned behavioural strategy to encourage appropriate use of the full primary care team.

Intervention/Implementation: Drawing on COM-B, the Theory of Planned Behaviour and MINDSPACE, Caja developed a Primary Care Access Pyramid and a suite of coordinated behavioural interventions. These included redesigned inbound telephone messages using social norms, salience and wait-framing; a care-navigation script and matrix with customer-service training; behaviourally optimised SMS booking and reminder messages; website heuristics; and multimedia nudges promoting digital access and Pharmacy First. Interventions were co-designed with practices, tested iteratively, and aligned to “libertarian paternalism” principles to preserve patient choice.

Impact/Learning: Trials across three practices demonstrated substantial behaviour change. DNA rates reduced by up to 21%, unused appointments fell from 18.4% to 12.4%, and online interactions, including repeat prescriptions and online consultations rose significantly. Practices observed reduced peak-hour call pressure, shorter maximum wait times, and greater use of non-GP clinicians. Staff reported improved confidence in care navigation, and patient feedback on new communication materials was highly positive.

3. Supporting adherence to UK lower-risk alcohol guidelines amongst middle-aged risky drinkers: a randomised trial of a brief intervention

Dominika Tkacova (Sheffield Hallam University)

Aims: Some middle-aged adults who are drinking alcohol at higher risk levels may show ‘unrealistic optimism’ in terms of the harms of excessive drinking. We were commissioned by Cambridgeshire County Council and Peterborough City Council to test whether loss or gain framed messages (with and without a self-affirmation task) could address this unrealistic optimism and increase intentions to drink alcohol within UK lower risk guidelines amongst middle-aged risky drinkers.

Methods: 295 middle-aged (35 – 59 years) risky drinkers were recruited via Prolific. Participants were randomised to one of four conditions combining message framing (a gain message highlighting the benefits of drinking in moderation vs. a loss message highlighting the risks of excessive drinking) with or without a task that asks participants to reflect on their core values and strengths (self-affirmation).

Results: Intentions to drink alcohol within UK lower risk guidelines increased across all conditions over time, but no differences emerged between interventions. Asking people to complete a brief self-affirmation task before viewing a loss framed message increased perceptions of perceived susceptibility to developing health risks due to alcohol consumption (including when compared to others their age who drink alcohol), and people believed that the message was persuasive/ acceptable and personally relevant to them. Gain-framed messages with or without self-affirmation enhanced positive affect.

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Conclusions: A brief message that asks people to reflect on their personal core values and strengths (self-affirmation), alongside risk messages about the harms of alcohol consumption, may help address unrealistic optimism amongst middle-aged risky drinkers.

4. Exploring the Knowledge, Attitudes, and Beliefs Towards the HPV Vaccination and How this Impacts Intentions to Attend Screening Among Individuals Invited/Eligible for Their First Cervical Screening in Wales: A Qualitative Study.

Caitlin Mason (Cwm Taf Morgannwg University Health Board, University of the West of England Bristol)

Aim: This study aims to address the current gap in evidence regarding how and why HPV vaccination impacts cervical screening uptake among young people living in Cwm Taf Morgannwg local authority areas in Wales. The research seeks to generate insights that may help reduce low screening coverage and the high incidence of cervical cancer within this population.

Methods: A qualitative design will be used, recruiting 10-15 participants. A research flyer will be shared with eligible individuals through Cervical Screening Wales in their first cervical screening invitation letters, and with eligible individuals attending the Cwm Taf Morgannwg University Health Board's CHOICE sexual health service, which engages priority groups experiencing barriers to mainstream healthcare. Participants will complete a pre-survey capturing demographic and health-related factors linked to screening behaviours. They will then take part in a semi-structured interview online (Microsoft Teams) or in-person, lasting approximately 30-60 minutes. Participants may receive a £25 Tesco e-voucher as a token of appreciation.

Results: Descriptive statistics will summarise participants characteristics. Reflexive Thematic Analysis, guided by Braun and Clarke's (2022) six-step framework, will be conducted inductively to identify themes and explore new insights.

Conclusions: The study is expected to provide valuable evidence on whether, how and why HPV vaccination impacts cervical screening intentions, help identify psychological and behavioural determinants influencing screening behaviours, and inform recommendations for screening programmes in Wales and the UK. This research may contribute to public health and behavioural science, and guide future policy, practice, research and intervention development.

5. Developing a Behaviourally Informed Playbook for Life Course Immunization

Alina Ojha (Busara Center for Behavioral Economics)

Purpose: The COVID-19 pandemic revealed gaps in vaccination programmes outside of childhood immunization. Behaviourally-informed life-course immunization interventions, which tailor vaccination approaches to people's needs at different life stages, aim to close these gaps. Achieving the goals of life-course immunization requires tailored, behaviorally-informed guidance on how a program can reach a variety of populations, across a variety of contexts, and in settings where the end beneficiary may not be the primary vaccination decision-maker.

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Intervention/Implementation: We aimed to provide such guidance through a structured playbook that walks vaccination program managers through the process of deciding how to tailor a new or existing program to better reach people at different life-course stages. It is designed (a) to refine existing immunisation programs with behaviorally informed recommendations that boost uptake of integrated services and (b) to support the rollout of new vaccines to populations outside of childhood immunization.

Impact/Learning: Next, we will test and refine the playbook content to ensure its usefulness and address gaps identified during playbook development. For example, we will user-test the playbook with a variety of implementers to refine assumptions about users, improve the usability and clarity of playbook processes, and ensure the relevance of recommendations for diverse delivery platforms, decision-makers, and populations. We will especially target implementers in a variety of low- and middle-income countries, as we learned while synthesizing evidence for the playbook that a handful of low- and middle-income countries, such as India and Nigeria, dominate the evidence base. Finally, we will develop a framework to monitor the playbook's impact so that implementers can further identify points of improvement. When the project is fully complete, we hope the playbook will serve as a practical resource to reach populations often missed by vaccination campaigns and as an important tool to improve global vaccination equity.

6. Keep Your Cool, Ditch the Vape: A Behavioural-Science and Co-Creation Approach to Tackling Youth Vaping in Tameside

Magpie Creative Communications

Purpose: Youth vaping is a complex problem characterised by rapidly evolving social norms, widespread misconceptions (e.g. "flavours equal safety"), and the complex tension between vaping as an adult cessation tool and a youth health risk. In collaboration with Tameside Borough Council, this project aimed to use behavioural science to decode these complexities, empowering 11–18-year-olds to resist social pressure and make informed, vape-free choices.

Intervention: We employed a deep co-production methodology to diagnose behavioural drivers, identifying critical capability gaps and environmental triggers (e.g., "school toilet culture"). Testing revealed that youth rejected "childish" warnings, favouring a mature, bold aesthetic with "punchy" facts. Consequently, we developed a multi-channel intervention based on specific behavioural levers, including risk reframing, self-efficacy building, and social norm correction. These were operationalised into a comprehensive toolkit (animations, guides, posters) delivered via a tiered "amplify, integrate, collaborate" model to suit varying school capacities.

Learning: The co-creation process revealed that traditional health warnings often fail due to low credibility among youth. We learned that successful intervention requires a hybrid approach: combining "myth-busting" credibility with high-fidelity, peer-validated aesthetics. The project demonstrates that tackling the complexity of youth addiction requires moving beyond simple information provision to addressing the specific psychological needs of the target demographic: autonomy and social standing.

Next steps: The intervention is currently being rolled out across Tameside schools. Future work will focus on evaluating the long-term impact on vaping prevalence and adapting the resources based on real-time feedback from the school "micro-systems."

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7. Tackling Medicines Waste Through Behavioural Science: A Human-Centred Approach to Reducing Repeat Prescription Over-Ordering

Magpie Creative Communications

Purpose: Medicines over-ordering is a complex challenge driven by the interplay of patient habit, anxiety regarding supply, and systemic pressures. Commissioned by North East & North Cumbria, this project aimed to address this problem, which costs the NHS substantial resources, by understanding the behavioural drivers behind stockpiling and designing an intervention to reduce waste without compromising patient safety.

Intervention: Using a COM-B-led mixed-methods approach (including stakeholder interviews and a public survey, n=222), we diagnosed that many patients failed to recognise their own behaviour as "over-ordering". To address this, we co-designed a multi-channel campaign (digital, radio, print) with patients to bridge the gap between systemic goals and patient understanding. The intervention translated complex system needs into simple, concrete behavioural instructions, leveraging the motivational power of financial impact data to disrupt habitual re-ordering.

Impact: Post-campaign evaluation (n=205) revealed that 73% of residents had an increased understanding of waste impact, and 83% understood the specific steps to reduce it. Crucially, prescribing data indicated a slowing of the historic upward trend in ordering volumes, suggesting a shift in real-world behaviour. The project demonstrated that simplifying the complexity of NHS costs into relatable narratives is highly motivating for behaviour change.

Next steps: This project offers a replicable model for using behavioural science to untangle other complex, resource-intensive healthcare challenges, such as antimicrobial stewardship and long-term condition management.

Theme 2

Health Systems and Services, Sustainability

1. Driving digital adoption in London's 111 services to improve care using patient insights and behavioural change approaches

Kate Lambe (Health Innovation Network)

Purpose: Demand for NHS 111 calls continues to exceed capacity, creating pressure on the sustainability and responsiveness of the service. This project aimed to increase uptake of alternative digital channels for eligible callers such as those seeking prescriptions or dental advice.

Intervention/Implementation: To understand barriers and facilitators to digital uptake, we gathered patient and public insights through focus groups and interviews, and analysis of over 10,000 survey responses. These findings informed the design of Interactive Voice Response (IVR) messaging used during 111 calls. Messages were developed using the EAST behavioural framework, which encourages uptake by making options Easy, Attractive, Social, and Timely. Two variations of EAST-based messaging were randomly tested against original messaging (control) across London to identify which achieved the greatest digital uptake.

Impact: Impact was analysed using Statistical Process Control (SPC) charts, which distinguish normal variation from specific, actionable change. Comparative analysis demonstrated that the 'Easy' messaging had the most significant positive effect, with digital uptake up to 12% higher among callers who received it. Importantly, trend analysis confirmed that the new messaging did not negatively affect 24-hour call-back rates, indicating patient safety and service quality were maintained.

Learning: Based on this success, the 'Easy' messaging was implemented for 111 callers across London. EAST informed messaging was also trialled in other pathways that offer alternative digital services such as symptom management videos, with the most effective messages adopted pan London. This project demonstrates how behavioural insights and patient engagement can support sustainable service delivery by encouraging digital uptake in urgent care pathways.

2. Integrating Behavioural Science into PHW's Leading for Improvement and Innovation Programme

Clara Barnes (Public Health Wales)

Purpose: Integrating behavioural science (BeS) into quality improvement (QI) ensures system changes are both technically effective and practically sustainable. BeS helps identify barriers, shape interventions that align with human motivation, and improve adherence to processes, while QI methods provide the structured framework to test and embed these changes. Together, they create improvements that are more impactful, resilient, and aligned with professional standards, ultimately bridging the gap between policy and practice.

Intervention/Implementation: Recognising the potential of integration, the Improvement and Innovation Hub (IIH) at Public Health Wales (PHW) partnered with the Behavioural Science Unit (BSU) to embed behavioural science within the Leading for Improvement and Innovation (LII) programme. This collaboration explored synergies between behavioural

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and QI methodologies, adapting course content to highlight how BeS can enhance improvement work. The revised programme has now been piloted with several cohorts, providing a live testbed for applying BeS in practice.

Impact/Learning: Feedback indicates that participants are approaching QI challenges with a renewed focus on behaviours as drivers of change, overcoming barriers where traditional methods had stalled. The pilot has increased requests for BSU support on QI projects and sparked interest in reciprocal CPD across BeS and QI teams. Key lessons include the importance of co-design, the challenge of translating behavioural frameworks into practical improvement tools, and the value of embedding behavioural expertise early in programme development. To further refine the integration model and develop champions for BeS and QI within respective teams. This will strengthen organisational capacity, build cross-disciplinary collaboration, and ensure BeS continues to inform improvement practice across PHW

3. Better Conversations: Behavioural Science Strategies for Tackling Vaccine Hesitancy in Complex Systems

Caitlin Williams (ICE Creates)

Purpose: The Black Country faces significant challenges in improving vaccination uptake across a diverse and deprived population, with rates for immunisations below national averages. Complexity arises from the interplay of individual beliefs, cultural diversity, systemic barriers, and workforce hesitancy. The Better Conversations vaccination training programme, co-developed by ICE community and health care staff, exemplifies how behavioural science can address these multifaceted issues.

Intervention/Implementation: This initiative delivers tailored training to health care professionals in clinical, non-clinical, and community roles, equipping them with communication tools rooted in behavioural science. The approach goes beyond vaccine-specific conversations, embedding skills that support informed choice, empathy, and power-balanced dialogue. Crucially, the training supports conversations wider than vaccinations and is applicable to any difficult conversation, adding value to staff interactions. Training's adapted for different groups, recognising the unique contexts and challenges they face, from primary care to maternity teams, care homes and learning disability services.

Key strategies include motivational interviewing, Change Talk, and the COM-B model, supported by group discussions, video resources, and communities of practice. The programme addresses staff hesitancy, fostering self-reflection and confidence to engage in vaccine conversations.

Impact/Learning: Early evaluation with 500+ professionals trained shows a positive shift in staff confidence and engagement, with an average 3/10&4/10-point increase in confidence and knowledge respectively for effective vaccine conversations, alongside ongoing measurement of impact through uptake rates, feedback, and case studies. This work demonstrates how behavioural science can break down complex problems, such as vaccine hesitancy, into actionable, scalable solutions, offering transferable insights for public health practice and policy.

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4. Investigating the representation of behavioural factors in participatory systems maps illustrating ‘Thriving Net Zero Communities in the West Midlands’

Naomi Bennett-Steele (University of Sussex)

Aims: To use the COM-B model to examine how behavioural factors are represented in causal models created through participatory systems mapping

Methods: Local government officers from the West Midlands (n=27) undertook a participatory systems mapping (PSM) process in which they constructed a causal model of the system underpinning ‘Thriving Net-Zero communities’ in the West Midlands. In addition to the identification of health co-benefits of Net-Zero actions (the primary aim), analysis of the co-created map identified factors which represent behaviours, and - using the COM-B model (Michie et al.) – upstream factors which represent the capability, opportunity or motivation to perform a behaviour.

Results: 43 factors (of a total of 208) were identified as representing behaviours. Coding of upstream factors revealed that most behaviours (n=40) had upstream factors representing social or physical opportunity, however only two-thirds (n=30) had automatic or reflective motivation, and half (n=20) had physical or psychological capability factors. Behaviours were also frequently included as an opportunity factor only, rather than the behaviour itself. Behaviours that shared multiple of the same barriers or enablers were successfully identified, highlighting the value of a ‘whole-systems’ view.

Conclusions: Analysis of the co-created systems map highlights the potential for PSM to illustrate multiple behaviours in their wider context, to explore how different behaviours interact, and to surface ‘opportunity’ related factors. Using intentional prompts during the mapping process to guide a form of behavioural systems mapping may allow for better identification of ‘capability’ and ‘motivation’ related factors and their wider influence(s) in the system.

5. Wales Without Violence: Integrating Behavioural Science to Support Whole System Change for Violence Prevention

Bryony Parry (Public Health Wales)

Purpose: Violence is a public health issue, and there is growing focus on the need to identify, understand and influence professional behaviours to achieve violence prevention ambitions.

Intervention/Implementation: The Wales Without Violence Framework (2023) describes nine principles and nine strategies necessary for preventing violence through a public health approach. Through an engagement series with cross-sector professionals, using the Capability, Opportunity Motivation and Behaviour (COM-B) model the Violence Prevention Team, Public Health Wales (VPT), developed a behavioural science-informed implementation plan for the Framework, with supported by the Behavioural Science Unit, Public Health Wales. The VPT mapped the behaviours and behavioural drivers identified by professionals on to the COM-B model, to investigate the mechanisms of action and behaviour change techniques necessary to support professionals to implement a public health approach to violence prevention. This process resulted in an implementation plan that aims to elicit the professional behaviours needed for implementing the Framework’s principles and thereby a public health approach to violence prevention.

Impact/Learning: The process resulted in new learning about professionals’ capability, opportunity, and motivation for adopting a public health approach to violence prevention. The application of behavioural science also supported the VPT in clarifying its own role within the violence prevention landscape in Wales. Understanding behavioural drivers and identifying specific actions to elicit a desired behaviour supports the development of a theory of change and measures for evaluation.

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The VPT are delivering the implementation plan and have developed a comprehensive support offer for partners to support the implementation of a public health approach.

6. Supporting Staff Living with Diabetes Survey

Rhian Meaden (Cwm Taf Morgannwg University Health Board)

Purpose

Utilising a behavioural science lens, this project aimed to establish engagement with diabetes management behaviours, including engagement with health services, identify workplace facilitators and barriers to diabetes management, and develop recommendations for workplace interventions to support Health Board staff living with diabetes.

Intervention/Implementation

Grounded on evidence-based behaviours related to diabetes management, and framed using the COM-B Model, a mixed methods survey was developed for staff within Cwm Taf Morgannwg University Health Board (CTM UHB). The survey was launched during Diabetes Awareness Week (June 2025), collecting quantitative data via multiple choice and Likert scale questions, and qualitative data by open ended responses. Data were analysed using Microsoft Excel and thematic analysis.

Impact/Learning

Staffing living with Type 1 diabetes were more likely to have been living with diabetes long term, to have attended structured education courses, and to perform glucose monitoring. Key workplace facilitators to living well with diabetes included flexible working, supportive managers, and access to medical appointments during the working day. Barriers included lack of healthy food options, and inadequate workplace facilities. Thematic analysis highlighted issues around workplace culture, emotional wellbeing and policy limitations.

Next steps

The survey highlighted the need for tailored workplace interventions (predominantly physical capability, physical opportunity and social opportunity), and included: support to attend medical appointments, enhanced workplace facilities, and access to healthy food options. Potential interventions are being considered as part of a multi-disciplinary working group, which has been established to improve the lived experiences of staff living within diabetes in CTM UHB.

7. Your Medicines, Your Health: Applying behavioural science to medicines optimisation

Jen Thomas & Dr Melda Lois Griffiths (Public Health Wales)

Purpose

'Your Medicines, Your Health' (YMYH) is a national campaign with the overarching vision that all individuals in Wales optimise the use and management of their medications, while simultaneously reducing pharmaceutical waste and promoting its appropriate disposal or recycling. The Behavioural Science Unit (BSU) at Public Health Wales supported the YMYH strategic board in taking a behaviourally informed approach to developing their strategic direction ahead of national rollout, and in informing the development of the messaging used across the campaign.

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Implementation

Through a series of workshops, the BSU facilitated a collaborative approach to the identification of target populations and target behaviours mapped across strategic objectives. This work facilitated the development of 25 'behavioural specifications' for prioritisation in terms of contribution to strategic goals, potential for successful intervention, and ease of measurement.

Impact and learning: Given the complexity of this work and multidisciplinary group involved, it was essential to take a behaviourally informed approach to decision-making and prioritisation throughout the process, yet deliver this in a pragmatic manner to ensure progress under the timeframe and resources available.

Next steps

Work undertaken so far will be utilised to inform the development of a Theory of Change; directing future behavioural diagnoses, and in turn, informing intervention development, which will contribute to optimising the programme's ability to deliver against its strategic objectives.

8. Improving fidelity and capability in addiction services: developing a behaviour change toolkit for Middlesbrough Council using the COM-B model

Dorothy Szinay (Applied Behaviour Change Ltd)

Purpose: The aim of this project was to strengthen service delivery fidelity and build practitioner capability across Middlesbrough Council's drug and alcohol services. Existing materials related to behaviour change were fragmented, inconsistently used, and not clearly aligned with behavioural science frameworks. The objective was to create a coherent, evidence-informed system that would improve practitioner confidence, perceived service quality, and ultimately support better outcomes for clients.

Intervention / Implementation: Using data previously collected by Middlesbrough Council, we remapped all identified barriers and facilitators onto the COM-B model and relevant Mechanisms of Action, guiding the selection of suitable Behaviour Change Techniques. We co-designed an e-learning course introducing behaviour change foundations, refined the COM-B self-assessment tool, and improved and expanded practitioner resources. A Treatment Planning Tool was developed linking each resource to specific COM-B items, supported by a Decision Matrix to guide resource selection. The updated resources were also integrated into a structured 12-week group programme.

Impact: Early staff and client feedback has been extremely positive. Practitioners reported increased confidence, clearer delivery, and stronger engagement, while leaders highlighted growing confidence in overall service quality. The structured resources and programme were viewed as deepening insight, supporting reflection, and helping clients make meaningful connections between their behaviours and underlying influences. Staff valued the coherent, easy-to-navigate system for planning and delivering behaviour change conversations.

Next Steps: We are exploring digitalisation of the toolkit and programme to provide decision support, streamline notetaking through case-management integration, and deliver ongoing, light-touch support to clients via a unified digital platform.

Theme 3

Health inequalities, Equity, & Community-centred approaches

1. Designing for Diversity: Simplifying Complex Healthcare Navigation Through User-Centric Behavioural Design

Magpie Creative Communications

Purpose: Navigating NHS services is a "wicked" problem characterised by system opacity and diverse user needs (language, literacy, culture). Commissioned by NHS South East London ICB, this project aimed to empower residents from under-reached communities to choose the right service, thereby reducing inappropriate urgent care demand and addressing health inequities.

Implementation: Using a behavioural science-informed, User-Centric Design approach, we engaged 87 residents from 20+ linguistic and ethnic groups. Through iterative co-design and scenario-based testing, we translated behavioural diagnoses into a visually driven communication tool. This tool was designed specifically to minimise cognitive load, bridge literacy gaps, and guide users through complex pathways. We utilised continuous improvement cycles to refine the prototype, validating comprehension and removing friction points to ensure the design was universally accessible and culturally neutral.

Impact: Piloted in Lewisham (Jan–Mar 2025) to 112,697 households, the intervention achieved significant system impact: 93,594 additional NHS App logins, a peak of 1,289 Pharmacy First consultations, and a 10.72% reduction in ambulance handover delays. Crucially, 100% of survey respondents chose alternatives to A&E for minor ailments. The project demonstrates that communication design acts as a behavioural intervention in itself, successfully translating complex health information into actionable user journeys.

Next steps: Shortlisted for an HSJ Award (2025), this work provides a scalable framework for integrating behavioural insights with inclusive design. The tool is now being disseminated across South East London among 600,000 households, well positioned to create impact at scale.

2. Using Behavioural Science and Real-World Data to Simplify Complexity in Community Prevention: Insights from Scalable, Self-Service Health Checks

Caitlin O'Brien (SISU Health)

Purpose: Public health faces entrenched complexity: low screening participation, widening inequalities and rising prevalence of preventable conditions. Traditional interventions often struggle against system-embedded barriers, fragmented pathways and competing priorities. This presentation shares learning from a scalable, self-service health check model designed using behavioural science to simplify engagement and accelerate preventive action across diverse community settings.

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Intervention/Implementation: Drawing on deployments across local authorities, NHS sites, workplaces and high-footfall community venues, we outline how behavioural principles were integrated into a self-directed assessment journey – including autonomy-supportive prompts, friction-reducing design, immediate personalised results and behaviourally informed onward pathways. Real-time data capture enabled continuous adaptation, rapid learning cycles and population-level insights for targeted outreach and planning.

Key challenges included digital exclusion, mistrust, low health literacy, and variation in local service pathways. These were addressed through environment design, contextual nudges, co-creation with local teams and dynamic personalisation rules responding to risk, readiness, and local capacity.

Impact/Learning: Evidence from recent evaluations demonstrates the model's ability to engage underserved groups, increase screening preparedness and surface unmet need. We share practical strategies and methodological considerations for applying behavioural science to multifactorial public health problems: isolating manageable behavioural drivers, creating modular interventions that fit variable systems and using large-scale real-world data to inform adaptation.

The session will offer replicable learning, design principles and emerging opportunities to support prevention in complex systems through sustained, data-enabled behavioural insights.

3. Understanding Mental Health Help-Seeking in Black-Majority Faith Communities Using the COM-B Model and TDF Framework

Ope Atanda (London South Bank University)

Aims: Black communities in the UK face higher mental health issues but are less likely to seek primary care. They rely on cultural and faith networks, but the ways in which help-seeking is encouraged within this community remain underexplored. This study examines barriers and facilitators using the TDF and COM-B model.

Methods: A qualitative focus group design used a semi-structured guide based on the TDF (Cane et al., 2012). Participants were purposively sampled from local faith networks for diversity in age, gender, denomination, and ethnicity. Four sessions with 28 participants from Christian, Islamic, Rastafarian, and Jewish communities lasted 60–90 minutes each.

Findings: Multiple TDF domains were linked to COM-B components following thematic analysis. Capability barriers involved knowledge, skills, and beliefs about causes, with faith leaders' limited mental health literacy and misconceptions reducing symptom recognition and support signposting. Opportunity barriers related to social influences, norms, and environment, including stigma, fear of judgment, and close-knit dynamics that limit social opportunities, as well as a lack of services that affect physical opportunities. Motivation barriers included Beliefs about Consequences, Emotion, and Cultural/Religious Beliefs, as well as resilience expectations, faith-based views on distress, and shame and fear. Facilitators included positive narratives, personal advocacy, and framing help-seeking as compatible with faith.

Conclusions: Findings highlight the need for culturally grounded, behaviourally informed practice. Strengthening literacy, reducing stigma, and building structured partnerships between faith communities and mental health services can enhance capability, opportunity, and motivation, supporting earlier help-seeking and guiding more equitable, community-embedded service delivery.

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4. Neighbourhood Approaches to Digital Inclusion: Using Participatory Behavioural Systems Mapping for Improving Digital Inclusion Intervention Outcomes for Older People

Lara Suraci (DG Cities)

Purpose: This funded R&D project tests and evaluates Behavioural Systems Mapping (BSM) as a novel, participatory method for designing neighbourhood-level strategies to improve digital inclusion for older people (60+). Improving digital access is increasingly central to public health: exclusion limits the ability of older adults to book GP appointments, use NHS app services, manage long-term conditions, and engage in preventative health behaviours. The project aims to generate new evidence on “what works” to address the skills, confidence, accessibility and trust barriers that contribute to these health inequalities.

Intervention/Implementation: BSM integrates behavioural science with systems mapping to explore why people act as they do and how local system factors shape those behaviours. Although established in environmental policy, BSM is new to digital inclusion. The project trials this method in five local authorities - Greenwich, Haringey, Ealing, Leicester, and North East Lincolnshire - through facilitated workshops with councils, community organisations, and charities. DG Cities also delivers capacity-building training to enable partners to apply BSM in future work on digital health access and other digital inequality-related challenges. Data collection concludes mid-February, with project completion at the end of March.

Impact/Learning: Emerging learning indicates that BSM helps partners diagnose entrenched system barriers affecting health access, identify behavioural and structural leverage points, and design more tailored interventions than standard digital skills programmes.

Next steps: Outputs will include neighbourhood-specific intervention blueprints, a national BSM Toolkit, and cross-site evaluation evidence. These resources will support wider adoption of BSM in digital inclusion and in place-based strategies targeting health access, prevention, and ageing well.

5. COMMIT to change: a community-centred approach to tackling smoking inequalities in Gloucestershire

Tiago Moutela (Claremont)

Purpose: While overall smoking rates are falling in the UK, tobacco dependency isn’t reducing at the same pace. Certain groups, including Polish communities, LGBTQ+ individuals, people with substance misuse issues and those in supported accommodation, continue to experience disproportionately high smoking rates and face barriers to quitting. To address these inequalities, we partnered with Gloucestershire County Council to understand people’s relationships with smoking and design solutions that work for them.

Description of implementation: Using a behaviourally informed, mixed-methods approach, we conducted an evidence review followed by extensive fieldwork: over 80 interviews, eight focus groups and two targeted surveys. Grounded in behavioural science frameworks such as COM-B and the Transtheoretical Model, we developed tailored behavioural diagnoses for each priority group, identifying drivers of smoking and quitting behaviours.

Impact: A key output of our work was the creation of COMMIT - a bespoke, behaviourally informed engagement tool for Gloucestershire. COMMIT provides a practical framework to guide commissioning and improve service accessibility and relevance. It includes a scoring matrix to assess alignment between services and the needs of different groups,

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ensuring interventions are evidence-based and people-centred. To embed this approach, we delivered capacity-building workshops to strengthen council teams' understanding of applying behavioural science principles in practice.

Next steps: This work has enabled public health teams to better understand the local landscape and the lived experiences of communities and has guided the commissioning of a new targeted tobacco dependency outreach smoking service. This project is informing campaigns and service delivery, ensuring services reflect the needs and priorities of local Gloucestershire communities.

6. Community Connectors: Improving cancer screening uptake through an innovative approach to campaign design and dissemination

Marta Campagnola (Claremont)

Purpose: Cancer screening saves lives, yet uptake remains low among some communities. The North East London Cancer Alliance partnered with Claremont to address cultural and behavioural barriers within the Turkish and Turkish/Cypriot populations in North East London.

Description of intervention: From the outset, this project was built on collaboration with the community. Guided by the COM-B model, we conducted several group sessions to uncover barriers and motivators, and co-create a culturally relevant intervention with community members. The campaign featured digital and print assets and three Turkish-language videos. Crucially, we didn't deliver the message ourselves. Instead, we equipped trusted community organisations with behavioural science and Motivational Interviewing (MI) tools through capacity-building workshops. This covered NHS screening information, introduced the concept of "Stages of Change", and explored MI techniques to empower local leaders to have empathetic, tailored conversations.

Impact: By upskilling trusted voices, we created a sustainable model where messages came from within the community. Over several months, community partners held individual conversations and hosted four events, reaching more than 400 people. Early evaluation, based on survey responses, shows strong results: 63% of those who responded to the survey attended screening or are considering booking an appointment as a direct result of this intervention. Individuals reported higher awareness, clearer understanding of eligibility, and found materials more engaging and relevant than typical NHS resources.

Next steps: This programme of work highlights the importance of blending behaviourally informed approaches, creative thinking and strong collaborations with community leaders to address communications around cancer.

7. What really engages local communities in healthy lifestyle services? Learnings from a public health service in Cambridgeshire and Peterborough

Emily Rayner (Claremont)

Purpose: Childhood obesity remains a pressing public health challenge, with engagement and retention in family-based interventions often proving difficult. To address this, we partnered delivery teams and families in the Beezee Families programme (Maximus UK) across Cambridgeshire and Peterborough.

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Intervention/Implementation: Our mixed-methods work revealed that trust and relationships with frontline staff are central to engagement, while activity-based, hands-on sessions consistently outperformed information-led lessons. Families valued ongoing, light-touch support and peer connection, while stigma and communication framing were major barriers to uptake. Through interviews, ethnographic observations and thematic analysis grounded in behavioural science frameworks (COM-B, Behaviour Change Wheel), we developed three behavioural profiles capturing the diversity of family engagement:

- a. Committed Collaborators: Highly motivated, value structure and peer support, but need reinforcement.
- b. Cautious Self-Managers: Prefer independence, sensitive to judgement, respond best to flexible, non-intrusive support.
- c. Firm Rejecters: Resist engagement due to stigma, distrust or negative experiences.

Impact/learning: Embedding behavioural segmentation into programme design, communications and follow-up strategies enables more responsive interventions. Activity-led sessions and peer support were most effective for Committed Collaborators, while low-pressure, opt-in options reached Cautious Self-Managers. Addressing Firm Rejecters remains challenging but essential for equity. Meaningful engagement ensures interventions reflect real-world needs and lived experiences, rather than imposing one-size-fits-all solutions. Building trust fosters ownership, reduces stigma and improves participation and long-term impact.

Next steps: Our findings highlight the benefits of going beyond demographic segmentation and using behavioural insights to design inclusive, effective public health services.

SYMPOSIUM

1. How AI Can Transform Behavioural Science Approaches to Wicked Public Health Problems

Kristina Curtis (Applied Behaviour Change)

2. evorAI in Practice: Using AI-Augmented Behavioural Science to Tackle Complex Challenges in Public Health

Dorothy Szinay (Applied Behaviour Change)

3. Connecting Academia and the Public Sector to Address Complex Public Health Problems: Opportunities for Collaboration and Impact

Kristina Curtis & Dorothy Szinay (Applied Behaviour Change)

Abstract:

Behavioural Science and AI: Innovations for Complex Public Health Challenges

This symposium examines how behavioural science and artificial intelligence can be combined to support public health teams working in complex systems. Public health challenges, including misinformation, layered behavioural barriers, structural inequalities, and fast-changing environments, demand new approaches that can make sense of complexity and enable quicker, more coherent action.

The first presentation explores how AI can strengthen behavioural science approaches to wicked public health problems. It shows how AI can increase reach, speed and consistency in behavioural diagnosis while supporting teams that may not have regular access to specialist expertise.

The second presentation introduces evorAI, an Innovate UK funded tool that combines behavioural science frameworks with AI-enabled text analysis. It demonstrates how AI-augmented insight can break down complex problems into manageable parts and generate actionable recommendations for public health services.

The third presentation highlights how closer collaboration between academia and the public sector can improve understanding of complex public health problems. It showcases partnership models, funding opportunities and shared tools such as evorAI that promote consistent, relevant behavioural insights and support responsive intervention design.

The symposium will end with a panel discussion and audience Q&A.