

**Abstract Number: 1**

**Authors:** Alice Doyle, Bavesh Jawahar, Mahnoor Mustafa, Wiktoria Milczanowska, Eloise Blanquet, Niyati Mehta, Harryshan Karunanithy,

**Abstract Title:** *Mind over matter: strength, mobility, and confidence in a sheltered housing population after an 8-week planned exercise programme*

This intervention aimed to co-design and deliver a 8-week long exercise programme, consisting of weekly 45-minute long sessions, with residents at a local sheltered housing facility.

The strengths and limitations of existing exercise programmes in the local community were explored qualitatively, and the sheltered housing residents were consulted in order to identify important factors which should be considered in designing a new programme.

Following this consultation, a programme of exercises from pre-existing online resources was compiled. This could be adapted in difficulty, featured graphical representations on follow-along posters, was divided into four shorter routines to allow for breaks, and incorporated Tai-Chi movements as requested by residents.

To lessen financial barriers, exercise sessions were delivered by volunteer medical students, with a video recording of the students later provided as requested by residents.

10 participants were surveyed with Likert-style questionnaires, assessing self-reported physical activity and confidence levels before and after the programme.

On average, there was a 21% increase in participants' self-reported levels of confidence and mobility over 8 weeks, with some participants observed progressing through harder variations week-to-week. Regular verbal feedback inspired creating a follow-along video resource, which empowered participants to continue exercising without the need for supervision. Participants reported enjoying the social aspect of the programme, which encouraged regular attendance.

Tailoring pre-existing exercise sequences to the reported needs of a sheltered housing population empowered these residents to engage with their neighbours and experience a substantial impact on their self-reported feelings of strength, mobility and confidence. By consulting potentially inactive populations, the impact of pre-existing NHS exercise resources can be enhanced by providing participants with a sense of ownership over an adapted exercise programme.

**Abstract Number: 3**

**Authors:** Mohammad S Razai, , Pippa Oakeshott

**Abstract Title:** *Interventions to increase vaccination against COVID-19, influenza and pertussis during pregnancy: a systematic review and meta-analysis*

We conducted a systematic review (PROSPERO CRD42023399488; January 2012 to December 2022 following PRISMA guidelines) of interventions to increase COVID-19/influenza/pertussis vaccination in pregnancy. We restricted the search to high-income countries with established vaccination programmes. Two independent investigators extracted data; discrepancies were resolved by consensus. Meta-analyses used random-effects models to estimate pooled effect sizes. Heterogeneity was assessed using the I<sup>2</sup> statistics.

Out of 2681 articles, we identified 39 relevant studies (n=168,262 participants) across nine countries. Sixteen studies (41%) were randomised controlled trials (RCTs); the remainder were observational cohort, quality-improvement or cross-sectional. The quality of 18% (7/39) of studies was strong. Only two included COVID-19.

Pooled results for influenza vaccine (18 effect estimates from 12-RCTs) showed interventions were effective but had a small effect (Risk ratio = 1.07, 95%CI 1.03-1.13). However, pooled results of interventions to increase pertussis vaccination (11 effect estimates from 7-RCTs) showed no clear benefit (Risk ratio = 0.96, 95%CI 0.92-1.01). Interventions addressed the “three Ps”: patient-, provider- and policy-level strategies.

At patient level, clear recommendations from healthcare professionals backed by text reminders/written information were strongly associated with increased vaccine uptake, especially face-to-face interventions which addressed women’s concerns, debunked myths and highlighted benefits. Provider-level interventions included educating midwives about vaccines’ safety/effectiveness and reminders to offer vaccinations routinely. Policy-level interventions included financial incentives, mandatory vaccination fields in electronic health records, and ensuring easy availability of vaccinations.

Training healthcare providers to consistently recommend vaccinations during pregnancy is crucial and can be enhanced by mobile health technologies. Increasing maternal vaccine uptake could benefit pregnant women and reduce health inequalities.

**Abstract Number:** 4

**Authors:** Mohammad S Razai, , Pippa Oakeshott

**Abstract Title:** *Facilitators and Barriers to Vaccination Uptake in Pregnancy: A Qualitative Systematic Review*

We conducted a comprehensive search of electronic databases, including Medline, PsycINFO, CINAHL, Web of Science, WHO database, Embase and grey literature to identify qualitative studies that explored barriers and facilitators to vaccine uptake among pregnant women (PROSPERO CRD42023399488). The search was limited to high-income countries with established vaccination programmes during pregnancy. Studies were thematically analysed and underwent quality assessment using the Joanna Briggs Institute validated critical appraisal tool for qualitative research.

Out of 2681 articles screened, 28 studies (n=1431 participants) were eligible for inclusion. Five overarching themes emerged relating to personal, provider and systemic factors. Barriers to vaccine uptake included concerns about vaccine safety and efficacy, lack of information about the vaccine, fear of adverse effects on the foetus and low perception of disease severity. Facilitators included recommendations from trusted healthcare providers, easy access to vaccination, clear and consistent communication on the benefits of vaccination, and positive social influences from family and friends. Strategies for increasing vaccination uptake included strong and proactive vaccine recommendations by trusted healthcare professionals, provision of vaccines during routine antenatal care, clear and consistent communication about vaccines and addressing pregnant women's concerns.

This review highlights the need for interventions that address the identified barriers to vaccine uptake among pregnant women. Provider recommendation can play a significant role in promoting vaccine uptake, as can clear and consistent risk and benefit communication and convenient access to vaccination. Addressing concerns about vaccine safety and providing accurate information about vaccines is also important.

**Abstract Number:** 5

**Authors:** Dr Emilie Couchman, Dr Steph Ejegi-Memeh, Dr Sarah Mitchell

Prof Clare Gardiner

**Abstract Title:** *Rethinking continuity in primary care for people with mesothelioma*

To understand the experiences of continuity in primary care among people with mesothelioma, their close persons and their HCPs; how they achieve this (or not); and how it affects their healthcare service use.

Realist case studies of patient journeys through the healthcare system (involving longitudinal interviews with people with mesothelioma, their close persons and HCPs; and exploration of the organisational context). Data analysis allowed understanding of hidden mechanisms (resources and reasoning), triggered in certain contexts, leading to specific outcomes.

Forty-eight interviews (involving 9 patients, 8 close persons and 12 HCPs) were undertaken (totalling 30.8 hours/1848 minutes). Context-Mechanism-Outcome configurations related to: challenges unique to mesothelioma; capacity of patients/close persons/HCPs to facilitate continuity; multidisciplinary (MDT) approach differs from the family doctor model; and 'the NHS primary care system is broken'.

Patients perceive their continuity needs to be unmet by the inflexible primary care system, which needs to adapt to a society in which people receive increasingly novel treatments and live longer with complex healthcare needs. A societal perspective shift is required to understand that an MDT now shares responsibility for care, rather than an individual family doctor. Policy documents continue to focus on access, and still do not advocate strongly enough for continuity, despite unequivocal evidence demonstrating its worth.

**Abstract Number:** 6

**Authors:** Tess Harris, Tomas Vetrovsky, Norbert Kral

**Abstract Title:** *mHealth intervention delivered in general practice in the Czech republic to increase physical activity of patients with prediabetes and type 2 diabetes (ENERGISED): rationale and study protocol for a pragmatic randomised controlled trial*

To assess the effectiveness of an mHealth intervention delivered in general practice in the Czech Republic (ENERGISED) at increasing physical activity levels in patients with prediabetes or type 2 diabetes.

We describe the rationale and protocol for this 12-month pragmatic, multicentre randomised controlled trial. Twenty-one practices will recruit 340 patients with (pre)diabetes during routine health check-ups. Active control arm participants will receive a Fitbit activity tracker to self-monitor their daily steps. Intervention arm participants will additionally receive the mHealth intervention, including delivery of several text messages weekly, with some delivered just in time, based on data continuously collected by the Fitbit tracker. The trial consists of two six-month phases: the lead-in phase, supported by phone counselling, and the maintenance phase, fully automated. The primary outcome, average ambulatory activity (steps/day) measured by a wrist-worn accelerometer, will be assessed at 12 months.

Recruitment and initial findings from intervention implementation will be reported.

The trial has several strengths: the choice of active control to isolate the net effect of the intervention beyond simple self-monitoring with an activity tracker; broad eligibility criteria allowing inclusion of patients without a smartphone; procedures to minimise selection bias; and involvement of a relatively large number of practices. These design choices contribute to the trial's pragmatic character and ensure that the intervention, if shown to be effective, can be translated into routine primary care practice.

**Abstract Number: 7**

**Authors:** Charles Cheng, Mark Ashworth, N/A

**Abstract Title:** *Demographic and practice determinants of national variation in antibiotic prescribing in primary care*

To assess association between AP and predictor variables (ethnicity, geographical location, deprivation, patient and practice factors).

A retrospective cross-sectional study was conducted using 2021 NHS Digital primary care data. Statistical analysis was conducted using SPSS Version 28. Outcome variable: Antibacterial Items per Specific Therapeutic Group Age-sex weighting Related Prescribing Unit. Association with the outcome variable was explored using univariate and multivariate linear regression modelling.

The final parsimonious regression model showed strong positive associations between antibiotic prescribing volumes and social deprivation (IMD-2019 score) and patient satisfaction; strong negative associations were found with ethnicity (Chinese, Irish, mixed White and Caribbean) and practice location (south-west England). Model  $r^2$ , 32.6%. The two strongest predictors were deprivation and Chinese ethnicity.

AP trends with satisfaction and deprivation were consistent with existing literature. New associations with Chinese ethnicity may be explained by unique health literacy and beliefs; south-west England has higher levels of general health/ health outcomes.

Newly observed trends with specific ethnic groups and south-west England region require qualitative observational studies to establish causality. The evolution of existing associations with deprivation and satisfaction call for annual monitoring to support the UK antimicrobial programme. This will reveal key areas of focus for future anti-microbial stewardship strategies.

**Abstract Number:** Top Scoring Education

**Authors:** Vinija Thirucumaran, Kate Bazin, Dr Liza Kirtchuk (King's College London)

**Abstract Title:** *A Qualitative Analysis Exploring the Alignment of an Interprofessional Virtual Simulated Home Visit with its Intended Learning Outcomes*

A qualitative document analysis of 190 student group reflections was conducted, using thematic analysis (Braun & Clarke, 2006) to explore the alignment of findings with the intended learning outcomes of the interprofessional activity.

Five themes were identified: 1) enhanced perception of professional roles, 2) shared approach to interdisciplinary decision-making, 3) early insights into community care, 4) contrasting experiences of remote learning, and 5) student self-facilitated initiative in action.

This study provides insight into students' experiences of a novel remote student self-facilitated initiative, and affirms its effectiveness in meeting the intended learning outcomes. It sheds light on strengths and drawbacks of using student group reflections to assess interprofessional learning. Importantly, it presents an innovative approach for educators facing barriers associated with large interprofessional education initiatives such as facilitator recruitment, geographic limitations, or scheduling constraints. This holds exciting potential for expanding the range of interprofessional opportunities provided to students in primary care settings.

**Abstract Number:** 9

**Authors:** Dr Charlotte Wahlich, Professor Caitlin Notley, Professor Tess Harris

**Abstract Title:** *Preventing Return to Smoking Postpartum – Emergent Findings From The Babybreathe Trial*

To report emergent findings from a randomised controlled trial to compare the BabyBreathe™ intervention with usual care. This presentation will focus on recruitment and follow-up data collection strategies, their relative effectiveness, and initial outcomes.

Multi-centre randomised controlled trial (RCT). The trial has recruited people who quit smoking for or during pregnancy across England and Scotland (n=880). Recruitment methods included remote screening of midwifery records, direct phone contact, advertising, identification by other health care professionals, and paid-for online targeted recruitment. The BabyBreathe intervention starts in late pregnancy and continues postpartum. Follow up is at 6 and 12 months from the date of birth. The primary outcome is CO verified sustained smoking abstinence.

By March 2024 we will be able to report full baseline demographics and smoking outcomes for the total sample (across groups). We will be able to compare the relative success of different recruitment methods adopted to enable flexible and remote recruitment during the covid-19 pandemic. We will report (across groups) rates of CO verification, enabling an assessment of usefulness of individual use CO monitors for outcome verification.

Continued support for the positive behaviour change of smoking cessation during pregnancy, through a relapse prevention intervention, is vital to ensure maximum long-term health benefits to parents and infants. The Babybreathe trial has recruited flexibly and remotely during the covid-19 pandemic. The intervention can be delivered remotely and CO outcome verification has also been successfully collected remotely.



**Abstract Number:** 10

**Authors:** Dr Maia Patrick-Smith, , Dr Stephanie Bull

**Abstract Title:** *Medical student perceptions of gender and pain: a review of the literature*

This systematic review aims to understand what we know about how medical students perceive the relationship between patients' gender and their pain, so that recommendations can be made for developing medical education.

EMBASE, MEDLINE, PsychINFO, LILACS, Global Index Medicus, PakMediNet and ERIC were searched (18th May 2023) for articles relating to medical student perceptions of gender and pain, with no geographical or language limitations. Quality was assessed using the Medical Education Research Study Quality Index and the Critical Appraisal Skills Programme checklist.

Seven publications were identified, one qualitative and six quantitative. Many studies were small scale, and all had methodological limitations. Many different study designs were used, although most involved simulated patients. Multiple studies found that women's pain is more likely to be underestimated by medical students and that this drives different approaches during clinical history taking, examination and management in these simulated situations. Only one study found no effect of patients' gender on pain ratings assigned by students.

Whilst there is a paucity of high-quality studies in this area, patients' gender was found to affect how their pain is perceived by medical students. No studies explored where students' attitudes towards gender and pain arise from, and few involved 'real life situations'. We propose that further work into medical student perceptions in 'real situations' is needed. This will help to inform how undergraduate medical education can be developed to tackle gender bias, and ultimately improve outcomes for patients.

1 Hoffmann, D. E. and A. J. Tarzian (2001). "The Girl Who Cried Pain: A Bias Against Women in the Treatment of Pain." *Journal of Law, Medicine & Ethics* 28: 13-27.

2 Brown, M. E. L., et al. (2020). "Exploring the Hidden Curriculum's Impact on Medical Students: Professionalism, Identity Formation and the Need for Transparency." *Medical Science Educator* 30(3): 1107-1121.

**Abstract Number:** 12

**Authors:** Liza Kirtchuk, ,

**Abstract Title:** *Conceptualising undergraduate clinical GP placements as clinical Communities of Practice: drawing on findings from a case study of an Undergraduate Longitudinal GP Placement*

To explore how students undertaking an undergraduate longitudinal GP placement participate and learn within Communities of Practice, and the enablers of legitimate peripheral participation.

A case study approach was undertaken. Data arising from routine student evaluation; written reflections; and in-depth interviews with tutors and students were triangulated. Inductive thematic analysis of the data was undertaken.

Routine evaluation data was available for 57% of students (n239) and in-depth interviews were carried out with five students and three tutors. The three themes generated were (i) participation within CoPs, (ii) enablers of legitimate peripheral participation and, (iii) socialising agents.

CoP is a theory that allows us to make tangible the somewhat abstract when deepening our understanding of how students learn and form their identities on longitudinal GP placements. Continuity relationships offer students the opportunity to become more central members within the GP CoP, as well as potentiating the powerful socialising effects of GP tutor mentorship and role modelling; further strengthening the educational rationale for longitudinal placements.

The extent to which students become legitimate peripheral participants on longitudinal GP placements varies, and this theoretical framework allows us to consider the factors that can enable such participation, with implications for how educators design curricula and support clinical tutors in developing placement infrastructure.

**Abstract Number: 13**

**Authors:** Ella Blendis, , Shoba Poduval

**Abstract Title:** *A systematic review exploring patient's experiences discussing difficulties conceiving outside of specialist fertility care in the UK*

To identify and synthesise the qualitative literature on patients' experiences discussing difficulties conceiving outside of specialist fertility care in the UK.

Five databases were searched, and results screened using predetermined inclusion and exclusion criteria. Data was extracted using a standardised form based on the research objectives. This data was synthesised and thematically analysed, and findings organised into themes and subthemes.

From 831 results, 13 studies were included. These were in oncology (n=7), general practice (n=5) and a volunteer HIV clinic (n=1), thereby capturing various co-morbidities. Analysis identified three main themes: (i) the need for sensitive discussions, (ii) ongoing support, and (iii) patient centred decision making (subthemes: information provision and understanding expectations). Patient centred decision making in primary care involves explicitly exploring and responding to the patient's own expectations from the start. To facilitate these themes, healthcare providers must acknowledge that fertility is important for patients, despite the presence of other co-morbidities.

By analysing data across diverse patient groups, new insights and implications for practice were gained. The review highlighted the intersection between fertility and other comorbidities, suggesting the value of an interdisciplinary approach. Disseminating more information to the public about the role of GPs in supporting individuals experiencing difficulties conceiving could help manage patient's expectations, while additional training in addressing these expectations could benefit GP's. Further research on the GP's perspective is required to fully comprehend the challenges they face.

**Abstract Number:** 14

**Authors:** Adam Harvey-Sullivan, Heidi Lynch

Abraham Tolley

Guy Gitlin-Leigh

Isla Kuhn, John Alexander Ford

**Abstract Title:** *What impact do self-referral and direct access pathways for patients have on health inequalities?*

The purpose of this systematic review is to explore the impact of self-referral and direct access pathways on inequalities in health care use.

Three databases (Ovid Medline, Embase, Web of Science) and grey literature were systematically searched for articles from January 2000 to February 2023, reporting on self-referral and direct access pathways to care. Title and abstracts were screened against eligibility criteria to identify studies that evaluated the impact on health inequalities. Data were extracted from eligible studies after full text review and a quality assessment was performed using the ROBINS-I tool.

The search strategy identified 2705 articles. Fourteen records were included, covering six countries and five healthcare services. The impact of self-referral and direct access on inequalities was mixed, suggesting that the relationship is dependent on patient and system factors. Typically self-referral pathways and direct access pathways tend to widen health inequalities. White, younger, educated women from less deprived backgrounds are more likely to self-refer, exacerbating existing health inequalities.

Self-referral pathways risk widening health inequalities. Further research is required to understand the context-dependent mechanisms by which this can occur, explore ways to mitigate this and even narrow health inequalities, as well as understand the impact on the wider healthcare system.

**Abstract Number:** 15

**Authors:** Dr Felicity Laloo, Ms Stephanie Powell, Dr Arti Maini

**Abstract Title:** *Identifying interprofessional, multidisciplinary learning opportunities in the undergraduate primary care curriculum*

We aimed to review the Undergraduate Primary Care (UPC) curriculum at Imperial College London, assessing where we are providing learning opportunities relating to interprofessional, multidisciplinary working and how this can be strengthened to maximise benefits for our students.

We mapped our UPC curriculum, looking at placement-based opportunities including workplace-based assessments, centralised teaching content, and additional learning opportunities (including guided online learning and optional modules).

Analysis of our mapping demonstrated opportunities across the UPC where working or learning with health and social care professionals, community groups, and students from other disciplines is occurring or being promoted. These included experiential learning on placement within multidisciplinary practice teams, workplace-based assessments including projects collaborating with diverse community organisations, interdisciplinary learning with STEM students, co-development and delivery of central teaching sessions with colleagues from different disciplines and use of case scenarios highlighting the importance of inclusive multidisciplinary learning and working. We also identified areas where the curriculum could be strengthened.

It is crucial to prepare medical students for working and learning inclusively and collaboratively with multidisciplinary colleagues to improve patient experience and outcomes (van Diggele et al., 2020). Our results demonstrate how we are supporting our students with interprofessional, multidisciplinary learning through varied curricular opportunities. We will also discuss where these could be developed to maximise benefit. These findings will have implications for all primary care educators considering how best to prepare medical students for future collaborative practice.

#### References

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**Abstract Number:** 16

**Authors:** Dr Agalya Ramanathan, Ellen Wrathall, Dr Renee Ewe, Dr Nina Dutta, Dr Arti Maini

**Abstract Title:** *Designing and implementing an SSC for medical students on critical appraisal*

We aimed to design, implement and evaluate an optional interactive course on critical appraisal, informed by a decolonisation lens, for 3rd year medical students undertaking their GP placement.

Three interactive student-facing half-day sessions were developed in partnership with a 5th year medical student, the placement lead, and the team director. Students were invited to consider unconscious bias as well as the relevance of a decolonisation approach and were given two frameworks for critical appraisal, one which included these broader considerations. The main task involved group presentations based on critically appraising papers.

Students were invited to give post-course feedback on their experience of the course via an anonymous survey.

Students were able to engage with and apply the broader framework of critical appraisal to discussions, demonstrating a shift in thinking. Student feedback showed that they valued learning about critical appraisal and applying this in interactive activities.

Feedback iteratively informed course development, for example making learning around unconscious bias more relevant by eliciting students' thoughts.

Facilitating interactive discussion in a safe space can improve students' critical appraisal, including considerations of unconscious bias and exploring research through a decolonisation lens. Students engaged well with the additional complexity of this approach to critical appraisal. Our experience of developing this course may inspire other educators to adopt a similar approach to teaching critical appraisal.

**Abstract Number:** 17

**Authors:** Natasha O'Sullivan, ,

**Abstract Title:** *Transgender healthcare: improving GP trainees knowledge and confidence*

We aimed to assess GP trainees knowledge and confidence of transgender and non-binary healthcare before and after a short educational intervention.

We will conduct 3-stage quality improvement project at Cambridge VTS. A questionnaire will be created to assess GPSTs knowledge and attitudes about transgender and non-binary healthcare which GPSTs will be invited to complete anonymously online 1 week before, 1 and 6 weeks after a teaching session. A teaching session was conducted which covered key definitions and concepts, legal frameworks, gender dysphoria management and referral and gender affirming consulting. Experts in LGBTQ healthcare are being consulted on questionnaire and teaching session development.

We will assess mean self-reported scores for knowledge and confidence regarding transgender and non-binary healthcare pre and post intervention.

**Abstract Number:** 18

**Authors:** Dr Agalya Ramanathan, Dr Sian Powell and Dr Nina Dutta, Nadine Engineer and Dr Arti Maini

**Abstract Title:** *Supporting students experiencing discrimination in primary care placements*

We aimed to develop learning resources for GP tutors, on supporting students who experience discrimination.

We worked in partnership with a community GP Tutor and students with lived experience of discrimination to create a short video raising awareness of student experiences of discrimination during primary care clinical placements and providing relevant information about the faculty's reporting and support systems. This was distributed amongst our GP teaching community.

We then ran a workshop at our annual teachers' conference, which provided a space for authentic case-based learning through facilitated small group discussion around strategies to support students experiencing discrimination. Facilitator feedback informed the development of a longer advanced skills workshop to further support learning, and this is being evaluated through a post-workshop survey containing rating scales and questions inviting free-text responses.

We will share our process for developing contextualised learning resources and training for community GP tutors on supporting students experiencing discrimination, along with reporting the findings of the survey evaluating the advanced skills workshop.

This work contributes to the discussion on best methods for creating inclusive learning environments for students in clinical placement and will be of interest to educators involved in developing approaches to better support students experiencing discrimination.



**Abstract Number:** 19

**Authors:** Ismail Ismail, Aamena Bharmal, Sian Powell, Ravi Parekh, Laura Knight, Nadine Engineer, Callum Parr, Arti Maini

**Abstract Title:** *Increasing Medical Student GP Placements in Areas of Socio-Economic Deprivation*

We aimed to explore what is known about facilitating GP medical student placements in England in relation to socio-economic deprivation; and identify the socio-economic characteristics of GP teaching practices at Imperial College London.

We conducted a narrative literature review to identify barriers and facilitators to provide undergraduate GP placements, as well as how representative placements in England are in relation to socioeconomic deprivation.

We also conducted a mapping exercise of all undergraduate GP placements at Imperial College London using the Index of Multiple Deprivation (IMD) in 2022/23.

The literature highlighted that undergraduate teaching GP practices in England are not representative of the socio-economic variation within the wider population. Barriers to providing placements include high workload, lack of available staff and space. These challenges are exacerbated for GP practices in socioeconomically deprived areas.

In 2022/2023, 51.8% of Imperial teaching practices are in IMD deciles 6-10, indicating areas of less deprivation. Across all years in 2022/23, only 6.5% of students attended placements in IMD decile 1 and 9.5% in IMD decile 2.

Our mapping exercise showed that most of our GP placements are based in areas of less deprivation, consistent with our narrative literature review. Next, we aim to explore barriers and opportunities for practices in deprived areas to undertake medical student teaching and develop a systematic process for engaging, recruiting and providing ongoing support for these practices, particularly those from IMD deciles 1 and 2.

**Abstract Number:** 20

**Authors:** Umar A R Chaudhry, Rebecca Fortescue, Liza Bowen, Stephen Woolford, Felicity Knights, Julia Critchley, Derek Cook, Tess Harris,

**Abstract Title:** *Comparison of mortality outcomes in type 2 diabetes mellitus amongst different ethnic groups: systematic review and meta-analysis of longitudinal studies*

This systematic review and meta-analysis seeks to compare clinical outcomes in people with T2D amongst different ethnic groups.

This systematic review follows PRISMA guidelines, and a PROSPERO protocol has been registered (CRD42022372542). Eight databases and grey literature were searched for longitudinal follow-up studies (prospective and retrospective cohorts) using suitable MeSH headings and keywords. Studies among adults with type 2 diabetes managed in community-based settings, published after 01/01/2000 and containing  $\geq 100$  participants in each reported ethnic group were included. Two independent reviewers undertook title/ abstract and full-text screening, data extraction and quality assessment, with group consensus to resolve any conflicts.

30,825 records were identified through initial database searching, with 14,640 studies eligible for title/abstract screening. Of the 258 remaining studies for full-text screening, 51 studies met the inclusion criteria for systematic review and meta-analysis. Data extraction and quality assessment of the included studies is currently on-going. It is anticipated that meta-analysis of the primary outcome of all-cause mortality amongst different ethnic groups will be compared to White ethnicity as the reference standard, and will be available at the time of the conference.

Research is required to compare clinical outcomes, including mortality, by ethnicity amongst people with T2D and fully consider variations in risk factor profiles. Robust outcome estimates will identify important influencers by ethnicity adjusted for risk factors, provide opportunities for more focussed T2D management, and recognise important differences in clinical outcomes.

**Abstract Number:** Top Scoring Research

**Authors:** Francisca Stutzin Donoso, Stephanie Archer, Tim Carver

**Abstract Title:** *How to present cancer risk assessment results to patients, GPs and specialists? Co-designing a new CanRisk report*

This work focused on how to best present the results from CanRisk so healthcare professionals can communicate risk effectively and patients can access key information.

Between October 2022 and October 2023, we led a 6-step co-design process with a balanced group of collaborators including members of the public and healthcare professionals from primary care and clinical genetics. Steps comprised of 1) a think aloud session about the original CanRisk report; 2) a literature review 3) a preliminary round of structured feedback on a prototype; 4) prototype updating; 5) a second round of structured feedback; and 6) generating the final report.

The think aloud session highlighted that the original CanRisk report was not suitable for those without specialist training in genetics. Feedback on the aims of the new report helped to prioritise recommendations from the literature, guiding its development. Thirteen people provided feedback on the initial prototype and most responses highlighted the clarity and relevance of the different components. Ten people ranked this prototype as “good” and three as “excellent”. In the second round of feedback, twenty people responded and eleven (across PPIE, GPs and specialists) ranked the updated prototype as “excellent”, eight as “good” and one as “average”.

This co-design experience shows the value of collaboration for the successful communication of complex health information. As a result, the new CanRisk report has the potential to better support shared decision-making processes about the management of cancer risk across clinical settings. Future work will explore user experience and assess the impact on knowledge/understanding.

**Abstract Number: 22**

**Authors:** Dr. Reshma Ramesh, Andrea Georgiou, Dr. Timothy Harries

**Abstract Title:** *ROLE OF FENO IN PREDICTING THE RESPONSIVENESS OF INHALED CORTICOSTEROIDS IN COPD: A SYSTEMATIC REVIEW.*

A systematic review was conducted of randomised controlled trials and observational studies studying the association between FeNO level and response to ICS in COPD patients. All studies examining this association were included. Databases searched included OvidMedline, Embase, Cochrane, Web of Science and CINAHL were searched. Systematic screening, full-text reviews and data extraction were done based on inclusion and exclusion criteria. Included outcomes were exacerbation frequency, quality of life measures such as COPD Assessment Test scores, modified Medical Research Council Grading, St. George Respiratory Questionnaire Score, and Health-Related Quality of Life scores.

8690 studies were identified, 342 texts were screened fully, and 6 studies were included for the final review. Of these, one was a randomised controlled trial and the other five were non-randomised interventional trials. One study was conducted in patients with asthma-COPD Overlap (ACO). Three studies found a statistically significant correlation between FeNO and lung function improvement (FEV1) after ICS use, and three studies also found significant correlations between FeNO and COPD quality of life scores after ICS use.

Measurement of FeNO is non-invasive and standardised with results available at the point of testing. Due to the small sample size and short duration of studies, exacerbation frequencies were not measured. Despite this, the review suggests that FeNO may be a potential biomarker for assessing response to ICS in COPD. Further research which stratifies patients by FeNO levels and assesses the impact on acute exacerbations is needed to understand its potential value in routine clinical practice.

**Abstract Number:** 23

**Authors:** Manpreet Kaur, Dr Pippa Oakeshott, N/A

**Abstract Title:** *Are general practitioners following NICE guidelines in the management of adults with mild to moderate eczema? Audit in an inner-city practice*

To assess how well General Practitioners (GPs) at one practice are following the NICE guidelines in the management of adults with mild-moderate eczema.

Computerised search of practice records of adults aged 18 or over, with a new diagnosis of eczema in the last 3 years. Data were obtained via EMIS and analysed using excel software.

Out of 199 potential patients, 120 were eligible in that their eczema was mild-moderate and first diagnosed in adulthood in the last 3 years. The remaining 79 had an earlier diagnosis (n=60) or severe eczema (n=19). Mean age of patients was 33 (range 18 to 72), 60% were female, and 54% were from black and minority ethnic groups. Most (59%) had had eczema in childhood; and 9% had secondary bacterial infection. Although 93% were advised to use emollients and 95% were prescribed mild to moderately potent topical corticosteroids, only 41% had recorded advice to avoid soap and bubble baths.

To our knowledge, this is the first study in 2023 looking at how closely GPs in one London practice are following NICE guidelines for managing mild-moderate eczema in adults.

The main limitation is that it only measures information written in medical notes, and GPs may have given lifestyle advice that was not recorded. Also, the study was conducted using data from one General Practice hence results may not be representative of other practices.

Since many patients had had childhood eczema, an education programme for patients from a younger age might provide greater awareness of the condition and ways of managing it.

**Abstract Number: 24**

**Authors:** Dr Stephen J Woolford, Prof Tess Harris, Dr Jessica Watson

**Abstract Title:** *Protocol for GP UPLINK (Understanding PopuLatioNs and workLoad): a mixed methods analysis of local demographics and primary care workload.*

To describe primary care workload in relation to local demographics and explore how local demographics may impact primary care clinicians' experience of providing care.

Mixed methods will be used, utilising a "flash mob" collaborative research approach. All primary care clinicians in England from the PACT membership and more widely will be recruitment from. Participants will record all work, including clinical, administrative, and supervisory tasks, on an individually allocated workday in Spring/Summer 2024. Practice local demographic data will be collected from NHS Fingertips data profiles. We aim to recruit 250 participants across 100 practices. 20-30 participants from a variety of roles will also be recruited for semi-structured interviews, exploring perceptions of how local demographics affects their experience of workload.

Workload will be categorised and described in relation to key demographic variables, with statistical analyses performed if able. Reflexive thematic analysis will be used to analyse interviews. Quantitative and qualitative results will be synthesised to form the study's findings.

This will be the first study to describe primary care workload in relation to local demographics and synthesise results with qualitative data from participants. This will form a contemporary analysis of primary care workload, informing future workforce and service provision planning.

**Abstract Number:** 25

**Authors:** Siena Sahota, Selena Stellman, Priya Chakraborty

**Abstract Title:** *A qualitative study to explore how cultural and social diversity impacts general practitioners (GPs) in discussions about end-of-life decision-making with patients*

This study aimed to explore how factors of cultural and social diversity impact discussions GPs have with patients about end-of-life decision-making.

Semi-structured interviews were conducted with five GPs working in a large inner city in 2023, recruited by convenience sampling, which aimed to explore views and experiences of the impact of cultural and social diversity on end-of-life discussions. An inductive thematic analysis was conducted to explore the data.

Four key themes were identified: patient-dependent factors, maintaining patient-centred care, GP perceptions, and the impact of the wider system. Key findings included the importance of employing an unbiased, sensitive approach and the positive influence of familiarity between the GP and the patient. Past career experiences shaped GPs' development of techniques for exploring patient-specific characteristics. Lack of training meant GPs took it upon themselves to learn about religions or cultures with which they were unfamiliar. System strains such as declining staff numbers and lack of time had a detrimental impact on exploring patient-specific cultural and social factors during end-of-life discussions.

The key facilitators to exploring cultural and social factors were continuity of care and time, but both are declining in a strained healthcare system. Normalisation of dying in wider society may promote earlier end-of-life discussions. Further training on these issues may be necessary to build confidence and support GPs in discussing these factors during end-of-life discussions with patients.

**Abstract Number: 26**

**Authors:** Mohid Malik, Dr Bayad Nozad, Professor Azeem Majeed

**Abstract Title:** *Evaluating the Evidence: Should Universal Group B Streptococcus Screening Be Recommended for Pregnant Women in the UK?*

We aimed to provide an updated and comprehensive assessment of the effectiveness, feasibility, and cost-effectiveness of universal GBS screening, compared to other approaches including the current selective criteria recommended in the UK. The potential barriers of introducing universal GBS screening were also explored.

Studies published between 2013 and 2021 were reviewed. Databases including Medline, Embase, Cinahl, Global Health, and Maternal and Child Health were electronically searched. Included studies compared universal GBS screening programmes to no screening, risk-based screening, or screening at various intervals. The quality of studies was also assessed.

Sixteen studies were reviewed, including 6 decision-analytic models, 1 cost-utility model, 4 national guideline reviews, 1 prospective study, and 4 retrospective cohort studies. Determining the most effective GBS prevention strategy was challenging due to variation in outcomes measured. The analysis uncovered several challenges to adopting universal screening and outlined various screening programme shortcomings. Nonetheless, certain strategies, including screening at multiple intervals, and universal intrapartum antibiotic prophylaxis, were found to be cost-effective. The quality of evidence was moderate to high.

The question of whether universal GBS screening should be offered to all pregnant women in the UK remains contentious, with divergent views among stakeholders including healthcare professionals, policymakers, and patient groups. The available evidence to determine the most appropriate approach is inconclusive, and the adoption of universal screening is complicated by the lack of robust data regarding safety and effectiveness. Ongoing research and the development of new strategies, such as point-of-care testing and maternal vaccination, may identify more effective solutions and inform future policy decisions.



**Abstract Number:** 27

**Authors:** Dr Adrian Brown, Harpreet Chohan,

**Abstract Title:**

To develop a chatbot that can be utilised by students to practice OSCE style communication

To build and understand a method to easily generate future clinical scenarios

To bridge this gap, we created a Virtual Patient (VP) web app prototype (accessible at <https://patientinterview.pythonanywhere.com/>). Students interact via text inputs, and responses are displayed conversationally. The system underwent training by the project lead and students, with additional input from ChatGPT for unforeseen queries.

The VP's standout feature is its "training" mechanism, enabling the app to learn and provide accurate responses based on user input. Users can train the system with new responses when needed. Impressively, users engaged with up to 20 consecutive questions, all met with pertinent replies. This engagement is attributed to the app's immersive narrative construction. More case scenarios are in development. Crucially, this educational tool is built entirely on free software, enhancing accessibility and sustainability.

Developing and implementing a Virtual Patient (VP) with free software demonstrates the potential to transform medical education. This innovation introduces an interactive dimension, bridging didactic methods and real-world clinical experiences. It also enables the integration of existing teaching resources like OSCE simulated patient scripts. Future prospects include VP validation for assessments, offering versatile tools for evaluating students' clinical competencies. As technology evolves, VP integration into medical education significantly enhances the training and assessment of future healthcare professionals.

**Abstract Number: 28**

**Authors:** Patrick Nyikavaranda, ,

**Abstract Title:** *The GP Guiding and Processing: Improving Female Migrants' Access to Mental and Physical Health Support Through General Practitioner Health*

To understand the experiences of female migrants through GP practice experiences. And how the GP can play a role in improving access, process and outcome.

Interviews of female migrants who have experienced time speaking to their GP about their health and wellbeing

There were positive and negative experiences when it came to attempting to get support from the GP. Some GP surgeries were accessible yet others were a cause of concern through attitudes of staff and a lack of aftercare.

The GP was seen, by most migrant females, as the most trusted and the first point of contact for physical and mental health, yet not everyone felt they had their GP as the most reliable to accommodate their health needs.

**Abstract Number: 29**

**Authors:** Kathryn Griffiths, Mariam Molokhia, Kate Bramham

**Abstract Title:** *Can remote testing for chronic kidney disease improve outcomes without widening existing health inequalities? A collaborative quality improvement project in primary care*

To investigate feasibility of a tailored population roll out of remote uACR testing for CKD to improve the detection and management of CKD in underserved groups.

13,591 tests were sent out across the 6 boroughs in South East London. Individuals with diabetes and no uACR in the past year were offered a remote uACR test to complete at home with a smartphone using a validated app (Healthy.io). We extracted data on demographics, medical co-morbidities and medication. Analyses (using PowerBI and Stata for logistic regression) describe who completed the test and will be completed to describe the detection of CKD and changes in care (ACEi or ARB, statin, SGLT2i).

To date, 27 practices have agreed to participate. Analyses of 4,760 tests sent out have shown the test completion rate was 49.8% and adjusted odds (OR, 95%CI) for completing the test were higher in women vs. men (1.13, 1.00-1.27), most deprived vs. least deprived Townsend quintile, (1.75, 1.38-2.22), individuals aged 40-49 years vs. 60-69 years (1.23, 1.00-1.54), Black, Caribbean or African (1.12, 0.94- 1.35) and Mixed ethnic (1.23, 0.87-1.75) groups compared to White ethnic groups. Unadjusted rates of statin prescription were lower in Black, Caribbean, or African patients (49%) compared with Asian (66%), White (64%) and mixed ethnicity (54%) groups.

Remote testing has the potential to increase capacity in general practice. Future implementation of remote uACR testing should prioritise those least served by routine care but with increased odds of completing remote testing (minority ethnic groups, lower socioeconomic groups). We plan to perform a second more targeted cycle of remote testing and to co-develop alternative methods to reach patients at high risk of CKD and low odds of completing a remote smartphone test.

**Abstract Number:** 30

**Authors:** Emily Clark, Rasha Ibrahim,

**Abstract Title:** *Patient and Public Involvement and Engagement (PPIE) of underserved communities: Addressing the Power imbalance.*

The aim of the events was to introduce the concept of health research to asylum seeker / refugee communities.

Funded by the NIHR Clinical Research Network small grants programme, we ran two engagement in health research events in collaboration with a community organisation supporting asylum seekers and refugees in the East of England. Recruitment was via the community organisation, run by an expert by experience. Over 70 people from 14 different countries were brought together to discuss health research in the UK via professional interpreters.

Overall feedback was highly positive, we have produced a visual image to summarise how connected, positive, and brighter people felt having attended the events. They also had a better understanding of the NHS and health research, using words such as “being heard”. The success of these events was due to trust engendered by the community with the organization. It was also due to the flexibility of researchers to allow the community organisation to drive the agenda and delivery of the events.

To conclude, our experiences suggest that “hard to reach” is a misnomer. As professionals we must go to where individuals are and allow the decision-making power on the agenda, methods and delivery to be shared with these communities. The relationship between communities and institutions needs to be long term, meaningful, reciprocal and not just project or study specific to engender trust. Partnerships that are collaborative, equitable and recognises the community as a social entity with a unique identity and contributions.

**Abstract Number:** 31

**Authors:** Emily Owen, Bryan Burford, Tanya Cohen, Claire Duddy, Harry Dunn, Claire Goodman, Cecily Henry, Elizabeth Lamb, Margaret Ogden, Tim Rapley, Eliot Rees, Gillian Vance, Geoff Wong, & Sophie Park.

**Abstract Title:** *General Practitioner (GP) Workforce Sustainability to maximise effective and equitable patient care: a realist review of what works, for whom and in what circumstances?*

This review aims to examine which aspects of the healthcare system affect GP workforce sustainability, how, why and for whom.

A realist review brings together data from quantitative, qualitative, mixed methods research, grey literature, stakeholder, and PPI engagement. Using this data and a realist logic of analysis allows us to examine a diverse range of evidence with a clear focus on understanding factors which support (or challenge) GP workforce sustainability, how these are shaped by contexts, and the mechanisms that underpin them. We identify important individual and system-level contexts that are amenable to change.

We present our emerging findings in the form of a programme theory which explores human connection with patients, colleagues, and across organisations; intellectual enrichment; and learning systems which comprise socially situated knowledge. Relational continuity is key across these, supporting GP workforce sustainability. Challenges include standardisation; alienation and professional loneliness; inflexible organisation and technologies.

Our research generates new knowledge about the interdependencies between contextual factors, causal mechanisms, and outcomes. The findings can inform strategies and interventions intended to support, facilitate, and assist the GP workforce in delivering equitable and effective patient care. We identify critical gaps in knowledge and prioritise the expectations for scope and nature of future GP work and retention strategies.

**Abstract Number: 33**

**Authors:** Dr. Jacqueline Driscoll, Professor Judith Ibison, Professor Jonathan Round

**Abstract Title:** *How do Undergraduate Healthcare Students Learn the Skills and Attitudes required for Successful Shift Handover in the Modern Hospital: A Phenomenological Investigation*

To better understand the complexity encountered and challenges students experience in learning handover skills.

To enable educators to assist students in transitioning from observer to deliverer of effective cohort handovers.

Using an SGUL staff student partnership grant three final year medical students and three clinical academics were recruited as project leads. Four focus groups were convened: two medical student, one physiotherapy and one nursing (19 students in total). A hermeneutic phenomenological design (Ajwii and Higgs) was chosen to analyse the transcripts.(2) This approach best explored the experience of being in handover “as ... lived, rather than ... conceptualized,”(3) while acknowledging the investigators’ own preconceptions. The design required immersion, understanding, abstraction, theme development, illumination of phenomena and critique. Reflective cycles allowed investigators to move between individual experiences to broader understandings of being students in handover, contemplating their future roles.

Students have heterogeneous experiences of handover governed by team culture, setting, purpose of the handover and relationships formed between them and team members. Students are simultaneously learning the skill of handover and clinical content from cases. Effective learning is impeded by lack of specific clinical knowledge, unfamiliar acronyms, compromises between service delivery and teaching and the sometimes chaotic environments where handover occurs.

Facilitators of effective learning included handover (ward) sheets that aid orientation, effective leadership, and supported opportunities to practice.

Addressing the above complexity of what and how students are learning in handover requires more than a single pedagogical solution. At SGUL, we are embedding lessons learnt in a multifaceted approach to teaching handover across the curriculum.

**Abstract Number:** 34

**Authors:** Liza Bowen, Richard Stevens, Aletta E Schutte, Thomas Beaney, Neil Poulter, Richard J McManus, Lucy C Chappell,

**Abstract Title:** *Global blood pressure screening of pregnant women and women with a background of hypertensive disorders of pregnancy: May Measurement Month 2019*

To describe the characteristics of an opportunistic global sample of women with hypertension in pregnancy, and of non-pregnant women with a self-reported history of a hypertensive disorder of pregnancy.

May Measurement Month (MMM) is an annual global campaign to raise awareness of the importance of blood pressure. Adults ( $\geq 18$  years) recruited through opportunistic sampling during May 2019 had blood pressure measured and data on lifestyle factors and comorbidities collected. This secondary analysis included 16,681 pregnant women and 757,677 non-pregnant women (16,546 of whom reported a history of hypertensive disorder of pregnancy), from 76 countries. Hypertension was defined as a systolic blood pressure  $\geq 140$  mmHg and/or a diastolic blood pressure  $\geq 90$  mmHg (mean of second and third readings) or taking antihypertensive medication.

The prevalence of hypertension in pregnant women was 14.3% (95% CI 12.1, 16.6). Of pregnant women with hypertension, 40.0% (34.5, 45.3) reported being on antihypertensive medication. Comparing non-pregnant women with a history of hypertensive disorders of pregnancy to non-pregnant women with no history of hypertensive disorder of pregnancy, age standardised proportion of women with current hypertension was 53.3% (49.4, 57.1) vs 32.0% (27.5, 36.5); age standardised proportion reporting diabetes was 14.4% (11.8, 17.0) vs 6.9 (4.4, 9.5); and age standardised proportion with BMI  $\geq 30$  kg/m<sup>2</sup> was 28.4% (23.5, 33.3) vs 15.4% (10.0, 21.3).

Hypertension in pregnancy was common in this opportunistic global sample. There was clustering of cardiovascular risk factors both in women with current hypertension in pregnancy, and in women with a background of hypertensive disorders of pregnancy. Future work should consider how postnatal interventions could improve risk factor profile of women across the life course.

**Abstract Number:** 35

**Authors:** Lily C Taylor, Rebecca A Dennison, Christian von Wagner, Juliet A Usher-Smith

**Abstract Title:** *Exploring public understanding of information about risk stratified bowel cancer screening: A think aloud study with user testing*

This study aimed to develop and test public understanding of a bowel cancer screening leaflet relating to risk stratification of FIT screening intervals.

A risk-stratified bowel cancer screening leaflet was adapted from the existing NHS screening leaflet and piloted with input from a patient and public involvement panel. The resulting leaflet was used in a set of 13 think aloud interviews using a marked protocol design to identify areas that required refinement to improve public understanding. Think aloud interviews were analysed using codebook analysis. The final version of the leaflet was tested by a further 20 participants via a user-testing survey.

Think aloud participants identified 42 suggestions for improved clarity and comprehension, 36 of which were incorporated into the refined leaflet. They advocated for clearer language and layout, including the use of bullet points, and identified several areas of misunderstanding. Additional information was suggested to mitigate cancer worry. A minimum of 90% of user testing survey participants answered each true or false statement correctly after reading the final information leaflet.

Think aloud interviews suggested that specific elements of the risk stratified bowel screening leaflet were challenging to understand and required improvement. A refined version of the leaflet performed well in user testing indicating that most comprehension issues had been resolved and that the public would be capable of understanding information about risk stratification presented as part of a population-level screening programme.



**Abstract Number:** 36

**Authors:** Dr Hayley Parkes, Dr Sana Javed, Dr Kimi Citron

**Abstract Title:** *Prescribing and interpreting results in primary care; a novel approach for Undergraduate Medical Students*

The aim of the teaching intervention is to improve final year medical students' ability to manage common prescribing and results management scenarios in primary care.

After review of the learning objectives for the final year General Practice placement alongside the MBBS course and GMC outcomes for graduates, we used our clinical and educational experience to construct a scenario-based teaching resource to enhance the learning outcomes for final year medical students. These scenarios went through a robust peer-review process with senior members of the undergraduate teaching team consulted. Combinations of single-best answer questions, short answer questions and case-based discussions were used to capture a wide-range of learning styles. Sessions were evaluated based on Student and Tutor feedback via evaluation forms and student interviews.

Having been designed and implemented for the 2023-24 academic year, analysis of the results is currently ongoing. This presentation will outline the preliminary findings from our study.

We have aimed to incorporate different learning styles, including solitary, social, verbal, etc. to engage students in this essential aspect of primary care. Displaying the complexity and challenge of primary care can both inspire careers in general practice but also develop essential skills for junior doctors. We feel this teaching intervention delivers maximum student benefit with manageable tutor and university undertaking and can be easily and sustainably reproduced without detracting from clinical placement time.

**Abstract Number: 37**

**Authors:** Dr Pallavi Nair, Dr Cornelia Junghans Minton, Ms Marilyn Modeste,

Ms Comfort Idowu-Fearon,

Dr Matthew Harris,

Prof Azeem Majeed

Dr Benedict Hayhoe

**Abstract Title: *Co-Designing Dementia Care with Community Health and Wellbeing Workers (CHWWs): A Pathway toward Transformative Care Practice***

Our aim is to utilize the longitudinal, proactive geographical outreach of the CHWWs at the household level to co-create a compassionate and sustainable model for dementia identification and care, taking a life-course approach.

We conducted a Co-Design workshop, bringing together CHWWs from four general practices in Central London to shape dementia care strategies. This included self-reflection, group discussions, dementia education with interactive case-studies and hands-on cognitive tool experience. Our approach aimed to enhance CHWWs' knowledge, skills, and understanding, aligning dementia care with the unique needs of the community. Additionally, we conducted an audit to estimate expected cases within one of the practices.

The workshop empowered CHWWs to actively shape dementia care with insights: a) Tailored Training Modules: CHWWs identified the need for training covering support, communication, and culturally-sensitive interventions across dementia stages. b) Community Engagement: CHWWs stressed awareness programs to reduce stigma and enhance residents' understanding. c) Collaboration with Primary Care Networks: Highlighted effective referral pathways for integrated care. In one practice (972 residents), dementia prevalence among those aged 65+ was 2.8%(3/105), with no reported MCI cases. Comparatively, GP Dementia Registry showed 4% prevalence, NICE reports estimated 7%, and MCI in those aged 50+ was 15.5%. Thus, we estimate CHWWs could potentially identify approximately 4 more individuals with dementia and 42 with MCI.

Our co-designed outcomes will shape future proactive dementia care module training, leading to innovative community-based primary care for individuals with MCI and dementia.

**Abstract Number: 38**

**Authors:** Dr Kethaki Prathivadi Bhayankaram, James Brimicombe, Andrew Dymond, Jonathan Mant, Kate Williams and Peter H. Charlton

**Abstract Title:** *Telephone training to improve the quality of ECGs in remote screening for atrial fibrillation*

Our aim was to assess whether telephone training of participants improved the quality of ECGs.

Participants of the Screening for Atrial Fibrillation with ECG to Reduce stroke (SAFER) Remote Feasibility Study were asked to record ECGs four times per day for three weeks. An automated ECG analysis algorithm (Cardiolund, Sweden) was used to assess the quality of ECGs after recording. Participants who recorded a high proportion of poor quality ECGs in the initial days of screening were telephoned to provide training on ECG recording technique. We tested whether the proportion of poor quality ECGs differed significantly before and after a training telephone call.

23,259 ECGs were recorded by 288 participants. 265 (92%) participants had <10% of their ECGs marked as poor quality. 12 participants (4.2%) received training calls: 10 (3.5%) received one call and 2 (0.7%) received two calls. The proportion of poor quality ECGs reduced significantly after the first call, from a median (IQR) of 35.3 (29.7-46.4) % before the call to 8.1 (4.5-17.0) % after the call ( $p<0.01$ ). Of the participants who received two calls, the proportion of poor quality ECGs reduced for one after the second call but increased for the other.

Most participants provided adequate quality ECGs without a training call. A single telephone training call was effective in further improving ECG quality. It was not clear whether additional calls were effective. Further work should establish the optimal criteria to prompt a training call in the context of screening in primary care.

**Abstract Number:** 39

**Authors:** Judith Bedzo-Nutakor, Dr Veline L'Esperance, Mohammed Islam

**Abstract Title:** *Engaging Local Communities in Primary Care Research: Focusing on populations in ethnically diverse areas in South London.*

The project aims to develop a framework and process by which general practice staff and researchers can improve participation of underserved groups in PC research.

This study was undertaken across 10 GP Practices in South London serving 150,658 patients. Practices are distributed across ethnically diverse and highly deprived communities. A mixed methods approach was utilised. Retrospective data was collected on patient participation in research studies across the practices between July 2022 and July 2023. Professional and patient focus groups; and a patient questionnaire were complete to understand awareness, knowledge, enablers and barriers to participation in clinical research.

Over the 12-month period, 627 patients participated in PC research studies across the 10 practices. Black African and Black Caribbean patients accounted for 26% of the practices' patient population but were significantly underrepresented in research, comprising of only 11% of participants. Patients of Asian backgrounds accounted for 11% of the practices' population but made up 20% of research participants. The key barriers to recruitment included minimal awareness and understanding of PC research. The use of culturally inclusive visual tools, including interactive screens in waiting areas, disease-linked adverts on practice websites and online consultation platforms were highlighted as ways to improve participation. While distrust of researchers was a clear barrier to research participation, trust in their GP enabled participation. Patients wanted to learn more about research studies directly from practice staff, rather than through mail-outs/text messages.

This study provides unique insights into poor recruitment of specific ethnic minorities into primary care studies. We identified that adaptations to research engagement activities required to ensure participation is improved. The key role of the GP and practice staff in promoting participation in research.

**Abstract Number:** 40

**Authors:** Joseph Evans, Patrick White, Howard Ha

**Abstract Title:** *Evaluating the effectiveness of community health worker interventions on glycaemic control in type 2 diabetes: a systematic review and meta-analysis.*

We included trials of community health worker interventions of at least 12 months' duration in adults with type 2 diabetes that compared HbA1c levels with usual care. We searched Ovid MEDLINE, the Cochrane Central Register of Controlled Trials, CINAHL and the Web of Science Core Collection for studies published in English between 01/01/2000 and 01/03/2023, with "community health worker" or "lay health worker", and "type 2 diabetes" in titles or abstracts. We extracted qualitative and quantitative data to assess community health worker intervention characteristics. We conducted a meta-analysis, comparing changes in HbA1c level from baseline. Quality was assessed using the Cochrane Rob2 tool.

Seven of 86 retrieved studies were eligible for inclusion. Participants were recruited from Latino, African American and Indigenous Australian ethnic minority groups. The meta-analysis of six studies included 1280 participants. They showed a significant improvement in HbA1c at 12 months follow-up, with a mean weighted difference of 0.5% (95% CI 0.31–0.68) in the community health worker intervention group ( $p < 0.0001$ ), reaching the minimal clinically important difference ( $\geq 0.5\%$ ). Outcome heterogeneity was low.

Integrated community health worker interventions showed a significant reduction in HbA1c level compared to usual care. These interventions may contribute to more equitable resource distribution in the access to and allocation of diabetes treatment across primary care,. A cost-effectiveness analysis of these interventions is required before implementation in routine diabetes care can be recommended.

**Abstract Number:** 41

**Authors:** Kristie Kear, ,

**Abstract Title:** *Does assessment frequency affect overall student performance?*

This review aims to explore whether students' end of year grades improve with frequent mid-academic year testing, and whether this should be implemented in UK medical schools.

A literature search was conducted on ovid-medline, pubmed and Scopus, using mesh terms and key words such as: "students.sh, exam\*, assessment\*, frequency, achievement, test\*, performance, retrieval, "retrieval practice", "retrieval technique". Thirteen papers with relevant questions, interventions and abstracts were selected. The three most relevant papers underwent an in-depth review.

De Paola and Scoppa, found intermediate examination improved student grades by 4-5 points (De Paola and Scoppa, 2011). Kling et al, demonstrated that increasing test frequency had significant benefits on student performance (Kling et al., 2005). Domenech et al, reported more frequent assessment increased student performance by 12 percentage points compared to a single final exam (Domenech et al., 2015).

DE PAOLA, M. & SCOPPA, V. 2011. Frequency of examinations and student achievement in a randomized experiment. *Economics of Education Review*, 30, 1416-1429.

DOMENECH, J., BLAZQUEZ, D., DE LA POZA, E. & MUÑOZ-MIQUEL, A. 2015. Exploring the impact of cumulative testing on academic performance of undergraduate students in Spain. *Educational Assessment, Evaluation and Accountability*, 27, 153-169.

KLING, N., MCCORKLE, D., MILLER, C. & REARDON, J. 2005. The Impact of Testing Frequency on Student Performance in a Marketing Course. *Journal of Education for Business*, 81, 67-72.

These three papers strongly suggest that increased assessment frequency positively affects students' performance. However, these papers investigated undergraduate students of non-medical subjects. While there is no reason why the results would not be transferable to medical school students, this must be investigated further by including UK medical schools, assessing multiple types of examinations (practical and academic exams), a larger student cohort and varying frequency of exams tested (weekly, monthly etc).

**Abstract Number:** 42

**Authors:** Mrs Yvonne Batson-Wright, ,

**Abstract Title:** *Student experience and perceptions of the leadership component of a Longitudinal Placement for second year medical students.*

The aim was to understand student experiences and perceptions of leadership skills. This included how second year medical students experienced and valued the leadership skills teaching in a longitudinal placement

A qualitative, interpretive case study approach provided data collection through semi-structured interviews (n=10), two focus groups (x2 n=8) and observations. Thematic analysis enabled coding using the resulted in coding and the development of four themes. (Braun and Clarke 2016).

Four themes were identified; (i) The impact of learning leadership skills through Covid-19; (ii) How students valued the experiential teaching approach on a student symposium; (iii) Multiple perspectives of leadership skills and the meaning of leadership; and (iv) Student concerns about how to use leadership skills as a future doctor.

The study confirmed the importance and value of teaching leadership skills on a longitudinal placement using the experiential learning-teaching approach. There are opportunities to help students to further define what leadership means to them and to clarify expectations from students when teaching them about leadership skills. Furthermore, the study highlights potential to build on our current practice of involving students in the planning of leadership teaching and activities.

**Abstract Number:** 43

**Authors:** Rini Paul, Ros Herbert,

**Abstract Title:** *The Stories Our General Practice Teachers Tell: Teaching Medical Students on a Longitudinal Placement in General Practice. A Narrative Analysis*

Exploring the lived experiences of our teachers on the longitudinal GP placement could be useful to understand their identity development and as a framework for faculty development.

Sixteen potential teachers were purposively invited to share their stories, either in written form or as an audio recording/interview. Five teachers were recruited with consent. The stories collected, transcribed, adopting a narrative analysis focusing on the narrative function, plot and linguistic aspects. One story was excluded as it focussed on an experience with a senior student.

All the teachers had powerful narratives often beginning with a specific incident involving a learner(s) in their first group of students where something had gone wrong in a group e.g. the dynamics or an at risk/struggling student. The stories all held a sense of joy and surprise at the benefits of teaching; the wider impact on patients and their satisfaction from supporting individual students and with the continuity over a whole year.

Our teachers have many stories to tell and narrative analysis is useful to explore these complex interactions between teachers, a group of students, patients and teaching practices. Next steps would include hearing stories from others in these communities of practice.



**Abstract Number:** 44

**Authors:** Dr Stephanie Wassell, Dr Mydhili Chellappah,

**Abstract Title:** *Learning through the lens of the clinical humanities: What do medical students learn about health inequalities on their year 2 GP longitudinal placement?*

To assess if and how the clinical humanities project helps second year students try to explore and understand health inequalities in their primary care population on their GP placement.

We reviewed the last 2 years of students' projects (n=49) as well as student evaluation questionnaires and identified themes related to health inequalities using the 'Kings health fund' definitions. We will present analysis of the student learning themes as well as strengths and challenges of this type of teaching and learning.

74% of projects contained themes related to health inequalities. The three main themes were: projects exploring specific characteristics including those protected by law, socially excluded groups, and projects attempting to understand the wider determinants of health. Results on feedback data to follow.

Students are using the clinical humanities to help deepen their understanding of health inequalities by engaging with their local GP population and creating an arts-based project to convey patient's perspective. We hope that students will continue to utilise this project to talk to marginalised patient groups, begin to understand the complexities around health inequalities in primary care and emphasise the importance of patient-centred care.

(1) Mangione, S., Chakraborti, C., Staltari, G. et al. Medical Students' Exposure to the Humanities Correlates with Positive Personal Qualities and Reduced Burnout: A Multi-Institutional U.S. Survey. J GEN INTERN MED 33, 628–634 (2018).

**Abstract Number:** 45

**Authors:** Shouq Aldharman, Marjorie Lima de Vale Phd, Clare Coultas , Louise Goff, Ms Ashlyn Mernagh-iles, Alexis Karamanos, Salma Avis, Vasa Ćurčin, Stevo Durbaba, Mariam Molokhia, Seeromanie Harding.

**Abstract Title:** *Co-design of culturally appropriate educational materials for cardiovascular health promotion in hairdressing salons: BELONG Study*

Co-design culturally appropriate CVD educational materials for ethnically diverse women in partnership with hairdressing salons.

Framed by the initial two phases of the Double Diamond Framework, the Discover phase was undertaken to understand the problem through appraisal of existing materials using the Suitability Assessment of Materials (SAM) and seven semi-structured interviews with nine hairdressers analysed using reflexive thematic analysis (RTA) with NVivo 12 software. In the Define phase, the design requirements identified have been prioritised for developing educational material prototypes.

While the educational materials received an overall 'superior' SAM score (80.2%), three areas were lacking: reading level, stimulation, and summary. The RTA identified five core themes: i) connections with GP practises; ii) intervention efficiency and connectedness; iii) relevant and appealing intervention design and content; iv) tailoring intervention to individuals and targeting particular group and v) agency and change. Four materials shared an overarching theme: needed accessibility.

Despite the suitability of some of the educational materials, most lacked appropriate readability, stimulation, and summaries for end users. RTA suggested the necessity of accessible material that is efficient, relevant, and tailored with elements of agency and social networking that can address the individual needs of diverse populations.

**Abstract Number:** 46

**Authors:** Adna Mohamud, Alec Knight,

**Abstract Title:** *Exploring the Relationship Between Empathy and Burnout in Medical Students: A Systematic Review and Narrative Synthesis*

To systematically examine published research on the link between empathy and burnout in medical students.

A systematic search of three databases (MEDLINE, Embase and PsycINFO) examined cross-sectional studies exploring the relationship between empathy and burnout among medical students. Studies using validated outcome measures for burnout and empathy were included and those performing correlational and/or regression models to establish strength and direction of association.

Overall, thirteen studies were eligible for the final review. All studies conducted correlational analyses, with the majority conducting additional regression analyses. The review included a range of medical schools globally, with varying degree lengths. Eleven studies reported a negative correlation between empathy and burnout, with one study reporting no association. The relationship found between empathy and emotional exhaustion was varied. Regression analyses revealed higher levels of empathy were a predictor for lower burnout. These findings were statistically significant, with a p-value of <0.01. All studies scored medium (n=6) to high (n=6) in quality assessment, with one study reporting low.

Empathy was negatively associated with burnout, with higher levels of empathy predictive for lower levels of burnout. Present findings point towards potential approaches towards burnout reduction through enhancement of empathy skills via targeted programs to support and protect student well-being and enhance their medical professionalism.

**Abstract Number:** 47

**Authors:** Adil Terracciano, Eliot Rees,

**Abstract Title:** *Patients' perspectives of social prescribing in UK primary care: abstract of a qualitative systematic review*

Synthesise patients' perspectives of social prescribing in UK primary care to summarise strengths and challenges of the service, and draw recommendations for future practice

Searches were conducted of four electronic databases, as well as reference and citation lists of relevant studies. Qualitative and mixed methods studies on patients' perspectives of social prescribing in UK primary care were identified. A thematic synthesis approach was used, with inductive codes used to form descriptive themes and sub-themes. Analytical themes were created to inform discussion

28 studies were eligible from 526 results. Three main themes were identified: preconceptions, experiences, and outcomes. Patients valued a positive relationship with their social prescriber and enjoyed building confidence from attending services and social engagement. However, some found it difficult to maintain health changes without regular support. Patients were unsure on the purpose of the service, and some faced barriers to accessing it that weren't accounted for.

There are mixed feelings about whether social prescribing is right for patients, with no current consensus regarding its place in the healthcare system. This review highlights the need for further research of patients' perspectives, and a better understanding of the complex needs of many patients who struggle to engage with healthcare but stand to gain the most from its support.

**Abstract Number:** 48

**Authors:** Sam Rolfe, Prof Sophie Park, Ciarón Cooney, Nesrin Yurtoglu, Dr Emily Owen

**Abstract Title:** *Total Triage Model in General Practice: A systematic review of the Opportunities and Challenges.*

The aim of our review was to examine and configure the available literature regarding the implementation of Total Triage, the reported opportunities and challenges for patients and staff, and implications for practice.

Medline, Embase, CINAHL, and Scopus were searched for articles and grey literature between 2013 and February 2023. Documents were included if they described the implementation of Triage during in-hours general practice and provided perspectives from patients and staff. PPI and stakeholder involvement was used throughout each stage of the review process, adding both patient and staff centred perspective. Literature was synthesised using a framework approach.

23 documents were included in the final synthesis. Our findings demonstrated variation in the implementation of Total Triage approaches; the intricacies of Triage and divergent patient and staff perspectives; and its implications for general practice, including, worsening inequality through perpetuating the inverse care law, and the potential to compromise patient safety.

Total Triage may influence patient access, safety, and equity. The approach may also generate profoundly different working styles for the general practice workforce. Our review adds to current debates surrounding patient access and Triage, and consequences for patients and staff. This timely review can be used to aid practices when navigating the new GP contract, the implications it may have upon patients, implications on equitable access and care, and the implementation of new Triage approaches.

**Abstract Number:** 49

**Authors:** Alice Barrell, Dr Lucy Johnson, Dr John Ford

**Abstract Title:** *Do primary care quality improvement frameworks consider equity?*

To consider the extent to which QI frameworks used in primary care consider health equity.

We conducted a search of MEDLINE, EMBASE and key websites to compile a list of the quality improvement frameworks used in primary care. This list was refined by an expert panel. Guidance documents for each of the QI frameworks were identified from national NHS websites or QI organisations (e.g. Health Foundation). We undertook a document analysis of the guidance using NVIVO.

We identified 18 guidance documents. The most commonly used frameworks are those derived from industry e.g. Plan, Do, Study, Act, where there is the least consideration of equity. We found the following themes: 1) there was a limited discussion of equity or targeted QI for disadvantaged groups in the documents, 2) there were indirect considerations of inequalities via social determinants of health or patient involvement and 3) there was greater focus on efficiency compared to equity in the documents.

There is limited consideration of equity in QI frameworks used in primary care. Where equity is discussed, it is implicit and open to interpretation. This research demonstrates a need for frameworks to be revised with an explicit equity focus to ensure the distribution of benefits from QI is equitable.

**Abstract Number:** 50

**Authors:** Muriel Kalu, Mariam Molokhia, Marjorie Lima de Vale

**Abstract Title:** *How Prepared are GP Practices for Working in Partnership with Hairdressing Salons to Promote the Uptake of Cardiovascular Disease (CVD) Screening Among Women Living in London's Deprived and Ethnically Dense Communities? BELONG STUDY*

To explore the capacity of general practices to support the integration of hair and beauty salons into primary healthcare pathways.

Eight practices were selected in South London from an overlapping map of salons, practices, cardiovascular disease prevalence, index of multiple deprivation, and ethnic densities from geographic information systems, online directories, and stakeholder participation to complete a questionnaire focusing on leadership and governance, health workforce, service delivery, and relationship with community and salons, based on WHO guidance and previous studies on integrated community-primary care health systems. The resulting data was analysed descriptively to assess their readiness.

Three practices had pre-existing community collaborations in the form of non-communicable disease (NCD) screening and lifestyle counselling and gave 'very high' priority to health promotion amongst minority ethnic women. Seven practices mentioned workforce capacity as a barrier to promoting screening uptake. Although majority of practices saw potential benefit in collaborating with salons, only half thought such a project feasible. All practices have adopted modern information platforms for communication (SMS and email) and preferred this for community interfacing

GP practices jointly working with salons offer potential for delivering a culturally accessible cardiovascular health promotion model, although workforce capacity was noted to be a limiting factor. This approach could help foster community partnerships in ethnically diverse communities to develop new models of healthcare delivery.

**Abstract Number:** 52

**Authors:** Kimberley Foley, Dougal Hargreaves, Sonia Saxena

**Abstract Title:** *Examining ethnic group differences in GP contacts with children and young people during the covid-19 pandemic*

To compare total, face-to-face and remote GP contacts with children and young people aged under 25 years in England before and after the first lockdown between the main ethnic groups.

Using electronic health records from the Clinical Practice Research Datalink database we compared the number of total, face-to-face and remote weekly contacts with a GP during the first lockdown (March to June 2020) with comparable weeks from 2015 to 2019 by ethnic group.

Our target population was children and young people aged <25 years registered with a GP from January 2015 to October 2020. We mapped around 300 ethnicity codes in the health records to the following groups “White British”, “Asian British”, “Black British”, “Mixed British”, and “Other” ethnic groups.

Our study population included 5,624,254 children and young people with 2,978,506 (53.0%) of White British ethnicity, 433 389 (7.7%) Asian British, 263 524 (4.7%) Black British, 156 364 (2.8%) Mixed, and 159 058 (2.8%) Other. Ethnic group was not available for 1,633,413 (29.0%) of children.

Similar falls occurred in total (35.5% to 45.0%) and face-to-face (86.8% to 90.3%) consulting for all ethnic groups. However, the mitigation by switching to remote consulting occurred to a lesser extent for children of Black British ethnicity (increase of 2.0x compared with 2.3x for children of White British ethnicity).

Although we found little evidence of ethnic group differences in GP consulting patterns, we identified a number of methodological limitations in the completeness, data quality and utility of ethnicity coding in electronic health records. Future research should explore differences in consulting by ethnic group in terms of access as well as underlying healthcare need.



**Abstract Number:** 51

**Authors:** Sakshi Adhav, Maham Zaman, Mariam Molokhia, Phd

**Abstract Title:** *Co-development of Breast Cancer Health Promotion educational materials for ethnically diverse women working with hairdressing and beauty salons: BELONG Study*

Early breast cancer detection and improved screening uptake are key priorities for women's health and reducing health inequalities. However, women from minority ethnic and deprived backgrounds have disproportionately lower uptake of breast cancer screening. A recent review suggested limited use of culturally tailored breast cancer educational materials in ethnically diverse communities.

To investigate the culturally appropriate interfaces and preferences of salon staff in educating their clients about breast cancer awareness.

We used a two-stage approach to develop and assess educational materials for breast cancer awareness, selecting data from NHS and breast cancer charity sites. The study focused on the first two phases of the Double Diamond framework: 'Discover' and 'Define' phases. In the first step, relevant materials were carefully selected based on cultural appropriateness criteria, English language presentation, and alignment with the UK context. The Suitability Assessment of Materials (SAM) toolkit was then used to rigorously evaluate the credibility and reliability of these resources. Simultaneously, interviews with ethnically diverse salon staff provided insights into their specific needs and preferences regarding clients' educational materials. Thematic analysis was applied to the interview transcripts.

Cultural appropriateness was evident in 9/14 (64%) materials targeting black ethnicities, with positive representations. Nine educational resources related to breast cancer were evaluated, six of them demonstrating an overall SAM rating of 76% ("Superior"). Thematic analysis of interviews identified seven key themes, including the importance of engagement strategies, education and awareness for health promotion, salon staff's role, preferred training methods, supportive materials, inclusivity, representation, and participant satisfaction.

The SAM toolkit provided a structured approach to select high quality training materials suitable for salon clients. Our study offers opportunities for improving breast cancer awareness in ethnically diverse communities with equitable reach, with salon hairdressers emerging as crucial advocates for health promotion

**Abstract Number:** 54

**Authors:** Reshani Premanantharaj, Iman Rizvi

Mia Pham, Shehla Baig

**Abstract Title:** *How can primary care practitioners encourage undergraduate medical school curricula to optimise and enhance teaching on healthcare and cultural inequalities?*

The aim of this project is to use a curriculum application tool to identify areas in which health and cultural inequalities are embodied within the St Georges medical school curriculum. In addition, to create learning resources to help medical students develop the knowledge and skillset to approach and tackle health and cultural inequalities based on current literature and curriculum content.

We used a curriculum management software to identify areas in which health and cultural inequalities are taught in the St Georges University medical curriculum and created learning resources from a primary care perspective.

Whilst there are aspects of the St George's Medical school curriculum that cover health and cultural inequalities, there is a need for resources from a primary care perspective to develop clinical skills to approach patients from marginalised populations.

Primary care practitioner experience is vital in aiding undergraduate medical curriculums to incorporate and enhance teaching on healthcare inequalities.

**Abstract Number:** 55

**Authors:** Dr Gill Gilworth, Dr Katherine Harris, Ms Natalie King

**Abstract Title:** *In-programme training in behaviour change techniques for lay health workers to support patients newly referred for treatment*

To assess the delivery and outcome of training of lay health workers to support completion of pulmonary rehabilitation

The training of the LHWs is delivered by pulmonary rehabilitation teams, trained for this role by the research team. The training is directed at: initiation of contact with referred patients; use of smart phones to record contacts; confidentiality and maintenance of boundaries; behaviour change techniques to address obstacles; keeping a diary record of patient contact.

Three clinical teams delivered training to 18 volunteer LHWs recruited in their sites. The training took place on one day a week over three weeks. 17 LHWs attended all three sessions. Feedback by the three clinical teams and the LHWs was positive. The LHWs are now supporting patients newly referred to the service. Results of the outcome of the training in the achievement of the goals of training, numbers and frequency of contacts with patients, and retention of LHWs will be reported.

This trial was generated from within general practice because of the poor outcome of PR referrals for COPD patients by GPs. It tests a model of service delivery more usually associated with low and middle income countries and is an example of reverse innovation. The model is novel in the NHS and presents an approach to treatment adherence that may be suitable for general practice.

**Abstract Number: 58**

**Authors:** Dr Abi Woodward, Sarah McMullen, Dr Nathan Davies

**Abstract Title:** *Improving culturally appropriate support services for Pakistani family carers through social prescribing*

Explore how Pakistani carers can best be supported in their role as a carer and how social prescribing services can be refined and developed.

Interviews with Pakistani carers (n=27) conducted in English and Urdu, and SP stakeholders (n=10). Participants recruited in Sheffield and London. Fieldwork was completed in July 2023. Analysis is ongoing.

Preliminary findings highlight a lack of awareness about SP among Pakistani carers. Most had never heard of the term or been referred to any carer support through their GP. Carers were positive about the potential of SP and identified specific support they would benefit from. Support needs varied according to gender; female carers required emotional peer-support due to limited social interaction beyond their family/tight-knit communities, male carers identified a need for practical support. Stakeholder data suggests that Link Workers can provide a package of holistic support to Pakistani carers when needed. However, there is still an unmet demand due to lack of awareness of SP among carers.

Understanding and identifying how culturally sensitive services can address carer needs will lead to better support for Pakistani carers. Recommendations on ways to develop and refine SP services to address the unmet health and wellbeing needs of Pakistani carers will be discussed.

**Abstract Number:** 59

**Authors:** Evleen Price, Dr Carol Sinnott, Dr Akbar Ansari

Dr Katy Horder

Dr Janet Willars

Hugh Alderwick

Jake Beech

Professor Mary Dixon–Woods

**Abstract Title:** *Patient and professional experiences of access to general practice: a qualitative study informed by the Candidacy framework*

Semi-structured qualitative interviews conducted online, by telephone or in-person with general practice staff (clinical and administrative) recruited through the East of England Clinical Research Network and with patients and carers recruited through five Healthwatch groups with an emphasis on diversity of age, gender, medical history and geographical location. Interview topic guides were informed by the candidacy framework and focus on participants' most recent access experiences.

Early analysis has identified emerging themes on how changes to access arrangement influence multiple aspects of patient candidacy. Particularly consequential are increasing fragmentation of care within general practice, diversification of roles and skill-mix, and use of forms of remote care. These all impact on patients' identification of themselves as candidates and on their ability to seek and ability to secure care, as well as influencing key features of quality general practice care (e.g. continuity). Analysis also suggests a distinction between "annoying" versus "unsafe" barriers to access and the consequences of demand arising from failures and delays elsewhere in the health and care system.

The initial findings demonstrate the value of the candidacy framework in recognising that access is not a simple matter of demand and supply of appointments, but instead is subject to multiple influences and is wide-ranging in its impact. This is important in identifying and evaluating new strategies to improve access.

**Abstract Number:** 60

**Authors:** Dr Reem Yahia, Dr Imran Rafi, Dr Will Evans

**Abstract Title:** *Implementing a digital rare disease case-finding tool in UK primary care: a qualitative study of health professionals' experience*

To develop an understanding of primary healthcare professionals' experiences of implementing MendelScan with a focus on their perception of the technology and its implementation, challenges and opportunities.

A qualitative appraisal of implementing MendelScan using descriptive analysis of surveys and semi structured interviews with professionals.

A total of 11 professionals from the 2 project areas participated. Participants included GPs, nurses, a genetic counsellor, and healthcare managers.

A total of 207,000 electronic health records (EHRs) were scanned across the NE&Y GMSA and CAS GMSA regions.

Main themes included: professionals' perceptions (the educational value of this tool), professionals' reservations related to knowledge, time commitments, primary care pressures, contacting patients, data sharing and confidentiality, and overcoming clinical resistance in sharing data with a non-NHS external body.

Participants reported that they received adequate support, the project increased confidence in integrating genetics in primary care, and that it may improve inequity in rare disease diagnosis.

This study provides a valuable insight into the experiences of primary care professionals using a novel tool to identify rare diseases. The potential of this tool is promising with benefits for skill development. Large-scale implementation faces challenges related to primary care capacity, data, and funding.

**Abstract Number:** 61

**Authors:** Dr Neil Singh, +/- Dr Erica Nelson,

**Abstract Title:** *Critical inclusion: Rethinking primary care for vulnerabilized populations*

We aimed to critically co-design a clinical solution to a problem especially affecting some of our most marginalised patients.

I will describe a clinical project that I led in our Primary Care Network in Brighton which trialled a novel way of practicing in order to better address the health needs of vulnerabilized populations (following Katz et al. (2020), we prefer “vulnerabilized” to “vulnerable”). Funded by NHS England, our initial brief was to narrow health status disparities in BAME populations in Brighton. I will describe how, a diverse team (comprising health professionals, social prescribers, and community representatives amongst others) was assembled in order to co-produce a solution to a health problem of particular importance locally (Greenhalgh, 2016). It was agreed by consensus, on the basis of clinical experience, that mental health care for BAME populations was particularly badly done, with people tending to be seen in extremis in expensive, acute settings rather than getting upstream care and support.

Informed by similar projects in primary care (Reeve et al., 2016), over a series of online workshops we used data analytic support (provided by Optum) to highlight just how stark the mental health provision was locally for our BAME population, and to estimate the health system savings that could be made if this group were better served. We then identified key moments where BAME patients were either obstructed from care, lost to follow up, or not provided with culturally-sensitive and relevant mental health support. Informed by intersectional theory, we together re-imagined a new pathway in primary care for patients who were at the sharp end of not only racial identity but also poverty and serious mental illness. We did this whilst utilising existing personnel and roles, as well as reshaping job plans to incorporate more proactive preventative care.

We then enlisted the kind help of a local health system scholar to formally conduct a focus group discussion, more than one year after the completion of the initial phase of the project, inviting relevant stakeholders to attend and share their perspectives on the project – what went well and what could have been done better. This helped us formally appraise this clinical project.

We will present these results (pending, November).

We will use this case study of a pilot project to make a broader point about primary care for vulnerabilized populations: about the power of what can be achieved if clinicians are enabled to have the time and funding (tiny in comparison to the health system cost savings of such a project) to devote some proportion of their work to proactive, preventative care. This is especially necessary to deprived and marginalised communities, but I argue that such an approach would actually lead to improved primary care generally.

**Abstract Number:** 62

**Authors:** Judith Ibison, Adrian Brown,

**Abstract Title:** *Leadership and Management in Primary Care: a pilot placement*

To offer medical students the opportunity to develop the knowledge, skills and attitudes required for leadership and management through shadowing of leaders and engagement in activities contributing to improved quality of care in a primary care organisation .

Practices familiar with SGUL Final Year students were invited to express interest in hosting a SSC L&M student. Practices were required to i. host the student, ii. include the student in all organisational meetings iii. offer the student mentorship from the manager and clinical lead iv. select from a list of activities a few projects for the student to contribute to for the duration of the attachment. The practices were briefed by the leads. The leads supported the students with a weekly tutorial, linking their local experiences to contemporary primary care policy and structure nationally, and supporting reflection on the acquisition of their individual leadership and management competencies. Student assessment was by a 2000 word essay on the future organisational development needs of the practice.

Six students chose the attachment. Five students (will) have spent five weeks each in four different practices, between August and November 2023, each each will have had five tutorials. Feedback was sought from the practices and the students. We have feedback from one student and one practice so far which was extremely positive: we should have feedback from five by the end of the November.

This is an innovative attachment normalising the environment of primary care as a key focus for the acquisition of leadership and management skills for medical students, witnessing the environment of rapid service change which currently exists. All students will have been involved in a real time project improving the quality of the practice, been exposed to primary care leadership, and considered the future development needs of the practice.



**Abstract Number:** 64

**Authors:** Andrea Georgiou, Reshma Ramesh, Timothy Harries

**Abstract Title:** *Withdrawal of inhaled corticosteroids from patients with COPD: A systematic review and meta-analysis of resumption of ICS treatment, effect on exacerbation frequency and lung function*

This systematic review aims to provide an up-to-date analysis of the proportion of COPD patients who resume ICS therapy following withdrawal, and to examine the effect of ICS withdrawal on exacerbation frequency and on change in lung function (FEV1).

Randomised controlled trials (RCTs) and observational cohort studies (OCSs) which compared ICS withdrawal with ICS continuation treatment were included. Cochrane Central, Web of Science, CINHAL, Embase and OVID Medline were searched. Risk of bias was assessed using the Cochrane RoB2 tool and the Newcastle-Ottawa Scale, and quality assessment was conducted using GRADE. Meta-analysis of post-hoc analyses of ICS withdrawal RCTs stratified by blood eosinophil count (BEC) was undertaken.

11 RCTs (9957 patients) and 14 OCSs (231081 patients) were included in the results. There was insufficient evidence to draw a firm conclusion on the proportion of patients who resumed ICS therapy following withdrawal (estimated range 12%-93% of participants). When ICS was withdrawn and long-acting bronchodilator therapy was maintained, there was no consistent difference in exacerbation frequency or lung function change between the ICS withdrawal and continuation trial arms. The association between blood eosinophil count (BEC) and response to ICS withdrawal was examined by two studies (3347 patients) with respect to risk of exacerbations and change in lung function. Among patients with COPD with a BEC  $\geq 300$  cells/ $\mu$ l, withdrawal of inhaled corticosteroids was associated with an increased exacerbation risk of 63% (RR, 1.63; 1.24-2.14) and a decline in FEV1 of 0.05L (RR, 0.05; 0.01-0.10). There was no association between ICS withdrawal and increased exacerbation risk in patient with COPD with a BEC  $< 300$  cells/ $\mu$ l.

Withdrawal of ICS from patients with COPD is safe and feasible but should be accompanied by maintenance of bronchodilation therapy for optimal outcomes. Patients with a blood eosinophil count  $\geq 300$  cells/ $\mu$ l may benefit from continued ICS use.

**Abstract Number:** 65

**Authors:** Felicity Knight, Jessica Carter, Lucy Goldsmith, Felicity Knights, Anna Deal, Alison F Crawshaw, Tess Harris, Dominic Zenner, Anna Requena-Mendez, Sally Hargreaves,

**Abstract Title:** *Health Catch-UP: a mixed methods process evaluation of an innovative infectious disease screening and vaccination tool in primary care for at risk migrant patients*

European migrants face a disproportionate burden of infection (tuberculosis, HIV, hepatitis B/C, and parasitic infections) and are under-immunised, which is compounded by barriers to accessing health services. Reducing these major health inequities is a key public health priority, with the ECDC calling for innovative strategies to deliver integrated multi-disease screening to migrants. Current UK strategies to screen at-risk migrants have shown low uptake despite clear potential health and cost benefits. Health Catch-Up is a collaboratively produced innovative digital tool embedded in EMIS (UK Primary care clinical software) which applies UK guidance to identify screening requirements of migrants based on country-of-origin.

<https://emishealth.vids.io/videos/a49ad1bb1a18e4c72c/health-catch-up-with-requested-editsmp4>

We carried out a mixed-methods process evaluation of the Health Catch UP! tool in two GP practices, using the Medical Research Council framework for complex interventions. We collected quantitative data on demographics, patients screened, disease detection and catch-up vaccination rates. We conducted qualitative interviews with staff and migrants to explore barriers and facilitators.

Outcomes data were extracted for 99 migrants, predominantly from Asia (31.3%), and Sub-Saharan Africa (26.1%). 61.6% of participants were recommended screening; of these, 86.9% were screened for at least one health problem. New diagnoses included: one case of hepatitis C, 6 hypercholesteremia, 4 pre-diabetics and one diabetic. Catch-up vaccination uptake was extremely poor (2.0%). Qualitative data supported the acceptability and feasibility of the tool if supported by laboratory and management pathways, financial incentives, and staff and patient information and training implementation support. The tool was found to be flexible to use through remote or opportunistic recruitment and by staff from different professional backgrounds, and felt to be suitable for integration within existing health-check appointments.

Innovative primary care digital tools like Health Catch-UP! have potential to significantly improve disease detection and effective implementation of screening guidance but require robust testing and resourcing.

**Abstract Number:** 63

**Authors:** Lakshmi Chandrasekaran, Charlotte Wahlich, Umar Chaudhry, Kathryn Willis, Christopher G Owen, Alicja R Rudnicka,

**Abstract Title:** *Exploring perceptions around the potential implementation of Artificial Intelligence within the English NHS Diabetic Eye Screening Programme: a qualitative analysis of survey responses*

The English NHS Diabetic Eye Screening Programme (DESP) generates over 10 million retinal images per year, which are graded for diabetic retinopathy. Previous research has shown that Artificial Intelligence (AI) systems can identify images with diabetic retinopathy as well as human graders, which could significantly reduce workload. However, such systems are not licensed for use in the English NHS DESP, and there is a need to gauge perceptions and attitudes of people living with diabetes (PLD) and health care practitioners (HCP) towards the introduction of such systems before implementation.

To examine perceptions of AI-assisted eye screening, two separate online surveys were co-developed through focus groups with PLD and HCP from one of the largest, most ethnically diverse DESP in North East London. Subsequent validation via interviews was carried out within three geographically dispersed DESP centres. Surveys were distributed to DESP centres, through relevant charities and the British Association of Retinal Screeners (BARS). While each survey consisted of predominantly Likert-scale questions with resulting quantitative data, the inclusion of a free-text box for an optional comment allowed for qualitative analysis of these data.

As of 3rd October 2023, 24% of PLD (293/1205) and 37% of HCP (77/206) respondents had provided a comment. Using a thematic analysis approach, three researchers developed an initial coding framework from a subset of the data. All comments were double-coded with discrepancies discussed to ensure reliability; edits to the coding framework followed an iterative approach, to ensure accurate representation of participants' comments. Codes grouped into common overarching themes will be outlined, highlighting views and concerns about AI-DESP use.

Qualitative analysis of survey responses allows for a deeper exploration into issues raised by the potential use of AI within diabetic eye screening. Findings will help to focus outreach activities to support any future implementation process.

**Abstract Number:** WS7

**Authors:** Adetutu Popoola, Dr Kate Neden, Dr Cathy Bruce, Dr Siobhan Cooke

**Abstract Title:** *Primary care education and current challenges; bringing the patients and the community into the classroom*

Kent and Medway Medical School (KMMS) has implemented a practical and novel approach of inviting patients and carers to campus, to share their lived experiences alongside community healthcare professionals with students in years 1 and 2. This provides high quality teaching and patient contact whilst tackling the challenges of limited teaching time, space and resources existing in the primary care clinical environment. Patients offer unique qualities as teachers, enhancing the acquisition of skills and changing attitudes towards patients (Wykurz G & Kelly D, 2002).

In collaboration with local third party and community healthcare organisations, KMMS delivers six in-person teaching symposia. Each week of clinical placement is themed with conditions that students are learning in classroom-based teaching. When students are studying about respiratory medicine, two patients with long term chest conditions with two community healthcare professionals are invited to the classroom at the beginning of the placement week to share their stories, guided by a set of reflective questions. Students have direct in-person opportunities to learn in a safe teaching environment alongside quality student/patient/clinician engagement

Evaluation of the symposia through online questionnaire and module fora provided student feedback that highlighted excellent quality of teaching from patients. Students appreciated the importance of the community Multi-Disciplinary Team through early patient and professional engagement. They valued learning about their patients' conditions, experiences and gained an understanding of clinical pathways from diagnosis to management

The symposia facilitate patients' contributions to teaching and students develop biopsychosocial and holistic insight into patients' lived experiences before going on placement. KMMS has fostered educational relationships beyond the teaching institution with community healthcare providers, third sector organisations and provided a strategy to address the teaching capacity challenge existing in primary care, especially in Kent with a GP population substantially lower than the national average.

**Abstract Number:** WS3

**Authors:** Dr Emily Clarke, ,

**Abstract Title:** *ACREW vs the Ivory Tower – a match made in heaven?*

The Deep End movement is a network of people working in primary care serious about improving the health and well-being of those communities living in the most deprived areas across the UK.

This presentation will present how the Deep End movement works to bridge the gaps between the NHS England Core20Plus5 initiative, practices serving the most deprived areas and academic institutions.

We will briefly define “A-CREW” are the workstreams of the Deep-End movement and stands for Advocacy, Climate/ Sustainability, Research, Education and Workforce / Wellbeing and briefly present what “good” looks like at the Deep End – showcasing the very best innovations in primary care to tackle health inequalities.

When the “top down” approach of NHS England and academic institutions synergises with grassroots practitioners , then barriers to change can be tackled and systems can change

Policy-makers and academics are often accused of working in “Ivory towers” and not connecting with the people and communities who most need support. The Deep End movement proves how together we can collaborate, support and advocate on behalf of our population, staff and communities