

The Royal Society of Medicine

# TACKLING INEQUALITIES

**Through innovation and entrepreneurship** 

**Poster competition** 

For the first time, NHS England and the **Royal Society of Medicine hosted a poster** competition to showcase work in tackling health inequalities. The aim of the competition was to invite individuals to share their work on tackling inequalities through innovation and entrepreneurship, whilst demonstrating the following themes:

- The creation of new ideas, products, services or models of care
- The adoption of something that has worked elsewhere
- Helping to share good practice
- Entrepreneurial projects

This competition was open to anyone working in innovation or healthcare on a project or initiative to tackle health inequalities.

# Addressing equity of access to culturally specific resources for asthma patients

By Dr Llinos Jones, Dr Michelle Bartholomew, Harriet Smith, Dr Mike Snowden





Use of anchor institutions to reduce smoking prevalence and smoking related inequalities

By Caitlin Robinson, Rachael McIlvenna, Dr Ruth Sharrock

North East **North Cumbria** Health & Care Partnership **- ∪ ●** 

# **USE OF ANCHOR INSTITUTIONS TO REDUCE SMOKING PREVELANCE AND SMOKING RELATED INEQUALITIES**

# BACKGROUND

Caitlin Robinson, Rachel McIlvenna, Dr Ruth Sharrock North East North Cumbria ICS

Smoking is the single biggest preventable cause of death and illness, and the single largest driver of health inequalities in England. In NE England, 13.1% of adults still smoke. Whilst smoking prevalence has reduced, smoking still disproportionately affects people from certain groups. People who live in high levels of deprivation are more likely to smoke, and 1 in 4 routine and manual workers smoke compared to 1 in 10 in professional and managerial roles. Through the use of anchor institutions (NHS Foundation Trusts), this offer aimed to reach NHS staff who smoke to offer access to support to make a quit attempt, with a specific focus on reaching R&M workers and staff with low income.



NHS North East and North Cumbria

"I am pleased to say I have remained smoke free for nearly 8 months now and am reaping the benefits both physically, mentally, and financially, and my family are so proud and thankful I finally made the step!!"

# **LEARNING AND IMPACT**

• Offering vapes as a tool to quit encouraged people to access support. The direct shipment to end user model has now been applied in multiple smoking cessation pilots nationally.

 Cost of NRT point of access has been removed in 5/13 local stop smoking **services** - removing barriers to access

 In a sample of 500 people coming forward for support, 89% had made a quit attempt previously, but only 33% of these had accessed support to do so. This highlights that **the service reached** a cohort of people who weren't previously accessing typical Stop **Smoking Services.** 

## A targeted approach to identifying and reviewing patients with respiratory with respiratory conditions at risk of poor health outcomes due to fuel poverty

By Rhiannon Clarke, Lucy Malcolm, Kathy Daley, Dianne Green, Sophie Wotherspoon, Rowan Pritchard-Jones



Healthy Heart campaign for Black African, Black Caribbean and South Asian communities in Northamptonshire By Tim Lloyd and Caroline Thickens





- 0

## **Project numbers:**

245 participants tested so fail

- 11 other cardiac issues



• • •







Most Impactful Project Addressing Health Inequalities

This project has been shortlisted in 2 categories in the 2024 HSJ Partnership awards, "Best Consultancy Partnership with the NHS" and "Most Impactful Project Addressing

how to access and use the dashboard; an asset map of organisations, services and projects that

Impactful Project Addressing

lealth Inequalities"

support the fuel poverty agenda and funding opportunities to support this work.

Best Consultancy Partnership with the NHS

## Breaking Barriers, Building Bridges: Innovations in Maternal Aid in Bangladesh

By Iman Yahya, Maisha Syed, Mithila Sharmin, Fahimah Ali, Farhin Ahmed, Jameela Abdul-Raheem, Tasnim Alam, Tafsir Ahmed, Aqil Jaigirdar



Iman Yahya, Maisha Syed, Mithila Sharmin, Fahimah Ali, Farhin Ahmed, Jameela Abdul-Raheem, Tasnim Alam, Tafsir Ahmed, Aqil Jaigirdar

## BACKGROUND

Maternal mortality remains a significant challenge in developing countries, with 95% of maternal deaths in 2020 occurring in low-and middle-income countries (LMICs) [1]. Maternal mortality rates (MMR) are 50 to 100-fold higher than those in high income countries and stillbirths are 10 to 20-fold higher than rates in high income countries [2]. As per Table 1, a plethora of factors contribute to high maternal mortality rates, ranging from delays in: seeking care, reaching care and receiving adequate healthcare.

Existing literature on global maternal mortality in low-income countries proposes numerous dations to address these challenges [3]. These include maternal health education with a focus on disease prevention, increasing the availability of healthcare professionals, improving access to medications and emergency services, and promoting safe abortion practices.

Delay in decision making to seek help	Delay in reaching care	Delay in receiving adequate healthcare
<ul> <li>Financial implications</li> <li>Acceptance of maternal death</li> <li>Previous poor experience of healthcare</li> <li>Limited understanding of pregnancy complications, when to seek medical assistance</li> <li>Maternal stigma and biases</li> </ul>	<ul> <li>Distance to health centres and hospitals</li> <li>Availability and affordability of transportation</li> <li>Poor roads and infrastructure</li> </ul>	<ul> <li>Poor facilities and shortage of medical supplies</li> <li>Inadequately trained staff</li> <li>Understaffing</li> <li>Inadequate referral systems</li> <li>Complex operational environments</li> </ul>

# MATERNAL MORTALITY IN BANGLADESH

85% of maternal deaths worldwide in 2020 occurred in Sub-Saharan Africa and Southern Asia, ssing Bangladesh within this statistic [4]. Bangladesh, with an estimated population of 173 million has seen that approximately 5200 mothers die (172 maternal deaths and 100,000 live births) per year as a result of maternal complications [5]. Mortality rates are significantly higher in remote regions and socioeconomically disadvantaged communities, such as the tea gardens in Bangladesh. Recent reports indicate that maternal mortality rates (MMR) were higher amongst women with no education (351 per 100 000 live births) compared to women with at least a secondary education (135 per 100 000 live births) [6]. Figure 1 displays factors that contribute to mortality rates in Banglades



Table 1: Factors influencing maternity mortality rates [3]

# MATERNAL AID ASSOCIATION (MAA)

MAA is a student-led charity operating at the grassroots level, dedicated to enhancing conditions in resource-poor settings like Bangladesh, with the goal of ensuring: safe, effective, and high-quality maternal healthcare. MAA achieves this objective by supplying medicine, resources, and educational initiatives. The organisation conducts seminars and workshops for mothers and young women, providing essential knowledge about safe pregnancies and newborn care. MAA also conducts free health checks to identify potential concerns early on. The overarching aim is to minimise delays experienced by pregnant women in making decisions about seeking care, reaching care, and receiving the necessary healthcare





Figure 3. explores the baseline and percentage increase in certain health seeking behaviours before and after the Maternal Health Education seminar.

### REFERENCES

# MAA HUB-SPOKES MODEL

MAA has implemented a Hub-spokes model for delivering antenatal care, designed to reach remote and resource-poor populations and provide them with integrated and efficient healthcare. As illustrated in Figure 2, the model consists of a central hub, the MAA clinic, where specialised doctors, trained through an intensive UK-recognised program by the Royal College of Obstetrics and Gynaecologists, identify and manage high-risk pregnancy cases

To identify women in rural communities, health brigade members and women groups play a crucial role. Health brigade members, who are fifth-year medical students, deliver antenatal care in the homes of mothers. Their responsibilities include recording and interpreting observations, educating pregnant women, and identifying and referring high-risk pregnancies. Furthermore, they collect data on maternal and neonatal health outcomes which will be transitioned to our secure app in the making, Gravida. High-risk mothers are referred to the MAA clinic for review by specialised doctors, who manage red-flag symptoms that may necessitate urgent referral in emergencies.

Women's groups, consisting of regular fortnightly meetings facilitated by local women, serve as a platform for women to express concerns. A facilitator attends these meetings to educate and support women, encouraging the development of positive health-seeking behaviours and practices during pregnancy, labor, and the postnatal period. Some findings from a Maternal Health Education (MHE) inar are shown in Figure 3 where the main positive changes were seen in physical activity, seeking health check-ups, monitoring their child's growth and an awareness of red-flag symptoms during pregnancy

# MAA ANTENATAL CARE

Antenatal care (ANC) are paramount in screening for high-risk pregnancies, promoting healthy pregnancy, and preventing diseases permitting for timely interventions. A recent study reported that Northern Bangladesh observed low prevalence of timely ANC uptake, with only 14% (n=378) women receiving their first ANC at the first trimester [7]. Barriers to the widespread adoption of ANC are related to socioeconomic standing, availability and distance of medical facilities, biases, and maternal education. MAA addresses these obstacles by training health brigade members (HBM) to provide ANC  $\,$ and postnatal care in the mother's home. This involves bespoke maternal education, conducting investigations (blood pressure, blood glucose, urine analysis). Abnormal results incite a referral to the pecialised doctors in the MAA clinic, whereby the pregnant women are monitored through routine check-ups, prescribed medications as needed and referred to tertiary centre when necessary

# SCALABILITY AND IMPACT

MAA currently implements the Hub-spokes model in Moulvibazaar. Banaladesh with aims towards adopting the model across different developing countries. While significant progress has been achieved in the current hub-spokes models that currently operates in primary and secondary care, including the implementation of a natural delivery centre, contributing to ongoing advancements towards reducing maternal mortality within primary, secondary and tertiary healthcare settings

ad interventions	
t 25:3:1155928. doi:	5 Diswas & Halim & Md Abdullah &S Dahman E Dorais
	S. Diswas A, Hallin A, Ha Ababian AS, Raiman P, Dolais
	10.3390/ijerph17041184. PMID: 32069797; PMCID: PMC7068
od Health. 2018	
	<ol><li>Hossain AT, Siddique AB, Jabeen S, Khan S, Haider MM,</li></ol>
	Maternal mortality in Bangladesh: Who, when, why, and v
ome countries. MC10617292.	10.7189/jogh.13.07002. PMID: 37288544; PMCID: PMC10248
	7. Sarker BK, Rahman M, Rahman T, Rahman T, Khalil JJ,
ena A, Aguinaga-	WHO recommended timing and frequency of antenatal c
022 Oct	10.1371/journal.pone.0241185. PMID: 33151964; PMCID: PMC



### Med Lingual: Improving patient-doctor communication

By Dyan Pancharatnam, Atharv Patankar, Fay Fathima Imtiaz Fareed, Harshita Buragapu, Prince Tandukar, Lavanya Gupta



FACULTY OF MEDICIN

# Med Lingual: Improving patient-doctor communication

Methods

Dyan Pancharatnam<sup>1</sup>, Atharv Patankar<sup>1</sup>, Fay Fathima Imtiaz Fareed<sup>1</sup>, Harshita Buragapu<sup>1</sup>, Prince Tandukar<sup>1</sup>, Lavanya Gupta<sup>1</sup> <sup>1.</sup> Faculty of Medicine, University of Buckingham

# Introduction

Health Research &

Innovation Centre

Approximately 61% of the working population in England have difficulty comprehending healthcare and well-being information provided to them. In 2019, 21% of NHS patient concerns related to staff-patient communication. After interviewing healthcare professionals at Stoke Mandeville Hospital, it was revealed that post-appointment communication was inefficient. Additionally, the diverse population in the UK results in language barriers in healthcare that can impact the quality of care.

Inspired by the latest advancements in machine learning, we developed Med Lingual to tackle these challenges. Our user-friendly web-based application has 3 main functions: simplifying medical letters, providing translations, and offering an audio format. We aim to improve patient understanding, adherence to treatment plans, reduce missed appointments, and enhance patient satisfaction.

### How does our application work?

- It uses optical character recognition technology (OCR) to scan medical correspondence via camera.
- Artificial Intelligence (AI) is used to simplify medical terminology and then provide the option to translate the text into various languages. This allows the information to remain accurate.

### How did we think of Med Lingual?

We undertook an 'Innovation' focused module seeking out clinical issues faced at hospital and used the Design Sprint method to tackle these. A common issue reported was the increasing frequency of non-essential follow-up appointments arranged to clarify contents of correspondences and medication instructions. We hypothesized that this may have been due to patients receiving complex medical letters that were not specific to the patient's comprehension level.

### How did test this theory?

We created a survey providing 3 anonymized options of medical letters: the original letter synthesized by an experienced NHS healthcare professional, an intermediate simplified by the same healthcare professional and a final 'Med Lingual' simplified version. The letters contained the same information but differed in the complexity of the terminology used, ranging from expert-level health literacy to basic-level health literacy. The survey gathered data from 45 participants, whose ages ranged from 10 to 75 years old. We selected participants from varying levels of education and identified those who had English as their first language



#### Map Sketch Completing brief Developing ideas research at Stoke Mandeville

existing in

healthcare

and solutions to by interviewing communications staff on problems

# **Discussion and Conclusion**

In brief, the majority (84%) of our participants preferred a simpler version of their medical letter; from this 51% preferred the letter developed by our prototype. To investigate further, we explored the level of education and first languages of our respondents. More than half of our respondents had a Bachelor's degree and a further 25% had a PHD or Master's degree. In fact, for 30% of our cohort, English was not their first language.

Med Lingual has the potential and the demand. However, the road is not without challenges. These include but are not limited to:

- Handling sensitive information and ensuring user data has adequate privacy and protection whilst upholding compliance with data regulations. · Monetary and time costs for marketing and user acquisition and retention
- · Challenges in balancing the user experience with monetisation strategies for a web-based application
- Translating medical terminology accurately by overcoming nuances in different languages.

Smartphones are an integral part of our lives. With Med Lingual being a few taps away, it is an opportunity for patients to get involved in their care. Med Lingual reduces the communication barrier in healthcare by promoting inclusivity, simplifying medical jargon, and supporting patients with varying individual communication needs. Prospects of Med Lingual include creating a seamless medical letter system directly from healthcare services to patients by collaborating with GP practices and hospitals. Providing this platform eliminates the need for physical letters, providing great sustainability benefits and directly cutting costs for the NHS by reducing postage costs (£1/letter).



Practice.pdf [Accessed 4 Aug. 2023].

doi:https://doi.org/10.7812/tpp/07-144.

4.National Institute for Health and Care Research (2019). NIHR Evidence accessible health and care research. [online] evidence.nihr.ac.uk. Available at: https://evidence.nihrac.uk/alert/communication-problems-are-top-of-patient concerns-about-hospital-care/.

5.NHS England (2022). NHS England» Enabling people to make informed health decisions. [online] www.england.nhs.uk. Available at: https://www.england.nhs.uk/personalisedcare/health

# Results

Which of the 3 letters would you prefer to receive about your healthcare?



#### **Design Sprint Process**





Designing and

developing Med

Lingual



Decide Prototype Deciding on the simplifying, tackle barriers in translating and audio filecreating features for a web-based application

Test Testing Med Lingual by conducting a survey with 45 participants

# References

- Campbell, P., Torrens, C., Pollock, A. and Maxwell, M. (2018). A scoping review of evidence relating to communication failures that lead to patient harm. [online] Available at: <u>https://www.gmc-uk.org/-/media/documents/a-scoping-review-of-evidence-relating-to-</u> communication-failures-that-lead-to-patient-harm p-80569509.pd
- 2.Communicating with service users best practice Ref: CORP-0067-v1.1 Status: Approve Document type: Procedure. (2022). Available at: https://www.tewv.nhs.uk/content/uploads/2021/10/Communicating-with-Service-Users-Bes
- 3.Graham, S. and Brookey, J. (2008). Do Patients Understand? The Permanente Journal, 12(3).
- Communication problems are top of patients' concerns about hospital care Informative and

NTRODUCTION: Place-based inequalities

Health inequalities, as defined by Public Health England, refers to the unfair and

avoidable differences in health across the population and between different groups within society. These disparities arise from unfair systems that negatively impact

people's living conditions, access to healthcare, and overall health status.1 Health

inequalities manifests across four key dimensions, highlighting disparities in:

Socio-economic status and deprivation:

Affecting those who are unemployed, experience law income, or reside in deprived areas, the disparities encompass challenges such as poor housing, limited educational opportunities, and

Disparities based on age, sex, race, sexual orientation, and disability

Vulnerable groups of society, or 'inclusion health' groups

ertain populations, such as vulnerable migrants, Gypsy, Roma, and Traveller

Disparities between urban or rural areas, includina variances in healthcare

Protected characteristics :

Geography

Addressing Urban-Rural Health Disparities: Bridging Gaps Through Mobile Hospitals By Jesher Ching Norwich Medical School

Hence, As one of the four key

light on the task of eliminating

place-based inequalities.

specifically on urban-rural

dimensions where health inequality

nanifests, this poster aims to shed



# What are Place-based inequalities?

Place-based health inequalities refer to disparities in health outcomes and healthcare access linked to the geographical location where individuals live, particularly their proximity to a hospital. Research average distance for an from QualityWatch, a programme focused on evaluating patient care in England, revealed that 70% of emergency admissions occurred establishment of new hospitals within 6.2 miles (10km) of a patient's home, while only 3% of distances for faster emergency people were admitted to a hospital more than 18.6 miles (30km) from home. However, individuals in some rural areas must travel over ten times the distance compared to their urban counterparts.<sup>2</sup>

On the other hand changes in services can significantly change distances to emergency care. For example, after the closure of the A&E Department at Burnley General Hospital in 2007, the emergency admission in Burnley District rose from 3.2 miles in 2006/07 to 8.7 miles in 2008/09.2 Therefore, the played a crucial role in reducing admissions.



Clinical Significance of the MOPs Interventions	Total	%
I - Non-Clinical Reason for the intervention	32	5%
II - Minor benefit to patient care	373	56%
Illa - An incident or situation which could have led to an increased		170/
length of stay was prevented or improved upon.	111	1/%
IIIb - Evidence based treatment/according to Guidance	106	16%
IV - Reversible harm or admission to hospital	47	7%
V - Averted Death or major permanent harm	0	0%



# What are Mobile hospitals?

The concept of a mobile hospital is not entirely new: consider the deployment of mobile field hospitals in the aftermath of disasters. They play a critical role for governments, cities, municipalities, hospitals, response agencies, and medical organisations, offering rapidly deployable, life-saving medical facilities following a disaster or emergency.3

So, what is usually included in mobile hospitals? According to BLU-MED®, the global leader in mobile field hospitals, their units comprises of trauma clinics, emergency rooms, ICU/ postoperative care, operating rooms, obstetrics and gynecology care, scalable ward spaces, optometry clinics, ear, nose, throat care, dental clinics, mental health clinics, triage and isolation facilities with positive or negative pressure, immunisation and drug distribution, ancillary clinical support, emergency operation centers, outpatient clinics, decontamination and mortuary facilities.3 These features emphasise the ability of mobile hospitals in meeting various medical needs.



# 05 Limitations

However, several challenges must be considered and addressed before the establishment of mobile hospitals. including:

- 1. The necessity to establish proper connections between various areas of the hospital to organize the flow of patients, personnel, and materials, and to enable access control to each individual suite of rooms 5
- 2. The importance of maintaining high standards for infection control, which involves implementing HVAC systems for operational procedures, along with strict control of air-flow directions and pressures.

In conclusion, tackling place-based inequalities in healthcare is vital to ensure equitable access to healthcare services. Urban-rural disparities, a key dimension of health inequalities, can be effectively addressed through mobile hospitals. While maintaining a comprehense mobile hospital may pose practical challenges, prioritising essential departments such as the ED can optimise the functionality of these facilities

It is important to address challenges such as establishing proper connections and maintaining infection control standards to ensure the success of mobile hospitals. By taking advantage the adaptability and critical nature of these facilities, we can bridge gaps in healthcare access, reduce travel distances, and ultimately improve health outcomes for individuals in rural areas.

Bibliography 20	Public Health England (2011) Place-based approaches for reducing health negocilities: main report. [cnline] GOVUK. MISSA: Annowa Duck Accessment Jpablication, Thrattle: International approximation of the second second second International Access and approaches for enducing. Neutrino, March 2004; Alexa Data Charlon Charles International Access approaches for enducing Available all: http://www.sumikedinat.org.org.internet.com Content Second Second Second Second Second Second all: http://www.sumikedinat.org.org.internet.com Second Second Second Second Second Second Second Second all: http://www.sumikedinat.org.org.internet.com Second Second Second Second Second Second Second Second all: http://www.sumikedinat.org.org.internet.com all: http://www.sumikedinat.org.org.internet.com all: http://www.sumikedinat.org.org.internet.com all: http://www.sumikedinat.org.org.internet.com all: http://www.sumikedinat.org.org.internet.com all: http://www.sumikedinat.org.org.internet.com Accession.com all: http://www.sumikedinat.org.org.internet.com Accession.com Ac
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However, do we truly need all the aforementioned units in a mobile hospital to address the sole purpose of reducing travel distance for people in rural areas? The practicality of maintaining such a comprehensive mobile hospital is guestionable, given its intricate organisational structure and technological demands. So which department should we keep?

One department to retain is the Emergency Department (ED), considering the impact that increased travel distance has on mortality rates and the potential for exacerbated injuries during emergency situations. Prolonged delays in care have contributed significantly to a spike in patient deaths, increasing fivefold in the last 3 years, from 21 deaths in 2019 to 112 in the most recent year. Individuals experiencing "severe harm" have also risen from 96 to 152 during this period, while the overall number of people suffering some degree of harm in such circumstances has surged from 3,979 in 2019 to 7,856 in 2022, marking a 97% increase.

Why prioritize the ED over other departments? The rationale lies in not entirely substituting traditional hospitals, as the operational demands of a mobile hospital surpass those of a traditional setup. The ED can be regarded as a self-sufficient mini-hospital, equipped comprehensively with the necessary technical, technological, and treatment infrastructure, encompassing both surgical and diagnostic capabilities. By strategically focusing on key departments, particularly the ED, we can optimize the functionality of mobile hospitals to address the urgent healthcare needs of individuals in rural areas efficiently and feasibly.5

06 Conclusions

# Pharmacists role in reducing health inequalities

NHS

Central London **Community Healthcare** 

### Nilam Kalyan & Gopal Patel

Specialists Clinical Pharmacists, Brent Health Matters

- 1. Total of 5 medications prescribed after cardiology review
- 2. Patient no longer experiencing chest pain to the same extent
- Housing issue currently under investigation
- 4. Local school admission provided for his two children

# Bridging Health Inequality: The potential of innovation within stem cells in tackling inequalities in healthcare

### Introduction:

Health inequality is a pervasive issue that affects individuals worldwide, creating disparities in access to medical treatments and overall well-being. It is essential that steps are taken to eliminate these disparities. In this research poster, I will delve into the promising potential applications and use of stem cells, and gene-edited stem cells as a means to tackle health inequality

#### Background:

Health inequality in society is a complex challenge that is influenced by various factors including socio-economic status, education, and access to health care resources. Investment into these stem cell techniques could potentially influence the way certain procedures and treatments are administered in revolutionary ways. Stem cells with their unique ability to differentiate into specialized cell types offer a plethora of potential treatments, from the manufacture of synthetic organs and combatting otherwise untreatable conditions. Furthermore, existence of gene-editing technologies such as CRISPR have further enhanced our ability to modify and optimize these cells for specific purposes.

#### Applications of Stem Cells and impacts:

Tackling blood shortage and inequalities concerning access to donated blood:

The availability of safe and sufficient blood is crucial for medical intervention, surgeries and emergency car. However, there is a massive global challenge in ensuring there adequate and equitable supply of blood bags. Certain blood types are donated less frequently, leading to shortages and challenges in meeting the diverse need of patients. Furthermore, certain ethnicities have unique blood groups and types and it can be almost impossible to find a match on certain occasions. Approximately 15 million units of red blood cells are collected in the United States on a yearly basis, and all but 5% are transfused. Additionally, the need for blood bags for transfusions is expected to rise due to increased healthcare demands from the aging population in most developed nations. Although the frequency of disease transmission from in developed nations such as the US are low due to rigorous testing and blood donor screening, many developing nations lack the infrastructure required to achieve this level of safety.

One way of potentially solving this crisis, is by utilizing stem cells in manufacturing the specific required blood type. Red blood cells, the body's most abundant cell type are highly specialised cells, uniquely adapted for their primary function of delivery of oxygen around the body. The specific process of stem cell differentiation known as 'erythropoiesis'. Proerythroblasts, first formed from multipotent haematopoietic stem cells, undergo a complex process of differentiation. The rate of ongoing production of new red blood cells is at a rate of approximately 2 million cells every second.



One research tested the viability of red blood cells produced by stem cells through testing on mouse, and results found that the Hemoglobin saturation at certain partial pressures of oxygen was very similar and in line with that produced by the control. From this, we can take away that the red blood cells produced in vitro, are just as viable in performing their core function as human-produced erythrocytes. One major difference noticed was that the stem -cell produced red blood cells were 40% larger than donor erythrocytes with the same concentration of hemoglobin but 50% more hemoglobin per cell due to the larger size. This mouse model could potentially be used as a rapid pre-clinical test of the stemRBC (stem cell red blood cell) effectiveness prior to transfusion in humans.



This alongside a proposed method of large-scale production of red blood cells, where through first producing a culture that undergoes expansion and differentiation to produce high yield enucleated RBCs. Additionally, the potential of upscaling using a 'G-Rex bioreactor', provides a large-scale, costeffective method of producing customizable RBCs, that negate potential risk of alloimmunization and increase precision medicine, personalizing treatments more. This will be particularly essential for certain obscure blood groups present in certain individuals due to genetics, where proportion of those donating blood by population may be low, thus helping to address the inequality in access to blood bags for that population.

Tackling shortage of organ donors and high demand for organ transplants:

Organ donations present a major medical challenge and deciding between who receives the available organs are tough decisions to make, and have many ethical arguments. By utilizing stem cells, from the person requiring stem cell themselves, we mitigate any potential rejection or autoimmune response from the body, thus reducing the need for expensive immunosuppressant drugs.

Additionally, a breakthrough in forming embryonic stem cells from adult stem cells allows for further differentiation and specialization as embryonic stem cell can differentiate into any type of cell in the body. This can apply in conditions such as heart failure, liver failure, Type 1 diabetes and Parkinson's disease, where certain cells are failing to perform their function. This would mitigate the need for transplantation of an entire organ thus freeing up organs for those with a greater clinical need.

### Conclusion:

The future prospect of being able to generate any type of cell using embryonic stem cells obtained from adult stem cells to reduce the need for organ transplantation as well as the potential for solving the blood bag shortage and lack of blood donation is very promising. These advances will be quintessential in tackling inequalities that are brought about lack of access to blood as well as lack of organ donors to meet the demand of organ transplants. Additionally, they present a very cost-effective method of producing blood and treatments for conditions which will help those in developing countries that lack the infrastructure to provide such treatments. Overall, pursuing stem cell research will unlock many promising methods that can increase access to good quality healthcare for all.

### Bibliography

- availability (Accessed 25/11/23)
- books/edition/Good Blood/643RDwAAQBAJ? 25/11/23)
- 3. https://www.frontiersin.org/articles/10.3389/fcimb.2022.1039520/full
- 4. http://www.hhs.gov/ash/bloodsafety/2011-nbcus.pdf.
- 5. https://journals.sagepub.com/doi/10.1177/107327481502200103
- scale-in-vitro-production-of-red-blood-cells

- the-body-wont-reject-them-122017
- 9. https://www.nature.com/articles/d41586-022-01932-4

#### By Kailash Viswanathan

1. Blood safety and availability – World Health Organization (WHO): obtained from: https://www.who.int/news-room/fact-sheets/detail/blood-safety-and-

2. Good Blood by Julian Guthrie : obtained from: https://www.google.co.uk/ hl=en&gbpv=1&dq=good+blood+julian+guthrie&printsec=frontcover (accessed

6. https://ashpublications.org/bloodadvances/article/3/21/3337/422696/Large-

7. https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0166657

8. https://theconversation.com/stem-cells-could-regenerate-organs-but-only-if-

Navigating the Labyrinth of Multiple Disadvantage: Harnessing Social Prescription to Combat Weight Stigma - Helen James VCSE Nutriri Innovating in the 'slimming club' and 'weight management' domains to reduce health inequities and support engagement in beneficial behaviours.

Individuals facing multiple disadvantages are enmeshed in a complex web of challenges stemming from a convergence of factors, including poverty, trauma, and discrimination. Weight stigma perpetuates and magnifies health disparities in already marginalised populations (Shaw, Meadows 2022) Weight stigma, a pervasive form of prejudice and discrimination based on body size, stands as a significant factor further complicating the lives of those already facing multiple disadvantages and health conditions correlated with higher weight. (Meunnig 2008). However, a comprehensive approach to improving public health, independent of weight change, is offered by a lived experience-led and culturally sensitive promotion of health and weight maintenance, through accessible and enjoyable physical activity; realistic and balanced nutrition; and unpressurised reduction of alcohol and cigarettes. Utilising social prescription to rebuild trust, through training, and not focusing on weight as a health metric can re-engage the significant number of higher weight individuals who currently delay or withhold from engagement in healthcare, food, and movement (Ryan et al. 2022). By addressing the underlying social determinants of health and fostering more inclusive communities to empower individuals to make informed choices about their health, we can create a society where everyone has more opportunity to flourish.



# THE IMPORTANCE OF THE STUDENT-LED WEBSITE, SKIN FOR ALL, ON TACKLING RACIAL INEQUALITIES IN MEDICAL EDUCATION

Naabil Khan, Third Year BMBS Student, University of Exeter

# **INTRODUCTION**

It is vital that the issue of ethnic minority representation is understood and campaigned for in the medical community. This will drive the movement towards a future of proportionate representation within medical education; and in turn, improve the recognition rate and risk perception of diseases in all skin tones

Skin For All aims to improve patient knowledge, and patient wellbeing by being a source of accessible information for commonly seen conditions. It also aims to provide medical students with a comprehensive and well-rounded level of understanding when discussing skin conditions and their presentations on different skin tones.

# CONTEXT

There is a longstanding issue of underrepresentation and racism in medical history. education, and research, particularly concerning ethnic minority patients. The lack of representation extends to medical textbooks, as highlighted by a 2018 study from the University of Washington. The Atlas of Human Anatomy, a widely used learning tool, features less than 1% of images with dark ski [1].

This misrepresentation also has real-life consequences with non-white patients facing higher mortality rates associated with dermatological diseases despite skin cancers being more prevalent in white populations [2]. Emphasising the impact of ethnic minority underrepresentation on clinical outcomes. There is an urgent need for increased diversity and accurate representation in medical education and research to address deeply rooted biases and improve healthcare equity.

According to NHS England's equality, diversity, and inclusion improvement plan [3], one of the biggest goals is to acknowledge the use of language which isolates certain groups, alongside identifying what barriers are present with certain patients that result in a reduction of clinical care quality and experience. Skin For All aims to fill these gaps by covering the most commonly seen skin conditions with reliable, inclusive, language and a myriad of images from verified sources.

ALL

FOR

# COMPONENTS OF SKIN FOR ALL [4]

- Summary: Can be used to gain a clear and accessible summary of these conditions before delving into the more detailed elements of disease profiles.
- **Enidemiology:** Aimed at medical students who can use it in case studies problem-based learning and understanding the general prevalence of conditions. They range in areas affected across the globe with studies and reports gained from organisations such as the WHO.
- Pathophysiology and Management: This has been split into two parts according to the level of medical knowledge held by the user. Medical jargon is defined for non-medical users and simplified sentences are written to improve accessibility to the website's content.
- Image Inclusion: The images used were chosen to represent multiple skin tones and types. It also includes a variety of condition stages to understand how these conditions impact differently on a range of skin tones.
- Myths: These are included to clear misinformation and support users as much as possible. This also allows the user to research further into conditions they are interested in with helpful and relevant links.
- Questions: Based on conversations, the use of questions for each condition has proven useful for everyone. By providing a list of recommended questions, the consultations with doctors can also be less intimidating and more structured and informative to the patient/individual
- Support: These links allow users to delve into further reading and support surrounding the conditions mentioned on the website.



Myths

**USER FEEDBACK** 

"Such a fantastic website aimed at a really important topic - our education needs to

"This is an absolutely incredible resource. This is on the same level as the award-

winning Mind The Gap! Keep up the great work" - Rhys David, Third Year Exeter

Year Nottingham Medical Student

healthcare" - Sohgirg Sultan, g member of the public

represent our population and Skin for All can play a part in that!" - Aisha Lea, Fourth

"Skin For All is such a transformative website. It is so useful for both the general public

and medical professionals to be informed. It is a very big step for representation in

"I'm amazed at how much information there is. I found out loads on one of the pages...

thanks for the content, I'm very grateful" - Ian Hope, DYYV committee member

### Example of supportive links/ myth busting/ auestions for users [4]

- Ravnaud's is a rare disease It only affects fingers/ toes
- Raynaud's phenomenon is caused by poor circulation
- The only treatment is to stay warm
- Symptoms only include red, white and blue discolouration
- Questions to ask your doctor
- · How can I avoid the reoccurrence of symptoms? How is it diagnosed?
- Is it a hereditary condition? Will Raynaud's get worse over time?
- Support Raynaud's Association
- NICE Guidelines NHS Inform

"In patients of African descent, perifollicular (around the follicle) and extensor areas are more commonly affected... After an inflammatory

episode, hypo/hyper-pigmentation is more likely to occur in skin of colour than white skin."- Example of inclusive language used to describe Atopic Dermatitis; Skin For All [4]

"Sclerotherapy induces thrombophlebitis reaction (a reaction that causes a blood clot to form) to block the vein, but recannulation (the process of inserting a tube to free blockages) may occur in many cases." - Example of medical jargon being defined for non-medical users in Varicose Veins;

> Skin For All [4] NHS website

# CONCLUSION

Study

The importance of bottom-up engagement of students in projects like Skin For All can help support the movement towards more representation and diversity in the medical school curriculum. Other methods of change include calling for more cases regarding ethnic minority patients to be integrated within seminars, lectures and problem-based learning (PBL) groups. As well as a call for the inclusion of images and recommended reading lists which will further enable the normalisation of diversity.

Further research is required to present the outcomes of Skin For All, however, it has currently gained public attention through social media and television coverage, It's prominence in medical academia is growing with the use of presentations, broadcasts, PBL integration and cross-university lectures.

### To utilise inclusive language for all patients and medical students

- To present diverse images to improve case exposure To provide supportive links to educate users on
- myths/misconceptions
- To promote student-led initiatives in reducing racial inequalities





within medical teaching materials

Skin For All





# **RESEARCH** [4]

• I used 6 different sites to determine the most common conditions that affect patients.

1. Global Skin Disease Morbidity and Mortality: Update from the Global Burden of Disease 2. Epidemiology and Management of Common Skin Diseases in Children in Developing Countries 3. The Burden of Skin and Subcutaneous Diseases: Findings from the Global Burden of Disease

4. National Institute of Arthritis and Musculoskeletal and Skin Diseases: Skin Diseases 5. Skin, hair and nails: NHS inform

6. Mind the Gap by Malone Mukwende

 The sites used also cover the multiple, international populations that may use this website, so studies and reports from developing, and developed countries were chosen

# PRESS/RESPONSE

How adopting the Australian website "Health Translations" into regular medical practice within the NHS can reduce health inequalities within the UK for individuals with limited English proficiency (LEP) **By Aditya Bose- Mandal** 

# BACKGROUND

The United Kingdom remains a diverse country with many different cultures and individual living together within its many communities. Within London itself, over 300 different languages are spoken everyday. However, this diversity is far from reflective in our healthcare setting with translation services and information scarcely available in non english formats. This in itself identifies a larger issue within our healthcare system; The ever growing gap in health care outcomes and health inequalities between those who have limited English proficiency and those who do not. Migrants within the UK are already reportedly less likely to seek medical attention if required due to cultural beliefs but the n further alienation can occur if receiving information regarding health care you need is delivered in a format that you already struggle to understand an interpret. So the question at large is how can we readily, affordably and practically tackle this issue?

# The resource

Health translations is a program made by the Australian state government of Victoria. The centre for Culture, Ethnicity and Health (CEH) maintain the content of the website and ensure that it is up to date. The Heal Translations website is a free to use online resource which contain translated healthcare information in a majority of languages. It is particularly useful for Australian health care professionals who require reliable resources when discussing healthcare with individuals who's first language is not English. This resource an be found at https://www.healthtranslations.vic.gov.au

Adapting this website into regular practice within the NHS can reduce health inegualities by allowing patients with different linguistic requirements to better understand their physicians and their own health issues. This would in turn reduce health inequalities as patient's with limited English proficiency would be able to understand more about their health issues and gain confidence with asking for help.

# How does the resource work?

The website itself does not have original content but rather it provides links to reliable and vetted third party websites that provide health care information in the required language. The resource can then be viewed or download of the third part website. To ensure the quality and safety of the resources, each resources must meet the criteria outlined by the website's editorial guidelines. Healthcare professionals can easily navigate the website on their phones or electronic devices simply by searching the directory using a key word or phrase regarding the desired procedure or condition they want to provide information on and then searching the language required. This will then direct the clinician to a verified resource in the patient's own language that can be printed off or given to the patient to read or it can be used to supplement information within a consult.

### References

Resource- Health translations, Victorian Govt. of Australia, https://www.healthtranslations.vic.gov.au Study A- Hwang K et al. Testing the use of translation apps to overcome everyday healthcare communication in Australian aged-care hospital wards-An exploratory study. Nurs Open. 2022 Jan;9(1):578-585. doi: 10.1002/nop2.1099. Épub 2021 Oct 26. PMID: 34704379; PMCID: PMC8685780. Study B-Al Shamsi H, Almutairi AG, Al Mashrafi S, Al Kalbani T. Implications of Language Barriers for Healthcare: A Systematic Review. Oman Med J. 2020 Apr 30;35(2):e122. doi: 10.5001/omj.2020.40. PMID: 32411417; PMCID: PMC7201401.

# Search by keyword Browse by lette A B C D E F G H I J K L M N S T U V W X Y Z P Q R Language Select a language Select a topic Type to filter option: Amharic (3) Arabic (90) Armenian (1) Assvrian (12

# **Implementation and Benefits**

### How could this be implemented?

This website can be readily implemented into clinical practice simply by using the existing Australian website which can be accessed within the United Kingdom. Although the website is relatively straightforward to use, a pamphlet explaining how to optimally use the website could be produced in multiple languages so that patients could explore the website themselves.

### Potential benefits of implementation

Clinicians would be able to regularly provide patients with further information in the patient's own language which can greatly improve patient and doctor rapport. This resource can also reduce the requirement for translators in medical settings and can allow for treatment to move at a more efficient pace as understanding from patient's will be more complete. Patient's who's first language is not English may also feel more at easy with their condition or procedure being explained in their own languages and may be more inclined to be involved in health care decision making.

# Studies assessing the validity of using these resource types in clinical practice

Study A Study A is a mixed methods exploratory study which trialed three mobile translation apps within health care settings in Australia to address language barriers in everyday care between healthcare staff and older people with limited English proficiency (LEP). This study used a standard for reporting of qualitative research checklist to analyse the responses from patient's using the translation apps. At the end of the three month trial period, the conclusion was that translation apps helped improve communication between health care staff and older people with limited English proficiency for basic care needs. 65% of the health care professionals felt that using translated materials in the future can help them improve health outcomes for patients with LEP.

Study B Study B is a systemic review identifying published studies o the implications of language barriers in healthcare using two barriers within healthcare can lead to significant miscommunication between p databases. The study found that language barriers within healthcare can lead to significant miscommunication between patients and health care professionals leading to a increased risk of harming patients and decreasing the standard of health care provided to the patient. The review also concluded that interpreter services contributed to the increasing cost and length of treatment visits. The study also concluded that online translation services and online translation resources increased satisfaction of both medical providers and patients with LEP by up to 92%, overall decreasing the negative health outcomes



# THE UNIVERSITY OF BUCKINGHAM MEDICAL SCHOOL



# What have you learned?

What learning can you share? Importance of engagement to get the materials right for the people of Luton, including wording, images, and representing diversity, all as per local people's suggestions.

What was challenging and how did you overcome the challenges? Sourcing funding for preventative work in mental health is a main challenge. For example, employment in mental health roles tend to be fixed term, and not renewed, and so there has been a lot of staff turnover over the course of this

# What's next?

Tell us what your next steps are? -Seeking funding for media campaign experts to support Fiona to create narrative suitable to roll out as a

Fighting for parity of esteem= Funding MH prevention work!

-Evaluation of effectiveness of

approach, before wider roll out.

What will you continue doing? As above + supporting wider roll out.

What will you stop doing? N/a.

Is there anything you require? Funding!

INSTITUTE of HEALTH EQUITY

# Luton 2040 A place to thrive

# **HEALTH INEQUALITIES IN MENTAL HEALTH SERVICES: INTRODUCING BY DEVON LLOYD-MORRIS** AYO. ARE YOU OKAY?

# **Background**

- Around 1 in 4 adults in the UK experience mental health (MH) issues such as depression and anxiety.<sup>1</sup>
- For those who seek help, NHS waiting times for talking therapies can reach up to 229 days in some parts of England.<sup>2</sup>
- Lack of accessibility to MH services the extent of this inequality is not seen in physical health services.<sup>3</sup>
- In primary and secondary centres, there are many missed opportunities to address MH issues.
- This initiative aims to bring MH to the forefront of our minds, widening participation in discussions surrounding MH.

# **Objectives**

- Provide space to talk about MH issues
- Manage transient and mild MH disorders
- Support patients in need of MH advice
- Reduce stigma around MH

# **Current** issues

**M** Inequalities in MH services

Underfunding, understaffing and overworking in MH services.



Long waiting list times

# Barriers to accessing MH services



Loneliness is a significant risk factor for MH issues. Around 1 in 2 adults (49.6%) reported feeling lonely.<sup>7</sup> Loneliness was more common in disabled people, young adults, elderly, the homeless and other vulnerable patient groups.<sup>7</sup>

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Survey patients and healthcare professionals (HCPs) to gauge the need for "AYO".



Recruit HCPs who are interested in providing talking sessions to their patients



Recruit a multidisciplinary team of psychiatrists, psychologists and counsellors to create an online training programme



The programme will train basic psychotherapy training such as Cognitive Behavioural Therapy, Solution focussed brief therapy and person-centred therapy.



HCPs will wear the "AYO" badge to show their training and willingness to talk about MH issues.



Participants will volunteer minimum 1 hour of their time ▲ ▲ (4 x 15-minute consultations).



Start a pilot study in a local area and monitor the MH outcomes of the population in a 6-month period.



More than 3 in 4 (78%) of those waiting resorted to emergency services or a crisis line.6



More than 1 in 4 young people (26%) tried to take their own life whilst waiting for MH support.<sup>5</sup>



Prototype of the AYO badge Helps patients identify people who are happy to talk about MH issues.

# **Discussion: What will this achieve?**

- Improve the accessibility of MH support

# Limitations



which may be impractical.

\$1 £

£

psychiatry training.

red goals.<sup>8</sup>

....

MH issues affect us all, so in a team approach, we can all address the inequalities in MH services. Through "AYO", we can ensure that every patient has access to MH support, regardless of what healthcare setting or speciality they present to.

- household survey. The NHS Information Centre for health and social care.
- Mental Health First Aid USA. (2020). The Importance of Having a Support System. Available from
- Campaign To End Loneliness, (No date) Facts and statistics about loneliness, Available from





Integrate MH services with other physical health specialities and place MH at the forefront of our minds Provide a lifeline for those who want MH support Complement and support the work of MH professionals Remove the stigma and fear of talking about MH

Increase in work-load for HCPs, potentially

AYO relies on many HCPs volunteering their time

Participation with AYO may need incentives such as financial bonus or CPD points.

Lack of supervision can lead to mis-management of patients as the programme doesn't replace formal

An average of 12 – 20 sessions are needed to reach MH

# **Conclusion**

McManus, S., Meltzer, H., Brugha, T. S., Bebbington, P. E., & Jenkins, R. (2009). Adult psychiatric morbidity in England, 2007: results of a Baker, C., Kirk-Wade E. (2023). Mental health statistics: prevalence, services and funding in England. Available fr https://researchbriefings.files.parliament.uk/documents/SN06988/SN06988.pdf (Cited 12 December 2023). NHS England. (No date) Mental health access and waiting time standards. Available from: <a href="https://www.england.nhs.uk/mental">https://www.england.nhs.uk/mental</a> health/resources/access-waiting-time/. (Cited 12 December 2023). https://www.mentalhealthfirstaid.org/2020/08/the-importance-of-having-a-support-system/. (Cited 12 December 2023) Young Minds. (2022) Mental health waiting times harming young people. Available from: https://www.youngminds.org.uk/aboutus/media-centre/press-releases/mental-health-waiting-times-harming-young-people/. (Cited 12 December 2023). Royal College of Psychiatrists (2022). Hidden waits force more than three quarters of mental health patients to seek help from emergency services. Available from: https://www.rcpsych.ac.uk/news-and-features/latest-news/detail/2022/10/10/hidden-waits-force-more-thanthree-quarters-of-mental-health-patients-to-seek-help-from-emergency-services. (Cited 12 December 2023)

Open Forwards. (2023). How many counselling sessions do I need? Available from: https://openforwards.com/how-many-counselling sessions-do-i-need/#: ".text=We've%20learned%20that%20people,term%20work%20over%20several%20years. (Cited 12 December 2023



## Science Communication, coloniality and BAME communities in Britain: An analysis of peer-reviewed publications and social media posts around the COVID-19 pandemic

Elizabeth Neri, University of Cambridge Faculty of Education, EN358@cam.ac.uk

#### Introduction

alities in health faced by ethnic minorities were brought to the forefront by the COVID-19 nics through peer-reviewed science papers regarding COVID demic. Through the lens of 'Coloniality of Knowledge' (Quijano, 2000), which concerns the legacies out ethnic mir etween 3rd March 2020 to 23rd June 2021? f colonialism on modern knowledge-building, this research explored the role of science con in perpetuation in these health disparities in the UK by devising guiding analytic points to identify markers or coloniality. Although there exists literature exploring coloniality-related issues in Public Health, there lacks a focus on COVID-19 science communication practices, particularly social media. RQ2: In which ways, if at all, can elements of coloniality be observed within science of bout ethnic minorities to the public through social media regarding COVID between 3rd March 2020 to 23rd June 2021?

#### Methodology

The study adopted a documentary research approach an -reviewed papers (communication among experts) and leets (communication among non-experts). Using key elated to COVID-19 and ethnic minorities (see Figure 1), 44 enated to COVID-19 and etmic minorines (see Higure 1), 44 eer-reviewed papers and 73 tweets were selected and nalysed for literature-based markers of coloniality (See Figu ). Papers and tweets were then colour-coded and cross-nalysed (see Figure 3 for an example of coding).



(Phiri et al., 2021, 12)

nals and tweets

### Thematic Analysis, Findings and Discussions

### s of classification, homogenisation and hierarchisation



Risk factors and the absence of intersect	ionality
Used the term 'non-white' to explain the lack of vaccine records observed in a high proportion of ethnic minorities of entry to a server patient is in the server of the server of the server of the server of the server paties that the server of the server of the server paties that the server of the server of the server of of the server of the server of the server o	Disc read inter in C0

edging the disparities faced by ethnic minorities, through the language of 'risk', ethnic minor As or we papers a response urescrave, to univerent degrees, correlations between ethnic/racial differences and COVID toomes as being biological, positioning those negatively impacted by COVID as being for their ill health. This sults in the oversimplification of the causes of illness and therefore in measures to address disparities such as the gue example of 'improved health messaging' (Gray et al., 2021, 7). I must acknowledge that some papers did position sism and structural discrimination as being to blame for worse COVID outcomes and so can be viewed as subverting lonially (Sze et al., 2020, 11). st of the papers and blamed, rather than being positioned as victims of inequality. Many Tweets showed a lack of inter ctionality when exploring the impact of the pandemic, failing to consider the intersections of disadvantage and instead prioritising quantitative data over stories. I must acknowledge some examples of Tweets that took on this intersectional len restingly, the Lancet - which I also analysed for my RQ1 - tweeted commenting on COVID-19 exposing racial inned by coloniality in research. This contrasts with the papers published by the journal revi RQ1, which had few observations of intersection

#### entific research, data, and silencing

is both effective and sald (1,11) but coverage has been reported in the same of 20% to 70% amongst cancer survivors in the 10 and in the singing angles, here was limited bar in the submit of COVE shalles were conducted was limited. Due in the submit of COVE 15 bring shortwell first in China, 482 of the studies include originate from them. Also, with the inclusion of studies solely written in the studies bareaut this may have interduced forther exhibition to the studies.

#### (Carreira et al. 2020 7 8) d et al., 2021, 1)

(and et al., eds., 1) A to d the papers analysed used quantitative methods like models to help generalise results in place of recru patients from diverse backgrounds and still drew conclusions they deemed robust (Carriera et al., 2020, 7, 8) exclusion of work, with participants from minority groups is an important element of colonality as explored by Santos (2014) and Wood et al. (2021) referenced such a paper but failed to discuss it in their study. Furtherm vioritisation of regish as the language criterion for meta-analysis studies will invektably exclude data and kn from the Global South, dominated by non-English speaking communities, therefore leading to their silencing.

### Conclusion

verall there were observations of elements of coloniality within the selected papers and tweets. When considering the limitations of my study, most can be attributed to time and resource limitations. I only analysed 44 research papers from 2 journals and 73 tweets from 15 accounts on Twitter. This means that conclusions can only be drawn specifically about the sources of science communication analysed. I started rienced by them?" This was this study with a third research question: "What does the response from Asian, Black and other global majority ethnic people on social media tell us about how this coloniality is experienced by them?" This study with a third research question: "What does the response from Asian, Black and other global majority ethnic people on social media tell us about how this coloniality is experienced by them?" This study with a third research question: "What does the response from Asian, Black and other global majority ethnic people on social media tell us about how this coloniality is experienced by them?" This study with a third research question: "What does the response from Asian, Black and other global majority ethnic people on social media tell us about how this coloniality is experienced by them?" This study with a third research question: "What does the response from Asian, Black and other global majority ethnic people on social media tell us about how this coloniality is experienced by them?" This study with a third research question: "What does the response from Asian, Black and other global majority ethnic people on social media tell us about how this coloniality is experienced by them?" This study with a third research question is missing the direct perspective from ethnic minorities and so a full understanding of the impact of the coloniality of science mmunication still needs further exploration. Furthermore, this study only focused on the UK, so it would be interesting to see how other countries and language communities compare these practices of science communication. Particularly, a country which had good COVID outcomes with limited dispatches and out and output output the output of the output of the output output of the output of th

#### References

min, S. (2003). Europertition: New York: Munthly Review.	
auer Gank, C., Daki, A., Sinh, T., Wilsher, M., Betts, D., Baldigh, C., Geffeh, E., Faravag, J., & Buzter, K. S. (2022). The early inpact of COVID-19 on primary care psychological througy services: A descriptive time series of electronic headhcare records. Circulabledice: 100008 (bioscilloscop)20 2036). editors, 2023. 20039	
erad, J. L., Andress, N., Gaer, C., Ribertson, C., Saree, J., Tessier, E., Simmons, R., Cottell, S., Roberts, R., O'Dolvery, M., Brann, K., Caneroso, C., Sacoloso, D., Michanamin, J., & Fazzar, M. (2021). Effectiveness of the Plane-Ben/Tech and Oxford- mic/homes auroless on cosis-31 selessing administories, and monality in idea addition is in (Planet there are planet access control of selessing theory costs of selessing administories, and monality in idea addition is (Planet there are poster case-control dist) (Planet, dist). Display, Colding 2013; All 2014; Display, Colding 2013; All 2014; Display, Colding 2014;	
markenan, & (2010). Beyond the confines of the law: Exurated's internations of a reneasion of the modern state. Philmorethy & Savial Colorom. (10):45371000027. https://doi.org/10.11710101453710000277	
amine, H., Storgman, H., Paga, M., McDonald, H. I., Storkens, S., Sterett, L., & Bhastean, K. (2020). Prevalence of COVD-31-related risk factors and risk of severe influence outcomes in cancer survivor: A matched cohort study using see English electronic health results data. EChicaldefecture, 2005b; Migra 2005; Migra 2002). Storett, Tacol 2001; Storett, Tacol 200	
udy, D. (1908). The British Empire. Victorianveb.org. https://victorianveb.org/https://victorianveb.org	
temphan, K. W. (2018). Demarginalizing the Intersection of Race and Sec. A Black Teminist Childson of Antidocrimination Dechine, Teminist Theory and Antinoch Politics. University of Chicago Legal Forum, 1999;1), 149.	
e Souria Santos, B. (2014). Epistemologies of the south. Duke University Press.	
uels, T. M., Blenda, S., Wolland, C., & Weller, A. (2021). Take and Genetics is: "Take" in Genetics: A Systematic Review of the Use of Altrain Accessly in Genetic Studies. Netdoine, and Public Health, 9(1). https://doi.org/10.1093/empl/bealb018 relig: S. M., Reviews S., Reviews S., Reviews G., Mayae, V., Sawsin, E., Nerley, L., & Orbin, L. A. (2021). From the margins to the maniphrane decomprised protocol communication as a white, Wratern paradigm. Journal of Science Communication, 30(1). CO2. Table Acad Science Terrorette.	
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#### **Research Questions**

Q1: In which ways, if at all, can elements of coloniality be observed within science con





was observed through the use of the term 'BAME'. This co n due to character restrictions, reflecting the 'trade-off' that occurs when using Twitter as a source of science comm een stating as much relevant information about COVID-19 as possible within a certain number of characters wever, across Tweets 'selective homogenisation' was also observed, 'South Asian' and 'Black' communities were positioned as requiring more specific interventions than other members of the traditional label of 'BAME'' (see tweets b Public Health Wales and UKHSA). So, there seems to be a persistent challenge in taking into consideration the voice of all ethnic minorities through either: complete homog nisation; or a selective empowering/silencing binary of some thnic minority voices to favour others

#### Risk factors and the absence of intersectionality

8



#### Social media, messaging, and performativity



No Level & Physics 14 (1,00) Convert and part of the 17,000 of these surgicular groups having works while documents of real masses of work documents making works while documents of the masses of the 10 of the Sandry Office 14,000 of the 10 of the sandra surgicular having of the 14,000 of the 10 of the sandra surgicular E Annual and Market States And Contractic States (1997) The and the Despite States and the States



plified, with several tweets - including the one above published by the NHS mplying that getting the vaccine would help to solve all issues underpinning ethnic minorities having worse health sutcomes. There was also a prioritisation of quantitative data over qualitative data where an attitude whereby 'data c speak for itself' was observed; so hearing the voice of ethnic min rities was not prioritised. There were also in olurring the line between white allyship and Saviourism through images and performances depicted by tweets. For example, white-passing medical staff administering COVID vaccines to ethnic minorities and white professionals like Michael Marmott and Duncan Selbie are the focal point for COVID racial inequalities, despite the former stating a lack of belief in racial negulality in health in his book. The Health Gap'.

# **Collection and reporting of Equality Act 2010 protected characteristics within studies** and audits of pulmonary rehabilitation in the United Kingdom

Holly Drover<sup>1,2</sup>, Enya Daynes<sup>1,2</sup>, Lucy Gardiner<sup>1,2</sup>, Sally J. Singh<sup>1,2</sup>, Mark W. Orme<sup>1,2</sup>

<sup>1</sup> Department of Respiratory Sciences, University of Leicester, Leicester, UK

<sup>2</sup> Centre for Exercise and Rehabilitation Science, NIHR Biomedical Research Centre – Respiratory, University Hospitals of Leicester NHS Trust, Leicester, UK

## Background

- Under the Equality Act 2010 (which came into force on 1<sup>st</sup> October 2010), it is illegal to discriminate based on protected characteristics (Figure 1)<sup>1,2</sup>.
- · Following the Public Sector Equality Duty, it is good practice to collect the protected characteristics of service users<sup>3</sup>
- The extent to which protected characteristics are reported in pulmonary rehabilitation research studies and audits are unknown.

## **Objective:**

To describe the extent to which Equality Act 2010 protected characteristics have been reported in UK research studies and audits of pulmonary rehabilitation to date.

NHS

University Hospitals

CERS

SUPPORTED BY



UNIVERSITY OF LEICESTER

## Methods

A systematic scoping review following PRISMA-ScR guidelines was conducted across five databases. UK studies and audits collecting data on pulmonary rehabilitation after 1st October 2010 (date of Equality Act 2010 inception) were eligible.



National Institute for

Health and Care Research



Health and Care Research (NIHR) Leicester Biomedical Research Centre (BRC). The views expressed are those of the author(s) and not ecessarily those of the Wellcome Trust, the NIHR or the Department of Health and Social Care. This study was funded by the Wellcome Trust [204801/Z/16/Z] as part of the Leicestershire Health Inequalities Improvement Doctoral Training Programme [223512/Z/2//Z]

# QI PROJECT: REFUSAL OF CHILDHOOD IMMUNISATIONS

Why were childhood vaccinations refused at the 6 - 8 week baby check between 1 September 2021 - 1 September 2023? What measures can be implemented to increase the uptake of childhood immunisations at the 6 - 8 week baby check?

# OVERVIEW

- This quality improvement project looked at the number of patients who declined childhood immunisations at the 6 8 week baby check between 1 September 2021 - 1 September 2023.
- · Parents were contacted to understand the reasons behind their refusal and to see if further information would be helpful in their decision making
- . The role of the community health team in childhood immunisations was explored to assess whether leaflets could be incorporated to increase uptake.
- A sustainable leaflet was produced with the aim of providing more information regarding childhood immunisations and addressing barriers such as poor health literacy and digital poverty. This can be used by the practice. Centre For Family & Fun (CFF) and health visitors.

# METHODOLOGY

· A patient search was carried out on SystmOne for vaccination refusal at the 6 - 8 week baby check between 1 September 2021 - 1 September 2023.

AUTHORS

Janani Lambotharan

Nicholas Fernandes

- ts of children who declined vaccines were contacted. Five questions were asked · Do you know what vaccines you refused at your baby's 6 - 8 week check?
- · Why did you refuse these vaccines?
- · Have you, as parents, been vaccinated yourselves?
- · Are you interested in finding out more about vaccinations?
- Do you have any further questions or comments

· Following the feedback we received, we found out about the different points of communication regarding vaccinations from before birth until the 6 - 8 week baby check.

#### . The Health Visitor Team and the Centre for Family & Fun (CFF) Leaders were contacted and asked a series of

- further questions: Their roles in childhood immunisations
- Role of the antenatal and new baby checks with regards to vaccinations
- Benefits of providing physical leaflets for further information.
- Frequently asked questions from parents.

#### · A leaflet was designed based on their feedback and will be distributed amongst the health visitor team as well as electronic copies made available through the use of a OR code and incorporation into Saffron Health's website

#### Leaflet consideration

- Sustainable production Limiting physical copies to only 3 for each of the health visitors that work with Saffron Health. These copies will be laminated for longer lasting use. Feedback suggested that parents would respond better to a physical copy in the longer health visitor meetings, as there is more time to discuss. Additional copies will be shared electronically to reduce waste. CFF refers parents to online sources for more information, so electronic copies would work seamlessly with their current methods.
   Online uptake - The Digital Team for Health for Under 5's was contacted and asked how many visits their
- vaccination site (https://healthforunder5s.co.uk/sections/baby/vaccinating-your-baby/) received from 1 September 2021- 1 September 2023 to assess whether electronic resources were considered useful.
- Health literacy The literacy age of the community registered at Saffron Health is 9 years. Therefore, it is important that the leaflet is appropriate for the target audience.
- · Digital poverty For families where this is an issue, the CFF or health visitor team members can use their own ones to share online copies and discuss the links provided in the leaflet. This is routine practice for CFF as digital poverty is prevalent within the community.
- Access There is a QR code on the leaflet which, when scanned, will take parents to an online copy. The leaflet has been added to Saffron Health's website to allow parents to view this outside of the appointment. This can be accessed from public spaces such as libraries (Pork Pie Library within the community), for families without electronic devices.
- . In the future, follow up can be conducted by contacting parents, the health visitor team & CFF leaders to assess whether the leaflets and contact made were beneficial in increasing vaccination uptake.

 We understand that there is a QoF (Quality and Outcomes Framework) for childhood imr used in future to monitor the effectiveness of this project.

# **RESULTS/FINDINGS**

- Negative experience with previous children
- Lack of info
- Lack of information regarding the c
   Fears regarding the link to autism.
- · Children appear healthy without vaccinations
- · Parents feeling that their child is too young to be vaccinated
- · Forgetting to take their child to the appointment.

Following contact regarding vaccinations, further information was sent using AccuRx to parents who we

#### Health Visitor Team Feedback:

- They contact parents between 28 36 weeks of pregnancy and also 10 14 days after birth.
- Information regarding vaccinations is better rece ed during the 10 - 14 day chec
- Websites they use to signpost; NHS Choices
- Health for Under 5's
- ey felt that a physical leaflet would be more beneficial for them to discuss with an Paper leaflets were previously used by the health visitor team and were effective during consultation nmental considerations, these were stopped
- · As a result, the leaflets designed prevent excessive environmental damage by having limited physical sector of the sector of t ons to reduce waste
- This allows health visitors to utilise physical copies during the consultation, whilst also providing
- Centre for Family & Fun Feedback:
- They offer two programmes where vaccinations are a topic of discussion:
   Teen Parent Project
- Building Communication Skills
- They had concerns that parents were using untrus tworthy sources to access i
- of social media) so the leaflet contains links to reliable sources to tackle this. • The growth of social media during COVID and the hesitancy surrounding the COVID va
- also had a role to play in affecting vaccination uptake during this time period. They felt that a leaflet would be beneficial to direct parents to more evidence-based information
- · Websites they use to signpost
- Health for Under 5's

#### ess of Leaflet:

- The effectiveness of the leaflet is being evaluated by the health visitor team and repeat studies can be done in the future, involving them to establish whether parents responded well to information being provided in this
- The leaflet has been incorporated into the Saffron Health website. Parents can access this i d by assessing the number of visits to the site

# CONCLUSION

Our project explored the reasons why parents declined childhood immunisations at the 6 - 8 week baby check. We conducted this by contacting these individuals and discussing their views. Following their feedback, we discovered the main reasons why parents declined vaccinations and utilised this understanding, along with the information provided by the health visitor and CFF teams, to create a leaflet. We produced a leaflet to target common misconceptions parents may have in an accessible manner by acknowledging the effect of poor heath literacy and digital poverty within the community. Overall, this hopes to address the aims of this project by increasing the uptake of childhood imn

# OBJECTIVE

Childhood immunisations have many benefits, as they reduce the prevalence of serious diseases. Without childhood immunisations, the child is at a greater risk of developing these conditions. Reduced vaccination uptake also decreases the effectiveness of herd immunity. This quality improvement project was designed to find out why parents registered at Saffron Health declined childhood immunisations for their children at the 6 - 8 week baby check between 1 September 2021 - 1 September 2023. Using this information, we identified ways in which the uptake of childhood immunisations could be increased.

https://www.nhs.uk/conditions/vaccinations/why-vaccination-is-important-and-the-safest-way-to-protect-yourself, https://www.what0-18.nhs.uk/parentscarers/keeping-your-child-safe-and-healthy/childhood-vaccinations-essential-informat https://healthforunder5s.co.uk/sections/baby/vaccinating-your-baby https://www.saffronhealth.co.uk/health-information/patient-information-leaflets-and-forms ice365.co.uk/wp-content/uploads/sites/1296/2023/11/Childhood-Immunisations-6-8-Week-Baby-Check-No-QR.pdf https://www.nuffieldtrust.org.uk/resource/vaccination-coverage-for-children-and-mothers-1

- ANALYSIS
- WHO recommends that on a national basis at least 95% of children are immunised against vaccine-preventable diseases
- All UK routine childhood immunisations are evaluated up to 5 years to see whether this target is met.
- In 2021/22, none of the routine vaccination targets were met (for the 4th consecutive year).
- 286 6 8 week baby checks were carried out between 1 Sep 2021 1 Sep 2023.
- 3.8% (n=11) of patients refused their vaccines at the 6 8 week baby check between 1 Sep 2021 1 Sep 2023
- These patients were identified and 81.8% (n=9) were eligible for contact.
- 11.1% of parents (n=1) said they would be interested in finding out more regarding vaccinations.
- They were sent information using AccuRx and were told to contact us again if they would like to book in for a vaccination appointment.
- This patient was followed up to see if their decision on vaccine uptake had changed, however, as of 14 Nov 2023, the child remains unvaccinated.
- 442 people visited the immunisation page on Health for Under 5's from 1 Sep 2021 1 Sep 2023 with an average time of 2 mins 27 secs.
- Leaflets will be trialled and their benefit monitored by health visitors & CFF during consultations with parents
- Currently, parents are being signposted to the leaflet for more information by GPs at the practice.



A design of the leaflet that will be distributed for parents/guardians to code will look like.



A design of the leaflet that parents/guardians will have access to after scanning the QR code.

The link to the leaflet on the Saffron Health website, under 6 - 8 wee baby check

the uptake of

- amonast the health visitor & CFF team. including the QR codes scan for an electronic copy. This prototype represents what the OR
  - week baby check Sep 2023.

# **AFFILIATIONS**

Supervisor : Dr Alaine Cansdale University of Leicester Saffron Health Practice

# REFERENCES

Pie Chart representing vaccinations at the 6 - 8 between 1 Sep 2021 - 1 Voccineted 96.2% ۹ O Online 1 Patient Information Leaflets and Forms

**Kidney Research UK** 

# **ANTENNAE STUDY: ADDRESSING INEQUALITIES IN RENAL RESEARCH**

# Neerja Jain

### BACKGROUND

The inquaural renal research strategy as well as Kidney Research UK Health Inequalities report (Caskey et al., 2019) both highlight health inequalities and the need to enhance the inclusion of underrepresented groups in kidney research so that benefits apply to all

Antennae: Addressing iNegualiTiEs iN reNAI rEsearch is a QI project being undertaken in partnership with Northern Care Alliance (NCA) NHS Trust renal unit and NIHR's Research for the Future (RftF)\*. Utilising Kidney Research UK's evidence based and multi award winning initiative. Peer Educators have been recruited, supported and trained through accredited training (equivalent to a Higher National Certificate [HNC]).

HOW ARE WE ADDRESSING THIS?

#### WHO WILL BE INVOLVED?

Representative of the target communities of the study, and most, kidney patients themselves with experience of research, they are reaching out to under-represented communities and patients at forums including community events and in dialysis units. The target areas are Salford, Oldham and Rochdale, aiming to specifically engage with and improve participation from those of lower socio-economic status, Bangladeshi and Pakistani communities.

\*RftFis a NIHR CRN Greater Manchester 'consent for approach' initiative. The service helps people find out about and take part in research and helps researchers involve, engage and recruit the right neonle: researchforthefuture.org

#### PROJECT AIM

The aim is to engage, provide information, allay fears, and explain the importance of and need for ement and participation in renal research. Then to encourage registering onto RftF's database to press interest only in preferred type of research. Registered people will only be contacted if a suitable study becomes available and only then, do they provide consent. They are free to withdraw at any time and indeed have their details removed from the database at any point.

#### EARLY RESULTS

Some early results demonstrate the impact of a face-to-face engagement with an empathetic, trusted individual who has lived experience of the issues. Given that this is a sensitive subject with historical mistrust, this is a challenging subject to address and lessons learnt will be important for future progress in this area.



### "All the way in"; Improving access to sexual health services for Disabled People

and Lorraine Stanley, CEO SWAD (Sex With A Difference)

#### Introduction

Sexual health services pride themselves in being free and available to everyone. In reality, for disabled people, this is far from the truth. Although services have the desire to become accessible for all, funding, staffing and pressures such as the MPox epidemic have meant that other changes to services have been put further behind in priority

After the HIV Prevention England Conference in September 2022, the local service contacted SWAD to invite them to review our service, and from this, develop a joint plan to improve patient experience.



- · To improve inclusive access to the service for all Dorset residents
- · To develop a bank of "quick wins" that could be used both in our service and for others
- Method
- · Members of SWAD attended the local service to undertake an assessment as a patient pathway, and to give advice on improvements and changes that would make the service fully accessible.

#### Results

- · The visit was an extremely valuable process for both SWAD, who could see our service, the environment and facilities, the pathway for patients, and for ourselves, who realised that although we had managed to be accessible to some, there was a long way to go before we were truly accessible to all
- · Suggestions to work on; some of which could be solved quickly and some that were going to be more challenging.
- These ranged from website improvements. communication with patients prior to appointment and at the first point of contact, logistics within the service, advertising and outreach work.

#### <sup>1</sup> Gov.uk https://commonslibrary.parliament.uk/research-briefings/cbp-9602/

<sup>2</sup> Key findings of Jo's Trust research 2019: Insurges of our a Trust research 2019; https://www.jostrust.org.uk/our-research-and-policy-work/our-research/barriers-cervical screening-physical-disabilities

Dr Cordelia Chapman, Consultant in Sexual Health and HIV, Bournemouth



22 % of the UK population is made up of people with a disability, that's more than 14 million disabled people in the UK.1

Pictured left: Cordelia (standing), & Lorraine (seated)

#### Considerations for ongoing practice

- Visual inspection may not be possible in the clinical setting due to lack of hoists and leg supports for patients that have spinal cord injuries, neurological conditions etc.
- Remote diagnosis/telemedicine In some cases it may be necessary to carry out a home visit, as there may be safeguarding concerns related to professional carers taking intimate photographs of their client.
- It is important to understand that while lots of people are eligible for the NHS Cervical Screening Programme, a significant mber of disabled people have not attended cervical screening due to access problems. Actual stats are below.

#### Existing research of disabled women <sup>2</sup> shows:

88% said it is harder for women with physical disabilities to attend or access cervical screening

63% said that they have been unable to attend cervical screening because of their disability

49% said that they have chosen not to attend cervical screening in the past for reasons such as previous bad experiences related to their disability, or worries about how people might react.

## SWAD



Sexual Health Clinics, GP Clinics & Disabled People – A Guide for Better Access orraine Stanley, Founder and CEO of SWAD

"I think it's an awesome and informative booklet. It's a great checklist for thinking what needs to be done, and the list of resources and links to the guidance and best practice are extremely useful".

Review by Dr Cordelia Chapman of SWAD's Access Guide.

#### eBook available that can help you to:

- Take action to address health inequalities and promote accessibility for all patients
- Empower yourself to deliver inclusive care and put patients first
- https://www.swaddorset.c rg/accessibility-ebookpublished/



Scan the QR code above to see more information about Swad's eBook

Copyright © 2023 Dr Cordelia Chapman, Consultant in Sexual Health & HIV Sexual Health Dorset & Lorraine Stanley, CEO of SWAD (Sex With A Difference Email: Admin@SwadDorset.or



# Universal Medicine: Widening Access and Participation in Medical Research

Gagandeep Sachdeva, Adil Rahman, Satbachan Bassan, Christopher Morgan and the Universal Medicine Working Group

### What is the problem?

- To equitably improve public health, we need medical literature which is robust and widely accessible.
- Unfortunately, current literature often requires financial incentive to publish and obtain full-access to read publications. It also often requires basic to advanced scientific literacy to understand and apply this information to practice.
- This risks creating inequalities in terms of who is able to contribute to health research and the audience which can receive this information.
- The risk is that this can subsequently translate into health inequalities.

### Our mission

- Universal Medicine is a not-for-profit research collaborative and e-learning tool founded in 2016 by 4 students. Since then, we have recruited in excess of 30 members onto our editorial board and team of writers.
- We believe that medical research should be curated with the aim to widen access and participation, and minimise inequalities with who can contribute.
- We have developed a platform for writers to safely publish medical research posts which can be quality-checked by our editorial board to ensure accuracy of information and appropriate standards of referencing.
- Our platform aims to improve the confidence of our writers to ultimately contribute in impactful research which has the scope to change clinical practice.
- Since the time of launch, Universal Medicine has published 191 posts till date, attracting over 58,000 views from across 18+ countries.





### **Top Locations**



Figure 2: Geographical distribution in the readership of Universal Medicine (extracted on 03/12/2023)



https://universal-medicine.blogspot.com/



## Future directions

- We aim to introduce speciality sections to segregate our posts into themes and optimise research retrieval.
- We aim to increase our recruitment drive over our social media platforms and promote international recruitment.
- We aim to diversify our readership to 'hardto-reach' and less developed nations.
- We aim to continue to develop our
- collaborative and welcome recommendations from the wider public and our internal
- working group to improve our platform.

# Disclaimer

- Universal Medicine is a not-for-profit research collaborative and e-learning tool. We have no conflicts of interest to declare and do not sponsor any products nor services.
  Published posts are produced by the contributing author and reviewed by our
- internal editorial board.
  The information is published to our best knowledge and Universal Medicine does not accept any liability for inaccurate information.
  The published posts are not to guide health decisions, please consult your responsible
- care physician for any health related inquiries.

## Affiliated groups





# Taking a Public Health Approach to Tackling Fuel Poverty

INTRODUCTION: Why Tackle Fuel Poverty?

In 2022, there were an estimated 13.4 per cent of households (3.26 million) in fuel poverty in England, an increase from 13.1 per cent in 2021. Fuel poverty car be defined as a household with a Fuel Poverty Energy Efficiency Rating (FPEER) of band D or below, and if, after removing their modelled energy costs and housing costs, the residual household income is below the poverty line<sup>1</sup>. Fuel poverty in England is measured using the Low-Income Low Energy Efficiency (ILIEE) indicator, which considers household income, energy requirements and fuel prices. This measure is not without limitation though, as those in homes with an EPC rating of C or above are not counted as fuel poor no matter their income or energy costs.

Those most impacted by fuel poverty include people in privately rented homes, older people, and those living in less energy efficient properties. People under 24 and those from ethnic minority backgrounds and in the lowest income decile are also disproportionately affected. Between 2021 and 2022 gas and electricity prices increased by 45 per cent in real terms. In Leicester, 18.9% of households are considered fuel poor, equating to 24,543 families struggling to heat their homes.

Inequalities in health are avoidable and unfair differences in health between groups of people. They inequalities in health are avoluable and unital minerations in health between groups of people. They arise because the factors affecting our health are much wider than simply access to healthcrae<sup>2</sup>. Factors such as housing, education and access to community networks are known as the 'wider determinants of health'. This has most famously been demonstrated using the 'rainbow model' by Dahlgren and Whithead<sup>2</sup> (*Figure 1*). This model shows all the factors that influence a person's health, from the immediate genetic and lifestyle factors, to the wider socioeconomic conditions that govern our wellheing



Tackling fuel poverty is therefore a key component of working to narrow health inequalities as being able to live in warm, dry, secure housing is a key health determinant.

### LIVING IN LEICESTER

According to the 2021 census, 368,600 people reside in Leicester. With around 36 people per football pitch-sized piece of land, Leicester is the most densely populated local authority area in the Fast Midlands<sup>4</sup>

ecester is home to a wide range of diverse communities, and residents of Leicester come from over Dedecter is nonne to a white range of unverse communes, and residents of electer come from over 50 different countries around the world. At the 2021 census, 57.9% of Leicester residents were born in the UK. 43.4% of Leicester residents identify with an Asian ethnicity, of which 34.3% have Indian Heritage. 15.7% identify with other ethnic minorities (*Figure 2.*)

Leicester's population faces significant challenges with socioeconomic deprivation. Three quarters of Leicester residents are living in one of the top 40% most deprived areas nationally, and around 11% of people in one of the top 5% most deprived. Leicester currently ranks 32 out of 317 local ities by average level of deprivation.

onfident in their written or spoken English, and who may have only recently arrived in the UK.



Vixed

ther

lack

Figure 2: Ethnicity by % of population in Leicester Census 2021

### THE HEALTH IMPACTS OF FUEL POVERTY

Each home should be heated to a temperature comfortable for the people living in it. For healthy and warmly dressed people, the ideal temperature is 18°C for rious health impacts related to fuel poverty and living in a cold hom poms that are most often used, such as the living room or bedroom. There are s uding<sup>5</sup>:

- · Causing/worsening cardiovascular and respiratory illness, strokes, heart attacks, heart disease, asthma.
- Lowers immune system, increasing the risk of contracting colds/flu/COVID-19 viruses which thrive in colder environments. creased likelihood of trips and falls in the house.
- · Limits children's physical and mental development, growth and weight.
- Worsening pre-existing chronic medical conditions including chronic obstructive pulmonary disease (COPD).
   Worsening mental health, increased likelihood of social isolation and is a known risk factor for suicide.
- Damp and mould causing respiratory problems, allergies, asthma and can affect the immune system.

Estimates suggest that some 10 per cent of excess winter deaths are directly attributable to fuel poverty and 21.5 per cent are attributable to cold homes.

### THE PARTNERSHIP

Leicester Energy Action, funded by Leicester, Leicestershire and Rutland Integrated Care Board, is being delivered by National Energy Action and Leicester City Council's Public Health Division. National Energy Action (NEA) are a charity advocating an end to fuel poverty in England. NEA have been forming partners over 40 years to help households out of and to avoid fuel poverty. In December 2022, Leicester City Council (CP public Health and NEA joined up to coll on a fuel poverty programme for the citizens of Leicester. This partnership is known as Leicester Energy Action.

Leicester Energy Action operates via four key workstreams; advice, community outreach, education and training

Jassat R, Quick E and French, L Leicester City Council Public Health



### COMMUNITY OUTREACH

#### munity outreach involves a team of energy advisers attending community groups session, events and team settings to deliver bespoke energy advice where people need it. The outreach team brings an areness of the health impacts of fuel poverty, knowledge about the ways that people can overcom e difficulties they face, and they look to embed this to foster long-term behaviour change. Importantly he provide access to support for those that need it. This outreach is designed to con wareness into better health.

The programme understands the importance of co-delivery with the trusted individuals within ties. The outreach is bespoke, delivered in the way the communities need it to be delivered whether that is a group lecture, an information stand, one-to-one sessions with clients, or any othe arrangement that's required. The approach is flexible, reactive, and innovative.

Guilds Level Three Award in Energy Awareness Short course webinars health, how changes in behaviour can support people to act upon advice Level Three City and Guilds Energy Awareness

isting condensation.

Community Groups

Advice Providers

Æ

Community Groups

y 🛄

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Outreach

LCC and NHS Teams

now changes in behaviour can make a difference by considering:

the impacts that wasting energy is having on our environment

 how warmth can be maintained through different insulation measures inked to the National Curriculum. PSHE and Citizenship Programmes of Study.

argeted communities. The education workstream has worked with 800 primary school children. The City and Guilds course and webinars have been delivered to a network of connected organisations, working towards embedding accessible energy advice within communities from trusted voices. The outreach programme has reached close to 1000 people, raising awareness and ensuring access to upport.

with an expanding range of teams and organisations, and determined to help as many more people as possible. An external evaluation is also being commissioned to look at the health impacts of the programme. Our take home messages for other teams considering a similar programme are:

- really tackle health inequalities . Working partnerships with expert non-profit organisations leverages their subject matter expertise in
- combination with public health principles and intelligence 3. Any initiative such as the fuel poverty programme must be undertaken in partnership with local

- 13/12/23 at 10.04
- Accessed 13/12/23 at 15.45



# The importance of diversity in patient involvement when co-creating artificial intelligence healthcare solutions.

Katrina Mason, Sarah Khavandi, Ernest Lim, Siân Rees, Paul Hirmis, Barbara Lozito, Nick de Pennington, Aisling Higham

#### Why is diversity in patient public engagement activities About Ufonia important when generating AI solutions? Ufonia is a a digital health company that has created We are currently witnessing and exponential 'Dora', an Al-driven clinical assistant which can growth in AI healthcare solutions. conduct a natural-language telephone conversation A lack of consideration for equity, diversity and with a patient (2) inclusion (EDI) in the life cycle of AI within Dora is a UKCA Class 1 approved medical device healthcare settings may intensify social and health Ufonia is live across 9 NHS trusts delivering a wide inequities, potentially causing harm to range of conversations including waiting list validation. underrepresented populations (1) post-op cataract follow up, PROMS questions, post-AI healthcare innovations must therefore meet the menopausal bleeding triage. needs of *all* the populations they serve. Patient and public involvement (PPI) has been a fundamental part of the user centred, "co-creation". approach to the development of Dora. "The potential for Artificial Ufonia has partnered with the Health Innovation ntelligence (AI) to benefit health Oxford & Thames Valley to ensure robust PPI ust be balanced against the risks processes. posed by algorithmic bias and arms. These technologies may Marginalised and seldom heard populations have ork better for some groups and proactively been sought out to help ensure a diverse worse for others, causing or patient voice is heard. (see Table 1.) worsening health inequity. Standing Together, 2023 (3) 'Dora I IK Figure 1. Visual representation of Dora, Ufonia's Ai- clinical voice assistant Feeding back on patient involvement with... Ufonia has commissioned the Oxford AHSN We did to 'Understand public attitudes to the use You said of Artificial Intelligence in healthcare services' Key themes include; Some people with a learning Patients are texted the day disability are advised not to before to remind them of the Dora call Access to health generally answer 'unknown number' calls' Participants talked about the need to be able to access the healthcare system when you need it, with many frustrations with current waiting times for appointments Clear instructions from hospita "How do I know I can trust and services. team, reassurance in the Dora Lack of easy access and lack of continuous care from the Dora? same healthcare professional were also concerns Dora's Safety & Competence Removal of the mention of "Cancer is a scary intimidating Believing that the person who you see knows your ncer from the head & neck personal case and is knowledgeable and competent was key for participants. When discussing the role of Dora, its triage conversation competency was a subject of discussion 'How do I know that Dora has understood me?'. Whether Dora can understand idioms, dialect, accent, Clear written and audio nuance & emotion were also seen as important. "Not sure what to expect from a tential safety issues were also raised as a concerr instructions Dora call" 'What happens if Dora makes a mistake?' and "Does Dora Videos in discharge lounge remove human error' Al has the power the remove individual human-clinician bias For some there was a clear sense that Dora was "democracy in action", with all patients receiving the same voice and questions due to the automated nature of the service. There Watch a video of a was also a feeling that Dora would not judge or gaslight patient talking to Dora 'Understanding public attitudes to the use of Artificial Intelligence in healthcare services" Oxford AHSN, 2022



II er 2023, Recommendations for diversity, inclusivity, and generalizability in artificial intelligence health technologies and health

#### How Patients have been involved in Ufonia's work

- Giving voices to marginalized groups (see table 1)
- Testing Dora (1 to 1 technology trials)
- Prioritisation of next development steps
- Patient voice as representatives on steering groups
- Helping curate patient information leaflets

### Patient Populations we have actively involved

Patients with Learning Disabilities Neurodiversity (including Autism) Cancer Patients (& their carers) Ophthalmology patients with a

iverse ethnic background Non-English speakers (Polish

anguage group) Patients with mental ill-health

Table 1. Patient populations involved in PPI activities at



### Being treated with dignity and respect Initial discussions drew out universal themes around relationships with healthcare professionals and being treated with dignity, being seen, heard.

- "Being understood by someone who really knows you' is for patients at the core of a good digital consultation and triage experience.
- As a patient put it: "Not being dismissed, being believed, having your experiences validated

### Access to Dora

For people with autism, telephone calls can often be anxiety provoking so rather than having to speak they would find it easier to interact with Dora via text or web chat, which would need further

- targeted testing. Some participants thought that Dora may be a more acceptable option for younger people or people who are more tech savvy, as they may be more
  - comfortable with the concept of communicating with AI

"The PPI work undertaken has been one of the most invaluable and humbling experiences of my career. It was the first time since medical school that I had sat down with a patient for over an hour and simply listened to their story. I had no clinical agenda to make a diagnosis or management plan, the process was simply to listen. This time allowed me to reflect on, and her new insights into aspects of head and neck cancer, m ciality, and importantly my overall role as a doctor.

Ifonia Clinician involved in PPI work. 2021



# 2 ZESHAN textbook. or Gareth Rogers and Mad

underrepresentation of minorities in medical education such as course slides, pre-clinical lecture material, case studies, and textbooks impedes racial equity in the practice of medicine (2)

### Methods

images depicting skin were categorized according to the independent reviewer. The British Association of Scale were used as reference.





# **Representation Matters.** Tackling race inequalities through inclusive imagery of both surgeons and patients in a surgical

Empowermen

Project

# THE EMPOWERMENT PROJECT

Poppy Sullivan, Natalia Olszewska, Parmis Vafapour

The Empowerment Project, a student-led initiative at Barts and the London Medical School, aims to reshape the medical curriculum to address and reduce stigma and marginalization within the NHS. Inspired by a panel talk event that revealed personal stories of challenges like accessibility issues, imposter syndrome, moral injury, and discrimination, the project advocates for proactive changes in the curriculum. Over the past two years, a three-step program has been implemented for first to third-year medical students, equipping them early in their medical journey to confront bias and discrimination.

# STEP 1: ACTIVE BYSTANDER PROJECT

- Equips first and thirdyear medical students to handle open discrimination.
- Teaches the 5 D's (distract, delegate, document, delay, direct) and the ABC approach (assess safety, be in a group, care for the victim).
- Addresses

   unconscious bias early
   crucial for improving
   patient care [1].
- We aim to cultivate a generation of doctors who reflect on biases and treat patients more fairly, contributing to better healthcare [2].

• Lecture exposing the biases within healthcare.

STEP 2: "70kg MAN"

LECTURE

- Highlights the 70 kg man used as a standardised figure within medicine.
- Shows how medical science neglects group such as the BAME community and women.
- Uses examples of disparities in autoimmunity, nomenclature, pain management and history of medicine (particularly the lithotomy position).
- Demonstrates importance of questioning what is taught as the norm.

# STEP 3: "ELEPHANT IN THE ROOM" PANEL TALK

- Panel talk between medical students and healthcare. professionals.
- Presents the realities of the medical profession and highlights pertinent issues present within the NHS.
- Each year, the themes are changed to best address the social climate.
- Encourages students to self-reflect on their own biases and assumptions.
- Fosters the notion of creating change for a more inclusive environment within medicine.

# IMPACT ON HEALTH INEQUALITIES

- Maternal health within BAME communities is one of the clinical areas in the NHS' Core20PLUS5 targets for reducing health inequality [3].
- A study on maternal death in the UK showed that improvement to care of the BAME women was more likely to change their outcome because they had faced a variety of microaggressions [4].
- The Women's Health Strategy from the UK government found doctors do not discuss sexual health with older women because the presume they aren't sexually active [5].
- they aren't sexually active [5].
  Encouraging medical students to consider these issues now, could ensure that they treat all their patients fairly and give them all an equal voice so they all receive the same standard of care.
  Roll out to other medical schools, other healthcare related university courses like nursing and midwifery, and potentially to healthcare staff in the NHS.

#### References

1.Oxtoby K. How unconscious bias can discriminate against patients and affect their care. BMJ [Internet]. 2020 Nov 3 [cited 2023 Dec 12]; 371:4152. Available from: https://doi.org/10.1136/bmj.m4152

2.Yau CW, Leigh B, Liberati E, Punch D, Dixon-Woods M, Draycott T. Clinical Negligence costs: Taking Action to Safeguard NHS Sustainability. BMJ [Internet]. 2020 March 2 [cited 2023 Dec 12]; 368:552. Available from: https://doi.org/10.1136/bmj.m552. 3.NHS England. Core20PLUSS - an Approach to Reducing Health Inequalities. [Internet]. NHS England; 2021 [cited 2023 Dec 12]. Available from: https://www.england.nhs.uk/about/equality/equality-hub/national-healthcare-inequalities-improveme programme/core20lu/S5/

5. United Kingdom. Department for Health and Social Care. Results of the Women's Health Strategy call for evidence – written responses from organisations and experts [Internet]. London; 2022 [cited 2023 Dec 12]. Available from: https://www.gov.uk/government/calls-for-evidence/womens-health-strategy-call-for-evidence-written-responses-from-organisations-and-experts

# FUTURE OF THE EMPOWERMENT PROJECT

Empowermen

Project

- Encourage students to discuss bias, discrimination and life in the NHS.
- Introduce steps into medical school curriculums early to create a culture change within the NHS.
- Encourage our future doctors to consider the behaviour of their colleagues and themselves and to speak out about discrimination.
- Address health inequalities occurring due to bias.

Anight M, Bunch K, Vousden N, Banerjee A, Cox P, Cross-Sudworth F, et al. A national cohort study and confidential enquiry to investigate ethnic disparities in maternal mortality. EClinicalMedicine [Internet]. 2022 [cited 2023 Dec 12]; 43: Article number 101237. Available from: https://doi.org/10.1016/j.eclinm.2021.101237.



Launching a Primary Prevention Programme in 76 Secondary Schools Across the UK: A Transformative Acceleration

Programme

UAlam, L Fernandes, A Ghataure, L Chajed, M Shafi, J Hayes, M Qurku, S Welling, L Truykov

# TACKLING INEQUALITY: OUR PROGRAMME

# **WHOWEARE**

According to the UCL Institute of Health Equity, and Public Health England, 42% of working-age adults aged 16-65 years are unable to understand or make use of everyday health information, rising to 61% when numeracy skills are also required for comprehension (Roberts, 2015).

With help from Imperial College London, the British Society of Lifestyle Medicine and our funders, UltD, we, a group of medical students, created the first primary prevention lifestyle medicine education programme for adolescents in the UK. Working in 76 secondary schools across the U.K, we have delivered 400 hours of prevention material to schools in deprived areas to date.

> "Enable all children, young people and adults to maximise their capabilities and have control over their lives" Prof Michael Marmot (Marmot, 2010)

Since, the National Curriculum has no provisions to teach students about their health, we have established the first UK programme aiming to maximise students' potential in attaining a healthier life.

# DEMOGRAPHICS

Overall	
Schools enrolled onto the programme	/6
Students enrolled	1252
Schools Enrolled onto the Programme	
Average Index of Multiple Deprivation	5
Average Free School Meals %	24.6
Students Demographic (%)	
BAME	70.8
Parents/guardians born outside the UK	68.5
≥1 guardians did not attend university	58
Eligible for free school meals	24
Eligible for 16-19 student bursary	27.3
Barriers to Better Health (%)	
Lack of Knowledge	28.1
Lack of Funds	27.5
Lack of Opportunities	27.8
Lack of Motivation	40.5
Student's Sources of Health Related Information (%)	
Social Media	61.8
NHS Website	60
Non-NHS Websites	34.7
Teachers	50.7
PSHE Classes	27.6
Student's Opinions on our Intervention (%)	
Student's opinions on our intervention [76]	04.7
winningness to dedicate an per month to an online health literacy course	94.7
Desire to be taught more about benaviour	99
Desire to be taught more about nutrition	95.7

Figure1: Summary demographics of schools and students enrolled onto the programme. It describes perceived barriers to health and opinions on our interventions

We designed a two-year syllabus that addresses the social determinants of health, in the hope of empowering students to lead change in their own lives and social networks. We established a pedagogical framework based on Dahlgren

and Whitehead (1991), and outline key aspects below:



Figure 2: The socioecological rainbow model from Dahlgren and Whitehead specifies determinants of health. The red boxes, show areas the programme is targeting namely

# **TACKLING INEQUALITY: THUS FAR & FUTURE PLANS**



Figure 3: A group of 6 students presenting their community initiative at the IAP Hackathon

#### To enhance our future plans, we aim to establish strong partnerships with local councils and other education bodies to ensure the provision of highquality education that meets the needs of all students. We also plan to advocate for governments to include more teaching about health inequalities within the curriculum, to educate students about the issues faced by society and help them develop solutions to address them. In addition, we aim to organise more community engagement projects, such as Hackathons, to foster creativity and

innovation amongst students and encourage their

active involvement in making positive contributions

to their local communities.

### REFERENCES Roberts, J. (2015). Local action on health inequalities, Improving health literacy to

reduce health inequalities. Available at https://assets.publishing.service.gov.uk/ government/uploads/system/uploads/attac hment data/file/460709/4a Health Literac v-Full.pdf

Marmot, M. Fair society healthy lives (the marmot review), Institute of Health Equity Available at: https://www.instituteofhealthequity.org/re

sources-reports/fair-society-healthy-livesthe-marmot-review (Accessed: 15 December 2023).



# **Connected Bradford Community Health Checks: A New Approach to Tackling Health Inequalities**

## **The Challenge**



poorest communities, with a mortality rate four times greater than for those in the least deprived areas [2]. Type 2 Diabetes increases the risk of CVD, particularly in minority groups [1; 3]. Prevalence and Incidence of Type 2 Diabetes is greater for minority ethic groups (South Asian and Black ethnic groups) compared to White populations [4; 5].

## Methods

Plan-Do-Study-Act cycle was used to iteratively test, learn, and evolve the community health checks model. · This allowed for specific elements to be tested and refined through tests of

- change based on real-time learning.
- The model could be adapted for
- individual community settings. Data collection included:
- Semi-structured interviews
- Feedback Forms
- Lightning Reports (see right)
- Connected Bradford Data (see right)

## Results

Between February 2023 and December 2023 four health check events (lasting 3 hours each) have been conducted across Bradford, with support from a GP Practice. Locations included mosques and community centres.



# Improvement Academy

#### Improvement Academy: Dr Ciaran O'Neill - Clinical Leadership Fellow | Dr Zuneera Khurshid - Implementation Research Fellow | Dr Vishal Sharma ssociate Director | Dr Michael McCooe - Clinical Director | Professor Tom Lawton - Head of Data Analytics

**Bradford Teaching Hospitals** 

NHS

Health Innovation Yorkshire and Humber Adele Bunch - Head of Portfolio - Health Inequalities, Mental Health and Patient and Public Involvement and Engagement | Vanessa Amoako - Project Manager ciaran.o'neill@bthft.nhs.uk

## The Approach

- Develop a community-based health check event targeting high risk groups, based on data available from Connected Bradford and in line with CORE20 PLUS 5 criteria.
- Increase awareness of CVD risk factors (hypertension and Type 2 Diabetes) in minority ethnic groups.
- · Deliver brief interventions, social prescribing, and signposting to local community organisations.
- Facilitate connections to primary care services by uploading results to a patient's GP record.
- Use Implementation Science methodology to evaluate and develop the approach.

## Lightning Reports



Act

- A qualitative research method (report) to quickly collect, summarise, and share information.
- Identifies what went well, what needs to change, and areas for immediate improvement - providing actionable insights and learning.

### **Connected Bradford**

- Brings together health, education, social care, environmental, and other local government data [6].
- To support data driven health care.

## Learnings and Next Steps

#### **Enablers:**

- Co-production and Community engagement
- Culturally relevant interventions
- Implementation evaluation
- Challenges: Sustainability:
- Longer-term funding
- Staffing and resourcing
- IT System constraints

# **Medical Aid Camps for** Underprivileged

Dr Syed Ammar Husain Academic Foundation Year One, University Hospitals Sussex

"'Thar Dessrt' is known to be one of the poorest regions of Sindh with 47% of Tharparkar children malnourished and a lack of acces to basic healthcare needs." (1)

47%

### What did we do?

Three medical camps were established in schools across the Choor region, encompassing the Thar Desert, Umerkot, and Dhoronaro.

together with local nurses and offered free healthcare services to the

The range of specialties included Pediatrics, Gynecology, Dermatology, General Medicine, Orthopedics, Neuropsychiatry, and General Surgery.

This project was to supported through the local schools, Umerkot Nursing Institute, Basic Health Unit at Rana Jaheer, and the Nizamuddin Foundation Trust Pakistan.

volunteer, I was involved in various activities, including conducting baseline tests, reviewing patients and their families, prescribing and collaborating with senior physicians on complex patient cases, and



## Conclusion

-> The team saw 2,400 underprivileged patients in total across four medical

> The team delivered 300 ration distributions of water, food and clothing to the poor and needy patients. -> Dispensing 97 types and formulations of



# **Background of** Healthcare Inequalities

-> The Thar Dessert is located in the south of Pakistan's sindh province. bordering India to the East. The Dessert covers 77,000 square miles. (2)

-> The province's district of Umerkot faces the highest national statistics on human and material health care shortages. (3)

-> In 2014, 378,600 citizens are categorised as 'criticially poor' or 'vulnerably poor', according to an extensive TDRP survey. (1)

## **Disease Demographics:**

-> We provided critical assistance in diagnosing and treating numerous cases of Malaria. Scabies, Polio, Seizures in children and Hepatitis in adults, offering free testing as a part of our efforts.

-> A significant proportion of children presented with nutritional deficiencies, leading to the prescription of vitamin supplements, folic acid, and iron supplements to address underlying anaemia.

-> Provided patient education to prevent and manage easily treatable chronic conditions, such as Type 2 Diabetes, Anxiety, Arthritis and high prevalence of Asthma and Allergies.

## Interesting patient cases:

-> Dermatology saw a vast range of complex cases including Allergic Vasculitis, Xeroderma Pigmentosum and Tuberous Sclerosis.

-> Stroke episodes presenting at a late stage with hemiparesis of left side of Face, arms and leas.

-> Congenital Cardiac abnormalities in a young child presenting with a murmur and palpable apex beat.

-> Other paediatric cases of Cerebral palsy, Malaria, Juvenile Idiopathic Arthritis deformity, untreated late presentation of fractures.

We aim to improve the accessibility and auality of

scanners, as well as enhancing the efficiency of

laboratory tests processing.

medical care in remote areas by incorporating mobile

diagnostic imaging technologies such as X-rays and CT

Future Developments



A junior doctor is performing a respiratory examination in the General Medicine clinic located at the Dhoronaro camp.



References Desert, Al Jazeera. Third Pole. system facilitating healthcare facilities in (4) - World, B. (2022) Thar Desert Facts & Information - Indian Travel Guide



A pediatric consultant conducting a throat examination in the pediatric clinic of the Choor camp to diagnose the presence of tonsillitis infection



A Junior Doctor and a supporting Nurse are engaged in a detailed discussion regarding a complex case with the Consultant Paediatrician at Thar Institute camp

(1) - Al Jazeera (2014) In pictures: Pakistan's Parched Tha

(2) - Genani, M. (2021) The Thar Desert Blooms in Pakistan, The

(3) - Community World Asia (May 2016) Salvaging a crumbling

Desert Map: Travel Guide, Facts & Information - Beautiful World





# **Transformational change in Health: The Power of Community** SEDSConnective - A Symptomatic Hypermobility Neurodivergent Charity

# What is it?

Neurodivergent people (e.g., autistic, ADHD, dyspraxic, Tourettes syndrome, etc.) are 4 times more likely to have hypermobile joints and therefore experience more pain and dysautonomia symptoms than the general population. This is multisystemic.



# Why and How ?

Neurodivergent individuals, particularly adults, are much more likely to die early and have poor health than the general population. The data for chronically ill or disabled people is unclear, due to stereotypes and biases in research practice and funding. We, SEDSConnective, were founded as a small, community-grown, user-led charity. Now we have 12000 members, most of whom are chronically ill, disabled, and often also carers. Our members are at disproportionally high risk of poverty, as we frequently lose all financial income and social mobility due to our disabilites. We are more likely to be gender diverse and face stigmatism. Our physical health has been misattributed or diagnostically overshadowed for centuries. This is health inequality is particularly stark for girls/women whose poor health is often overlooked and dismissed.



In 2018 SEDSConnective was founded as a userled community voice charity. At the time, there was no support, no voice and no power for us.

"I have been disbelieved all my life, to be neurodivergent and physically ill. This meant I lost nearly everything, physically and mentally."

# What have been the challenges?



SEDSConnective had no money, connections or power.

The pressures to secure funding have been extremely difficult with no formal connections or assets



We had to change many minds and be innovative in unrecognised and very protected established arenas

# What have been the benefits?

- Helping save lives, being believed, value of life
- Empowering the most disenfranchised by health, society, employment, life, generational inequality improved QoL
- By us for us CommunityVoice
- Unique active specialised support for members
- Raising awareness public domain and allied professionals
- Writing, publicising, researching as equals

WE envisage a time when neurodivergent health, care, education, and employment are accepted and supported equally and equitably.

We envisage a time when the shift of conversation in models and approaches is unifying.

We are leading this cultural change and continue to grow constructively with others.



## www.sedsconnective.org **Jane Green MBE**



# **Agents of Change**

Breaking Barriers, Bridging Gaps: Revolutionising Medical and Surgical Training Using Virtual Reality in Low and Middle Income Countries Ameer Khamise<sup>1</sup>, Jonathan Fenn<sup>2</sup>, Karamveer Narang<sup>3</sup>, Aimee Rowe<sup>4</sup>, Jagtar Dhanda<sup>2 4</sup>

#### Background and Problem Identification

Inaccessible surgical care is a global crisis, especially prevalent in developing regions affecting over 5 billion people. Doctors serving large populations with substantial disease burden lack opportunities for training events due to the timeconsuming and expensive nature of surgeon training requiring specialist supervision (Meara et al., 2015). This underscores the pressing need for novative solution

We developed an immersive live streaming and restreaming virtual reality (VR) technology for mobile phones. Our solution offers affordable, scalable, and accessible surgical training specifically tailored for low- and middle-income countries (LMICs).

#### **Key Features and Benefits**

Key Features	Benefits
Vast library of +400 cadaveric surgical procedures.	Concise and time-predictable learning experiences.
Live streaming capabilities for real-time interaction.	Replicable procedures for consistent learning outcomes.
Immersive 360-degree visualisation.	Enhanced interactivity and competency assessment.
Affordable and accessible smartphone- enabled headsets.	Accelerated learning and improved skill development.
Extended reality (XR) hubs with advanced VR headsets and hand controllers.	Accessible and affordable training for LMICs.



### **Key Achievements**



# Overview of the VR Technology educational conten featuring medial and sive Expe rs access the content ated by low-cost

VRIMS

### **Global Impact in Action: VR Surgical Training Across**



Narang et al,. 2023 conducted in-depth interviews 1-4 months after a 4-day course involving 79 doctors and medical students from Uganda, along with 556 remote attendees . The findings of the study demonstrated: 1) Enhanced learning with 360-degree visualisation compared to traditional methods

2) The immersive approach fostered increased connectivity among learners. 3) Potential for content and skill-sharing, contributing to the program's capacity building.

4) Safe learning environment through simulation.

#### **Potential Weaknesses**

- 1) Need for breaks during the training.
- 2) Less accuracy.
- 3) Lack of physical interaction.
- 4) Lack of muscle memory.
- 5) Lack of haptic feedback.

#### **Future Projects and Beyond**

1) Expansion of VR Training Modules: Develop additional VR modules covering a broader range of surgical procedures and medical specialities.

2) Global XR Hubs Establishment: Establish XR hubs in 20 LMICs over the coming year.

3) Collaborative Partnerships: Strategic partnerships with international medical organisations, educational institutions, and technology innovators.

#### Affiliations

1) The University of Buckingham 2) Brighton and Sussex Medical School 3) Princess Royal Hospital 4) Queen Victoria Hospital

### References

1) Meara, J.G. et al. (2015) 'Global surgery 2030: Evidence and solutions for achieving health, Welfare, and Economic Development', *The Lancet*, 386(9993), pp. 569–624. doi:10.1016/s0140-6736(15)60160-x. 2) Narang, K. (2023) 917 Building Virtual Reality Into Global Surgical Training: An Innovative Approach Applied in Uganda, Academic.oup.com. Available at: https://academic.oup.com/bjs/article/110/Supplement\_7/znad258.392/7254305 (Accessed: 10 December 2023).

## Working across sectors to improve access to healthcare for People Experiencing Homelessness: The experiences of Hostel Support Workers Iman Muzafar, Olly Cunningham Imperial College Business School

### Background People Experiencing Homelessness (PEH) experience poor health outcomes and increased morality [1]. In the UK, the mean age at death for PEH is 45.4 for men and 43.2 for women, compared to the national average of 79.4 and 83.1 respectively [2]. These deaths would have benefited from healthcare input [3]. NHS England have identified PEH as an Inclusion Health Group, and their Inclusion Health Framework strives to deliver accessible services to meet the unmet needs of PEH [4]. PEH access to healthcare is riddled with barriers (Figure 1). GOOD PRACTICE THROUGH CROSS-SECTOR COLLABORATION Collaboration across sectors has been recognised as Structural barriers important in increasing healthcare access and improving health outcomes for PEH, as indicated by the formation of Integrated Care Systems aiming to facilitate this collaboration and improve outcomes and reduce inequalities [5]. Barriers to healthcare To ensure success we need to uncover the experiences and views of Hostel Support Workers (HSW), who work access for PEH within homeless hostels, with undefined and dynamic roles, in order to support PEH, HSW have been described as the link between hostels and healthcare in the literature due to the trusting relationship that exists between PEH and HSW [6]. Good practice starts with comprehensive stakeholder engagement and understanding. (S) Aims & Objectives EXPLORE HOW HOSTEL SUPPORT WORKERS EXPERIENCE NAVIGATING HEALTHCARE ALONGSIDE PEOPLE EXPERIENCING HOMELESSNESS Developing an understanding of these experiences will guide good clinical practice that considers HSW as an important stakeholder, rather than a spokesperson for PEH. Methods Semi-Structured Interviews, lasting 20-45 minutes, were conducted with 15 HSW from hostels across England. Hostels were either council funded or charity funded. Thematic Analysis using Braun and Clarke's (2006) 6-step framework was conducted to identify key themes and sub-themes. Ģ Results **3 KEY THEMES, AND 6 SUB-THEMES WERE IDENTIFIED** These uncovered both the positive and negative experiences of HSW HSW were given codes for anonymity e.g., HSW1, HSW2. Theme 1 KEY THEME HSW described being impacted by the stigma against PEH in nealthcare settings, and by healthcare staff (HCS). think there is a bit of a culture of, you know, that they [HCS] don't reall see us hostel workers as professionals because they're healthcare rofessionals. They go to university. You know, a lot of the hostel workers they, they've never been to uni, they're not specialists in healthcare" (HSW11) Participants felt that HCS lack an understanding of HSW "KNOWLEDGE AND EXPERIENCE" (HSW14), due to differences in sectors, job titles, and educational





2022 in the UK, indicating a worsening of this health gap.

## **REDUCING THIS HEALTH INEQUALITY WITH UCLP-PRIMROSE**

UCLP-Primrose is an integrated evidence-based framework which guides healthcare staff in how to best care for their patients with SMI, working to address modifiable risk factors and improve patients mental and physical health. This maps onto key policy for the NHS like the Core20PLUS5 and links to the 2019 Lancet Psychiatry Commission recommendation to "focus not only on 'adding years to life' but also on 'adding life to years'" (p. 10).

UCLP-Primrose makes sure those patients most at risk of CVD are seen first for their annual physical health check, that those patients who are not engaging are supported to attend their checks, and interventions are provided when modifiable CVD risks are identified. Intervention is matched to patient need and might be medication, intensive behavioural change sessions, peer coaching, and/or signposting to other support.



# THE CURRENT RESEARCH PROJECT



Over a decade of research underpins UCLP-Primrose including development with a lived experience advisory panel and a national randomised control trial. Now we turn our attention to exploring how UCLP-Primrose is continued to be delivered and spread in the pilot sites and is is set up and delivered as part of normal care within new locations.

> What factors influence the implementation of UCLP-Primrose across London and Bradford

We are working with one primary care network (PCN) in Bradford, one PCN in Tower Hamlets, and GP practices across Camden and Islington

To date we have:

- conducted 31 interviews with those implementing and delivering UCLP-Primrose
- completed 6 visits to GP practices
- collected over 170 documents of notes from meetings with those setting up UCLP-Primrose and training sessions

Data collection is ongoing including recording actions and patient outcomes in patients' notes and patient interviews are due to start in January 2024.

those of the National Institute for Health Research and Care or the Dep

 NHS
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 Applied Research Collaboration
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 UCLPartners



- We are analysing our data with: Consolidated framework for
- implementation research • Reflexive thematic analysis
- Normalisation process theory
- Stanford lightning reports

ent of Health and Social Car

Appropriate statistical tests

his poster is independent research funded by the National Institute for Health and Care Research ARC East Midlands and North Thames. The views expressed in this public

# **INSIGHTS SO FAR**

Our research is set to end July 2024. We have seen UCLP-Primrose be locally adapted and be delivered across new sites, with patients being offered holistic support.

Implementing as part of service transformation highlights ongoing challenges in this complex and turbulent context. Key developments in the shift to integrated care still needed such as joined up systems across primary and secondary care.

For implementation to progress there needs to be people championing UCLP-Primrose, internal ownership and team accountability.

Sustainability is questioned due to changing NHS priorities and a need to refocus on a culture of within-system learning and prevention / intervention to support innovative care.

diamonds voice. NIHR Applied Research Collaboration NIHR Applied Res

# **Health Innovation** North East and North Cumbria

# **Co-designing a bespoke approach** to Cardiovascular Disease **Prevention in Middlesbrough**

an initiative to improve life expectancy in Core20PLUS5 communities through behavioural insights informed community outreach health checks

## What is the health inequity issue?

North East and North Cumbria (NENC) has the lowest healthy life expectancy and highest health inequalities of any region in England.

The conventional model, whereby we 'expect' individuals to be motivated to attend a "health care setting to undergo Cardiovascular Disease (CVD) risk assessment (health checks and annual CVD reviews) has high levels of attrition, with populations most at risk frequently failing to engage with these pathways and attend appointments. It's imperative that initiatives that aim to increase uptake of health checks are co-developed by the target communities to improve proportionate uptake

## Aim

- explore participants' barriers and challenges in accessing heart health checks
- co-design user led solutions to reduce the risk of CVD, pilot co-designed interventions within target CORE20PLUS5 communities (Black Africans, South
- Asians and underserved white British groups) and share to accelerate spread and adoption of innovations



The EAST framework developed by the Behavioural Insights Team was used to explore participants' experience of accessing CVD heart health checks. The EAST framework which stands for how Easy, Attractive, Social and Timely interventions are, was the framework of choice during focus group interviews to explore perspectives. Qualitative depth narrative from seven focus group interviews conducted were recorded, transcribed and then a framework analysis approach employed to deduce emerging themes

Health che	ecks feedb	acl	k	
"It was very use now I know wh physically and I	eful because here my body is health wise."		"I do to wa ar	liked the fact that after the checks were one, the results were carefully explained o me. Partaking in this, especially for free /as very useful. Michael was extremely nic nd helpful"
"It was importan checked; I am no plan to make cha modifications. [I adverts so more about it and get	t getting my heart ow well informed a anges and lifestyle would suggest] mo students get to kno their hearts checke	nd ore ow ed."		"I have really learnt about my health which will help me to improve my daily activities. really appreciate the entire team who is in charge of this screening they are really doing a great job and I encourage them to keep it up. Thank you."
Authors	Referenc	es		
Dr Joe Chidanyika Karen Verrill Prof. Julia Newton Health Innovation North East North Cumbria	NEGOS Annual Surveillance r Local authority health profile (https://fingerips.phe.org.uk/s Regional ethnic diversity - CC Cenus Output Area populati Health Profile for England 20 Lower layer Super Output Aro Patel R, Barnard S, Thompson care data from 9.5 million peo	static-report OV.UK Eth on estima 21 (phe.or za popula K, et al Ev ple: a cros	ps://ahs orts/heal nicity fai i <b>tes</b> – Ni g.uk) <b>tion esti</b> aluation ss-sectio	sn-nenc.org.uk/vhat-we-do/improving-population-health/measurement/) alth-profiles/2019/e06000002.htm?area-name-middlesbrough) acts and figures (ethnicity-facts-figures service gov.uk) North East, England (supporting information) - Office for National Statistics (ons.gov. Littmates (supporting information) - Office for National Statistics (ons.gov.uk) in of the uptake and delivery of the NHS Health Check programme in England, using isonal study BMJ Open 2020;10:e042963 doi: 10.1136/bmjopen-2020-042963

www.healthinnovationnenc.org.uk





Life expectancy is

years lower D for men and vears lower for women in the most deprived areas of Middlesbrough

than in the least deprived areas.

## **Project design**

A qualitative behavioural insights exploratory phenomenological study approach using focus group interviews, was employed engaging 45 participants (27 women and 18 men) recruited in Middlesbrough from various African, South Asian and underserved white British population groups.

## **Initial findings**

The behavioural insights research is in three phases and the pilot is still in progress:

#### Phase one

undertaking insights research (45 participants) and co-designing proposed nterventions with communities

#### Phase two

implementation of co-designed interventions through collaboration with key stakeholders and community leaders (in progress)

### Phase three

test suggested interventions, feedback progress to communities and share learning with regional and national eholders.

Key findings articulated key barriers to accessing heart health checks for underserved groups including language barriers, lack of timely appointments, direct discrimination, health literacy and lack of trusted translation services

There was also lack of clarity of what is a health check, cultural incompetence when working with underserved groups, negative clinical staff attitudes, and prognostication where people won't have checks due to unfounded fear of poor prognosis.

The communities provided solutions to improve uptake including the need for targeted outreach sessions within their communities like mosques. community centres as well mobile services like the Middlesbrough Football Club Foundation health bus. Communities also want their local health champions to be upskilled to deliver health checks within local settings. For those who will go to primary care for health checks, they also preferred an option to have walk in facilities available and for clinicians to also then refer then to local social prescribing initiatives.



NHS North East London Cancer A



NHS **Barts Health** 

# Widening access and addressing inequalities for patients consenting to systemic anti-cancer therapies (SACT)

E Nally<sup>1</sup>, A Reeves<sup>1</sup>, A Bhowmik<sup>2</sup>, P Leonard<sup>3</sup>, O Hawkins<sup>4</sup>, D Wald<sup>5</sup>, A Januszewski<sup>1</sup>

## BACKGROUND



of patient centred cancer care. Cancer services are under increasing pressure and a more diverse population means there are barriers in educating patents on their cancer treatment. Research has shown that language services and visual guides can facilitate communication and improve patient experience, adherence to treatment and overall health outcomes.

Communication and informed consent are vital aspects

Barts Cancer Centre based at St Bartholomew's Hospital provides assessment, diagnosis and treatment services to 1.5 million people across East London. With one of the most diverse populations in the country, Barts Health is committed to eliminating discrimination, valuing diversity and promoting health equality.







treatment setting, clinical trials and side effects that will benefit both patients and health care professionals.

 The project will be rolled out across NHS trusts in North East London and once established the aim is to offer it to cancer patients across the UK.

### **INTENDED IMPACT**



Explain my Procedure

Lord Links

North East London Cancer Alliance

- o Patient experience Improve patient's understanding of their cancer treatment plan and possible side effects which ultimately will help to improve their engagement and overall outcome.
- Address inequalities in health care Using visual aids in a patient's first language will support and educate cancer patients across socioeconomic groups, addressing disparities and inequality in cancer care and research.
- Clinical staff Streamlining the consent process with more accessible information in a patient's first language will relieve pressure on both health care professionals and clinic capacity.
- > Economic benefit Improved communication and engagement with cancer patients has shown to be vital in improving efficiency and outcomes within cancer care.
- > NHS organisation benefit This project will generate a digital library of resources that will be pioneered within Barts Health NHS trust with the aim of improving the SACT consent process across cancer centres nationwide.

Wald DS, Casey-Gillman O, Comer K, et al. Animation-supported consent for urgent angiography and angioplasty: a service improvement initiative. Heart. 2020;106[22]:1747-1751
 Declared Interest: DW is Director of Explain my Procedure Ltd which will create and own the animations used in the project. @Explain my Procedure Ltd

rrk, <b>Onyeka Umerah</b> - Project Lead/,Consultant Respiratory Medicine, UHL, <b>Annette Durant</b> Kumaravel-Project Lead/Consult	GP Partne ant Public
kground	
The Leicestershire Academic Health Partnership (LAHP) launched an asthma	
nanagement project in April 2023, hosted by University Hospitals of Leicester N	HS Trust
UHL) and University of Leicester (UoL). With 12% of the population diagnosed v	vith
asthma, 80% of costs tied to poor control, and a link between socioeconomic fa	ctors
nd adverse outcomes, the project addresses urgency. Inspired by community-b	ased
uccess, it introduces a virtual asthma ward MDT led by a respiratory physician	, in one
the most deprived areas of Leicestershire.	
and Objectives	
. Enhancing Primary Care by Upskilling Primary Care Staff ultimately reducing	
asthma exacerbations and avoiding unnecessary Emergency Department	
idmissions.	
. Reducing Inequalities in Care between the Most and Least Deprived Areas	
. Community Collaboration: Engaging with Leicestershire County Council's Hea	ithy
Norkplaces Programme, the project adopts a "Making Every Contact Count"	
approach, seeking to raise awareness about asthma among the working-age	
opulation and promote a healthier community.	
I. Results: MDT Outcomes and Survey of Community Outreach vent	
majority were in the under 21 and 31-40 are groups (10 in	
each group, 17.8%). The distribution between males (27,	
48.2%) and females (29, 51.7%) was nearly equal. The largest	
ethnic group was White British (26, 46.4%), followed by	
Indians (6, 10.7%).	
The most common MDT outcome was input from General	
Practice in over 30% of cases, followed by advice (~25%) and	
offering appointment for enhanced access in 15% of cases.	



#### wards Equitable Asthma Management (UHL). Univer

are Public Health (Leicestershire County Council), Leslie Borrill-Project Lead/ Medical Dir ct Lead/ Medical Director-Charnwood GP ient, Charnwood GP Network, **Bharathy** dical Practice, **Kristy Mackinson**-Head of Primary Care Netw hire County Council/Associate Professor Public Health

UNIVERSITY OF

Leicestershire County Council

#### Aethods and Analysis

ased approach began with the initial quarter focusing ata analysis, patient identification, and feasibility Charnwood ng of virtual MDTs in Charnwood. Subsequent quarters ded staff training and qualitative assessment. ASTHMA veen June 30 and November 3, 2023, 5 scheduled WANTER WELLBEANG meetings reviewed records of 155 patients with a ory of over 2 courses of oral corticosteroids or more Do you live in Charnwood? Do you struggle to stay well in winter? Do you worry about your energy costs, staying warm or feeling active? 5 short-acting beta-agonists in the past 12 months. notes of 56 eligible patients have been scrutinised so Join us for an afternoon lunch with help for your ctivity S- Socialising T- Technique H- Health M- Money A- Accomm a joint training event for primary care staff (n=22) wed, sharing insights from MDT discussions. A ctive community outreach event on November 29 Wednesday 29th November 12-4pm lved contacting 130 patients for a one-stop shop Fearon Hall ring health, inhaler technique, finances, warm homes Rectory Road Loughborough LE11 1PL l prescribing, and physical activity, 33 patients nded, with 14 participating in focus group-style ssions led by public health. Attendees received ntives, including a meal, a warm blanket, and a raffle t for a gift hamper. Focus Group-Style Discussion Themes (Barriers and Enablers to Accessing Asthma Care)

Barriers

Desire for mor

Enablers

ode of

Resource constraints

Limited availability of information, such as demographic distribution of focus group participants

# Intro

Working in a health tech start-up offers a unique experience, where the utilities of a multidisciplinary team can be extended far beyond the confines of hospital wards.



A doctor is far beyond just a leader; they are an entrepreneur with the skills to be a lawyer, an accountant, a marketer...



In this world, everybody has ideas, but it's only the bold who build. And in our community, we don't just inspire; we empower you to bring your ideas to life, quickly.

# Offer



**btrU AI** - a patient Copilot to provide patients with reliable and personalised health information



**btrU Blue** - Health Tech & Al community of doctors and medical students



**btrU Spaces** - a space for people interested to learn about health tech and entrepreneurships by reading, listening, watching

# Results

3 active WhatsApp platforms for medical students and doctors that has connected **over 400** medical students and **125** doctors in **under 3** weeks

Our most recent LinkedIn@ post had 143 likes and 605 comments

We have people in the community aged from **18** to **72** years old

Representation from **35** UK medical institutions and **over 15** hospital trusts

Medical students and Doctors from England, Wales, Northern Ireland and Scotland ranging from **1st years** to **Consultants and Professors** 

# <u>Authors</u>

Soh Shi Ian Kavyesh Vivek Alicia Kwan Su Huey Joseph Tsai Richard Bogle

# Unlock a better NHS through a btrU

As highlighted by the GMC Good Medical Practice Domains and the Digital transformation in the NHS inquiry, digitisation and adaptation is paramount to the sustainability and fortitude of the NHS.

Our **btrU** community addresses health exclusion and strives to tackle health inequality by offering a broad curriculum that includes education on recognising biases in healthcare technology, ensuring equitable access and inclusive innovation in healthcare.

From the onset, our **btrU** community instills medical students with AI and digital health expertise, transforming them into healthcare innovators who can effectively advocate for patient welfare and system efficiency in the NHS.



Join the Community!



Digital transformation in the NHS







GMC Good Medical Practice

# **Creating Equal Opportunities in Medical School Interview Preparation**

Dr Jack Plume, Dr Adrienn Gyori, Dr Brian Wang

# Introduction

Medical school applications are extremely competitive; competition ratios range from 4-38:1 for Home/EU applicants (1), and a variety of paid services exist to assist applicants in entrance exams, personal statement review, and interview practice. The cost of these services can run into the hundreds of pounds (2-4), and thus can be highly prohibitive for those from underrepresented backgrounds. This has created a paradigm that allows those who can afford to pay for these services an increased chance of being accepted into medical school, reducing diversity and representation in the health service, which then no longer represents the public which it serves.

# **Methods**

- 1) In2MedSchool recently ran a workshop on multiple mini-interviews (MMIs), a common interviewing format used by UK medical schools, entitled 'MMI Interviews -The Good, Bad, Average'.
- 2) The structure of the MMI workshop consisted of an initial overview of good interview technique (showcasing the gualities of a good doctor), followed by live enactments of two MMI stations. Both stations were enacted in three separate iterations - good, bad and average. Volunteer actors (medical students) were provided with guidance in advance. The webinar ended with a Q&A session.
- 3) We surveyed participants on alternative resource options that would have been available to them, and their confidence levels both before and after the event.

# Results

- 1) 95% (40/42) of participants would not have had access to any paid high-quality interview preparations.
- 2) 31% (13/42) of participants would only have practiced with friends, or not at all.
- 3) Wilcoxon signed rank test showed that on a scale of 1-5, participants' confidence in their interview technique increased by an average of 1.6 points following the workshop, indicating a statistically significant increase (Z = -5.335, p < 0.001), (Fig. 1).



# Conclusion

These results demonstrate a need for readily available, high-quality free application resources for medical applicants from underrepresented backgrounds. 80% of UK medicine applicants come from only 20% of UK schools (5). Therefore, it is essential that events like these are regularly run to allow those from underrepresented backgrounds equal opportunities and access to highguality medical school application materials.

# References

1) https://medschoolgenie.co.uk/overview/competition-ratios Accessed 28/10/21.

2) https://www.themedicportal.com/courses/ucat-courses/ Accessed 28/10/21. 4) https://www.medicmind.co.uk/interview-tutoring Accessed 28/10/21.

3) https://themsag.com/products/medical-school-personal-statement-review Accessed 28/10/21. 5) Garrud P. (2014) Help and hindrance in widening participation. Commissioned Research, Medical Schools Council. https://www.medschools.ac.uk/media/2446/selecting-for-excellence-research-dr-paul-garrud.pdf.



# **IMPROVING SUSTAINABLE APPROACHES TO HEALTHCARE AND HEALTHCARE EDUCATION IN PRACTICE**

Adele Mazzoleni, Naireen Asim, Ashviniy Thamilmaran, Shazia Sarela, Nadhira Samsudeen, Vafie Sheriff

# BACKGROUND

According to the General Medical Council (GMC), it is a mandatory requirement for graduates to hold awareness on sustainable healthcare education (ESH). However, 1.8% of 850+ surveyed medical students were found to not have received formal exposure to ESH.

Student MedAid London (SMAL), is a Community Interest Company created in 2020 which strives to address this gap, by promoting global health to healthcare students, as well as bridge the gap between sustainability and lack of resources in certain areas of the globe.

From 2020, SMAL has embedded ESH in various series of social media informative campaigns. Additionally, it has provided various learning opportunities to increase students knowledge and participation in global health.

# **METHODS**

SMAL aims to promote sustainability and global health education to healthcare professionals and students, by designing advocacy and learning opportunities people can interact with, and by organising ways to redistribute unused medical equipment to low- and middle- income countries in need.

Data was collected from SMAL's latest teaching series "Careers in Global Health & Development", carried out during October 2023.

# **RESULTS**

Out of 71 total answers, the majority had heard about the webinars through Medall (42%), followed by word of mouth (33%) (**Figure 1**). Participants' confidence in the topic increased by more than 50% during the first and second days of the series, and by 25% on the third day (Figure 2).

On average, engagement received  $4.3^*/_{5}$ , and helpfulness 4.6\*/5. Participants were eager to find out about more ways to get involved in global health in their future careers (Figure 3).



# **CONCLUSION**

SMAL actively strives to achieve a positive impact on climate action by establishing a network of donating and receiving organisations. By promoting education on global health, the most recent teaching series showed positive impact and what great interest the participants had in making a positive impact, by engaging in global partnership and reducing waste.





follow up and early intervention through physical health checks. A patient satisfaction survey was also developed.



promoted Park Run through the PCN newsletter and banners, and secured additional funding from Keeping Well NEL to purchase water bottles for all staff.



# **Repurposing external practice** spaces for community gardens

give patients ownership of the community garden.

A 'Food Growing Toolkit for healthcare settings was developed by Tollgate Medical Practice in partnership with a food growing expert from Newham Council. This was entered into the NEL Green Team competition and won second place





Aim To identify current barriers to dental health services, and to work with system partners to improve on and develop new pathways for patients. **Main actions** • Engaged with Newham Oral Health Partnership to raise understanding of new NHS dental Health contract. Worked with Health Equity Fellow to develop patient resources on oral health. them as to how progress can be secured in different localities

Author: Rachel Ashworth

North East 2 PCN

Newham Health Collaborative

## Proactive social prescribing project

Practices worked together

to deliver vaccination

clinics at PCN level

Patients who are pre/diabetic & with common mental health illness such as depression

Social prescribers are reviewing this patient cohort's referrals to, and engagement with, voluntar and community services, to better evaluate how best to address their unmet needs.

model to PCN level

Supported member

went to Woodgrange Medical Centre for flu clinic

practices whose patients

of sustainability

and replicability.







# Tackling Neighbourhood Health Inequalities in Newham Primary Care

# North East 2 Primary Care Network

**Project: Access to dental health information and services** 

# **Key outcomes**

- Identified and shared current patient referral pathway with member practices
- Identified key messages to share with patients
- Clinicians completed dental health awareness training

# **Next steps**

- Develop patient information sheet on where to go, what action to take in an DH emergency
- Hold event with patients to raise awareness of good oral health
- Work with Public Health to hold focus groups on oral health at planned events
- Distribute Brush for Life (BFL) kits to parents/carers of children under 3 years old
- Public Health to share findings from the focus group and needs assessment and support learning across primary care
- Share findings with Oral Health Partnership Group to plan next steps

# Proactive social prescribing project

## Common mental health illness in housebound patients and carers

- NE2 PCN addressed barriers for housebound patients to engage with health services by:
  - Developing digital inclusion services accessible to this patient cohort
  - $\circ\,$  Increasing the number of referrals to social prescribing team

experiencing mental health illnesses

- Social prescribers also supported the development of community support
- groups and organisations, to create a network of support for carers

Author: Katy Szita / Rachel Ashworth Newham Health Collaborative North West 2 PCN



NHS **Providing NHS services** 

# Tackling Neighbourhood Health Inequalities in Newham Primary Care

# North West 2 Primary Care Network

Project: Supporting patients registered with a Learning Disability (LD) to improve uptake of annual LD health check and increase awareness and access to other health services



- event with funding secured from Newham Public Health
- Social prescribers will review the information collected as part of the Learning Disability Health Check (LDHC) and proactively offer support with
- Will look to use the NHS LDHC self-assessment improve on services provided to these patients.





## **Proactive Social Prescribing project**

### **Diabetic / pre-diabetic patients**

Social prescribers proactively contacted patients who recently received pre-diabetic HbA1c results, to share information on support available, encourage preventative lifestyle changes, and to refer to weight management services.





# Tackling Neighbourhood Health Inequalities in Newham Primary Care

# **South One Primary Care Network**

Project: Serious Mental Illness (SMI) comorbidities and weight management supporting patients with a BMI of over 30 or a BMI of over 27.5 for patients from black and ethnic minority groups



# **Main actions**

- Secured two specialist Health and Wellbeing coaches to work with social prescribers to lead project and bring expert guidance to our patient groups
- Encouraged patients to engage with the weight management offer and referred to Xyla services
- · Followed up with each patient who did not engage to understand their reasoning and support with fuller understanding of impacts

# **Proactive Social Prescribing projects**

## Project 1: Common mental health Illness and diabetic / pre-diabetic patients aged over 65

- Social prescribers and Health & Wellbeing coaches engaged with 94 pre/diabetic patients aged over 65, with common mental health illness. They:
- Explained what pre-diabetes is
- Ensured patients completed physical health checks
- Referred patients to local services, including Age UK East London and Xyla Health and Wellbeing services.

## **Project 2: Community Garden Project**

South One PCN community garden takes place every Tuesday 11:00 – 12:00 at Star Lane Medical Centre, where patients volunteer to grow and share vegetables.







## **Key outcomes**

- 183 patients were referred to weight management
- 53 patients succeeded in losing weight, with an average 4.5% weight loss
- 77 patients were signposted to 18 different community services

## **Next steps**

- · To work with local partners to offer residents / patients healthy cooking classes
- Will incorporate processes developed in this project in day-to day activities.



PCN held cookery classes at Canning Town library to educate patients on healthy food substitutes and easy changes.

"Gardening together was a lifeline. And I found it through socia prescribing I would encourage anyone feeling low to reach out. There is help and hope. Patient feedback



Author: Rehana Aslam (CD) / Rachel Ashworth Newham Health Collaborative Stratford PCN



Tackling Neighbourhood Health Inequalities in Newham Primary Care

# **Stratford Primary Care Network**

# **Frailty Project**

# Aim

To support patients with moderate and severe frailty to remain healthy and independent in their own homes for as long as possible.



# Main actions

- Secured care coordinators to provide dedicated support to the PCN on frailty interventions
- Identified and triaged 76 frailty patients
- Provided case management to 37 residents
- Discussed 34 patients with multidisciplinary team (MDT)

## **Key outcomes**

NHS

Providing NHS services

- · Patient satisfaction of support across health and social care increased by 18%
- · Positive feedback from patients and clinicians
- · Business case developed and presented at Clinical Directors meeting to roll-out project across all Newham PCNs
- Four additional Newham PCNs have signed up to participate in the frailty project

# **Next steps**

- · Plan to secure two further care coordinators bringing additional dedicated resources for this programme
- Look to establish new MDT for geriatric assessments



## **Proactive Social Prescribing project**

## Children and young people with low level mental health needs

Stratford PCN aimed to increase referral rates of patients aged 12-25 to social prescribers. They established a PCN Family hub to improve this cohort's access to primary care and community services.



#### Author: Rachel Ashworth Newham Health Collaborative Stratford PCN



# Tackling Neighbourhood Health Inequalities in Newham Primary Care **Newham Primary Care Networks borough wide projects** Project 1: All age immunisations (focus on children)

## Aim

To reduce the number of unvaccinated children and reduce the likelihood of a public health outbreak such as measles.

### Main actions

- · Secured additional care coordinators to support delivery
- Provided additional support to underperforming practices
- · Launched a targeted four-week pilot supporting child and young person immunisation
- Established enhanced call / recall services, targeting families who were hesitant or declined vaccination Tailored communications to maximise impact of key
- messages

## **Project 2: Increasing access to cancer diagnostic services**

### Aim

To improve cancer outcomes for patients through better prevention and creating multiple access routes to screening and diagnosis.

## Main actions

- Worked with partners and Cancer Alliance to plan, share learning and identify key priority areas for additional support.
- Established NHC Newham Cancer Steering Group
- · Reviewed CEG cancer data to inform cohorts to target
- · Identified Roving Team support to be focussed on engaging with LD and SMI patients to access Cervical Smears
- · Promoted training for non-clinical staff on encouraging patients to take up cervical screening
- Developed and provided to practices 'Easy Read' posters. to display in waiting rooms
- · Identified SMI and LD patients who have not completed either breast, or cervical cancer screening and ensured they were offered more support
- Roving team provided call and recall to LD patients to invite to cervical smear for patients who previously did not engage with services
- Worked with partners to develop Easy Read materials and questionnaire on accessing cancer screening services







### **Key outcomes**

- Newham average 6 in 1 uptake for children aged 12 months increased from 85.5% to 90.9%
- Childhood seasonal flu vaccination uptake rose to 93 0%
- 2,519 extra at risk 18–64years received flu vaccination
- Increased polio booster uptake to 77% of those eligible. • 40 polio booster clinics held and 1020 boosters administered
- Provided 149 vaccines to children and young people who would otherwise not have received them
- Convinced around 30 families, who were hesitant to be vaccinated, to attend vaccination clinics

### Next steps

- Staff training on APL tool
- Quality Improvement (QI) work with Equip supporting five practices
- Continue work on flu and COVID booster campaign
- NHC roving team looking into delivering diphtheria
- vaccines for migrants currently living in dispersal hotels

### **Key outcomes**

- As of October 2023 (compared to the previous year) we see that
- the percentage of patients aged 25-49 screened for
- cervical cancer has increased from 72.8% to 73.9% • The percentage of patients aged 50-64 screened for cervical cancer increased from 80% to 84.4%
- · Held health and wellbeing event targeting LD patients
- who had not accessed cancer screening Information provided on what to expect at cancer
- screening appointments
- Presentations from Nutrition Kitchen on healthy cooking, nutrition and diet, and all cancers
- · Exercise yoga class provided
- · Covid and Flu Vaccines offered

### **Next steps**

- Start delivery of cervical smears clinics for LD patients and roll out across the borough
- · Obtain data on cancer screening coverage by ethnicity in Newham
- · Set target for increase in screening coverage using 22/23 as baseline
- Sharing of case-based learning about multiple presentations and or late diagnosis
- Re-audit of attendance data introduced into system to complete audit cycle for continuous improver









- Two cancer health and wellbeing events held
- 90.9% of patients rated the support received
- prescriber has improved their awareness of the support that is available in the community
- to social prescribers for non-medical issues

was a good listener and very good advisor and also very friendly. With Leo's help and support I was able to have many issues in my house fixed in terms of daily living. Thank you very much Leo."



# **KLASP:** A new global health partnership between **Kitale County Referral Hospital (KCRH) and** Leeds Teaching Hospitals NHS Trust (LTHT)

KCRH team: Dr Nancy Koech, Dr Faith Muthoni, Dr Steve Gichani, Dr Emmanuel Mwengi LTHT team: Dr Charlotte Hall, Dr Katherine Woods and Zara Tariq



# One billion people have no access to qualified health workers throughout their lives.

How is this health partnership tackling inequalities?

Through co-development, partnerships provide a model for improving health and health services. There will continue to be exchanges of skills, knowledge and experience between Leeds and Kitale throughout the partnership duration. We also intend to work with and empower colleagues at KCRH to introduce appropriate policies, guidelines and introduce and scale up AMS activities. It's important these are implemented effectively and are sustainable.

We aim to have one Gender Equality and Social Inclusion (GESI) representative at KCRH and LTHT. We have also planned to analyse any data taking into account gender and ensure any AMS ward rounds take place equally on male and female wards at KCRH. All of us in the partnership acknowledge our differences with regards to gender, language, background, culture, health beliefs and are keen to improve our inclusivity and promote fairness throughout the partnership and in our roles as healthcare professionals.





REPUBLIC OF KENYA KITALE COUNTY HOSPITAL





crobial Stewa

al Health Education Trust (THET). Our go velopments and practices being shared between both organisations. Our aspiration is to continue a longer-term institutional partnership uilding on the success of the initial 21-month hase of the partnership



NHS.







# Did not meet the submission criteria

# While these submissions did not fully meet the specified prize requirements, we believe they deserve recognition and would like to give them a special mention.

- Creating a level playing field: Tackling inequalities in medical specialty training By I.Alberto
- Tackling inequalities between inborn and outborn infants with novel technologies By B.Simpson, D.Harvey, N.Thompson, M.Hopkin, C.E. Angelico, J.Kelleher, J.Lee, L.Turyanska, D.Sharkey
- Tackling inequalities: Through innovation and entrepreneurship By Mociran Bianca
- What are the current interventions and their barriers for trachoma in Car Nicobar, India? By M. Bianca and K. Amathally