Human Centred Digital Health Technology

My Experience of the *Medical Informatics Europe 2024* (MIE24) conference in Athens

- by Dr Hartesh Battu, GP & Clinical Innovation Fellow

The Medical Informatics Europe 2024 (MIE24) conference in Athens felt like the perfect convergence of past and future – a chance to discover the latest in medical informatics research against a backdrop of vibrant ancient history and scholarly wisdom. The venue was the Euginedes Foundation building, an institution which aims to contribute to scientific advancement through investing in the bright minds of young people in Greece. In its own (smaller) way, the Julian Costello Travel Bursary seeks to replicate this in the UK by inviting people early in their careers in primary care digital health and informatics to apply for the award, gain the opportunity to learn from the conference, and network with an international academic crowd.

Two years ago, I completed General Practice training. Last year I became a Clinical Innovation Fellow at the Digital Health Validation Lab, an organisation within the University of Glasgow's College of Medical, Veterinary & Life Sciences, which aims to accelerate the clinical adoption of digital health technologies by generating evidence through inter-disciplinary collaboration across the triple helix of clinicians, academia and industry. Earlier this year I also was appointed the role of Innovation Clinical Theme Lead for Primary Care at the NHS West of Scotland Innovation Hub, one of three regional test beds funded by Scottish Government's Chief Scientist Office. MIE24 was therefore the perfect opportunity for me to discover and take home newfound knowledge, applying it across my roles in digital health innovation and my 8 years of experience as an NHS doctor.

After touching down in Athens around midnight, I had a quick sleep and awoke again at 6am, heading straight to the Acropolis while it was still only (!) 28 degrees C. After a brief wander around the surrounding streets in the Plaka, I headed back to my hotel for a nap to freshen up before the conference's evening welcome reception. There, I met

members of British Computing Society's (BCS) Health and Care and Primary Health Care Specialist Group (PHCSG) – John, Philip and Vije. From them I took the opportunity to learn about PHCSG, and its vision and purpose to promote and advance medical informatics best practice within UK primary care. Central to this goal is engaging its membership and the wider clinical and non-clinical informatics community in its work; the Julian Costello Bursary being one mechanism to achieve this.

Later that evening John, Vije and I went to a nearby restaurant for dinner. It was fascinating to hear the thoughts of two experienced GPs about how present-day UK primary care has been shaped by decades of political and scientific transformation. We talked about artificial intelligence (AI) and its emerging role in prognostication and primary prevention. While I spoke excitedly about its potentially broad-reaching and highly impactful effects on population health, Vije emphasised that any practical implementation of AI must keep the patient at the very centre of any decisions; data science mustn't reduce human lives to 1s and 0s, and sideline shared decision-making and compassionate, human-centred care. To hear this just before the substantial bulk of the conference was very timely framing, and an ethos I will maintain in the coming decades of my career in the context of all the digital health transformations to come.

Indeed, the next morning, after his opening keynote demonstrating the use of AI to address the health needs of older people, Prof George Demiris echoed these sentiments but made clear that AI is merely a vehicle to improving patient outcomes – what determines the level of humanisation is how we, as clinicians, decide to use it.

Being a clinician, I gravitated towards clinical research that involved implementation within health systems. During a panel session, I learned about the importance of reporting guidelines in ensuring the quality, transparency, and reproducibility of digital health implementation research. The panellists, experts in the development of guidelines like CHERRIES, CONSORT-eHEALTH, and i-CHECK-DH, discussed how these frameworks help standardise reporting. I was interested to hear about the evolution of these guidelines, particularly how they adapt to emerging changes and challenges in digital health, such as the integration of machine learning and use of electronic patient-reported outcomes. Outside of the conference, I have read about use of the Nonadoption, Abandonment, and Challenges to the Scale-Up, Spread, and Sustainability of Health and Care Technologies (NASSS) framework. I think these frameworks and reporting guidelines are essential components of evaluating the real-world use of digital health technologies, without which much research fails to translate into adoption into clinical practice.

Interoperability was a key theme throughout the conference. To be honest, while I had an awareness of what it was and why it is required, I had no idea it was a vast area of scientific interest in its own right! It was immensely valuable to learn about HL7 FHIR, openEHR and SNOMED-CT and the ongoing discovery and advancements in these

areas – all foundational language standards enabling healthcare IT systems to operate connectedly. An important skill for any generalist and cross-disciplinary professional is to be able to recognise one's own limitations and know when to seek specialist input, whilst maintaining working knowledge of the area. During Prof Theodoros Arvanitis' keynote, he opined that the key future disruptors in digital health would be those able to work across disciplines; I might be biased but I would agree!

Attending MIE24 was a very valuable and enjoyable experience, reinforcing the need to balance technological innovation with compassionate, patient-centred care. I was heartened to hear from many informaticians that, despite rapid advancements in AI and digital health, the patient remains central to their work. As someone deeply involved in digital health innovation, these discussions emphasised to me the importance of ethical implementation. I look forward to continuing these conversations when the conference comes to Glasgow next year, bringing the global medical informatics community to my doorstep and further inspiring our collective efforts to transform healthcare with humanity at the forefront.

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