A DIGITAL SOLUTION TO ADDRESS HEALTH INEQUALITY

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TACKLING HEALTH INEQUALITIES

With underfunding and staffing issues increasing the pressure on primary care networks, online consultation tools can help GPs to prioritise their time and ensure that all patients are able to access the right support when they need it

One of the key priorities set out by NHS England for primary care networks (PCNs) is to tackle inequalities in the delivery of healthcare. PCNs have been instructed to identify and engage with patients who experience health inequalities and to design solutions that address the unmet needs of these groups.

However, it is widely recognised that the health service is facing unprecedented challenges in terms of funding and staffing, with numerous reports of GPs quitting the profession. The result is that health inequalities and pressure on GPs are escalating.

To reconcile these conflicting demands, many PCNs are considering the role of online consultation systems (OCS) – software that uses artificial intelligence (AI) and machine learning, and offers online video calling tools for virtual patient consultations. This functionality enables GPs to prioritise their focus and time, and ensures that

all patients can access the right treatment and do not fall through gaps.

The impact of inequality

Health inequality affects diverse groups for a variety of reasons and some patients will be affected by multiple factors. These include physical disabilities, living in a rural community far from a GP practice, and language barriers. The

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cost-of-living crisis also means the number of low-income households is increasing, and cash-strapped families are often unable to afford time off work to attend GP surgeries.

Similarly, refugees and other vulnerable groups should not suffer unnecessary health inequalities when technology is available to address the problem.

Professor Ian Peate, a healthcare expert, academic and editor-in-chief of the *British Journal of Nursing*, is passionate about the need for a holistic overview of the health service. He highlights the need for action on several fronts – including reconsidering the distribution of funds for social care and recognising the contribution of all staff involved in delivering health services, from porters to nurses – but he says GPs should investigate how technology can help.

"We need to shift the focus to community care. E-consultation is another adjunct that can help us to offer services patients require in their place and at their pace. The key element is they must know who the community and patients are. One size does not fit all," he says.

Peate strongly recommends that technology must be fully accessible.

"We should not be talking about hard-to-reach groups – that puts the blame on the patients. OCS needs to be granular and truly adaptive. The patient has to be at the heart of it all, and the big thing is trust in the system," he says.

Dr Sumera Angus from Sutton GP Federation agrees that a flexible and dynamic system is essential to cater for diverse needs.

"There are several types of inequalities, determined by factors such as ethnicity, age, sexual orientation, income, language and where you live. You can't envelop them all in one category," she says.

Online consultations can help solve many problems of health inequalities – there are

obvious advantages for patients with physical disabilities not having to go to the GP practice in person if it is unnecessary, and for people in rural communities with poor public transport networks to avoid the expense of arranging alternative transport.

"The key advantage of AI is the ability to detect if a request is urgent or not and highlight this to the practice and the patient"

Dr Ben Brown, Langworthy Medical Practice

But Angus says there is also a risk of technology widening the gap, which is why it is critical to choose technology that is easy to use and improves access.

"It is important that technology is inclusive and doesn't leave people behind. If you get it wrong, technology can alienate people and widen health inequalities – for example, if it's focused on smartphones when some people don't own one," she says.

Choose the right tools

However, there is variation in the quality of online consultation tools, and as such the imperative is to make an informed choice.

Dr Ben Brown from Langworthy Medical Practice says it is critical to ensure any technology solution such as an OCS is future-proofed and able to meet the day-to-day challenges faced by GPs.

"The problem to solve is that lots of patients contact GP practices that don't need to and can be dealt with elsewhere, such as a pharmacy or through self-care. This is to the detriment of people who do need help. We want software to

direct people elsewhere and prioritise patients with limited resources," he says.

The pandemic accelerated the use of digital solutions in primary care – for example, the proportion of GPs in England capable of offering video consultations increased from 10% to 75% in the first two months of the initial 2020 lockdown – but there is a risk that in the rush to buy, the best solution is overlooked.

There are exciting developments such as built-in AI and machine learning where data from real problems is collected, analysed and fed back into the system, so the software is continuously improving its decision-making capabilities to deliver automated triage. This leads to more reliable outcomes in how to direct patients, be it through self-care, A&E or a pharmacy.

However, some systems are not based on AI and use cumbersome multiple-choice questions to determine an outcome, with the risk that the patient will abandon the process, or that the system puts an administrative burden on the practice because doctors must read reams of questionnaires.

"Some of the traditional systems might work well for textbook cases, but they can be inflexible and there is the disadvantage that sometimes patients can't interpret the questions. The advantage of systems that use machine learning, such as that used by PATCHS online consultation software, is they use real-world language and are more flexible and easier to use," says Brown.

"The key advantage of AI is the ability to detect if a request is urgent or not and highlight this to the practice and the patient."

Measures of success

A measure of success for any OCS is how accurate it is at picking up urgent requests. Nothing is 100%, but it is possible to compare against real-life GP performance. Research has shown that a GP will typically identify 80%

of urgent requests, but a trial using AI picked up 94% of urgent cases from 14 GP practices receiving more than 20,000 requests.

"The downside is that AI can be over-sensitive, but a GP practice would prefer to be over-sensitive and err on the side of caution," says Brown.

"GPs don't want software that adds complexity or noise on top of their already heavy workload. They need systems that help them to spend more time with patients, not less"

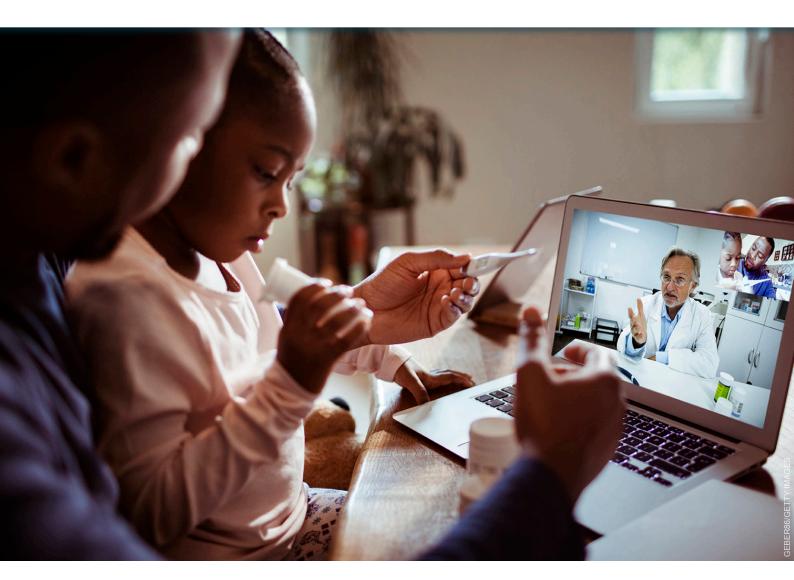Dr Sumera Angus, Sutton GP Federation

Another important feature when assessing OCS software is how patients describe their symptoms, particularly where English is not their first language. Free text and translation functions let patients access healthcare more equitably.

"Rather than multiple choice questionnaires, free text gives patients the ability to write in their own words what they want to say. Language translation services also help reduce inequalities, which is another important feature of PATCHS," says Brown.

Angus points out that language translation software is gaining traction because people are using it in their everyday life. "We are used to using Google Translate on holiday, but because of initial safety concerns, healthcare organisations have been slower to adopt language functionality," she says.

AI-based chatbots can also be beneficial. Patients feel they are having a natural conversation rather than interacting with a static screen. Similarly, a system that offers in-built video consultations, rather than having to use a separate system, is a bonus.

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User engagement

Addressing health inequalities is at the forefront of thinking for GP practices and primary care networks, and technology is playing an increasing role in levelling up.

"We have links with policymakers, but it is the government that makes decisions over issues such as the lack of rural broadband access, for example. User engagement is where we have the biggest influence," says Angus.

She cites positive feedback from GPs that have embraced OCS. The benefits they have seen include: a reduced administrative burden; patients not being kept on hold for ages; an improvement in access; and directing patients to the right services, especially if they are contacting their GP practice because they

don't know where to go but have an urgent non-medical need.

"The digital approach means that people are triaged appropriately," says Angus. "For

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example, someone might call their GP because they have a housing need. If there is an issue or gap in social care, the default is often to go to healthcare. Digital tools can ensure people are signposted to the appropriate person or service."

She adds that since the pandemic, resistance to digital solutions has declined and such tools have become normalised, but it is important to select a system that offers solutions and features to address inequalities.

"GPs don't want software that adds complexity or noise on top of their already heavy workload. They need systems that help them to spend more time with patients, not less. You need to be clear with the data and very prescriptive. GPs get thousands of requests every day and the process needs to be thought through so GPs are not inundated and requests are triaged safely," says Angus.

Fit for purpose

As many more GP practices investigate how AI and digital solutions can address health inequalities, there are real advantages to be gained by ensuring the features are welcomed by both patients and the practice.

"A digital consultation system that has AI built into the DNA of the software and the architecture will have feedback loops throughout. This can help the GP and staff identify urgent requests and focus on addressing health inequalities and priorities," says Brown. "During the Covid-19 pandemic, there was a rush to purchase without full knowledge of the advantages and benefits of different systems. A system that is built on AI and evidence-based research will be fit for purpose and offer the best solution."

Finally, while online tools can help GP practices reduce inequalities, it's important to remember that technology will never replace the doctor-patient relationship.

"That is never the intention. We need to do what can be done online and free up the time for GPs

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Ian Peate is a highly dedicated and driven educator with 20 years' cumulative experience in a variety of education and healthcare settings in the UK. He is enthusiastic and determined, with a passion for inclusive education for all.

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Conflict of interest statement
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to focus on priorities and capacity within the general practice. Time is always a challenge," says Angus.

"If doctors can work better by spending more time with patients through having the correct tools to triage appropriately, then we can access different patient cohorts and reduce inequalities. Having this sort of support to engage with all patient groups is a priority," she concludes.