**////Title: Confronting Challenges to the Uptake of Digital Healthcare**

**////Stand-first**: Digital healthcare promises a wealth of benefits for current healthcare systems, yet its uptake has been remarkably slow across Europe. Taking the example of the UK in particular, Paola Mattei, Associate Professor in Political Science at the University of Milan, Italy, has recently considered the explanations for the slow uptake of digital healthcare and provides a commentary on why this is the case and what challenges now need to be faced to ensure success.

**////Body text:**

Digital healthcare could provide cost-efficiency gains, improve clinical effectiveness, support better public sector governance by enhancing transparency and accountability, and increase confidence in medical diagnoses.

However, despite these benefits, the uptake of digital healthcare has been much lower than we would expect. This has certainly been the case in the UK, for example, as noted by the Department of Health and Social Care in 2018 and the NHS’s Topol Review in 2019.

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Paola Mattei, Associate Professor in Political Science at the University of Milan, Italy, recently published a paper examining the reasons why the uptake of digital healthcare has been so slow in tax-based European healthcare systems.

She points first of all to an article published by Richard Saltman on the challenges and obstacles facing the digital revolution in healthcare systems across Europe. Professor Mattei considers, in particular, Saltman’s assertion that public sector resistance to organisational changes, internal reforms and innovation represent a ‘structural blockage’ to progress.

This structural blockage, Saltman argues, necessitates greater dynamic organisational change within public sector hospitals to overcome inertia. This is a perspective that Professor Mattei views as insightful, before noting the need to step back and distinguish between dynamic and stable healthcare systems, and critically, conceptualising what change can feasibly be expected within existing systems.

In Europe, for example, Professor Mattei explains that in many healthcare systems administrative and managerial change can only be achieved through small, incremental reforms that allow for institutional learning and effective implementation. She argues that digital healthcare is likely to be adopted in the same incremental fashion, not least due to the requirements for regulatory governance by national and international bodies and ethical concerns.

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Professor Mattei then considers the ways in which digital technology is increasingly playing a key role in future health policies. She notes that central to this are the electronic health records and patient data that are protected by national legal systems and regulations.

Communication is also being reshaped by digital technologies, and Professor Mattei cites the use of smartphone applications to monitor patients’ health conditions as one example of this. However, she proceeds to note that it is not sufficient to simply introduce such innovations to public organisations such as hospitals, but it is also necessary to reshape the traditional relationship between professionals and patients through the use of data sharing and digital technologies.

Such transformative change, Professor Mattei notes, will allow the personalisation of medicine (that is, treatment targeted at specific subsets of patients aiming to optimise efficacy on that basis) as well as help increase patient-centred care.

At the same time, by allowing artificial intelligence to undertake what she describes as low-level work (such as monitoring sleep patterns), Professor Mattei argues that doctors will have more time available to dedicate themselves to more specialised patient care when and where required.

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Turning to the field of oncology, Professor Mattei suggests that a clear advantage of digital healthcare that has already been observed is increased confidence in the early-stage diagnosis of cancer. From the improved image analysis of cancerous tumours to robotic surgeries that more effectively excise malignant tumours, doctors are better equipped than ever to provide individualised, evidence-based treatments.

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Reflecting further on Saltman’s work, Professor Mattei notes that rather than consider the benefits of digital healthcare in terms of personalised medicine in this way, the focus is instead on the organisational impact of information technologies on public sector providers and public hospitals.

Professor Mattei proposes that to ensure the success of new digital environments for healthcare services, collaborative infrastructures and partnerships across different stakeholders in the public, private and not-for-profit sectors will be required. A key issue here is one of accountability given that such an undertaking will include multiple stakeholders (including public-private partnerships) sharing medical data, research and systems in a so-called ‘hybrid model’ approach to healthcare management.

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On the topic of ethical concerns and regulations, Professor Mattei proposes that we need clearer guidance on accountability within the digital healthcare framework. She notes the importance of regulation in protecting the safety, privacy, and fundamental rights and freedoms of patients. Drawing comparisons with the pharmaceutical industry, she proposes that the systems and procedures associated with digital healthcare should be regulated in a similar fashion. The need for such regulation, established in a way that does not stifle innovation, is perhaps one of the most important balancing acts to be achieved in the implementation of digital healthcare.

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It is, of course, inevitable that embracing digital healthcare will disrupt the existing delivery of healthcare services, not least through requiring the redesign of internal organisational systems and procedures for public accountability and transparency. In addition, much is still to be achieved from an ethical perspective to ensure that new technological systems protect human dignity and agency in their application to healthcare. Nonetheless, Professor Mattei remains confident that in due course, digital healthcare will reap extensive benefits in empowering patients while also improving their health and individual wellbeing.

This SciPod is a summary of the open access paper ‘[Digital governance in tax-funded European healthcare systems: from the Back office to patient empowerment](https://ijhpr.biomedcentral.com/articles/10.1186/s13584-020-0361-1)’, published in the Israel Journal of Health Policy Research. DOI: https://doi.org/10.1186/s13584-020-0361-1

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