



## Editorial

## In this issue: improving health outcomes and reducing health inequalities



This issue of *Health Policy and Technology* contains articles with themes that relate to the interface between health policy and technology and their implementation. These papers focus on related issues that concern trends in the use of health information technology, appropriate use of diagnostic health technology, complexity in health workforce planning, and developing frameworks to provide accurate and relevant data to inform health policy.

Greenberg-Worisek et al. consider progress towards health information technology objectives (HIT) for the Healthy People 2020 initiative in the United States [1]. Specifically, they examine changes in the use of *electronic Personal Health Information* (ePHI) over recent years and explore whether objectives regarding ePHI use have been achieved. They observed a substantial increase in ePHI use in the general population in terms of those accessing ePHI (14% in 2008 to 71% in 2017) and those using email to communicate with health providers (7% in 2003 to 41% in 2017). These increases greatly exceeded the targeted increases named in the original objectives. However, the study period spanned the last 10–15 years, which have seen dramatic changes in the use of information technology throughout the healthcare sector as well as elsewhere. Therefore, we should be cautious when trying to identify what factors specifically led to the achievement of the HIT objectives. But what actually concerns me more is that Greenberg-Worisek et al. found significant differences over time in use of HIT by sex, age, race/ethnicity, education, income, and geography. While we are all now living in a digital world, not everyone in the world has the ability or the means to navigate through that world and achieve key personal goals such as living longer, prospering, and having a healthy life. In my opinion, all countries should try to ensure both that their populations achieve better average health outcomes (longer and better life) and that all individuals in those countries have the ability and the means to achieve them. As the authors note [1], targets for HP2030 (and beyond) should include elimination of the digital divide amongst subgroups, which should help to reduce important variation in health outcomes.

Besides aiming to improve health outcomes and reduce health inequities, it is essential to ensure financial sustainability in the healthcare system. If ePHI use and internet-based consultations cost money, who will pay for them? Would patients be willing to cover the costs? And how much would they be willing to pay? Suzuki et al. asked people precisely these questions in a study of teleconsultations with clinic and public health nurses in Hokkaido prefecture in northern Japan [2]. Two observations are worth not-

ing. First of all, they found that only around half of the respondents stated that they were willing to use the teleconsultation system. This reminds us that people may prefer different approaches in life. Healthcare is no different in that respect. And second, they found that the median willingness-to-pay amongst those who wanted to access this system was ¥581 (US\$ 5.20). While this amount may seem small to many readers it can add up very quickly when combined with a high volume of teleconsultations. What the authors should go on to examine is whether teleconsultations could result in reduced healthcare costs and better health outcomes in the future. If so, then perhaps some of the costs could be covered by other stakeholders.

Two other articles in this issue of *Health Policy and Technology* focus on a different type of health technology, namely diagnostic imaging. Dovalos et al. examined temporal trends in the use of outpatient imaging tests in Brazil during the period of 2002–2014 [3]. And what they found, not surprisingly, was a large increase in usage of imaging over that period. Increases in the use of computed tomography (CT) and magnetic resonance imaging (MRI) tests were notable (by approximately 12% and 19% per year, respectively). But the authors were quick to note that, despite these increases, the absolute frequency of their use is still much lower than what has been seen in high-income countries [3]. However, a higher frequency of imaging use is not necessarily evidence of better healthcare. The critical question is: are the tests being used when they are needed? When is a test worth doing and when is it *not* worth doing? Similarly, are treatments being given when they are needed? This is often a judgment call that is only partly based on the findings of well-designed clinical trials. One way to study this is by asking doctors what kinds of tests and treatments they *currently use* and what they would *want to use* if they could. This is one of the issues that Peultier et al. assessed in their online survey of European clinicians about imaging workup and treatment in acute stroke care [4]. When a specific clinical case was described, most (73%) respondents said that they would want to treat the patient in question using intravenous thrombolysis combined with mechanical thrombectomy, even though many reported that these options are currently not available to them. The differences between preferred and actual treatment varied among countries. While German and Swedish respondents reported small differences between preferences for tests and treatments, UK and Hungarian respondents reported large differences, which means that they often are unable to provide the care to their patients that they would want to give.

Good healthcare requires not just appropriate use of technology but also good workforce planning. Ansah et al. describe how they estimated health personnel requirements for ophthalmic care in Singapore using a system dynamics simulation model and the participation of key stakeholders, including ophthalmologists, nurses, hospital managers and technicians [5]. The authors concluded that demand for eye care services is expected to rise because of population aging. However, the basis for this conclusion is not simply biological, but also involves increasing access to care and expectations for better visual acuity in the population as a result of increases in levels of education. Their work makes it abundantly clear that human resource planning is no easy task. It requires multiple types of data and supporting expertise.

I suspect that our definition of good healthcare will evolve over time, partly as a result of a changing world and partly because of evolution in the way we view our world. Findings by Ansah et al about altered healthcare expectations [5] reflect changing expectations of healthcare throughout our world. We need to be more mindful of the criteria we implicitly use when assessing the value of healthcare. If we do not make those criteria explicit, we will never be able to assess healthcare quality properly and reproducibly [6]. And we will only then discover (and rediscover) how much (or how little) we agree with others about those criteria. Once we have established appropriate and explicit criteria, we can then improve collection of relevant information to evaluate whether our health policy plans are successful.

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