Will the COVID-19 pandemic boost access to personal health care records? Smartphone data access to tackle the modern pandemic

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As indicated by C Baraniuk in the BMJ, a fact that has become increasingly clear in the current COVID-19 pandemic is the wide disparity in success in disease control between different countries. For example, South Korea has had a remarkable success in controlling the pandemic by limiting the focal spread of cases, at least in part due to the application of stringent COVID-19 testing and containment strategies, as well as giving its citizens access to rapidly updated COVID-19 records and healthcare information.1–3

Indeed, technologies for focal containment have become such a pressing issue that some countries, such as the USA, are creating specific mission-critical data partnerships for smartphone approaches to tackle the COVID-19 pandemic (such as the partnership with Apple).4

While smartphone data access can be a key tool for the National Health Service (NHS), the view of the public is often missing from related discussions. In a UK-based survey, conducted before the COVID-19 pandemic, we found that the majority of participants interviewed specifically wanted health services to develop methods for instant and secure medical data access (1025 or 83.87% of participants wanted instant access, of whom 858 individuals wanted secure access), which can be done via a smartphone app. We conducted a large telephone survey among 1222 people living in the UK (details and demographics in the online supplemental information), asking them about smartphone access and additional aspects of electronic health record system. The majority of people stated that they did not have access to their own health records with ease and a substantial number of people (267 or 21.84%) were not happy with the way their medical records were kept. The majority of participants owned a smartphone or a tablet (1059 or 86.66% of participants). One thousand, one hundred and eighty individuals (96.56%) stated that it was important for them that their doctor or other healthcare professionals involved in their care had instant access to their health records with 653 (53.43%) stating that this was very important for them. In addition, the majority of participants wanted to contribute to their own medical health records (903 or 73.89%). This is an important fact that must also be highlighted: without the help of the public it will be impossible to tackle the COVID-19 pandemic, and the new NHS app must allow for as much public collaboration as possible (ie, reporting, frequently asked questions, input of associated symptoms, etc).

The unrealised potential of more effective data sharing methods in the NHS should be addressed in the light of the current pandemic and in view of our survey results. To tackle the COVID-19 pandemic, we need to strongly consider increasing openness, efficiency and transparency in electronic health records by incorporating smartphone real-time data sharing and data access methods, while addressing privacy and security concerns, as mentioned by C Baraniuk. This could be achieved by implementing protocols to protect unrelated information as indicated by the South Korea Centers for Disease Control and Prevention.5 Every cloud has a silver lining, and it is our hope
that the current pandemic will accelerate the application of digital health technologies, such as rapid data sharing methods, COVID-19 datathlons, federated artificial intelligence (AI) for mining health data while maintaining privacy and secure data transfers. Taken together, public attitudes before the COVID-19 pandemic, along with the increased usefulness and efficiency of personalised healthcare apps, suggests that the time is ripe for widespread adoption of these technologies in the near future.

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