

COVID-19 vaccination programmes are showcasing the merits of digital healthcare



The global effort to implement Covid-19 vaccination programmes poses substantial logistical challenges. [Shane Markowitz](#) argues the early evidence from successful vaccination rollouts highlights the value of digital healthcare approaches.

As the Covid-19 vaccine rollout steadily gains steam globally, a wider range of groups are becoming [eligible](#) for inoculation. Yet confusion and frustration are rampant, with governments [encountering](#) logistical obstacles in reaching populations and individuals [struggling to navigate](#) vaccine hotlines, websites, and clinics to secure appointments.

Compared to the US and the UK, the European Union, moreover, is [hampered](#) by severe supply constraints prompted by vaccine production delays and under-procurement. The bloc's vaccine provisions could [amount](#) to only around 100 million doses by the end of March, far too few for its population of 446 million. The EU, consequently, is under tremendous strain to make effective use of the limited doses at its disposal.

Against this backdrop, digital infrastructure is proving to be a potent tool in overcoming logjams and developing efficient vaccination programmes. Governments that have long embraced digital healthcare are now seeing dividends, underscoring the need for the EU to hasten its own [digital transformation](#).

Israel, for example, currently ranks first in the world on vaccination rates. While the country has [benefitted](#) from favourable agreements with pharmaceutical companies in acquiring doses, its investments in digital health have played a pivotal role in delivering these inoculations to the population at large.

According to a 2018 [Bertelsmann Stiftung study](#) on the digitisation of health, Israel indeed scores fourth of seventeen countries examined. This [digitalisation](#), in practice, has seen the country's healthcare organisations move towards electronically storing the medical records of all patients and linking their healthcare needs to a largely paperless card-based system.

With the [use of a card](#), Israeli residents can register for appointments with a doctor, purchase prescriptions, and share their medical history with physicians. With respect to Covid-19, this infrastructure, for example, uses text messages and phone calls to nudge eligible individuals towards arranging their first jab and automatically schedules and communicates second dose appointments.



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Denmark, which ranks first in the world on e-government according to a 2020 [United Nations](#) report and third in the Bertelsmann Stiftung study, is another country reaping the rewards of its prior investments. Second in the European Union on [vaccination rates](#), Denmark's centralised national register, which [assigns](#) each resident a personal identification number linking them to government services, has been paramount to this success. The system has [facilitated](#) the categorisation of residents into different vaccination priority groups while an accompanying electronic mail app ensures swift communication between health officials and residents.

Germany's vaccination programme, by contrast, has challenged the patience of residents who [complain](#) that it can take days of persistence to get through to call centres to sign up for an appointment. Registration for jobs has been further [hobbled](#) by a clunky and tedious online portal that lacks critical features like a waiting list that could be used to notify residents when a vacancy becomes available. The country, which ranked second to last in the Bertelsmann Stiftung health digitisation index, falls below the EU average on vaccination rates.

The disparity between digitisation pioneers and laggards is particularly evident in the three Baltic countries. Estonia, known generally as a tech trailblazer that has spearheaded innovations like [e-voting](#) and [delivery robots](#), ranks first on the effective digitisation of health and third in the world on e-government. Lithuania's investments have, similarly, helped the country reach 20th in the world on e-government. Latvia, meanwhile, has lagged on digitisation, ranking only 49th globally on e-government.

Despite their relatively [small economic size](#) compared to their Western European counterparts, both Estonia and Lithuania feature in the top tier of European countries for vaccination rates. However, Latvia, sandwiched between Estonia and Lithuania, ranks second to last among the 27 countries of the European Union.

Similar inoculation-digital gulfs are present throughout the world. The vaccine rollout, for example, in Alabama, which currently ranks last on vaccination rates in the United States, has been [hindered](#) by the lack of a centralised online appointment portal. Clinics that administer the vaccines are not provided information on deliveries until they arrive. And residents are struggling to negotiate a patchwork of county health departments, pharmacies, and clinics to find openings.

New Mexico's first in the nation vaccination registration website, conversely, has been [credited](#) for aiding the state in amassing the second highest vaccination rate in the United States. The website has assisted residents in making appointments in an orderly manner and when free spaces open, the platform puts out alerts to eligible individuals, ensuring that available doses are not squandered.

Digital success appears to beget further headway. Denmark and Estonia are among [forerunners](#) in launching digital vaccine passports, which are electronic documentation certifying that an individual has been vaccinated and/or recently tested against Covid-19.

While digital passports pose privacy and data protection issues, if ironed out, these [documents](#) could ease cross-border travel and grant access to public venues like universities, sports stadiums, concert halls, and workplaces. The Danish Ministry of Finance has noted that its initiative could help "contribute to a gradual, sound and appropriate reopening of Denmark".

The schemes could also buttress vaccination programmes in developing countries, which are critical to eradicating Covid-19 globally. To this end, Estonia has [partnered](#) with the World Health Organization to pilot a "smart yellow card" programme that would institute digital vaccine certificates to facilitate the COVAX vaccination drive in developing countries.

Initiatives taken now by governments to bolster e-health will continue to benefit societies far beyond the pandemic era. Estonia, for example, is cooperating with the WHO on additional projects on the interoperability of health data, the development of national guidelines for e-prescription and e-dispensing services, and best practices on the digitisation of the medical sector.

The digitalisation of health indeed [promises](#) to not only bring forth more responsive medical systems, as evident during the pandemic, but also promote preventative treatment, improve equitable access, reduce costs, curtail the administrative burden of healthcare professionals, and enhance the efficiency of healthcare services. European countries would be prudent to heed this potential and accelerate the transition towards becoming a continent fit for the digital age.

- This article first appeared at [EUROPP – European Politics and Policy at LSE](#).
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About the author



Shane Markowitz – *GLOBSEC Policy Institute*

Shane Markowitz is an Associate Fellow at the GLOBSEC Policy Institute in Bratislava. He holds a doctorate in political science from Central European University.