



HealthTechIreland
ASSOCIATION

Recovery/Resilience Agenda: Integration of digital health in EU healthcare systems

LESSONS LEARNED FROM THE COVID-19 PANDEMIC
AND RECOMMENDATIONS

1st February 2021



About HealthTech Ireland

Ireland's HealthTech Industry provides medical Diagnostics, Devices and Digital solutions to help people live healthier lives.

As an independent trade association, we represent the manufacturers, developers and distributors of health technology products and solutions provided to the health system in Ireland.

HealthTech Ireland provides a forum for the development and advocacy of policies that support innovation in health technology to address patients' healthcare needs. Our member companies include the full spectrum of health technology supply and service companies from Small/Medium Enterprises to Multi-National Companies, many of whom have Research and Innovation and /or manufacturing facilities in Ireland.

Our members provide safe, effective and innovative health technologies that save and enhance lives, benefiting people and society. If a health product is proven to be safe, clinically efficacious and cost-effective patients should have access to it, no question.

HealthTech Ireland aims to connect the industry and the health system through collaboration, education and advocacy. HealthTech Ireland is a member of MedTech Europe and of Global Medical Technology Alliance.

Executive summary

This review is intended as a contribution to a consultation process for an updated and standardised approach to procurement in order to benefit procurers in selecting the best in class product(s) in terms of value, outcomes, cost and other important factors for consideration.

The health technology (HealthTech) industry has made significant efforts on various fronts to help manage the COVID-19 pandemic in Ireland and across Europe. While providing essential solutions like testing and protective equipment, the industry has observed developments in digital health and proposes a vision for how digital health technologies can help accelerate the recovery and build a more sustainable healthcare system.

This paper offers observations on how the pandemic has impacted digital health in Ireland and Europe, namely via:

- **a transition** to online consultations and remote monitoring;
- **the introduction** of contact tracing apps;
- **the realisation** of certain shortcomings of the status quo;
- **a new openness** to digital health by Irish and EU citizens.

Capitalising on this and looking into the future, we are offering specific recommendations for building on this momentum, in order to serve sustainable recovery and economic resilience, namely:

- **keep and build upon** digital health measures, introduced during the pandemic;
- **advance** the European Health Data Space;
- **improve** incentives and reimbursement of digital health;
- **create** new models for developing and deploying AI for more sustainable healthcare.

Impact of the COVID-10 pandemic on digital health

The COVID-19 pandemic has disrupted healthcare delivery around the world. Directly or indirectly, this has made the pandemic **a watershed moment** for digital health in Ireland and Europe in the following ways.

- Due to the pandemic, there has been **a rise in the adoption of some digital health technologies**. We have seen a widespread transition to online consultations, diagnosis, and treatment to comply with the need for social distancing and protection of healthcare professionals and patients. GPs in Germany for example reported more than 1.2m hours of video consultation in the second quarter of 2020, compared to a mere 583 in the same quarter of 2019, a more than 2,000-fold increase. Remote patient monitoring tools have ensured safe provision of care for patients with chronic conditions over distance.¹
- Europeans have also taken to various **COVID-19 contact tracing apps**. Despite variances in their effectiveness depending on the national context, citizens have overall shown a greater willingness to share data to alleviate the measures of the pandemic. In October 2020 the EU Commission and Member States set up an effective European Federation Gateway Service allowing for the connection of up to 20 national tracing apps.²
- While in some cases digital tools could quickly be deployed to address the need to speed up sharing of data and intelligence, overall the pandemic has **exposed digital health shortcomings**, for example in significant delays in care delivery and missed future opportunities because health information (i.e. test results, public health statistics) has been kept, aggregated and transmitted on paper and fax.³
- As a result, there is now a **new openness to digital health** on the part of citizens and patients, healthcare professionals and providers. Some Member States have tried new ways of organising healthcare, and have found they work, they are safe, they add speed and convenience, and therefore, contribute to better access and quality of care for patients.

Remote patient monitoring tools have ensured safe provision of care for patients with chronic conditions over distance.

There is now a new openness to digital health on the part of citizens and patients, healthcare professionals and providers.

¹ See ZI Institute, Veränderung der vertragsärztlichen Leistungsanspruchnahme während der COVID-Krise: Tabellarischer Trendreport für das 1. Halbjahr 2020, November 2020, p10, available at <https://bit.ly/2LIgkHE>; the European Society for Cardiology (ESC) has advocated for increased use of telehealth especially for vulnerable groups; see ESC, "Guidance for the Diagnosis and Management of CV Disease during the COVID-19 Pandemic" <https://www.escardio.org/Education/COVID-19-and-Cardiology/ESC-COVID-19-Guidance>. Telehealth services have also proven effective for dialysis patients, see Ronco C et al. "Remote patient management of peritoneal dialysis during COVID-19 pandemic". *Peritoneal Dialysis International* 2020;40(4):363-367. <https://doi.org/10.1177/0896860820927697>.

² See the Commission website on the tracing app: https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/travel-during-coronavirus-pandemic/how-tracing-and-warning-apps-can-help-during-pandemic_en.

³ The Netherlands set up an information sharing platform within weeks, see <https://innov.afro.who.int/global-innovation/national-portal-for-exchange-of-covid-patients-data-in-the-netherlands-2207>.

⁴ See the December 2020 European Council conclusions on COVID-19 lessons learned in health, <https://www.consilium.europa.eu/media/47653/st14196-en20.pdf>.

EU Member States commitment to digital health

EU Member States have acknowledged the critical role of digital health data in their December 2020 Council conclusions:

“The ongoing pandemic provides a direct demonstration of how data will transform health and care. Rapid pooling of and access to COVID-19 data across countries have played a critical role in understanding transmission and infection, identifying drug targets, and understanding disease and vaccine developments.”⁴

The HealthTech industry welcomes the commitment of Ireland and other Member States to the digital transformation of healthcare. To achieve this and build on the conveyed potential, it is important to advance the trends, which have been started, and avoid going back to pre-pandemic approaches to digital health.

The way forward & recommendations: building on the momentum

The health technology (HealthTech) industry considers it critical that this momentum be used to advance and accelerate the digital transformation of healthcare, by learning from the accelerated implementation of digital health during the COVID-19 outbreak. Furthermore, the industry is convinced that the digital transformation of healthcare will advance the sustainable recovery and building of the future resilience of the Irish and wider European economy.

HealthTech Ireland derives the following **recommendations for the future recovery agenda**:

- **Build on the COVID-19 digital health momentum:** Underlying and underpinning the momentum on digital health have been national regulatory steps to enable digital health technologies, including amending rules requiring face to face interactions between healthcare professionals (HCPs) and patients, and extending or expanding funding/reimbursement for teleconsultations. The way forward would be for **these measures to be kept in place and built upon**. A return of Member States to pre-pandemic approaches (for example in the area of teleconsultations) would be detrimental for patients, HCPs and healthcare systems.
- **Advance the European Health Data Space:** Before the pandemic, digital health deployment, and sharing health data, has faced legal, technical, commercial and socio-cultural and skills barriers. Addressing these requirements requires leadership and commitment from all sectors. The EU project of the European Health Data Space, alongside funding and investment programmes like Horizon Europe and Digital Europe, reflects a commitment to address these barriers and support it with financial resources. It would also enhance the management of the pandemic, the tracking of incidences, and consequently, the saving of lives. HealthTech Ireland will continue to engage and support future EU initiatives related to health data through Medtech Europe and policy stakeholder engagement.

The way forward & recommendations: building on the momentum

- **Consider incentives and reimbursement of digital health:** The rise of telehealth services during the pandemic showed the critical factor of reimbursement provisions: often doctors were able to quickly adapt and start offering them, after reimbursement mechanisms were introduced. Europe's public healthcare systems are responsible for the bulk of healthcare spend (compared to personal and private sources). Unlocking these resources for digital health technologies has been slow. HealthTech Ireland calls on our health authorities and payers to exchange best practices and find the right mechanisms to recognise and incentivise the value of digital health technologies. If consistently adopted, these technologies will not only enhance crisis-preparedness but also the resilience and sustainability of our healthcare system.
- **Create new models for developing and deploying AI for more sustainable healthcare:** The mid- and long-term recovery of our economy will require a more comprehensive approach towards healthcare that reduces inefficiencies, improves access to healthcare for all, alleviates the burden on the workforce, and empowers patients. Artificial Intelligence in healthcare can significantly impact all these issues if barriers are addressed at European & Member State level. In October 2020, Deloitte and MedTech Europe published a report on the socio-economic impact of AI in Healthcare that offers specific policy recommendations around an enabling governance framework for data, appropriate funding and investment, and digital education.⁵

Conclusion

A compelling lesson of the pandemic is that the **digitalisation of healthcare is urgent and is here to stay**. A single actor is not able to drive this transition alone. If Ireland and Europe wants to make best use of digital health to cope with the current crisis, to build a sustainable recovery path, and to affirm its competitiveness in the world, it needs to show strong leadership and encourage knowledge sharing going forward.

HealthTech Ireland stands ready to collaborate with our health system to facilitate the digital transformation of healthcare.

⁵ For more information and the report go to <https://www.medtecheurope.org/resource-library/the-socio-economic-impact-of-ai-in-healthcare-addressing-barriers-to-adoption-for-new-healthcare-technologies-in-europe/>

Appendix I

Since the first wave of the pandemic, there has been a rapid adoption of new technologies in the Irish healthcare system. Listed here are just six examples of HealthTech Ireland members who provided digital solutions during the pandemic, there are many more.

The HSE COVID Tracker App

The app was developed by the HSE and Department of Health, with input from An Garda Síochána, Science Foundation Ireland and private partners from Ireland's technology sector.



The **Amazon Web Services (AWS)** Cloud is the underlying infrastructure for their COVID Tracker application. The agility and scalability provided by AWS Cloud meant the app was developed, tested, and the first prototype version was available in just 2 days. Designed to improve the speed, accuracy, and effectiveness of contact tracing, once the app was launched in July there were 1 million downloads in the first 36 hours, and 1.54 million by week 4, equivalent to 30 percent of Ireland's population. Because of the AWS cloud's elasticity, the COVID Tracker app is able to meet fluctuating demands for capacity as pandemic activity changes.

(expleo)

Expleo, the technology partner for innovative companies, was contacted by the Government of Ireland to deliver all of the quality assurance and software testing on this ground-breaking app. They were responsible for ensuring that the app was user-friendly, fast and reliable, and capable of handling one million downloads and daily check-ins in an hour. This included field testing the CTI app with positive, negative and distance testing scenarios. Performance testing was a critical success factor for the project, given the high volume of potential API calls per hour.

Testing of the app began on Sunday March 29th 2020, with an expert Expleo test team and led by a Senior Quality Assurance Manager. The team went through a rigorous, lengthy process; putting the app through its paces to ensure that it was fast, reliable and easy to use in order to maximise uptake. With over one and a half million downloads, it has been the most successful launch of any COVID-19 contact tracing app in the world.

Patient Portal & Telehealth Solutions



The **Salaso Health** platform extends care and supports patients by enabling them to engage remotely with physical rehabilitation and therapy services. Physiotherapists, occupational therapists, speech and language therapists and other rehabilitation specialists in over 120 hospitals and outpatient clinics across Ireland, UK and US use Salaso Health to carry out telehealth calls with patients, prescribe exercise programmes customised to patients' symptoms, engage patients with interactive self-management education, set programme goals and monitor progress. Exercise rehabilitation and self-management education has been shown to be important for patients with many different musculoskeletal, neurological, cardiac and respiratory conditions, including patients recovering from COVID-19. Salaso is used to prescribe exercises for patients recovering from COVID-19 to enable physical reconditioning, reduce shortness of breath and improve mental health and well-being.

The Salaso Health platform enables greater numbers of patients to safely engage with allied health therapy and rehabilitation services to ensure faster recovery and earlier return to function. For non-COVID services, Salaso Health enables therapists to continue to deliver services and manage patients remotely ensuring patients receive the care and advice they need in a timely manner and waiting lists are kept down.



Wellola, an Irish software firm and also a member of Health Tech Ireland provides secure video and patient portal services to healthcare providers, who faced a COVID-driven spike in users. Using multiple AWS services, Wellola was able to scale to meet demand while delivering a best-in-class, reliable, and secure platform that cost-effectively met regulatory standards and HIPAA and GDPR requirements. Today, Wellola is providing over 750 GPs, allied healthcare providers, charities and Section 38 entities in Ireland and the UK with secure video consultations, messaging, digital letters, record keeping, and payment facilities to help them manage and mitigate the impact of the pandemic.

Remote Health Monitoring



patientMpower is a digital health company providing technology solutions for people living with long term illnesses. They have developed technology to enable clinicians to remotely monitor self-isolating COVID-19 patients. This technology enables patients with less severe COVID-19 symptoms to be managed whilst in self-isolation at home, with the safety net of remote monitoring of their symptoms and vital signs. This is crucial for freeing up hospital beds and resources for those with more severe disease. patientMpower's app, which is prescribed by a healthcare professional, measures patients' vital signs including oxygen saturation - a marker of how well a patient's lungs are working.

Patients' information is immediately available for healthcare staff to view via a secure portal in the hospital or healthcare centre. If all the signals are good, the patient can continue to recover at home. However, if there are signs that the patient may not be recovering as anticipated they can be quickly triaged for treatment. patientMpower also provides home monitoring solutions to enable clinicians to continue to provide specialist care to their vulnerable patients with respiratory conditions. These patients cannot safely attend their normal out-patient consultations due to the risk of virus exposure. patientMpower's specialist remote monitoring solutions enable the clinical grade measurement of lung function.

Appointment Management



Swiftqueue provide a Cloud based enterprise scheduling solution offering a healthcare system of engagement for coordinated care within acute hospitals and between acute hospitals and community settings. During Covid-19, this Irish enterprise scheduling platform has rapidly delivered million's appointments to citizens attending Covid-19 test clinics assessment hubs in different jurisdictions, providing 1 Million appointments within a month for Covid-19 Vaccinations in mass vaccination clinics. The online booking cloud platform provided the following functionality to citizens and clinicians :

- Online patient appointment booking for testing and vaccination appointments
- Management of referrals via integration from A21 (Healthlink)
- Virtual consultation services were embedded in the Swiftqueue platform to support a multi-channel approach to managing appointments.
- Online consent forms and self referral to vaccination clinics.
- Management patient flow on the day of appointments.
- Delivery of demand and capacity planning.
- Automated reporting of KPI's for patient engagements.

Specialty clinics for shielded patients were also catered for along with antibody testing and home based testing provided by the National Ambulance Service. The digital access was also provided to hospitals with the ability for patients to check in online for an appointment and waited in the car park prior to being called into attend clinics where sufficient space was not available to manage social distancing.



HealthTech Ireland

Kandoy House,
2 Fairview Strand, Dublin 3

Tel: + 353 (0)1 484 7828

Fax: + 353 (0)1 484 7826

E-mail: admin@healthtechireland.ie

www.healthtechireland.ie

HealthTech Ireland
is an independent
representative body for
Health Tech suppliers
in Ireland

