Digital health

A digital health transformation is reshaping how health services are delivered, public health is protected, and chronic disease is managed and prevented. Through the expanded use of digital tools such as telemedicine and artificial intelligence, as well as utilising health information to monitor population health and manage system performance, countries are investing more in digital health systems. The COVID-19 pandemic demonstrated that the most resilient countries had strong digital systems for collecting and sharing health information. Health systems with robust digital infrastructure and the ability to utilise quality health information were able to inform evidence-based policy making and respond more flexibly and quickly to system shocks (OECD, 2023[1]). As a result, the use of digital tools such as telemedicine and artificial intelligence is expanding. These digital interventions have the potential to reshape patient care, improve workforce productivity, enable equitable access to health services, and achieve better health outcomes.

OECD countries continue to implement and expand the use of electronic medical records (EMRs) in hospitals or physicians' offices for their patients. In 2021, on average over 93% of primary care practices used EMRs, an increase from 70% in 2012, across OECD countries with comparable data. In 13 OECD countries, all primary care practices used EMRs, whereas in some countries such as Poland, Mexico, Switzerland and Japan, around 40% or fewer had EMR availability (Figure 5.14). Nevertheless, all these countries have had large increases in EMR availability since 2012, with especially significant rises in Denmark, the United States and Canada. These increases in EMR adoption are also seen in the hospital sector for inpatient use, with an increase of nearly 45% from 2012 to 2021, signalling widespread adoption of EMR systems for primary and secondary care in OECD countries.

Alongside the infrastructure and use of digital systems like EMRs, an effective digital transformation also requires good governance to share and utilise health information for both providers and patients in a secure and timely manner. The majority of OECD countries have some capacity to generate and share health information from EMRs. In 16 of 26 OECD countries in 2021, most patients could access an internet portal where they can view the information contained in their EMR. Further, 13 of 26 OECD countries could connect patients with their healthcare providers via a patient portal (Oderkirk, 2021[2]).

Improvements in infrastructure and health literacy provide more capacity for patients to use online services to seek health information and advice. On average across 32 OECD countries, 60% of individuals aged 16-74 used the internet to seek health information in the three months preceding the survey in 2022 – up from 40% in 2012 (Figure 5.15). When health data and information are understandable and valid for a range of uses and users, new digital health services and applications, such as telemedicine, can enable better access to healthcare and higher patient satisfaction, especially among patients that face the most barriers to traditional face-to-face care services (such as those living in rural areas).

During the COVID-19 pandemic, the use of telemedicine was crucial to delivering care through uncertainty (OECD, 2023[3]). In 2019, before the pandemic, remote consultations via phone or video accounted for fewer than 10% of all consultations in Australia, Finland, Lithuania, Norway and Slovenia, with an average of 0.6 teleconsultations per patient per year among OECD countries. However, by 2021 this rate had more than doubled to 1.4 teleconsultations per patient per year, with significant increases in Australia, Lithuania and Slovenia, many of which previously had the lowest rates but by 2021 had near or above the OECD average (Figure 5.16). After realising the benefits through the pandemic, health systems have expanded the use of remote consultations, although financial, legal and operational barriers still exist.

As health systems increasingly harness digital technologies, it is important also to consider essential governance and implementation factors – notably transparency and accountability – and to ensure that the benefits accrue to all.

Definition and comparability

An EMR is a computerised medical record created in an organisation that delivers care, such as a hospital or physician's office, for patients of that organisation. Ideally, EMRs should be shared between providers and settings to provide a detailed history of contact with the healthcare system for individual patients from multiple organisations (Oderkirk, 2021[2]). The figures presented on EMR implementation come from a 2021 survey of OECD countries to which 25 OECD member countries responded. The survey was carried out in 2012, 2016 and 2021.

The Information and Communication Technology (ICT) Access and Usage by Households and Individuals database provides a selection of 92 indicators, based on the second revision of the OECD Model Survey on ICT Access and Usage by Households and Individuals. The indicators originate from both OECD data collection on OECD countries (such as Australia) and partner countries (such as Brazil), and Eurostat statistics on households and individuals for the OECD countries that are part of the European statistical system (such as Germany).

Doctor teleconsultations are defined in the section on "Consultations with doctors".

References

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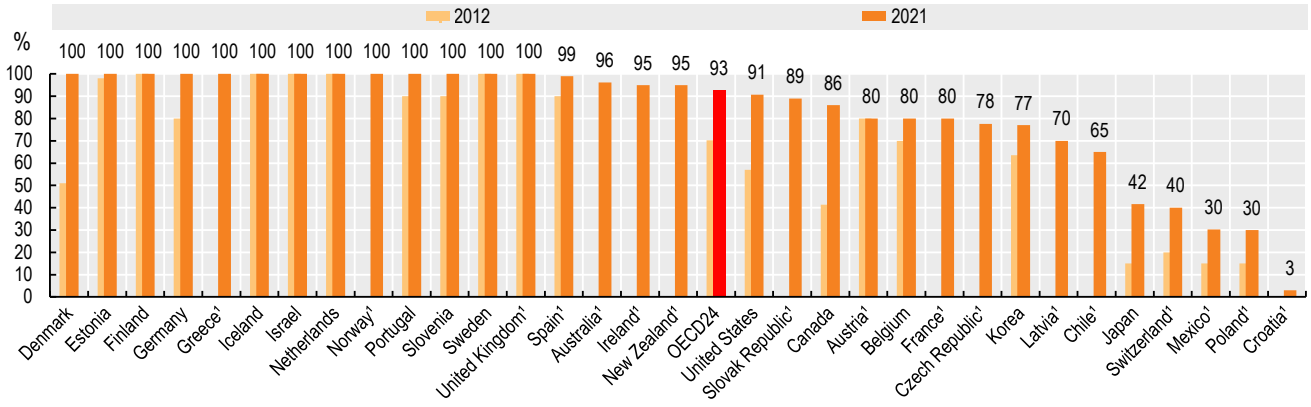
OECD (2023), *Ready for the Next Crisis? Investing in Health System Resilience*, OECD Health Policy Studies, OECD Publishing, Paris, https://doi.org/10.1787/1e53cf80-en. [1]

OECD (2023), *The COVID-19 Pandemic and the Future of Telemedicine*, OECD Health Policy Studies, OECD Publishing, Paris, https://doi.org/10.1787/ac8b0a27-en. [3]

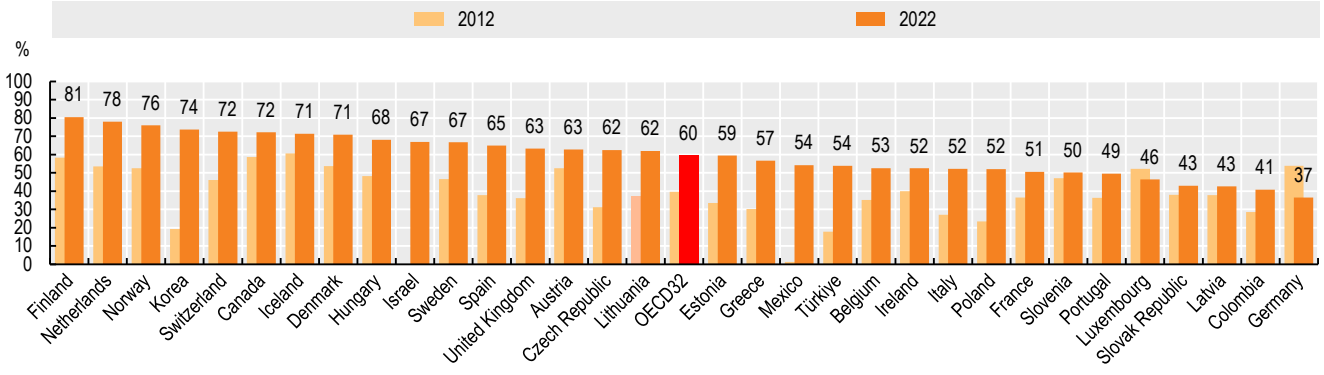
Figure 5.14. Proportion of primary care practices using electronic medical records, 2012 and 2021



1. Most recent year is 2016 (data not included in the 2021 OECD average).
Source: OECD Survey of Electronic Health Record System Development and Use, 2012, 2016 and 2021.

StatLink https://stat.link/dnjmio

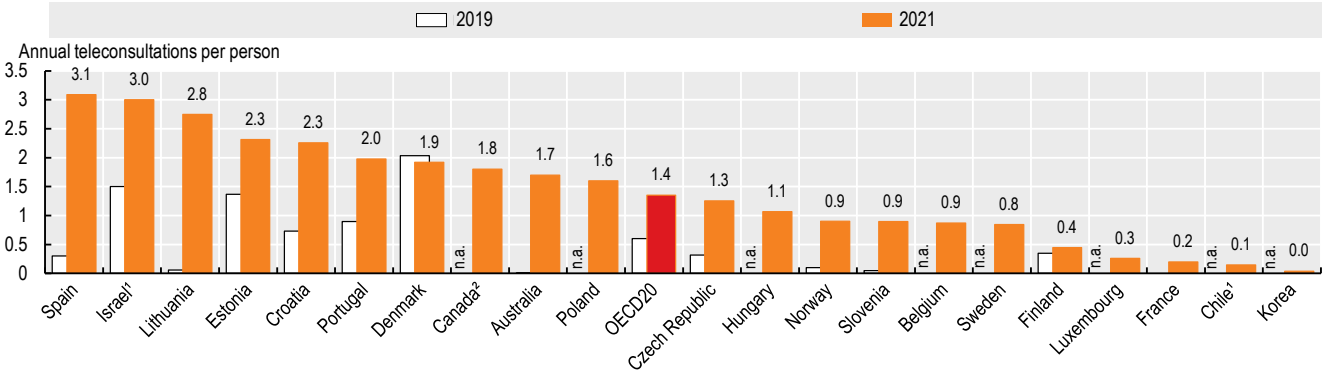
Figure 5.15. Percentage of individuals aged 16-74 seeking health information online in the last three months, 2012 and 2022



Source: OECD Dataset on ICT Access and Usage by Households and Individuals.

StatLink https://stat.link/5zv0mo

Figure 5.16. Doctor teleconsultations per person, 2019 and 2021 (or nearest year)



1. Public sector only. 2. Latest data from 2020.
Source: OECD Health Statistics 2023.

StatLink https://stat.link/oewtjq