Digital health

Providing safe, effective, responsive and patient-centred care, that is also cost-effective and accessible, requires that those making decisions - from patients to health care providers, managers and scientists - have timely and accurate health data and information (OECD, 2019[12]). When health data and information are understandable and valid for a range of uses and users, new digital health services and applications become possible. From telehealth to artificial intelligence, new digital health services may lead to better access to health care and higher patient satisfaction, especially among those patients that face the most barriers to traditional face-to-face care services (e.g. rural patients). A digital transformation of health care is taking place across OECD countries, accelerated by the COVID-19 pandemic and driven by a digitalisation of information infrastructure, as well as growing demand from patients.

Many OECD countries are implementing electronic medical records (EMRs) in hospitals or physicians' offices for their patients (Oderkirk, 2021[13]). In 2021, on average 93% of primary care practices use EMRs across 24 OECD countries (Figure 5.13). In 15 OECD countries, all primary care practices use EMRs, while in Japan only 42% use them. The proportion of primary care practices using EMRs has increased over time across most countries participating in this OECD survey. In 2012, an average of 70% of primary care practices used EMRs (the composition of participating countries differs from year to year). Countries where the proportion of physician offices using EMRs have at least doubled since 2012 include Canada, Denmark and Japan.

In 16 of 26 OECD countries in 2021, most patients are able to access an Internet portal where they can view information contained in their EMR. In 11 OECD countries, most patients can also interact with their record (such as by amending information; adding additional data from devices or apps; or reporting outcomes, experiences or clinical incidents). About half of the countries connect patients with their health care providers via a patient portal that facilitates teleconsultations (13 countries), video-conferencing (12 countries) and secure email or text messaging (11 countries). Seven countries also use the portal to survey patients about patient experiences and patient-reported outcomes.

Consulting individuals on their care and giving them access to their health data and information are key dimensions of people-centred health systems. Both patients and providers are increasingly interested in using digital tools to improve individual health and help patients engage with health systems. On average across 30 OECD countries, in 2020, 59% of individuals aged 16-74 used the Internet to seek health information in the three months preceding the survey, up from 36% in 2010 (Figure 5.14). However, there were significant demographic and socio-economic differences in seeking health information online (Oliveira Hashiguchi, 2020[10]). Older adults, individuals with lower levels of educational attainment and those from households with lower incomes were less likely to search for health information online. Health and digital health literacy are crucial to guarantee that the digital transformation leaves no patient behind.

With the onset of the COVID-19 pandemic, and the resulting restrictions to mobility, work and social interactions, many more people were unable to receive medical advice in person. 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. Denmark had the highest share of remote consultations pre-pandemic, at 45%. From the start of the pandemic, the proportion of adults who reported having a medical consultation online or by phone increased dramatically: by mid-2020, almost one in three adults had used a remote consultation, a proportion that went up to almost one in two by early 2021 (Figure 5.15). Countries where use of remote consultations was highest in mid-2020 also had higher growth rates between mid-2020 and early 2021, indicating an increasing divergence.

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 health care system for individual patients from multiple organisations (Oderkirk, 2021[13]). The figures presented on EMR implementation come from a 2021 survey of OECD countries to which 25 OECD member countries and the Russian Federation (Russia) 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 an OECD data collection on OECD and accession countries or key partners (such as Australia and Brazil), and Eurostat statistics on households and individuals for the OECD countries that are part of the European statistical system (such as Germany).

The proportion of medical appointments conducted by phone or video, out of all medical appointments, before the pandemic was sourced from the OECD/Eurostat/WHO Regional Office for Europe Joint Data Collection on Non-Monetary Health Care Statistics. The share of adults reporting medical consultations online or by phone was sourced from Eurofound's Living, Working and COVID-19 Survey, which provides a snapshot of the impact of the pandemic on people's lives. The survey has been carried out three times at the time of writing, with the question on remote consultations ("Since the pandemic began, have you received any of the following services from a doctor -Online health care: medical consultation online or by telephone") included in rounds 2 (July 2020) and 3 (March 2021).

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Digital health



Figure 5.13. Proportion of primary care physician offices 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 ans https://stat.link/bqfjx4



Figure 5.14. Percentage of adults searching for health information online, 2010 and 2020

Note: The most recent data point for Poland is 2018, and for Switzerland, Mexico and France is 2019; the earliest data point for Mexico is 2015. Source: OECD Dataset on ICT Access and Usage by Households and Individuals.

StatLink ans https://stat.link/okemdz





1. Low reliability in one or both rounds.

Source: Eurofound (2020), "Living, working and COVID-19", http://eurofound.link/COVID-19data.

StatLink ans https://stat.link/l8xfou



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