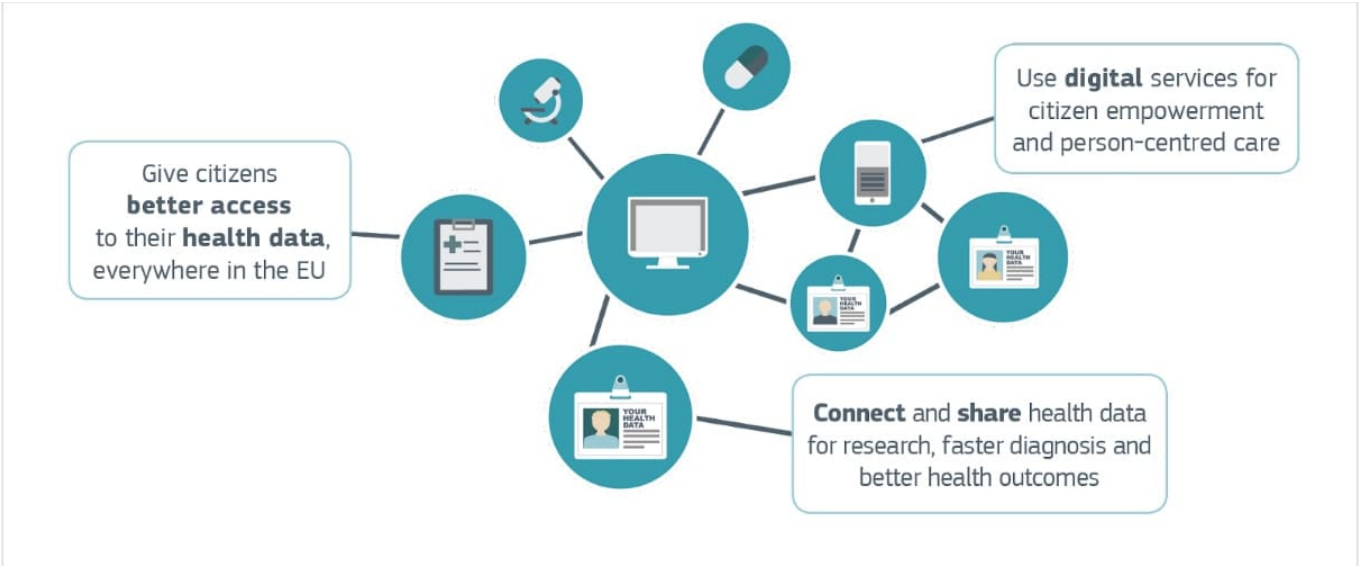
Cancerworld

The deployment and implementation of telemedicine

Adriana Albini / 11 November 2021



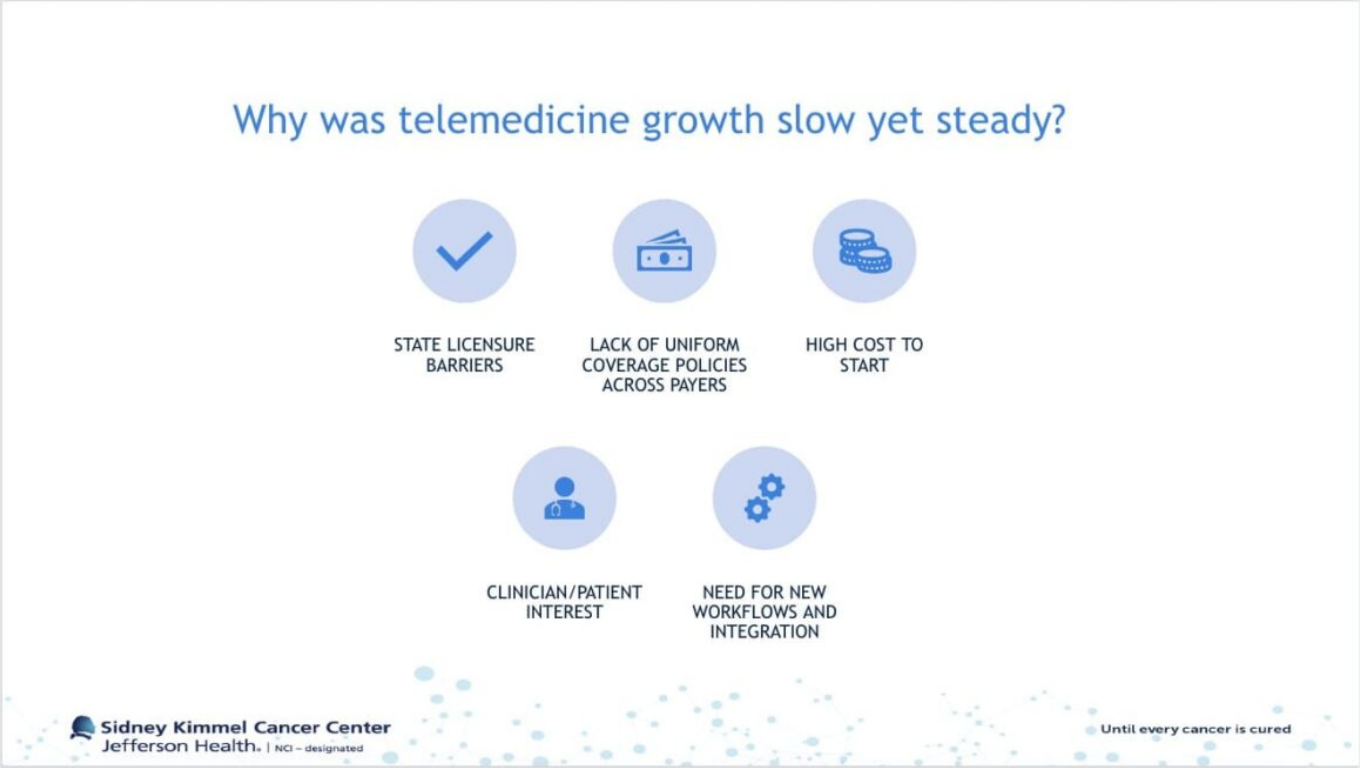
The second webinar addressing telemedicine was chaired by **Sana Al Sukhun**, who also gave the last presentation. Dr Al Sukhun is a consultant in Medical Oncology/Hematology, Director of the Al Hyatt Oncology Practice, Amman, Jordan, and Chair of International Affairs Committee at ASCO.

Barriers to and Drivers for Telemedicine Development

The first speaker was **Ana Maria Lopez**, Professor and Vice Chair of Medical Oncology & Chief of Cancer Services at Sidney Kimmel Cancer Center – Jefferson Health New Jersey, Philadelphia PA

From the onset of the COVID-19 pandemic, infection risks, mandates for social distancing, and PPE shortages, all pointed to telehealth as the obvious way to integrate cancer care and other medical services for patients. For this to be implemented, health systems, insurers, and policymakers needed to come together for the benefit of the patient. At the beginning, we saw an unprecedented growth in telemedicine. They say that the pandemic allowed us to do in one week what would have taken 70 years to accomplish. Although telemedicine has been around since at least the 1970s, its growth had been slow and steady until recently. One of the main barriers in the US was that physicians are licensed by state, which means that to treat patients in other states – even remotely – physicians need to obtain multiple state licences, an expensive, laborious, and time-consuming endeavour. With the pandemic, many people moved to other parts of the country as they started working from home and wanted to be closer to family. So, state licensure was a barrier for both physicians and patients. The second main obstacle was a lack of uniform policies across payers about reimbursement for telemedicine. Other hurdles were the high set up costs, the variable level of interest shown by

clinicians and patients, and the need for new workflows for telemedicine integration.

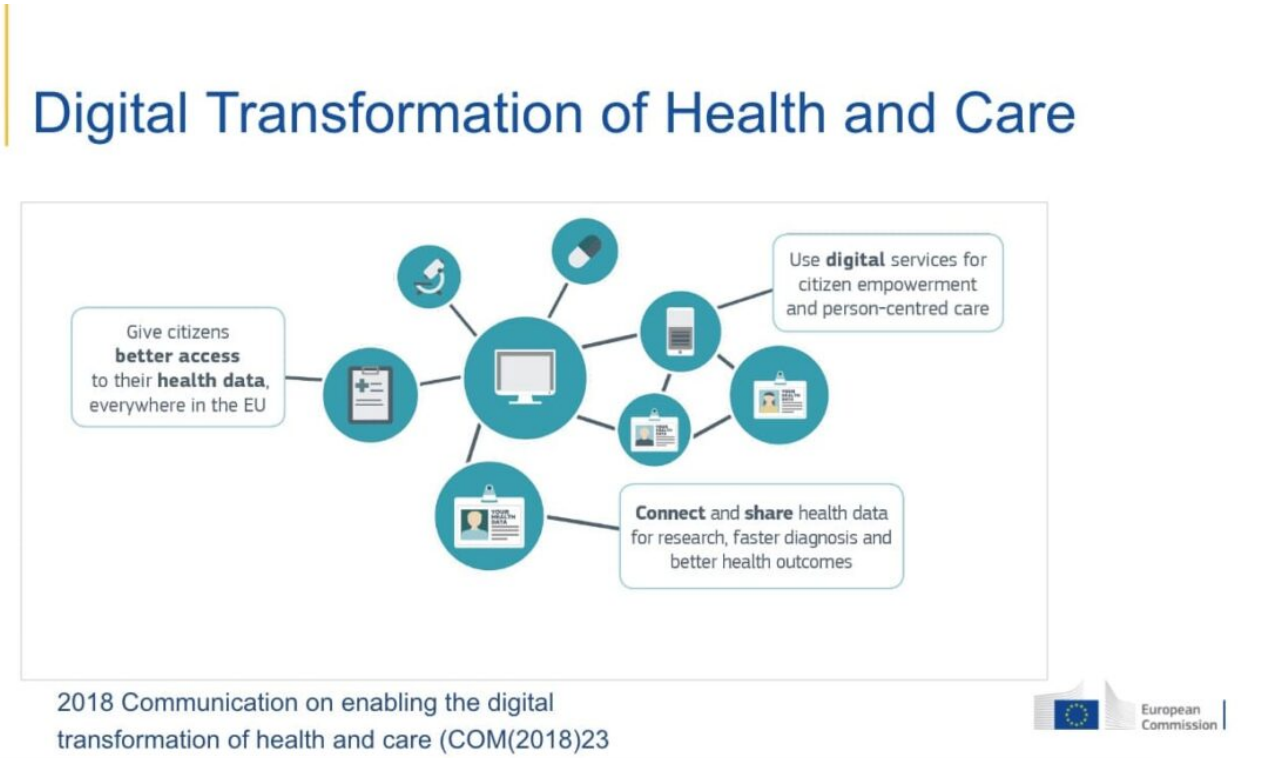


However, as Thomas Edison said, “Necessity is the mother of invention,”, and the COVID crisis certainly brought on that necessity. We needed change, and fast. So, what changed with the pandemic? Some federal and state restrictions were waived, among which the requirement for telemedicine to take place only where there was a pre-existing patient-physician relationship. Also, health professional licensing restrictions were lifted in many states. The relaxation of regulations by the payers impacted practically all patients, since it impacted those covered by Medicare, Medicaid, and self-insured, and fully insured health plans. Telemedicine consultations were allowed to take place across state lines. Patients in any geographical location could access telehealth services from home, whether they were in a rural or in an urban area. In-network telemedicine was expanded by many insurers, allowing patients greater choices for clinical care. These changes dramatically improved access. Also, a broader definition of telemedicine was adopted, to include phone calls and secure testing that could bring together clinicians for team-based care. What is involved here goes beyond telehealth, it is about the digitization of medicine. As for insurance or payer factors, there were changes in insurance coverage, there was more uniformity, and there are ongoing efforts to obtain insurance reimbursement equal to in-person care. This is particularly important for oncology and other primarily cognitive specialties. Parity with in-person care recognizes that the cognitive skills of the clinician are the same for in-person and tele-care.

Patient and caregiver factors

Especially at the beginning of the pandemic, when there were so many unknowns, patients were seeking safety but also convenience, and that trend continues today. The question was, if we can do things like banking on our phone, why not healthcare? People are seeking convenience and, as with banking, they want to be able to access telemedicine through multiple devices, smartphones, tablets, laptops, desktops. They want to be able to do this whenever and wherever they have access to the internet. This is another facilitator or barrier that impacts the patient, and the caregiver too, because we know that, especially for cancer care, patients are often working with a caregiver. Access, not just to the internet but to high-speed internet is often necessary. People also must have linguistic, numeracy, and digital literacy access. Clinicians need to know if the patient has a device,

if they know how to use it, and if they can access the electronic health record on it. Then, of course, there are human factors. Again, thinking of cancer, this is a diagnosis that increases in prevalence with age. Are there human factors related to aging that we need to consider when we think about access to teleconsultations, to the digitalization of medicine? People want technology that is easy to use. There will always be some hiccups, of course, but ease of diagnostics and user-friendly interfaces are a must.



Clinician factors

All the factors listed for the patient-caregiver are also true for the clinician. Technology can be a struggle for the health professional too. Hence the need for user-friendly interfaces, digital literacy, and access through multiple platforms. Many institutions can now have teleconsultations through the desktop, while before it was only through either a phone or a tablet, and this is a great advantage.

Health system factors

Health system-initiated appropriate education and training for both the healthcare workforce and the patient and caregiver is essential. Through these efforts, the health system can facilitate team-based care and cross-specialty engagement. Whether it is the medical assistant assisting the patient with vital signs, or the chemotherapy nurse providing education about the therapy or assessing symptoms, the entire team should be able to work together through the telehealth platform, for the benefit of the patient. Telemedicine is not a stand-alone appointment; it should be integrated with in-person care and via the electronic medical record (EMR). Care at home, including the “hospital at home”, can be supported and facilitated through tele-health. Integrated appointments: a telemedicine appointment to facilitate the subsequent in-person appointment has successfully taken place prior to an emergency department encounter, prior to surgery, and before a new patient appointment, whether inpatient or outpatient. Telemedicine can connect the patient with the clinical team and can connect the family to the clinical team. Telemedicine can be used to bring the patient’s family to patient rounds. The health system also needs to assure malpractice coverage for health professionals.

Where do we go from here?

A fundamental area to address is the sharing and dissemination of best practices. The progress made in the past year is the equivalent, as we mentioned, of 50 plus years of work, and we need to share the lessons learned. We often think within our silos, such as tele-stroke, e-ICU, but we need to look at cross-cutting and bundling of services; in cancer care, for instance, bundling of pathology, radiology, oncology. We must look at global opportunities for 24-hour care. As laypeople, many of us have smart watches and other monitoring devices. How do we integrate those data, and identify the data points that can really make a difference for the patient? An example from teleoncology: in June 2020 the Department of Veterans Affairs was awarded $4.5 million for a span of three years, to launch a national teleoncology centre to provide virtual care for veterans living in rural areas. The focus is on participation in clinical trials through telehealth and genetic counselling. There will be many more lessons learned here. Many best practices will emerge in teleoncology care from this very large study.

What are the needs?

First and foremost, privacy and security. It is important to understand how to integrate remote monitoring. Remote monitoring is often app-based which may have inconsistent privacy practices and risks for cyber-attack. The telemedicine world needs to earn trust around data privacy issues. It is necessary to strengthen the IT infrastructure, to integrate clinical workflows, user experiences, and facilitate bandwidth access. There is advocacy, there are the Connect for Health Act and the Telehealth Modernization Act, that would remove geographic restrictions for telemedicine. But there are still issues of parity, reimbursement, and cross-state practices that need to be addressed.

Telemedicine sustainability

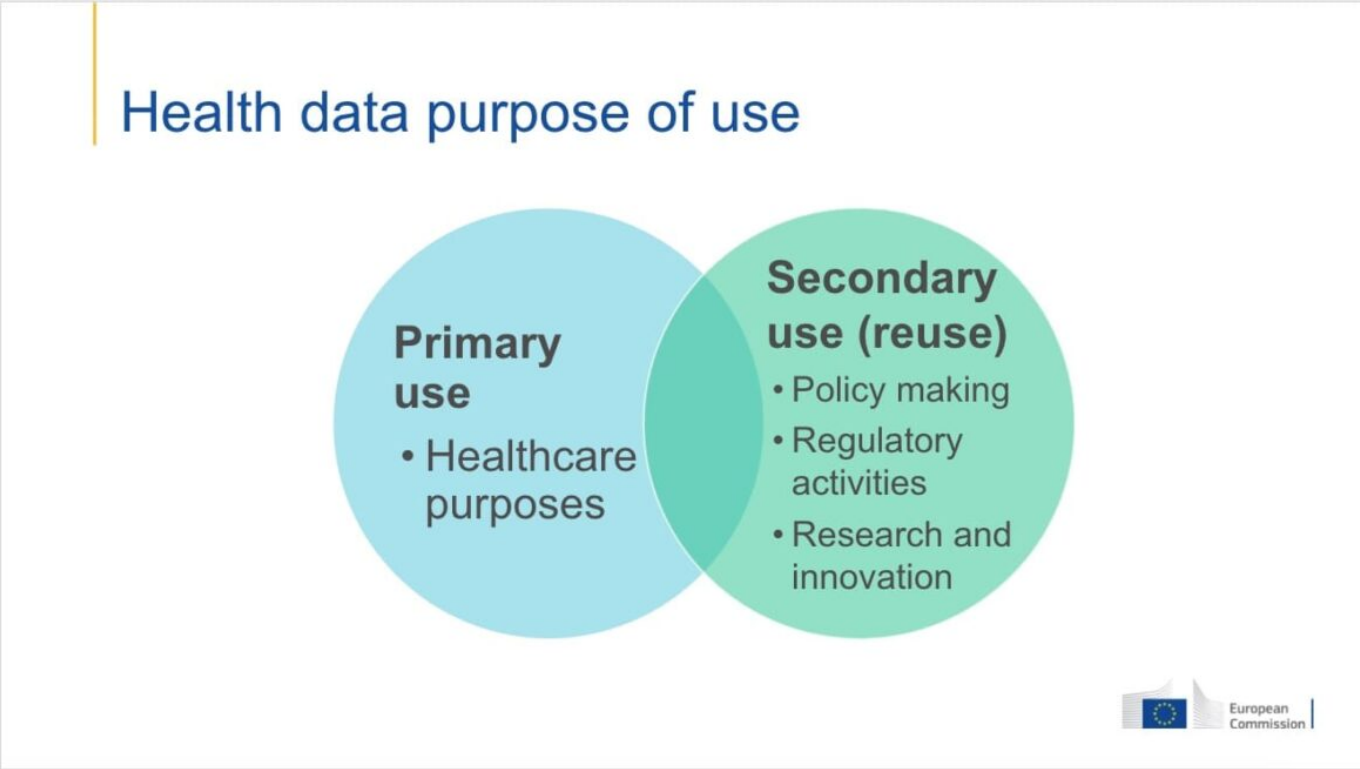
We need technology that is not only good for today, but for tomorrow as well. We need a system that is flexible across different specialty needs. A system that’s secure. We need a workforce that is well-trained in technology use and in how to use the technology to provide care, to engage the patient/caregiver. And patients need appropriate access. A lot has been written about telemedicine increasing barriers to care. We know that wherever and whenever innovation comes, greater disparities emerge. Now that we are in the phase of innovation, let us make sure that we address the disparities up front. The gaps that prevent technology access, limit service and reimbursement parity can fuel health inequities and must be addressed. We must think beyond telemedicine. We must think of the digitalization of medicine, of digitally enabled solutions that can be integrated with in-person care. This approach can support value, ensure proper diagnoses and treatment strategies, improve patient satisfaction, and impact cost and waste, so that we can genuinely address patient factors and provide a consistent quality patient experience.

The second speaker was **Guillaume Byk**, from the European Commission, Director General for Health and Food Safety, and Expert in Digital Health for the European Reference Networks.

Towards a European Health Data Space

As stated by the Commissioner for Health, Stella Kiyriakides, in her mission letter, the aims of a European Health Data Space (EHDS) are to promote health-data exchange and support research on new preventive strategies, as well as on treatments, medicines, medical devices and outcomes. For this, it is crucial that citizens have control over their own personal data. It is important to be careful about how these sensitive health datasets are shared, and who can access them. Healthcare is one subset of a wider project to create a common European Data Space in all kinds of industries and

sectors, including agriculture, finance, mobility, energy, et cetera. It is about unleashing the digital data economy, and to make the best we can in relation to the amount of data, and how we can use it at a European level. It is about having a rich pool and a free flow of data across sectors and countries, while in full respect of the General Data Protection Regulation (GDPR), which is the cornerstone of data privacy in Europe. We must start with a horizontal framework for data governance and data access, and then build on it with specific sector initiatives, like this one, for health data. We are focussing here on two pillars: the **primary use of data**, that is for healthcare purposes, and the secondary use, i.e., in particular for telemedicine, the reuse of this vast pool of health data to support medical research with the aim of improving prevention, diagnosis, treatment, drugs, and medical devices. **Secondary use** is also important for telemedicine, as we want to work with real-time data, or very close to it, but also be able to reuse data we already have. This might also trigger further telemedicine use at a later stage. For instance, if certain patients register a particular cardiac signature when they are using a cardiac app, they could have a peculiar problem that can trigger a telemedicine consultation later on.



In designing the European Health Data Space, two main issues are being addressed. The first, for the primary care, of course, is the sharing of health data for healthcare. This is especially important with telemedicine. The patient needs to trust the data and with whom it is shared. The patient should be at the centre of the system, and know who has access to what, if it is the doctor, the pharmacist, and so on. The second issue has been the limited interoperability between health care providers. It is difficult to transfer data from one hospital to another, or from a hospital to a primary practice. For telemedicine also, to access hospital data now can be cumbersome. If it was easier, the experience would be smoother and promote further use of telehealth. Because the European Union is a single market, there should also be a single market for digital health products and services. The Commission is trying to harmonize uneven national legislative frameworks related to health data, uneven quality frameworks and procedures for prescriptions, reimbursement, and liability. To take up again the example of banking, a visitor to France, or Germany, etc., can pay for goods and services with their bank in, say, Belgium. So why should they not be able to pick up their prescription in Germany or France during their holiday?

The reuse of health data poses its own challenges. We need access to health data for research,

innovation, regulatory and public health policy making. There is low reuse of health data because data is hard to get. The cross-border access is cumbersome. Very often additional consent must be obtained, you might not even know where to find the data, or what the quality of it is. And the digital infrastructures are fragmented. This initiative also tries to promote the use of artificial intelligence within the health system, overcoming the challenges posed by limited provision of data for the training of AI, difficulties for regulators to evaluate AI algorithms and uncertainty on AI liability in health.

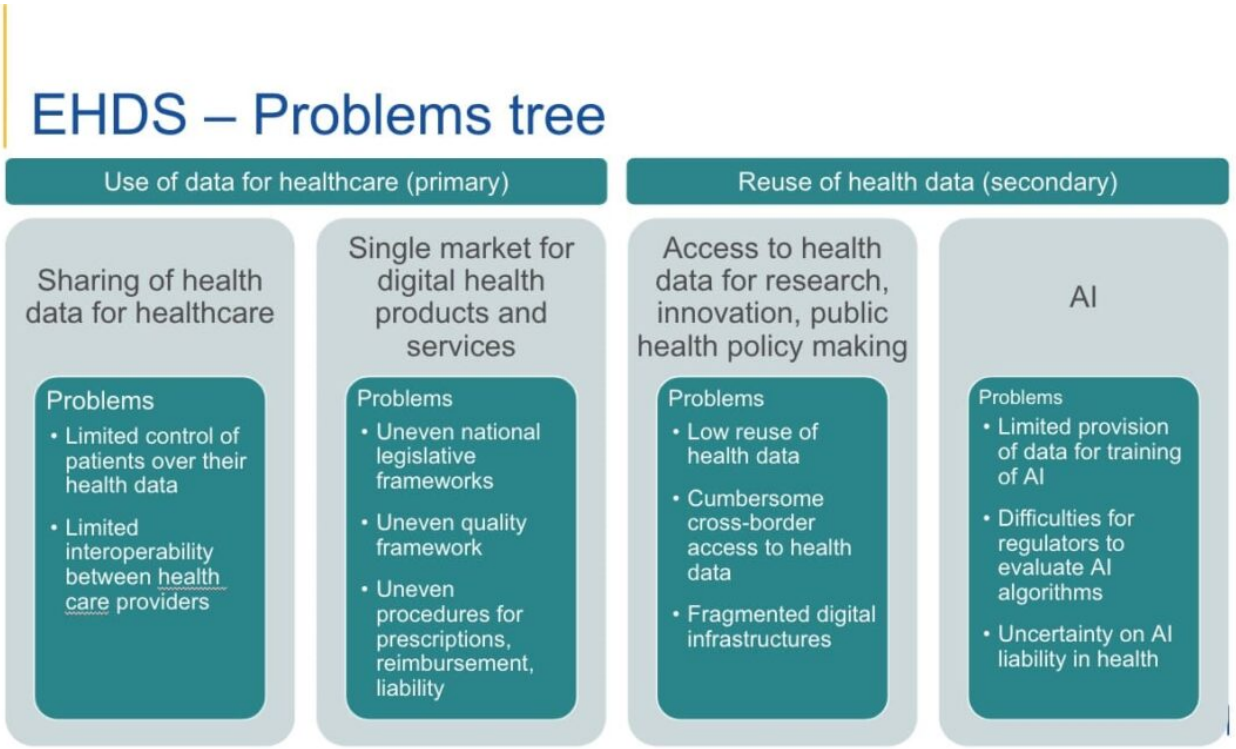
EHDS framework

For primary and secondary use of health data the Commission is looking at the legal/governance aspect, quality of data, IT infrastructure, and capacity building, because different member states in Europe are at different stages. Some are quite advanced in creating a health data framework, while others are not. The idea is to insert the European Health Data Space into a common framework that already exists, at least in some countries. We have the General Data Protection Regulation, the Data Governance Act, and the AI framework. On top of these, there will be some specific features for the European Health Data Space: use of health data for healthcare; control of patients over their health data; use of data for research, policy making, regulatory decision; provision of telehealth and m-health, including cross borders; clarifying use of AI in health.

In the primary use of health data, the aspects explored in the impact assessment for the legislative proposal are: to expand the rights of citizens to access and the portability of health data; strengthen the position of the e-Health Network; expand MyHealth@EU services (the common system to promote cross-border transfer); promote interoperability of health software solutions (including Electronic Health Record, apps, and medical devices). For secondary use, the Commission aims to expand on the existing infrastructure in Member States (Data Permit Authorities); introduce a European infrastructure; promote interoperability and data quality transparency; and strengthen the legal base for the reuse of health data.

EHDS legal proposal: next steps

The Commission is now finishing the impact assessment, and soon it will be consulting with the EDPS (European Data Protection Supervisor), the main body for European Union institutions involved in data protection, to make sure that the initiative is compliant. Hopefully, by the first quarter of next year, we will have a legal proposal.

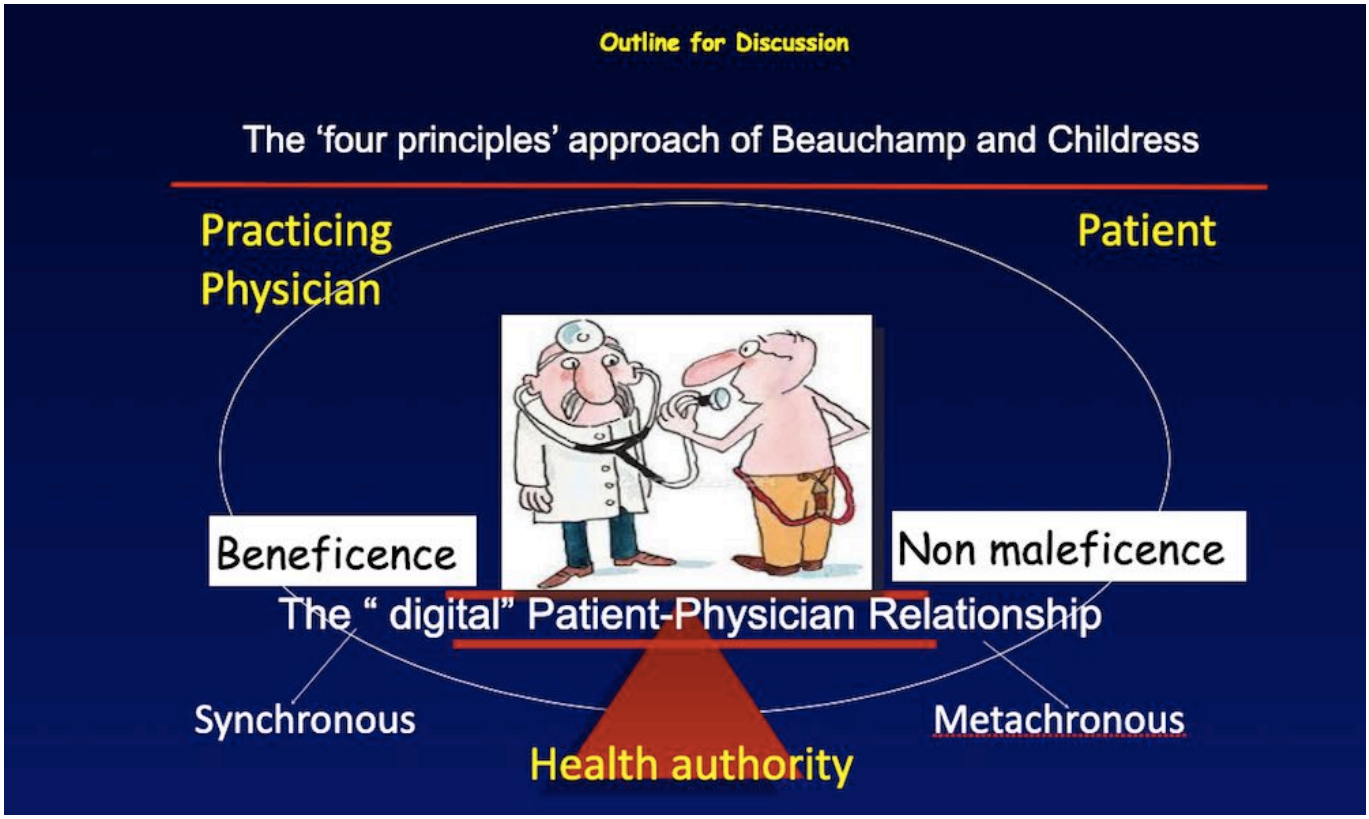


A new patient-doctor "digital" relationship: ethical implications

In her presentation, **Dr Al-Sukhun** discussed the ethical implications of the virtual doctor-patient relationship. In face-to-face clinical practice, physicians apply the four principles of biomedical ethics formulated by Beauchamp and Childress: beneficence, nonmaleficence, autonomy, and justice. The approach can also be applied to the virtual scenario, but with the necessary adaptations to synchronous and metachronous relationships. The virtual approach was used more and more during the pandemic, where patients would be sending in their results, and requesting medical opinion. Perhaps it is not so common in Europe or in the States, but in countries with limited resources patients tend to have access to their own results. They can have blood results, images, and so on, and then they approach the physician for help and opinion. Of course, it is quite challenging, but it is happening. The discussion needs to take into consideration the point of view of the patient, the practicing physician, and the health authority. The four principles we learned to think of during practice, are not rigid. You cannot apply ethics as an abstract principle. We need to apply it according to the individual differences in culture, situation, and society.

One of the longstanding premises of the doctor-patient relationship is the therapeutic value of the face-to-face clinical encounter. The patient's history and physical examination are crucial to establish or foster mutual trust and empathy between patient and physician. The details of the patient's history, of their family history, and of their circumstances, help physicians to give proper advice. When the consultation is audio or even audio-visual it is difficult to make it as informative as face-to-face. In June 2020, during the peak of the pandemic, when telemedicine was at its highest demand, the University of Michigan National Poll on Healthy Aging (NPHA) surveyed a national sample of adults aged 50–80 about their experiences with telehealth visits. 75% of the respondents expressed concern that the healthcare providers were not able conduct a physical exam, they did not think that they could be evaluated properly without one. Even though, at least in oncology, most of the time we rely on results more than on physical examination. Two thirds of the participants thought the quality of care was not as good as in-person care, despite the efforts done by the physicians, and almost 50% did not feel personally connected to their health provider, they felt it was an abstract meeting, although with the intent to provide good healthcare. One in four expressed

hearing or seeing issues, one in four had confidentiality concerns. And this was in the US where the infrastructure for telemedicine was available, or easy to set up during the pandemic. The scenario would be worse in countries with limited resources, where there is no infrastructure for telemedicine. Another national survey conducted by the University of Michigan in 2021 revealed that virtual visits between physician and patient were on average 30% longer than in-person visits. Yet, the digital relationship was not as satisfying for the patient.

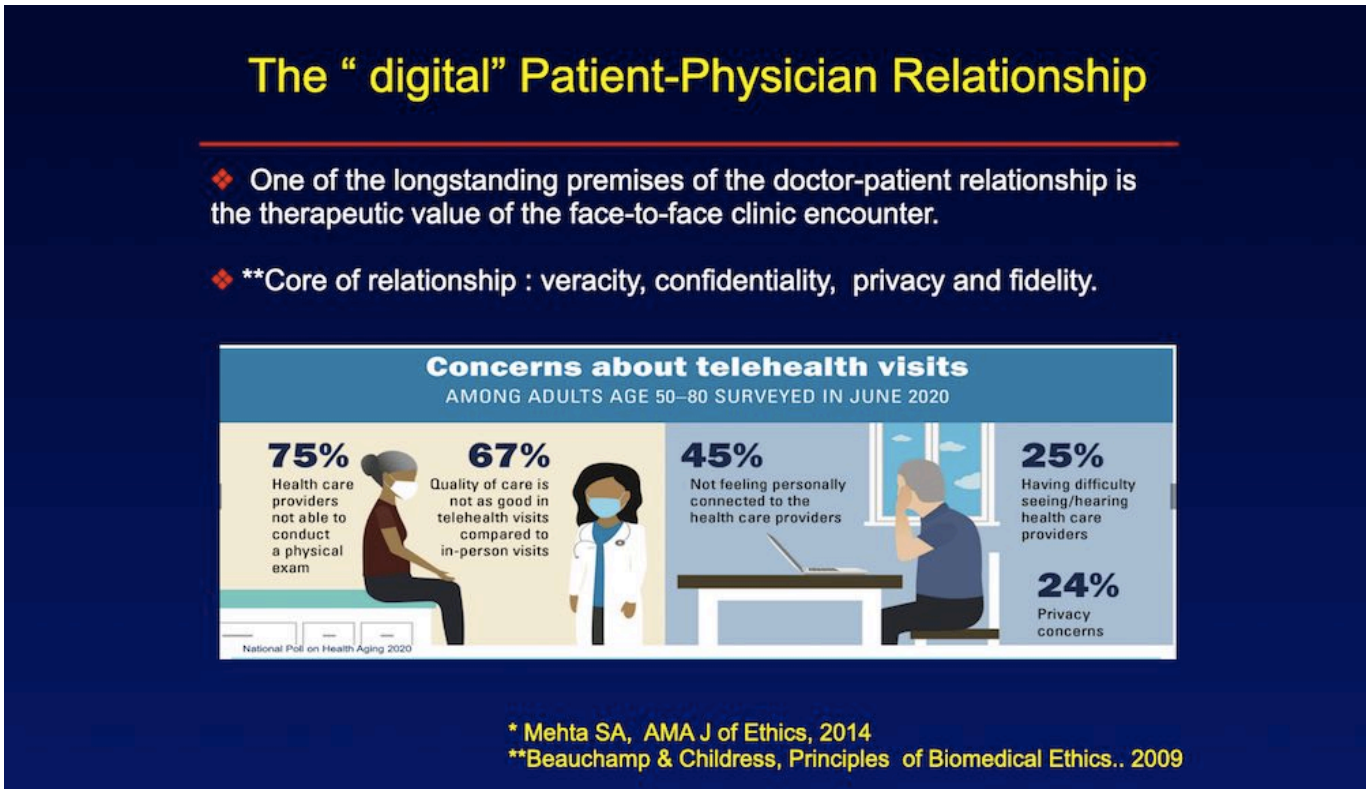


As stated by most guidelines, telemedicine is an excellent supplement rather than an alternative to in-person in situations when there is no pandemic, even where there is an infrastructure optimal for this relationship. However, even after the pandemic, the widespread adoption of technology, the availability of social media, and the need to reduce disparity and improve access, call for the adoption of telemedicine. This might not be so much an issue in the States or in Europe, but in countries with more limited resources, patients who learned that telemedicine is an option during the pandemic, try to approach their physicians through social media, Facebook, or Twitter, as well. Physicians have the right to not respond or explain they do not use social media for professional purposes. But it is happening, and it creates an ethical dilemma. Whenever a patient visits a doctor and talks about their problems, there is implicit consent. When it comes to telemedicine, when patients are calling, they are also consenting to that approach. So, we probably need to have a telemedicine or counselling informed consent to explain to the patient the boundaries of a virtual relationship. Often patients do not appreciate the pros and cons or the limitations of a telemedicine consultation. There must be clear parameters set up. For instance, whenever patients call for a teleconsultation, they expect it to happen right away, but ease of access does not equal immediate availability. How can we explain all of this to societies that lack the infrastructure or prior experience of telemedicine, but now they know it and want to use it?

The four principles

Justice means fair, equitable, and appropriate treatment of the individual. It means providing healthcare independent of age, sex, race, etc. So, the argument here would be in favour of the use of telemedicine to facilitate equitable access. It is also cost effective; it saves the patient cost and

burden of travel, and it is an excellent way of making use of the availability of technology around the globe. However, even in the United States, not everyone is online. Of patients older than 65, nearly one third have no access to the internet, and less than 50% use a smartphone. All they have for teleconsultation is audio, and at least one in three elderly people have visual or hearing limitations. So, who is going to provide the means to have optimal teleconsultation? Whose responsibility is it? If a government adopts telemedicine, especially during a pandemic, you might expect it to make it available for everybody, but this is beyond its scope, simply because of distributive justice, which dictates priorities in the allocation of resources.



Autonomy. At first glance, one would think that telemedicine provides autonomy for patients. It allows self-determination and reduces burden of travel and anxiety of location. Patients can get access to healthcare in the comfort of their homes, and in the presence of their caregivers. Autonomy and self-dignity are very important for patients. However, remote care can also cause extra burden on both patient and caregiver. For instance, some health treatments normally carried out in clinics and hospitals become the responsibility of the caregiver or of the patients themselves, demanding more attention and extra skills. The situation becomes even more challenging when a second opinion advises for an approach that is different from the one suggested by the local physician. Another problem faced in Jordan and other countries, such as Iraq, Yemen, Syria, Sudan, is that patients call while visiting surrounding countries. If a physician gives a different recommendation in that country, whose opinion should the patient follow? The remote consultation or the local physician? And if patients choose to follow the opinion of the physician in the local environment, who is then responsible for complications or day-to-day care in their country? It is challenging without the support of the local physician, and from the legal point of view, having physicians whose qualifications are not recognized in the patient's country is another dilemma to address. Should we give recommendations and prescriptions to be carried out by health workers in another country? Even if you provide an opinion that is then supported by the local physician, who is going to be responsible for handling the sequel of that opinion, if they are not familiar with your recommendation? There is a clear need to establish professional registration and regulations for cross border practice. One possibility could be local licensing recognition. This would be the easiest way to tackle that particular issue, together with patient consent highlighting that issue. It would be

a practical approach to overcome this complicated challenge.

Beneficence and non-maleficence. The principle of **beneficence** calls for not just avoiding harm, but also benefiting patients and promoting their welfare: cure of disease when possible; maintenance or improvement of quality of life; education and counselling of patients (condition and prognosis); providing relief and support near time of death (end-of-life care). **Nonmaleficence** calls for the obligation of a physician not to harm the patient and is especially pertinent in difficult end of-life care decisions on withholding or withdrawing life-sustaining treatment. How can telemedicine help patients with cancer, at a critical point in their illness? How can physicians provide telecounselling to a patient at the time of their treatment journey, when they really need supportive care, without further active treatment? Mostly, physicians would be inclined to advise for active treatment that will only prolong suffering. In-person consultations work better at preparing the patient for major decisions, especially for new cancer diagnoses, or treatment plan, or disease relapse, or progression, or end of further treatment. It is important to educate patients around the globe about telemedicine consultations, and to the importance of having in-person consent information when seeking that consultation. Indeed, these were among some of the instances stressed by many societies including, lately, ASCO (American Society of Clinical Oncology) in its most recent address of telehealth in oncology. That said, telemedicine is a necessity, because it is going to be the future. After a lot of hard work, we need to define a morally justifiable trade-off between improved availability and access to healthcare, and a less than optimal relationship between patient and physician.

Next Event