2ND WHO SYMPOSIUM ON THE FUTURE OF HEALTH SYSTEMS IN A DIGITAL ERA IN THE EUROPEAN REGION

Porto, Portugal, 5-6 September 2023

PROGRAMME DETAILS

World Health Organization
European Region

REPÚBLICA PORTUGUESA | SAÚDE

DIREÇÃO EXECUTIVA SNS

TUESDAY 5 SEPTEMBER 2023

07:00 – 08:45	**REGISTRATION**
08:45 – 09:45	**Opening Plenary** SALA PORTO **Facilitator introduction and practical information** Moderator: Natasha Azzopardi Muscat **Opening Remarks** Hans Henri P. Kluge, Regional Director, WHO Regional Office for Europe **Welcome address** Manuel Pizarro, Minister of Health, Portugal **Patient testimony** Laura Brito
09:45 – 10:15	**Global and regional updates on digital health** SALA PORTO **Global developments in digital health** Alain Labrique, Director, Digital Health and Innovation, World Health Organization **Launch of the WHO Regional Office for Europe report** Digital Health in the European Region: the ongoing journey to commitment and transformation
10:15 – 11:30	**Ministerial Panel** Trust and transformation of health systems in the digital age
11:30 – 12:00	**COFFEE BREAK/REFRESHMENTS**
12:00 – 13:30	**Panel 1: Artificial Intelligence: gAIn or pAIn for European Health Systems?** SALA PORTO Keynote speaker: Bart de Witte, Founder, Hippo AI Foundation **AI Panel discussion**
13:30 – 14:30	**LUNCH + MINISTERIAL LUNCH (INVITATION ONLY)**
14:30 – 15:00	**Speaker's Corner/Exhibition** SALA PORTO **Nordic Health 2030**

15:00 – 16:15	**Session 1.1** SALA DOURO NORTE	**Session 1.2** SALA CORGO	**Session 1.3** SALA LIMA	**Session 1.4** SALA PORTO	**Session 1.5** SALA DOURO SUL
	Knowing me, Knowing you – patients at the centre of their own digital care	Voices of tomorrow: harnessing the power of youth innovation in digital health	From disconnection to empowerment in the digital age: Exploring age-friendly environments and technological solutions	High-tech & High-touch: Can digital technologies mitigate the health workforce crisis?	Online health mis- and disinformation: how to be better prepared for the next Infodemic together

16:15 – 16:30	**SESSION TRANSITION**
16:30 – 17:15	**Day 1 Closing Plenary** SALA PORTO **Fireside chat: Artificial intelligence and the digital transformation of European health systems** Hal Wolf III, CEO and President, HIMSS Alain Labrique, Director Department of Digital Health and Innovation, World Health Organization Anat Boehm-Cagan, Head, Medical Technology Regulation Division, Ministry of Health, Israel Moderator: Maryam Nemazee, Journalist, Al Jazeera English
17:30 – 19:30	**WELCOME RECEPTION**

WEDNESDAY 6 SEPTEMBER 2023

08:00 – 09:00	**REGISTRATION**				
09:00 – 09:15	**Day 2 Morning Plenary** SALA PORTO **Day 1 Recap**				
09:15 – 10:15	**Panel 2: Transforming digital health practice: The critical role of governance, investment and evaluation**				
10:15 – 10:30	**SESSION TRANSITION**				
10:30 – 11:30	**Session 2.1** SALA PORTO Unlocking the potential of digital health to fight noncommunicable disease	**Session 2.2** SALA DOURO SUL Digital health for health emergency preparedness 2.0 in the WHO European Region	**Session 2.3** SALA CORGO Digital technologies and One Health: balancing and optimizing the health of people, animals and the environment	**Session 2.4** SALA DOURO NORTE Digital health solutions in the fight against Tuberculosis, HIV, and viral hepatitis in the WHO European Region	**Session 2.5** SALA LIMA Harnessing the power of emerging technologies for better mental health
11:30 – 12:00	**COFFEE BREAK/REFRESHMENTS**				
12:00 – 13:00	**Plenary session** SALA PORTO **Panel 3: Putting equity and inclusion at the heart of European health systems of the future**				
13:00 – 14:30	**LUNCH + INITIATIVES BRIEFING**				
14:30 – 15:30	**Session 3.1** SALA LIMA From big data to personalized care: How artifcial intelligence and precision medicine are revolutionizsing care	**Session 3.2** SALA DOURO NORTE Beyond the walls: How can telehealth revolutionize healthcare?	**Session 3.3** SALA DOURO SUL Revolutionizing health information systems for data-driven decision making	**Session 3.4** SALA PORTO Transforming health systems togetaher: Views of the private sector on the future of digital health	**Session 3.5** SALA CORGO Digital for Quality: how technology can enable individual contributions for quality of care
15:30 – 16:30	**Closing plenary** SALA PORTO				

Visit the digital health exhibition at the Second WHO symposium on the future of health systems in a digital era in the WHO European Region!

With thanks to the contribution of a consortium of partners from the Portuguese Health System, we are proud to be able to offer participants of the Second WHO symposium on the future of health systems in a digital era in the WHO European Region an exciting digital health exhibition that will showcase some of the best digital health solutions available in Portugal today!

Over the past few years, Portugal has been building an increasingly thriving ecosystem in the field of digital health and health technologies: ePrescriptions are now widespread in Portugal and the use of electronic health records is increasing, as is the use of the 24/7 telehealth service provided by the Portuguese National Health Service (NHS). These tools were developed by the Portuguese Shared Services of the Ministry of Health (SPMS) whose mission is to develop and create digital solutions for the Portuguese NHS, its citizens and health professionals. The recently established Executive Board of the NHS has further prioritized the development and adoption of new and innovative digital health solutions that will continue to strengthen access to the health system. For this, Health Cluster Portugal have been invited to showcase positive examples of digital health initiatives in Portugal alongside the programme of the Symposium.

Examples of digital services by SPMS and Health Cluster Portugal will be on display at the entrance, and the 1st floor of the conference centre. All Symposium participants are encouraged to take time to visit the exhibition areas and see and discuss the initiatives with those involved in their development.

Live demonstration: showcasing the power of no-code approaches for digitizing patient care in health systems

Join us for a no-code digital health hackathon!

Held as an innovative live demonstration over the course of the two-day Symposium, a team of experts will be creating a fully functional prototype of a digital health app in real time using cutting-edge approaches for no-code development. So, make sure to drop by the exhibition area!

Symposium attendees will also be given the opportunity to vote on which app idea they would like to see the team develop!

About the hackathon

This innovative hackathon will demonstrate the power of no-code approaches in democratizing the creation of digital health apps and will highlight how countries with maturing health systems can be empowered to deploy high-impact solutions swiftly and cost-effectively within their own digital health ecosystems, without the need for expensive off-the-shelf products or a large team of developers.

A virtual vote will be made available just prior to the Symposium allowing participants to choose between two options for the app they wish to see the team create. The app will then be designed and built live in the exhibition area as the Symposium takes place, giving attendees the opportunity to interact with the team and provide input into the build. Attendees will be able to download the prototype app themselves to see the "art of the possible" with no-code in only 48 hours!

The finished app will be showcased during the closing plenary of Symposium on 6 September in room "Sala Porto".

Symposium participants will be asked to choose from one of the app topics below:

1. **Emergency Displacement Aid.** An app targeted at evacuees and displaced individuals who have been forced to flee their homes due to acute health emergencies such as natural disasters or conflict, offering crucial information, trauma support and access to essential services to help individuals manage their physical and mental well-being, as well as connect to available relief efforts and share information with others.
2. **Thrive360**. An app that empowers those living in remote geographic areas to actively prevent the onset of chronic disease conditions and promote overall well-being. By offering comprehensive guidance and tools, this app aims to inspire real behaviour change through the promotion of healthy lifestyles and reducing the impact of noncommunicable diseases.

Ministerial Panel	Trust and the transformation of health systems in the digital age
Day	**Tuesday, 5 September 2023**
Time	10:15 – 11:30 (75 min)
Location	Room: Sala Porto
Speakers	**Ms Ogerta Manastirliu**, Minister of Health and Social Protection, Albania **Ms Anahit Avanesyan**, Minister of Health, Armenia **Eirini Agapidaki**, Alternate Minister of Health, Ministry of Health, Greece **Dr Ernst Kuipers**, Minister of Health, Welfare and Sport, Netherlands **Dr Manuel Pizarro**, Minister of Health, Portugal **Dr Hans Kluge**, Regional Director, WHO Regional Office for Europe
Moderator	**Natasha Azzopardi Muscat**, Director, Division of Country Health Polices and Systems, WHO Regional Office for Europe

Abstract

As they emerge from the COVID-19 pandemic, health systems in Europe are faced with a complex array of drivers impacting the continuity and quality of care being delivered. Issues of trust exposed during the pandemic and subsequently fuelled by an increasingly polarized discourse around health, government, information, policy and science[1] are leading to a crisis-of-confidence in the ability of health systems to deliver services at the required levels of quality and timeliness. The health workforce, which was already depleted by underinvestment, is now having to cope with the additional burden of burnoutand illness, including long COVID, and often working in difficult conditions – leading many to leave the workforce prematurely. At the political level, there is a further loss of trust in the ability of health systems to transform in ways that respond to the changing health needs of the population, and to adapt to new opportunities to intervene – in particular in harnessing digital innovations.[2]

In creating resilient and sustainable health systems of the future, the public, health workers and politicians need to be closely engaged in defining and realizing a new agenda for trust and transformation that takes into account the increasing complexities associated with health-care delivery. These include the changing nature of disease (increasing multimorbidity), the demand for multidisciplinary teams bridging home and hospital and health and social care sectors, and the inevitable role of data and digital technologies in delivering and managing care.

This session will engage a panel of top European health ministers to reflect on how the drivers of trust and the need for transformation are affecting the stability and continuity of their post-COVID health systems and to explore the role of digital health technologies in designing people-centred health system of the future.

1 Cope EL, Khan M, Millender S. Trust In Health Care: Insights From Ongoing Research. Health Affairs Forefront. 2022. doi: 10.1377/forefront.20220110.928032.

2 Kluge H, Azzopardi-Muscat N, Figueras J, McKee M. Trust and transformation: an agenda for creating resilient and sustainable health systems. BMJ. 2023;380:651. doi: 10.1136/bmj.p651.

Panel 1	Artificial Intelligence: gAIn or pAIn for European Health Systems?
Day	**Tuesday, 5 September 2023**
Time	12:00 – 13:30 (90 min)
Location	Room: Sala Porto
Keynote	**Bart de Witte**, Founder, Hippo AI Foundation
Speakers	**Ricardo Baptista Leite**, CEO, The International Digital Health and AI Research Collaborative (I-DAIR) **Effy Vayena**, Professor of Bioethics, Swiss Institute of Technology (ETH) **Stein Olav Skrøvseth**, Head, Norwegian Centre for eHealth Research **Isabelle Zablit-Schmitz**, Europe & International Director for Digital Health, Ministry of Health & Prevention, France
Moderator	**Alain Labrique**, Director, Digital Health and innovation, WHO headquarters

Abstract

Artificial Intelligence (AI) is routinely employed in health to assist in diagnosis and treatment, enhance patient engagement and adherence, and in automating and streamlining administrative activities[1].However, despite the potential for its further widespread deployment, persistent barriers, such as the poor quality and fragmentation of the health data needed to train AI algorithms, a lack of governance, standards and regulation, and lingering ethics issues have meant that AI adoption in health in Europe has been limited and the benefits to clinicians and patients until now have been marginal.

Following recent advancements in advanced data analytics, generative AI has been hailed as a major revolution in the ability to identify patterns and structures within existing data to generate new and original content[2]. Generative AI models learn the patterns and structure of their input training data, and then generate new data that has similar characteristics[3]. With broad agreement among European health-care leaders on the need to transform the way in which health care is currently delivered, health systems are eagerly looking to generative AI to further drive innovation.

At the same time, the use of generative AI opens a new realm of concerns for health-care decision-makers to consider. Data privacy, sourcing and the potential for bias, intellectual property ownership and the availability of skilled information technology professionals are some of the risks that need to be addressed before governments rush to adopt generative AI into the health domain.

In this session, a panel of experts will discuss the potential and pitfalls of using AI in health and debate whether the health sector will be slow to adopt the digital approach that holds immense promise, or if the impetus for using generative AI will be sufficient to develop the right conditions in Europe to allow it to become a tool to help transform health systems and health-care delivery as we know it.

1 Davenport T, Kalakota R. The potential for artificial intelligence in healthcare. Future Healthc J. 2019;6(2):94-98. doi: 10.7861/futurehosp.6-2-94.

2 What is Generative AI? In: nvidia, website. Santa Clara: nvidia; 2023 (https://www.nvidia.com/en-us/glossary/data-science/generative-ai/).

3 Generative artificial intelligence. Wikipedia. San Francisco: Wikimedia Foundation; 2023 (https://en.wikipedia.org/wiki/Generative_artificial_intelligence).

Session 1.1	**Knowing me, Knowing you – patients at the centre of their own digital care**
Day	**Tuesday, 5 September 2023**
Time	15:00 – 16:15 (75 min)
Location	Room: Sala Douro Norte
Speakers	**Mohammad Al-Ubaydli**, CEO and Founder, Patients Know Best **Nick Guldemond**, Professor of Healthcare & Public Health, Leiden University Medical Center **Milana Trucl**, Policy Officer, European Patients Forum **Kristof Vanfraechem**, Founder and CEO of Data For Patients **Shawna Butler**, Nurse Economist
Moderators	**Helen Caton-Peters**, Technical Officer (Digital Health), WHO Regional Office for Europe and **Anish Shindore**, Founder and Managing Partner, GSD Health

Abstract

Putting patients at the centre of their own digital care requires both patients and carers to be engaged in the collaborative design of trusted digital health ecosystems that support their health needs and goals. Empowered patients become drivers of their own health journey, facilitated by person-centred health systems that enable seamless access to and portability of health information; allow for self-management of care through digital tools and devices; and which ensure equitable access to health services, when and where needed.

In achieving these goals, it is vital that we take collective steps to redesign health system pathways that leverage technology in meaningful ways to enhance quality of care and improve patient health and wellness outcomes.

Taking the viewpoint of patients, this session will explore actions to design consumer enabled infrastructure, develop trust relationships that facilitate health data access and exchange, and examine patient perspectives on the secondary use of health data. The session will also address how implementing digital solutions designed with patient needs in mind supports the transition to learning-based health systems that increase patient safety and disease prevention, and provide improved options for self-management and access.

Session 1.2	**Voices of tomorrow: harnessing the power of youth innovation in digital health**
Day	**Tuesday, 5 September 2023**
Time	15:00 – 16:15 (75 min)
Location	Room: Sala Corgo
Speakers	**Inês Mália Sarmento**, Disability and Mental Health Advocate, Pan-European Mental Health Coalition **Luka Delak**, Vice President of External Affairs, European Medical Students Association (EMSA) **Airam Regalado Ceballos**, Master of Digital Health Student, Deggendorf Institute of Technology **Brian Wong**, Digital Health Consultant, European Observatory on Health Systems and Policies **Mafalda Potier**, Regional Relations Officer, International Pharmaceutical Students' Federation (ISPF)
Moderator	**Hilaire Armstrong**, Technical Officer (Youth Initiative), WHO Regional Office for Europe

Abstract

The expeditious advancement and expansion of digital programming, along with the smart incorporation of information and communication technologies into national health programmes, has enabled more innovation and co-creation between young innovators and the health-care sector.

The new technologies that are delivered everyday on our smart devices can provide innovative solutions to improve patient care, enhance access to health-care services and professionals, and empower each one of us to take charge of our well-being. Within this dynamic landscape, the power of youth innovation is undeniable. Young minds bring fresh perspectives, creative ideas and technological prowess that can drive transformative changes in the digital health sector.

It is of utmost importance to actively engage youth in addressing real-world challenges, to stimulate their curiosity through the utilization of technology and to foster their creativity. By doing so, we may enhance our prospects of achieving substantial progress towards life-changing solutions including the United Nations' Sustainable Development Goals.

In this session, you will hear from young innovators who are using digital technologies to address some of the most pressing health challenges of our time. You will also learn about the opportunities and challenges of engaging youth in digital health innovation, including discussing policy implications and possible recommendations for fostering a conducive environment for digital health innovation, as well as how to foster a culture of creativity and collaboration in general among the next generation of health leaders.

Session 1.3	From disconnection to empowerment in the digital age: Exploring age-friendly environments and technological solutions
Day	**Tuesday, 5 September 2023**
Time	15:00 – 16:15 (75 min)
Location	Room: Sala Lima
Speakers	**Heidrun Mollenkopf**, President of AGE Platform Europe **Hannah R. Marston**, Research Fellow, The Open University, United Kingdom **Raquel Castelo Branco**, Director of Municipal Department of Social Cohesion, Municipality of Oporto, Portugal **María Teresa Pozo Querol**, Coordinator, National Network of Age-friendly Cities and Communities, Institute for Older Adults and Social Services, Spain **Maria de Belém Roseira**, Minister of Health of Portugal (1995-1999) Resource: **Fernando Paulo Sousa**, Consular Mayor, Municipality of Oporto Resource: **Laura Brito**, Resource speaker, perspective of an older person
Moderator	**Yongjie Yon**, Technical Officer, WHO Regional Office for Europe

Abstract

The United Nations Decade of Healthy Ageing (2021–2030) is a global initiative aimed at improving the well-being of older individuals, their families and communities by creating age-friendly environments. These environments can remove barriers and leverage digital technologies to support older adults. The integration of digital solutions in municipal and community health services enhances communication (digital literacy), information access (equity) and care coordination. Digital technologies, including ambient assisted living and care technologies, are crucial in supporting older adults within their social and environmental ecosystems. Leveraging these digital advancements, the United Nations Decade of Health Ageing aims to enhance the lives of older individuals and promote healthier ageing.

Technological advancements in the digital, medtech and biotech fields are increasing the potential of technology in empowering individuals throughout their life-course and promoting healthy ageing. Innovative tools and solutions exist to improve the quality of life for older individuals, enable active and independent living and address the challenges they face. Smart materials, sensors, robotics, telecommunications, Internet of things and artificial intelligence have the power to transform cities, communities and health-care settings to be more intelligent, distributed and responsive to individual needs.

This session will highlight successful initiatives, discuss important considerations and encourage dialogue among participants to identify technology-driven opportunities that have positively impacted the lives of older individuals. The focus areas will include health care, social engagement, accessibility and well-being. Strategies for digital inclusion, user-friendly design and promoting digital literacy among older individuals will be discussed. Participants will brainstorm ideas and explore collaborative opportunities to fully harness the potential of technology in promoting healthy ageing over the life-course.

Session 1.4	**High-tech & High-touch: Can digital technologies mitigate the health workforce crisis?**
Day	**Tuesday, 5 September 2023**
Time	15:00 – 16:15 (75 min)
Location	Room: Sala Porto
Speakers	**Georgi Chaltikyan**, Head of Digital Health, European Campus Rottal-Inn of Deggendorf Institute of Technology (DIT-ECRI), Germany **Lloyd Humphreys**, Managing Director, Cogniss and NHS Innovation Accelerator alumnus **Donna Henderson**, Head of International Engagement, TEC and Digital Healthcare Innovation, Scottish Government **Sam Shah**, Chief Medical Strategy Officer, Numan, Digital Advisor, Specialist, Public Health **Grațiela Iordache**, Head of the Project Implementation Unit, National Authority for Quality Management in Healthcare, Romania
Moderator	**Tomas Zapata**, Regional Adviser, Health workforce and service delivery, WHO Regional Office For Europe

Abstract

"The health workforce crisis in Europe is no longer a looming threat – it is here and now. Health providers and workers across our Region are clamouring for help and support" said Dr Hans Henri P. Kluge, the WHO Regional Director for Europe. Indeed, the World Health Organization estimated in 2022 that there will be a worldwide shortage of 15 million health-care workers by the year 2030.

The pandemic has precipitated a significant shift away from traditional health-care service delivery models. The transition from in-person to remote and hybrid methods has rendered digital health an indispensable component of national strategies and goals. However, successfully navigating this new landscape requires recruiting and retaining a well-educated and capable health workforce. It is imperative that we embrace and invest in evidence based digital solutions that ensure the continued provision of quality health care and secure a strong, resilient health-care workforce for the future.

This session will explore how digital technologies can help address the health workforce crisis by optimizing performance and removing administrative burden, enhancing the health and well-being of the workforce, and supporting informed decision-making by delivering the right information at the right time. The session will also examine how to build effective public private partnerships to sustain investments in digital health and the evolution of health-care workforce models to support the digital transformation of health systems.

Session 1.5	**Online health mis- and disinformation: how to be better prepared for the next Infodemic together**
Day	**Tuesday, 5 September 2023**
Time	15:00 – 16:15 (75 min)
Location	Room: Sala Douro Sul
Speakers	**Katie Owens**, Information and Communication Officer, DG for Health and Food Safety, European Commission **Andrea Horvat-Kramaric**, Head of Communication and Spokesperson, European Centre for Disease Prevention and Control **Pavle Zelic**, European Integration and Public Relations Manager, Medicines and Medical Devices Agency of Serbia **Ed Pertwee**, Research Fellow, London School of Hygiene and Tropical Medicine **Rui Gaspar**, Associate Professor of Psychology and Public Health Communication, Universidade Lusófona, Lisbon **Mariam Tsitsikashvili**, Project Manager @GRASS, FactCheck.ge's Meta partnership lead **Sian Crucefix**, Communications Manager, The Lancet
Moderator	**Cristiana Salvi**, Regional Adviser on RCCE-IM, WHO Regional Office for Europe

Abstract

The COVID-19 pandemic from 2020 to 2023 was accompanied by an overwhelming flood of health information – some of it from reliable sources, much of it not. This dysfunctional information environment – and the confusion it gave rise to about what the facts are – was most visible online, particularly on social media platforms. Misinformation, disinformation, and the difficulty many communities experienced in accessing accurate, understandable health information greatly hampered the health sector's response to COVID-19. This phenomenon was identified as a key challenge by the WHO Director-General Dr Tedros Adhanom Ghebreyesus who termed it an "infodemic".

In this roundtable, WHO, UNESCO, the European Commission, the ECDC, national authorities and representatives from civil society and academia will explore what lessons the Digital Health sector should learn from the COVID-19 infodemic, and what can be done at national and Regional levels to be better prepared for the next infodemic.

Fireside chat	**Artificial intelligence and the digital transformation of European health systems**
Day	**Tuesday, 5 September 2023**
Time	16:30 – 17:15 (45 minutes)
Location	Room: Sala Porto
Speakers	**Hal Wolf III**, CEO and President, Healthcare Information Management Systems Society (HIMSS) **Alain Labrique**, Director Department of Digital Health and Innovation, World Health Organization **Anat Boehm-Cagan**, Head, Medical Technology Regulation Division, Ministry of Health, Israel
Moderator	**Maryam Nemazee**, Journalist, Al Jazeera English

Abstract

To conclude the first day of the Symposium, we challenge two of the world's most influential digital health decision makers, Hal Wolf III, President and CEO of the Health Information Management Systems Society (HIMSS) and Alain Labrique, Director of Digital Health and Innovation, WHO Headquarters, Geneva, in an open and unfettered dialogue to address the topic of artificial intelligence (AI) and digital transformation of the health sector. Do we need AI and what is its role in a health systems transformation context? Can countries effectively regulate AI and other emerging technologies to preserve privacy rights, protect health-care workers and ensure equitable access to care? And how can we ensure such technologies are not inadvertently putting the safety of individuals at risk? These and other key questions will be discussed in what is guaranteed to be a lively and passionate debate, moderated by Maryam Nemazee, News Anchor for Al Jazeera English, on the future of AI and its use in European health systems.

Panel 2	**Transforming digital health practice: The critical role of governance, investment and evaluation**
Day	**Wednesday, 6 September 2023**
Time	09:15 – 10:15 (60 min)
Location	Room: Sala Porto
Speakers	**Robin van Kessel**, Health Policy Research Associate at the London School of Economics | Assistant Professor at Maastricht University **Alexandre Barbosa**, Director, Regional Center for Studies on the Development of the Information Society (Cetic.br) **Dejana Ranković**, Senior Advisor, Ehealth and Life Sciences, Office of the Prime Minister, Serbia **Fulvia Raffaelli**, Head of Unit Digital Health, Directorate-General for Health and Food Safety (DG SANTE), European Commission **Nuno Costa**, Executive Council Member, Shared Services of the Ministry of Health (SPMS), Portugal
Moderator	**David Novillo**, Regional Adviser, Data and Digital Health, WHO Regional Office for Europe

Abstract

Having strong governance and investment strategies for digital health are crucial components in delivering the successful digital transformation of health systems. Governance helps to ensure the steering and coordination between all relevant entities; ensures legitimacy, transparency and ownership of investment decisions; and provides accountability for successful delivery, safety and performance. Monitoring and evaluation of investments to digitally transform processes and services in the health system is a key part of realizing their value and ensuring strategic alignment with health policy goals. As technology continues to evolve and health-care needs in the European Region shift, the ability of countries to govern and manage their digital health investments, and monitor and evaluate their impact, will remain integral to the sustainability of health systems transformation over the longer-term.

In this session, we ask a panel of experts to reflect upon the success factors in setting up and maintaining institutional mechanisms for governance, investment and evaluation of digital health at national and subnational levels, and discuss specific approaches for governing and evaluating investments in complex, data-driven technologies, such as artificial intelligence and machine learning in the health sector.

Session 2.1	**Unlocking the potential of digital health to fight noncommunicable disease**
Day	**Wednesday, 6 September 2023**
Time	10:30 – 11:30 (60 min)
Location	Room: Sala Porto
Speakers	**Chingiz Beksultanov**, Deputy Director, E-Health Center under the Ministry of Health, Kyrgyzstan **Alenka Kolar**, Director General, Directorate for digitalization in healthcare, Ministry of Health of the Republic of Slovenia **Eirini Agapidaki**, Alternate Minister of Health, Ministry of Health, Greece **Luis Abegão Pinto**, Head, Glaucoma Clinic, Department of Ophthalmology, Centro Hospitalar Lisboa Norte & Assistant Professor of Ophthalmology at the Faculty of Medicine of Lisbon University, Portugal **Galit Shaham**, Data science team lead, Clalit Research Institute, Israel **Alexandre Lourenço**, Hospital Administrator, Coimbra Hospital and University Center, Adjunct Assistant Professor, NOVA School of Public Health
Moderator	**Ivo Rakovac**, Regional Adviser NCD Surveillance, Special Initiative on NCDs and Innovation, WHO Regional Office for Europe

Abstract

Noncommunicable diseases (NCDs), such as cancers, cardiovascular diseases and diabetes, are a major health problem in the European Region – causing nearly 90% of deaths and 85% of disability – as well as imposing a large economic and developmental burden. Many NCDs are caused or exacerbated by behavioural and metabolic risk factors and less than optimal quality of care.

Technology can be a powerful tool in changing health related behaviours, in transforming health outcomes and in better understanding the determinants of NCDs. By using devices such as smartphones, wearables and sensors, alongside artificial intelligence, machine learning (ML), metaverse and big data analytics, the quality and accessibility of health-care services can be improved and patients can be engaged in their own care – delivering more personalized and effective interventions.

In this session we will discuss how digital health can unlock the potential to fight NCDs in areas such as:

1. Prevention and health promotion: raising awareness about NCDs and promoting healthy lifestyles.
2. Early detection and diagnosis: wearables can monitor vital signs and other health indicators that can be analysed using ML to anticipate disease stages.
3. Remote patient monitoring in real time: enables timely adjustments to treatment plans and early detection of complications.
4. Personalized treatment and self-management.
5. Data-driven health care: the vast amount of data generated by digital health technologies can be harnessed to drive research, population health management and policy-making.

Session 2.2	**Digital health for health emergency preparedness 2.0 in the WHO European Region**
Day	**Wednesday, 6 September 2023**
Time	10:30 – 11:30 (60 min)
Location	Room: Sala Douro Sul
Speakers	**Alexandru Gasnas**, State Secretary, Ministry of Health, Republic of Moldova **Bakyt Dzhangaziev**, Deputy Minister, Ministry of Health, Kyrgyzstan **Irina Javakhadze**, Deputy Head, Healthcare Department, Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs, Georgia **Lukáš Palaj**, Director General, Section of Digitization and Informatics, Ministry of Health, Slovakia **António Marques** da Silva, President of the managing board of the Health Plan for the World Youth Day Lisbon 2023
Moderators	**Pierre Nabeth**, Head, WHO European Center for Preparedness for Humanitarian and Health Emergencies (PHHE) and **Miljana Grbic**, WHO Repressentative, Republic of Moldova

Abstract

During the COVID-19 pandemic, the interest in using digital health tools to facilitate the collection, analysis and dissemination of information has dramatically increased. While some of these tools were well-designed according to rigorous specifications after conducting a needs analysis, for many, development occurred in a chaotic manner, resulting in products that did not fully meet requirements.

Furthermore, the lack of coordination prevented efforts from being consolidated, leading to unnecessary redundancies, overconsumption of resources (both human and financial) and the creation of numerous non-standardized tools supposedly addressing identical needs.

Therefore, it is crucial to draw lessons from COVID-19 pandemic preparedness and response and develop the necessary procedures, standards and digital health tools to be better prepared and respond more efficiently to new humanitarian and health emergencies.

To do so requires reflection on the support that digital health tools can provide in all types of emergency and on the strategy to adopt to make the best use of them, coupled with the mapping of existing tools and an evaluation of the needs that must be addressed to prepare for and respond to emergencies.

In this session we will reflect on these areas through a brief presentation of WHO tools followed by an open discussion with senior officials from the ministries of health of Georgia, Kyrgyzstan, Republic of Moldova and Slovakia on the path that led them to develop digital health tools to address specific challenges. They will present the opportunities and challenges they encountered during the development process and how challenges were overcome, as well as touching on whether the use of digital tools had an impact on the frequently occuring challenges of data sharing and misinformation.

Lastly, we will discuss the assistance Member States need in terms of identifying requirements; creating new tools – through knowledge sharing and practical experience; enhancing technical and human capabilities; and establishing coordination and standardization procedures.

Session 2.3	**Digital technologies and One Health: balancing and optimizing the health of people, animals and the environment**
Day	**Wednesday, 6 September 2023**
Time	10:30 – 11:30 (60 min)
Location	Room: Sala Corgo
Speakers	**Peter Drury**, CEO Drury Consulting **Patty Kostkova**, Professor in Digital Health & Director, UCL IRDR Centre for Digital Public Health in Emergencies, University College London, United Kingdom **Jyoti Joshi**, Antimicrobial Resistance Advisor, International Centre for Antimicrobial Resistance Solutions (ICARS) **Mirna Hussein**, Project Assistant, "One Health Data Alliance Africa" Project, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
Moderator	**Danilo Lo Fo Wong**, Programme Manager, Control of Antimicrobial Resistance, WHO Regional Office for Europe

Abstract

One Health is an integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals, and ecosystems.

The “Code Red” warning of the United Nations Intergovernmental Panel on Climate Change is an unequivocal message that unless drastic changes are made to a range of human activities, escalating global temperature will exert a heavy toll on biodiversity, human and animal health, and geopolitics in quite conceivably detrimental ways.

To address the multifaceted challenges and opportunities of One Health, information, and communication technology tools such as big data, artificial intelligence, the internet of things and blockchain can provide innovative solutions. These digital technologies can help to identify and respond to emerging diseases more quickly, to track and manage health risks more effectively, to facilitate communication and cooperation among stakeholders, and to engage and empower communities to take charge of their own health and well-being. A comprehensive and participatory approach of all stakeholders is crucial to design, implement and evaluate digital technologies for One Health, ensuring and optimizing the health of people, animals, and the environment.

This session will discuss how to apply the One Health approach in a holistic way, using technology and involving different stakeholders. As we navigate this approach, we must also confront the challenges it presents. Issues around data privacy and security, the protection of human and animal rights, and the promotion of equity and inclusion are paramount. These concerns represent not just potential pitfalls but also opportunities for growth and improvement as we adapt to this rapidly changing landscape.

Session 2.4	**Digital health solutions in the fight against Tuberculosis, HIV, and viral hepatitis in the WHO European Region**
Day	**Wednesday, 6 September 2023**
Time	10:30 – 11:30 (60 min)
Location	Room: Sala Douro Norte
Speakers	**Inez de Kruijf Carter**, Global Digital Adherence Technology (DAT) Task Force Coordinator, KNCV Tuberculosis foundation **Zhi Zhen Qin**, Digital Health Specialist, Stop TB partnership **Ketevan Stvilia**, National Center for Disease Control and Public Health, Georgia
Moderator	**Giorgi Kuchukhidze**, Surveillance, Strategic Information and Response Monitoring, Joint Tuberculosis, HIV and Hepatitis Programme (JTH), WHO Regional Office for Europe

Abstract

Digital health solutions have the potential to convert conventional service delivery modalities into more accessible and people-centered ones, while maintaining the same, or even greater, levels of effectiveness and efficiency. These solutions are becoming more relevant in resource-limited conditions, during health emergencies and in other settings in which physical encounters with care providers are associated with challenges and constraints. The broad array of domains in which digital health concepts can be applied covers all major disease programmes, including the prevention and control of communicable diseases.

Tuberculosis, HIV and viral Hepatitis, as well as other communicable diseases, pose a major threat to public health and economic development, especially in low- and middle-income countries. Stakeholders involved in the prevention and treatment of these diseases include governments, national and international health organizations, researchers, communities and individuals. According to the World Health Organization, digital health technologies can be used in a number of focus areas throughout the care cascade of communicable diseases, including but not limited to:

- Disease detection and diagnosis: artificial intelligence (AI) technologies offer unprecedented opportunities within a health-care context. AI is increasingly being applied in the field of medical imaging for the computer-aided detection of diseases, including tuberculosis.
- Disease treatment and care: using technologies such as telemedicine and digital adherence tools to support the treatment and care process.
- Supportive tools: community-led monitoring and web outreach services are examples of technologies used to support the response to tuberculosis and HIV.

This session will explore how digital solutions can help prevent and control the spread of communicable diseases. We will discuss the benefits and challenges of using digital tools and share some of the best practices and lessons learned from implementing digital solutions in a range of different contexts and settings.

Session 2.5	**Harnessing the power of emerging technology for better mental health**
Day	**Wednesday, 6 September 2023**
Time	10:30 – 11:30 (60 min)
Location	Room: Sala Lima
Speakers	**Chris Wright**, National Advisor and National Programme Lead, Digital Mental Health, Scotland, United Kingdom **Wolfgang Gaebel**, Professor of Psychiatry, Director em. Department of Psychiatry and Psychotherapy, LVR-Klinikum, Heinrich-Heine-University, Director WHO-CC DEU-131, Düsseldorf, Germany **Heleen Riper**, Professor eMental-Health at the Department of Clinical Psychology VU University Amsterdam, The Netherlands **Antonio Martinez-Millana**, ITACA-SABIEN group, Universitat Politècnica València, Spain
Moderator	**Ledia Lazeri**, Regional Adviser (Mental Health), WHO Regional Office for Europe

Abstract

Mental health is one of the areas of focus increasingly recognized by WHO Member States as key to achieving universal health coverage and other targets of the Sustainable Development Goals. Mental health conditions and psychosocial disabilities have been a major public health concern in the European Region even before the COVID-19 pandemic, with over 125 million people living with mental health conditions – accounting for 13% of the Region's total population.

Digital health technologies such as telepsychiatry, mental health mobile applications and digital therapeutics have emerged as powerful tools in responding to the growing burden of mental health.

This session seeks to examine the potential for digital mental health solutions to transform existing health-care systems, while considering the opportunities and challenges they bring. It will explore the integration of digital mental health into traditional health care, followed by an exploration of telepsychiatry and remote mental health services. The session will also delve into the transformation of mental health services through the utilization of artificial intelligence (AI) and big data, including discussions on the ethical implications, data privacy concerns and biases that may arise from adopting AI in mental health care. Lastly, the effectiveness of digital therapeutics in addressing mental health conditions will be examined.

Panel 3	**Putting equity and inclusion at the heart of European health systems of the future**
Day	**Wednesday, 6 September 2023**
Time	12:00 – 13:00 (60 min)
Location	Room: Sala Porto
Speakers	**Farhad Bekbulatov**, Director, Department for e-Health Development, Ministry of Health, Kazakhstan **Päivi Sillanaukee**, Special Envoy for Health and Wellbeing, Ministry of Social Affairs and Health Finland **Ilona Kickbusch**, Founder, the Global Health Centre at the Graduate Institute, Geneva, Switzerland **Alisha Davies**, Head of Research and Development, Research and Evaluation Division, Public Health Data, Knowledge and Research Directorate, Public Health Wales
Moderator	**Clayton Hamilton**, Regional Technical Officer (Digital Health), WHO Regional Office for Europe

Abstract

Acceleration in the development and adoption of digital technologies is transforming the way in which individuals interact with health systems and are supported to improve their health and well-being. However, a recent scoping review from the WHO Regional Office for Europe[1] highlighted that digital health technologies are not accessible to all communities and in all areas within Europe, and that some groups including older people, those living in rural or more deprived areas and those with lower levels of education or from ethnic minority groups are less likely to have access to, or use digital health technologies. Barriers include access to and affordability of the technology, digital literacy and that digital health may not meet an individual's needs – with the potential risk of marginalizing those who stand to benefit most from their use.

So how do we ensure that innovation in the development and adoption of digital health technologies leaves no one behind?

In this session, we will hear from a panel of experts reflecting on three core areas identified in the above-mentioned review where action is needed to put equity and inclusion at the heart of future European health systems.

1 Equity within digital health technology within the WHO European Region: a scoping review. Copenhagen: WHO Regional Office for Europe; 2023 (https://www.who.int/europe/publications/i/item/WHO-EURO-2022-6810-46576-67595).

Session 3.1	From big data to personalized care: How artificial intelligence and precision medicine are revolutionizing care
Day	**Wednesday, 6 September 2023**
Time	14:30 – 15:30 (60 min)
Location	Room: Sala Lima
Speakers	**Bogi Eliasen**, Director of Health, Copenhagen Institute for Future Studies **Maxine Mackintosh**, Programme Lead on Diverse Data, Genomics England + One HealthTech & DSxHE Communities **Vicente Traver**, Director ITACA-SABIEN group, Universitat Politècnica València, Spain **Ognjen Milicevic**, Machine Learning Technical Lead, HTEC Group & Teaching Assistant, University of Belgrade, Serbia **Heimar de Fátima Marin**, Editor-in-Chief of the International Journal of Medical Informatics
Moderator	**Keyrellous Adib**, Technical Officer (Data Science and Digital Health), WHO Regional Office for Europe

Abstract

AI and precision medicine have great potential in transforming health care by improving diagnostics, treatment and prevention of disease. These technologies utilize large amounts of data (big data) and advanced algorithms to tailor interventions to individual needs and preferences. AI can enhance clinical decision-making by analysing complex data sources like wearable devices, imaging scans, medical records and genomic sequences. This information can reveal patterns and insights that guide clinicians in their diagnoses and treatments.

Precision medicine can use this information to design more effective and targeted therapies that can improve outcomes and reduce side effects. Together, AI and precision medicine can revolutionize care by making it more personalized, proactive and predictive, enabling the early detection and prevention of diseases, better management of chronic conditions, and reducing health-care costs and disparities.

This session will explore how AI can help analyse large and complex datasets to identify patterns and insights that inform personalized care. It will also address challenges and opportunities in implementing AI and precision medicine in health-care systems.

Session 3.2	Beyond the walls: How can telehealth revolutionize healthcare?
Day	**Wednesday, 6 September 2023**
Time	14:30 – 15:30 (60 min)
Location	Room: Sala Douro Norte
Speakers	**Francesc Saigí Rubió**, Associate professor of the Faculty of Health Sciences at the Universitat Oberta de Catalunya, Spain, Director of the WHO Collaborating Centre for eHealth **Lene Lundberg**, Senior Adviser, Norwegian Centre for eHealth Research, Focal Point, WHO Collaborating Centre for Digital Health and Telemedicine **Durbek Aliyev**, Deputy CEO of IT-Med LLC, Ministry of Health, Uzbekistan **Dimitra Panteli**, Policy Officer, European Observatory on Health Systems and Policies
Moderator	**Ryan Dos Santos**, Technical Officer, Data and Digital Health, WHO Regional Office for Europe

Abstract

Telehealth (the use of digital technologies to deliver health-care services and health education remotely) makes health care more equitable and accessible to the 78% of adults globally who own a smartphone, including those in medically underserved communities. It has the potential to transform the way health care is delivered, by improving access, quality, efficiency and affordability of care and allowing virtual relationships between patients and health-care professionals.

To further the use of virtual care we need to focus on and discuss three key strategies: integration, capitation and capacity building. Integration means ensuring that virtual care is seamlessly connected to other health-care services and systems, such as electronic health records, referral networks and quality standards. Capitation means shifting from a fee-for-service model to a population-based payment model that rewards providers for delivering effective and efficient care, regardless of the mode of delivery. Capacity building means investing in the infrastructure, training and support needed to enable providers and patients to adopt and use virtual care technologies safely and confidently.

In this session, we will explore the current state of telehealth, the challenges and opportunities it presents, and the good practices and lessons learned from successful telehealth initiatives around the world. We will also discuss the future of telehealth and how it can support the goals of universal health coverage and health equity.

Session 3.3	**Revolutionizing health information systems for data-driven decision making**
Day	**Wednesday, 6 September 2023**
Time	14:30 – 15:30 (60 min)
Location	Room: Sala Douro Sul
Speakers	**Steven Becknell**, Deputy Regional Director for the CDC's Eastern Europe and Central Asia Regional Office **Carl Leitner**, Technical Officer, Public Digital Health Technology, Department of Digital Health and Innovations, WHO/HQ **Eric Sutherland**, Senior Policy Officer, Organisation for Economic Co-operation and Development **Jerome De Barros**, Policy officer, DG for Health and Food Safety, European Commission **Rachel Dunscombe**, CEO of OpenEHR, UK policy advisor and Visiting Professor at Imperial College London
Moderator	**Stefania Davia**, Technical Officer (Data Monitoring, Analysis and Forecasting), WHO Regional Office for Europe

Abstract

Health information systems (HIS) are essential for collecting, managing and analysing health data. However, many HIS in low- and middle-income countries are fragmented, incomplete and unreliable. This hinders the ability of health managers and policy-makers to make evidence-based decisions that can improve health outcomes and save lives. Unified, interoperable and secure HIS that can support data-driven decision-making at all levels of the health system are crucial to address this challenge.

In this session, we will explore the latest trends and innovations in HIS that are driving data-driven decision-making in health-care organizations, including:

1. the role of HIS in data-driven decision making;
2. leveraging artificial intelligence and machine learning for health data analysis;
3. big data analytics in health-care – the challenges and opportunities;
4. ethical considerations and privacy concerns in HIS; and
6. future trends and emerging technologies in HIS.

Case studies showcasing the successful implementation of data-driven decision-making will also be explored during this session.

Session 3.4	**Transforming health systems together: Views of the private sector on the future of digital health**
Day	**Wednesday, 6 September 2023**
Time	14:30 – 15:30 (60 min)
Location	Room: Sala Porto
Speakers	**Tobias Silberzahn**, Partner and Host of the Health Tech Network, McKinsey & Company **Beth Wolff**, Director Digital Health Solutions, BD&L Search & Assessment, Lundbeck **Ronan O'Connor**, VP and Managing Director for the EMEA Region, HIMSS **Peter Speyer**, Head of Data, Analytics & AI, Novartis Foundation **Ana Rita Pereira**, Government & Healthcare Sector Lead for Western Europe, Microsoft **Anca del Rio**, Lead Health Tech Community and Stakeholder Relations, Basel Area Business & Innovation **Vincent Dupont**, Chief Sales and Marketing Officer, PatientSupportR
Moderators	**Giovanni Monti**, Visiting Senior Fellow, London School of Economics and Political Science (LSE) Health and **Clayton Hamilton**, Regional Technical Officer, Data and Digital Health, WHO Regional Office for Europe

Abstract

While different projections on the value of the global digital health market vary, there is broad acceptance among analysts that its worth in 2023 exceeds US$ 200 billion, with that value expected to at least double by 2030. With innovation largely driven by actions of the private sector, and with the technology underpinning innovation becoming increasingly complex, it has become an arduous task for health authorities in the European Region to determine how best to invest in innovation that builds upon existing digital infrastructure, and whether investments will deliver meaningful value to health systems and improve health outcomes for the individual.

In this session we will hear the views and perspectives of a diverse cross-section of representatives from the private sector on the future of the digital transformation of health systems. Panellists will explore trends in digital innovation in health; discuss the health systems evolution required to take advantage of the current and next generation of data and digital innovation; and identify where opportunities exist for public and private sectors to better align efforts in supporting countries digitally transform their health systems, with benefits shared for all.

Session 3.5	**Digital for quality: Individuals as active contributors to quality health care: the role of digital technology**
Day	**Wednesday, 6 September 2023**
Time	14:30 – 15:30 (60 min)
Location	Room: Sala Corgo
Speakers	**Vladimir Obradovic**, State Secretary of Health of Montenegro **Yih Yng Ng**, Director, Digital & Smart Health Office, Ng Teng Fong Centre for Healthcare Innovation, Singapore, Home Team Chief Medical Officer, Ministry of Home Affairs, Singapore **Anne Moen**, Director UiO:eColab, University of Oslo, Norway **Henrique Martins**, WHO Consultant, Associate Professor in Health Management and Leadership at FCS-UBI, ISCTE-IUL, Board of Directors, HL7 Europe Foundation
Moderator	**Joao Rodrigues Da Silva Breda**, Head, WHO Athens Quality of Care and Patient Safety Office & Special Adviser for the Regional Director, WHO Regional Office for Europe

Abstract

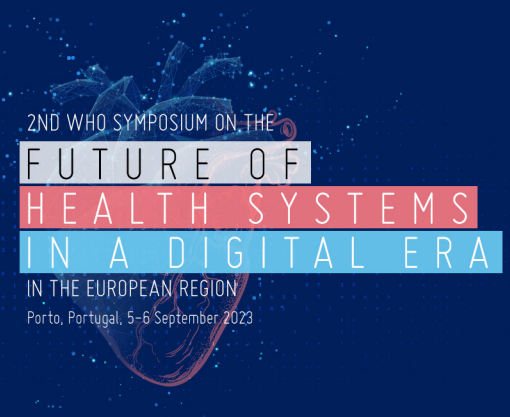
Quality of care is a key aspect of health systems and affects the health outcomes of individuals and populations. According to the WHO definition, it refers to the extent to which health services are effective, safe, people-centred, timely, equitable, integrated and efficient.

The WHO-Organisation for Economic Co-operation and Development-World Bank report Delivering quality health services: a global imperative for universal health coverage highlights the need for a series of actions across relevant actors, notably governments, health authorities and individuals (including patients, health-care professionals, and citizens generally) who should work together to achieve the goal of high-quality health service delivery including service need anticipation – increasing, reducing or stopping services to match individual health and social care needs. Improving quality of care is an ongoing endeavour that involves collaboration between these actors, but all too often the emphasis is placed on governments and health authorities to catalyse and lead action for its improvement – leaving individuals with passive roles. How then, can individuals actively promote and sustain quality of care? What role can digital technology and innovation play in supporting individuals to do so? And how can health authorities promote a shift from a paradigm where individuals are "protected targets" of patient safety and quality interventions, to one where they are active co-creators of the safer and high-quality health care that they are the beneficiary of?

In this session we will touch upon these questions by discussing the role of the individual as an active, digitally empowered agent in the provision of quality care and present the concept of "SMART Patients". Examples will be provided from throughout the WHO European Region, including a look at how success in delivering high-quality telehealth can be achieved through the active engagement of individuals. A ground-breaking innovative example from Asia on enabling and mobilizing individuals to help care for others through "crowd-care" will also be presented with the aim of triggering cross-regional discussion and learnings as well as the consideration of how digital technologies can be used to enable all citizens to mobilize action for improving quality-of-care.

1 World Health Organization, Organisation for Economic Co-operation and Development, International Bank for Reconstruction and Development. Delivering quality health services: a global imperative for universal health coverage. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/272465, accessed 15 August 2023).

Notes



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