INNOVATIONS FOR EQUITY - ORIENTED HEALTH SERVICE DELIVERY IN RURAL AND REMOTE AREAS

Using Digital Health to reduce inequities in access and improve the quality-of-service capacity in rural areas

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The COVID-19 pandemic has made the need even more apparent for viable, scalable, and flexible alternatives to supplement traditional health treatments.

Digital health has the power to accelerate health equity by making health systems stronger, more resilient, and ultimately more effective.

Remote monitoring and telemedicine facilities, combined with digital health records, can help to scale the opportunities to make health services more accessible, effective and affordable; thus, enhancing the potential for UHC.

However, there are challenges, especially in scaling digital health in rural communities of LDCs. This includes data quality, infrastructure, digital literacy, privacy, as well as regulatory concerns.
According to ITU, **worrying gaps** in connectivity and Internet access persist in rural areas. Globally, 72% of households in urban areas has access to the Internet at home, almost twice as much as in rural areas (38%).

Connectivity gaps in rural areas are especially serious in LDCs, where 17% of the rural population live in areas with no mobile coverage at all, and 19% of the rural population is covered by only a 2G network.
The opportunity to use Digital Health to reduce inequities in access and improve the quality-of-service capacity in rural areas
The storyline

2005

WHA58.28 on eHealth
Consider drawing up a long-term strategic plan for developing and implementing eHealth services promote equitable, affordable and universal access to their benefits

2013

WHA66.24 on eHealth
standardization and interoperability
Consider developing... policies and legislative mechanisms linked to an overall national eHealth strategy

2018

WHA71.7 Digital health
Develop... in close consultation with Member States and with inputs from relevant stakeholders... a global strategy on digital health, identifying priority areas including where WHO should focus its efforts”.

2023

Triple billion targets

2025

Global strategy on digital health
Improve health for everyone... affordable, scalable digital health and wellbeing... support equitable access to quality health services... implication for access, cost, quality of digital solutions

2030

2030 SDGs
Global strategy on Digital Health

2020-2025

Department of Digital health and innovation
Global Strategy on Digital Health 2020 – 2025:

Vision

To improve health for everyone, everywhere by accelerating the development and adoption of appropriate digital health solutions to achieve the health related SDGs.
Strategic objectives
4 Strategic Objectives

**SO1** Promote **global collaboration** and advance the **transfer of knowledge** on digital health

**SO2** Advance the **implementation** of national digital health strategies

**SO3** Strengthen **governance** for digital health at global, regional and national levels

**SO4** Advocate **people-centred health systems** that are enabled by digital health
Adoption of WHO guideline recommendations is a lengthy process and accuracy can be compromised during adaptation into digital systems.

- **World Health Organization (WHO)**: Develops global guidelines using evidence base.
- **Ministry of Health (MoH)**: Adapts guidelines into national guidelines comprising procedures, protocols, datasets and indicators.
- **Implementation & Technology Partners**: Translate national guidelines into digital solutions.
- **Health Workforce**: Deliver and document health services in accordance with national guidelines.
- **Health Service Users**: Access quality person-centered care, delivered in accordance with national directives on guideline use.

**Today’s guidelines are**

- Not integrated quickly or fully into practice
- Resource intensive to adapt and scale to broader use
- Difficult to update or digitize with fidelity
- Infrequently digitized with interoperability and indicator standards
What are SMART Guidelines?

Standards-based, Machine Readable, Adaptive, Requirements-based, Testable

- Reinforces operational specificity in existing guidelines
- Digital curation of recommendations
- (panels include informatics and standards experts)

- Digital Adaptation Kit
- Human-readable components
- (describes how it should function)

- FHIR Implementation Guide (IG)
- Based on Clinical Practice Guidelines IG
- (can use many software platforms)

- Fully executable software tools
- Mechanism for real-time updates
- (can interoperate with national digital systems)

- Advanced analytics for greater local relevance and precision
- AI-based decision support
More than half of our Member States have a specific national telehealth policy in their country integrated with national digital health policy.

Approximately three quarters of our Member States have a teleradiology programme. Roughly half have a telepathology programme, a remote patient monitoring programme and a teledermatology programme. About one third have a telepsychiatry programme;

<table>
<thead>
<tr>
<th>eHealth strategies</th>
<th>Legal</th>
<th>mHealth</th>
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<tr>
<td>58%</td>
<td>55%</td>
<td>87%</td>
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<tr>
<td>of Member States have an eHealth strategy</td>
<td>of countries have legislation to protect electronic patient data</td>
<td>of countries report having one or more national initiatives</td>
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Significant progress on telemedicine (WHO Global Observatory on eHealth - 2016)
What is Telehealth / Telemedicine
• A term coined in the 1970s, which literally means “healing at a distance”
• Signifies the use of Information Communication Technology (ICT) to improve patient outcomes by increasing access to care and medical information.

Definition of telehealth
The delivery of health care services, **where distance is a critical factor**, by all health care professionals **using information and communication technologies** for the exchange of **valid information** for **diagnosis, treatment and prevention of disease and injuries, research and evaluation**, and for the **continuing education of health care providers**, all in the interests of **advancing the health of individuals and their communities**.
Interactive services enable real-time interaction between an individual and her or his health-care provider through means such as telephone, web conference, video conference, and other forms of online and remote communication. Psychiatry and mental health services are classic examples.

Store-and-forward services involve acquiring medical data (e.g. images) and transmission to a health-care provider (e.g. doctor or medical specialist) for offline assessment and treatment recommendation. Examples include teleradiology and telepathology.

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Remote monitoring services enable health-care providers to monitor an individual’s condition remotely, using technologies such as implanted devices and sensors with wireless or wired connections.
Telecare services

• Enable care and support to older individuals and those with special needs.
• This helps them to remain independent in their homes and increases their sense of connectivity with the broader community.
• Services include alerts (e.g. domestic accidents such as falls) and monitoring (e.g. vital signs, blood glucose, weight).
Nearly every clinical domain, there is a “tele-X” or “X telehealth”, where X is the clinical domain. Examples include:

- **Teleradiology**
- **Telepsychiatry**
- **Telepathology**
- **Teledermatology**

Remote monitoring for diabetes

Remote monitoring for hypertension

Chat bots: WHO AI chatbot on tobacco cessation

**Quit tobacco today!**
Main barriers on telehealth

- Interoperability, standards, limited infrastructure (equipment and/or connectivity)
- Lack of funding to develop and support telemedicine programmes
- Competing health system priorities
- Legislation or regulations covering telehealth / telemedicine programmes, as well as reimbursement modalities
10 mHealth programmes to empower people to protect themselves from common NCD risk factors

Upcoming: mActive & mOralHealth
Concluding thoughts

- Local and national governments, the private sector, and civil society need to come together to design and implement policy interventions and overcome barriers in standards to achieve equitable adoption of telehealth, keeping LMCs and rural communities in mind.

- WHO along with other international organizations will take a lead in defining a minimum set of standards necessary for countries – and particularly low- and middle-income countries.

- Acknowledging the capacity limitations in developing countries, especially those lacking in human resources, digital literacy, and technical capacity – countries need to avoid ad-hoc implementation and opt for well-planned implementation with adherence to international standards.

- When adopting Telemedicine, countries should consider all these aspects: infrastructure and workforce barriers; regulatory and compliance barriers; financing the implementation process; evidence-informed policy tools and approaches; and policy approaches in standardization and interoperability.
We must ensure the Digital Health transformation is safe, sustainable and leaves no one behind.

Thank you.