



The role of digitalization during the pandemic

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Digital Transformation & Digital Health

Digital Transformation + Quantified Health → Digital Health



COVID19 Has brought about immense pressure on health systems all over the world

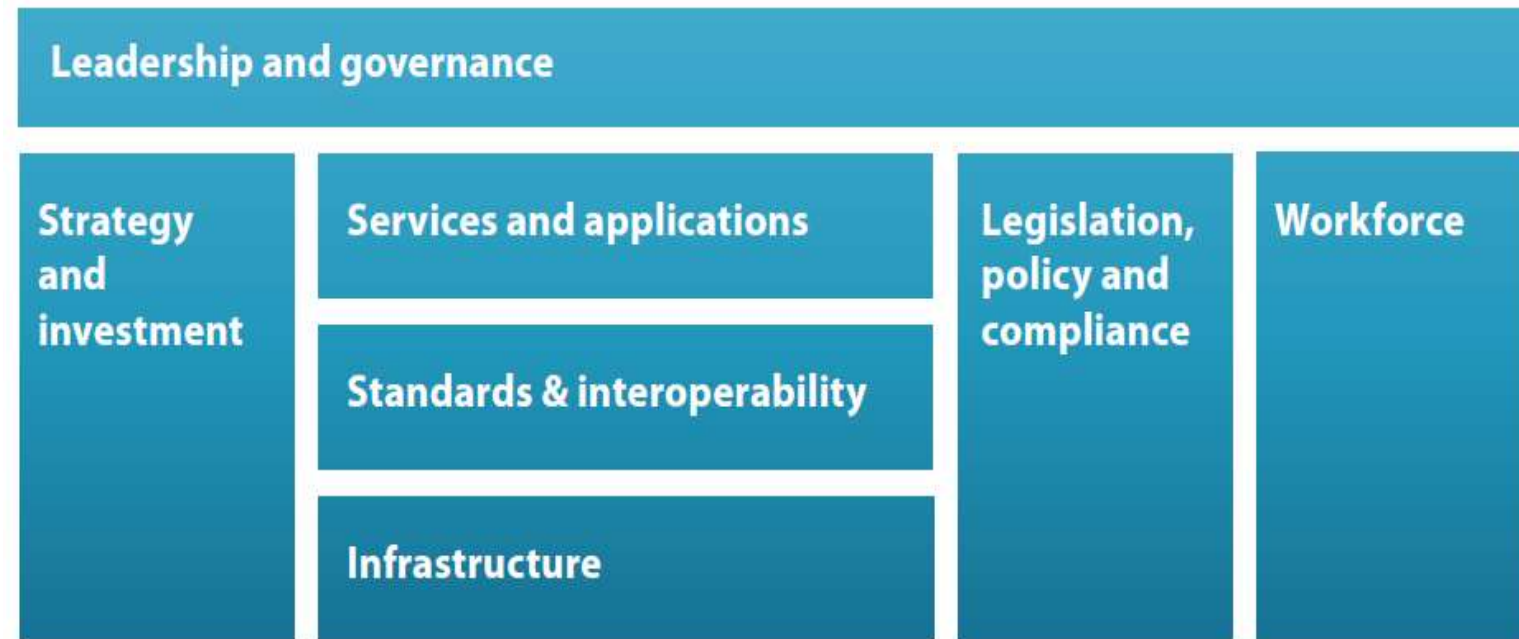
Digitalization has created an opportunity for mitigation of the effects of the pandemic, helping to combat the virus and ensuring continuity of services including health services.

Digital Transformation is a cross-Industry, cross-society opportunity in the 21st Century

Enabling technologies help with the transition from the quantified self to quantified health

The benefits of Digital Health and digitalization in general can only be realized through collaboration and co-creation

The Digital Health Ecosystem



Global strategy on Digital Health

2020-2025

Department of Digital health and
innovation



The storyline

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



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".



Triple billion targets



2030 SDGs

2005

05

2013

05

2018

05

11

NOW

2023

2025

2030



WHA66.24 on eHealth standardization and interoperability

Consider developing... policies and legislative mechanisms linked to an overall national eHealth strategy

IMPLEMENTATION

Global Strategy on Digital Health 2020-2025



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

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.



The 4 Guiding Digital Health Strategic Objectives



OBJECTIVE 01



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

OBJECTIVE 02



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

OBJECTIVE 03



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

OBJECTIVE 04



Advocate **people-centred health systems** that are enabled by digital health



Opportunities for Digital Health Interventions in the context of COVID19



Service delivery planning

[Read More](#)



Vaccination status

[Read More](#)



Counterfeit detection

[Read More](#)



Community mobilisation

[Read More](#)



Logistics management

[Read More](#)



Coverage monitoring

[Read More](#)



Remote health worker learning

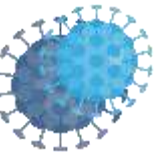
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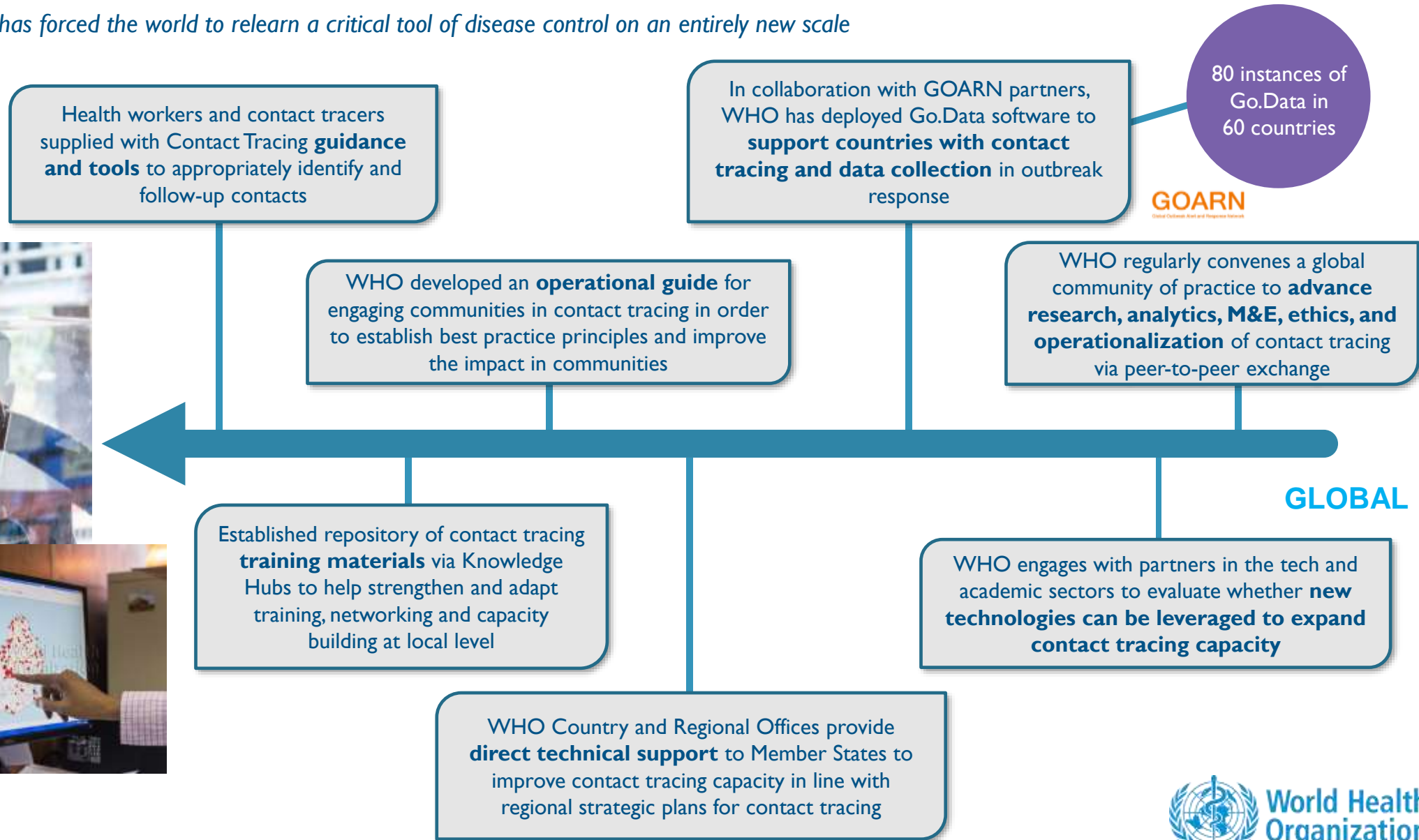
Health service delivery

[Read More](#)

End-to-end: Contact tracing



The COVID-19 pandemic has forced the world to relearn a critical tool of disease control on an entirely new scale



The Strengthening Country-Level Surveillance

EOS

Strengthen national health security through event-based surveillance

EWARS

Support rapid detection of outbreaks through establishment of an early warning surveillance system

Go.Data

Support outbreak investigation and contact tracing through enhanced data collection, analysis and visualization

EMS2

Strengthen the event management continuum from event detection, risk assessment, notification and response

Standards and Interoperability

- Establish and promote terminology services, data dictionaries and standards for surveillance data exchange
- Develop APIs with standards to link WHO platforms with broader national digital architecture including HMIS (e.g. DHIS2)



Capacity Building

- Strengthen capacity building around WHO supported tools and platforms.
- Develop public health intelligence curriculum and training material, that incorporates digital fundamentals



Governance

- Support Governments inventories of national digital health solutions
- Map and monitor existing solutions and tools to guide users
- Connect Governments with WHO-vetted digital health products



DIGITAL TOOLS TO SUPPORT CONTACT TRACING DURING THE COVID-19 PANDEMIC



Current landscape of digital proximity tracing (DPT) apps adoption

- >50 countries have adopted DPT apps.
- In EURO, 33 countries launched or plan to launch a DPT app.
- EU is the first region to launch a regional interoperability gateway service for DPT apps (14 September).
- Limited empirical evidence on public health effectiveness

How WHO is supporting countries?

- Global survey on the status of implementation of digital contact tracing
- Evaluation framework to assess the public health effectiveness of DPT apps
- Guidance on digital tools for COVID-19 contact tracing
- Guidance on ethical consideration for the use of DPT apps

Next steps:

- ~~Handbook on digital contact tracing implementation~~



A toolkit is for evaluating the implementation and scale-up of digital innovations across the tuberculosis continuum of care

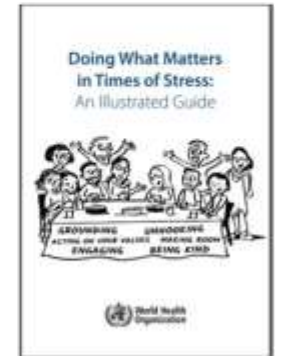


- **Implementation research for digital technologies and tuberculosis was published in 2021**
- The Implementation research for digital technologies and tuberculosis toolkit (IR4DTB) guides users to conceptualize, design and implement IR(Implement research) studies aimed at optimizing the use of digital interventions within TB programmes
- .The three main IR4DTB objectives are to:
 - 1. encourage the use of IR as a method to evaluate the implementation of digital technologies for TB;
 - 2. build capacity within the TB workforce to design and conduct IR studies; and
 - 3. support IR fundraising efforts by supporting the development of a comprehensive study proposal.
- [Link - Implementation research for digital technologies and tuberculosis \(who.int\)](#)

Digital Health Solutions and connecting with people with WHO Health content



+ stress
mgmt.



WHO chatbot on Messenger launched in April 2020

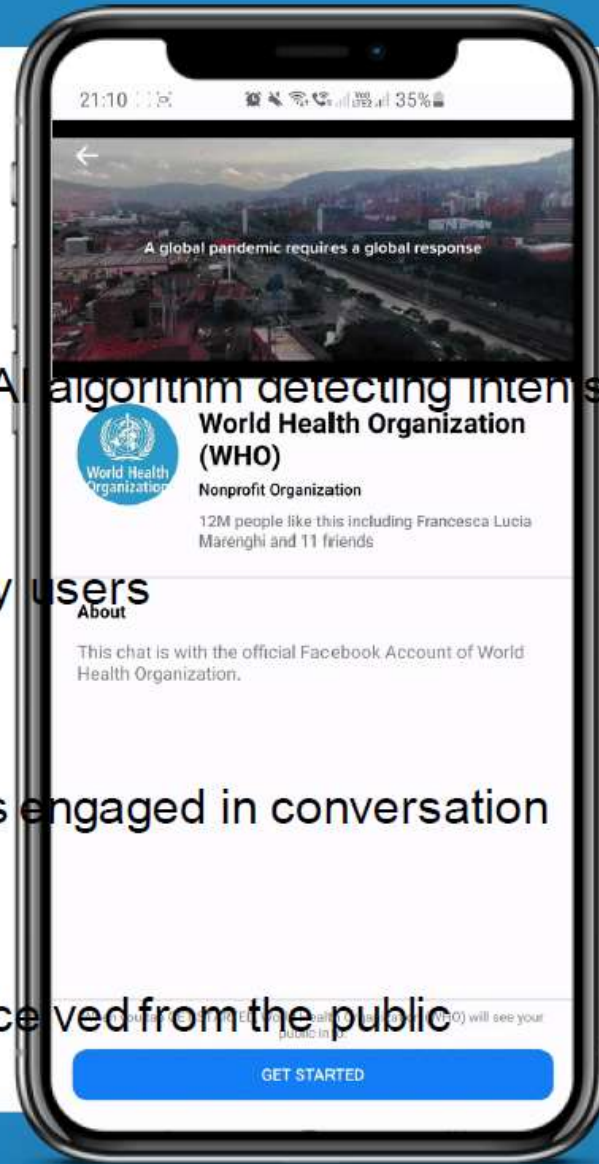
16 languages

79% accuracy of AI algorithm detecting intents with intent detection

+40,000 average daily users

2 million unique users engaged in conversation

17 million messages received from the public



Adapted service to support changing pandemic needs

Gamification of learning



+119K completed "Myth or Fact?" quiz - gamifying learning

Localized info



+ vaccines info

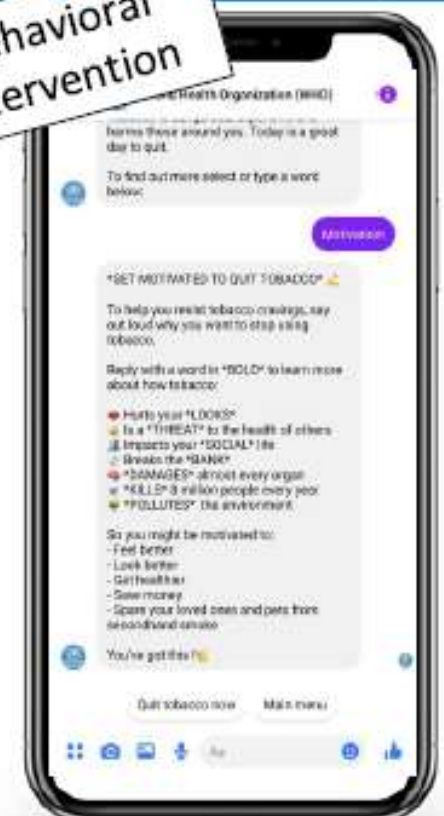
~3 MIL country queries & +115k daily subscribers

Mental health skills learning



+87% reported using coping skills at least 1x a week in everyday life*

Behavioral intervention



Quit Tobacco 6 months challenge – 72k subscribers in first month

*How many times a week do you use the skills learned in the course? (n=4238 respondents)

Digital Channels: More health messages; into more lives; through more channels

In 2020 we launched 100 projects with 40 partners and reached billions of people

3 Pillars of work



Raising WHO
content



Fighting
misinformation



New channels
and tools

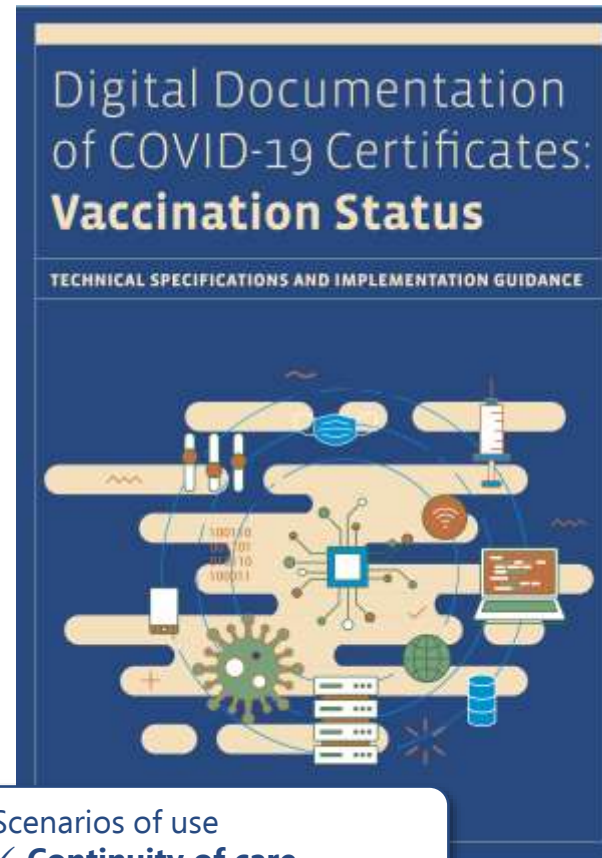
WHO has published technical specifications and implementation guidance on Digital Documentation of COVID-19 Certificates

Requirements and specifications for technology implementers

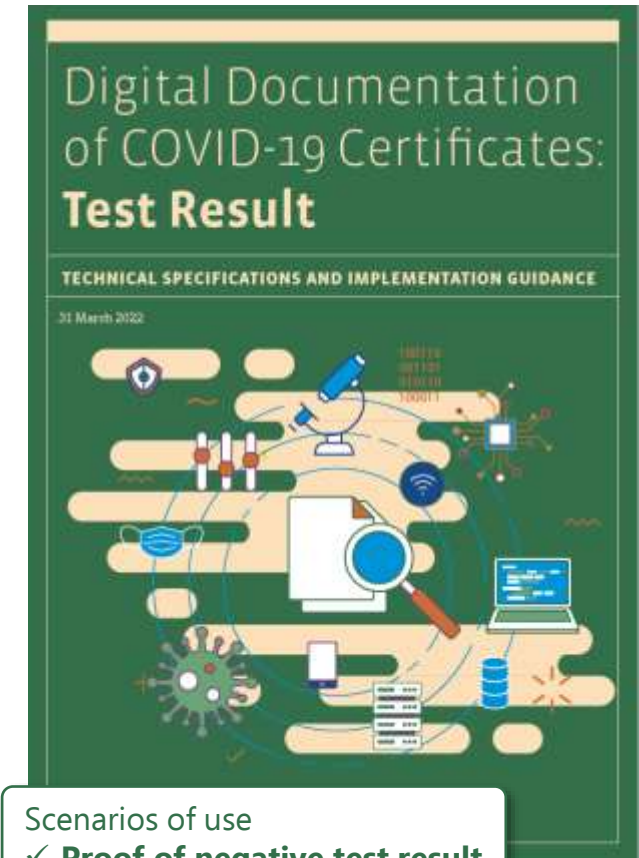
- Business processes, workflows & use cases
- **Core data elements** mapped to standard terminology code sets (including **an annexed spreadsheet**)
- Functional and non-functional requirements
- Overview of signing a digital certificate with PKI
- **HL7 FHIR Implementation Guide** (linked website) detailing relevant standards for consistent representation and interoperability

Implementation considerations

- Data protection principles
- Ethical considerations
- National governance considerations



- Scenarios of use
- ✓ **Continuity of care**
 - ✓ **Proof of vaccination**



- Scenarios of use
- ✓ **Proof of negative test result**
 - ✓ **Proof of previous SARS-CoV-2 infection**

OPPORTUNITIES FOR DIGITAL TRANSFORMATION

Digital & Innovative solutions that meet the needs of policy makers, public health professionals and the general population



Scale & Implementation | Governance | Citizen/Community Engagement Platforms | Supply Chain and Logistic Capabilities | Health Information Centre/Platforms | Recovery and Transition Planning Tools | Digital Vaccination Card | Digital Solutions Clearing House | Routine and Emergency Surveillance | Infodemic Management and Risk Communication | Data Collection, Management, Processing, Analysis and Reporting | Emergency Management tools



The 4 Guiding Digital Health 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



World Health Organization

SEVENTY-THIRD WORLD HEALTH ASSEMBLY
Agenda item 18.6

WHA73(28)
13 November 2020

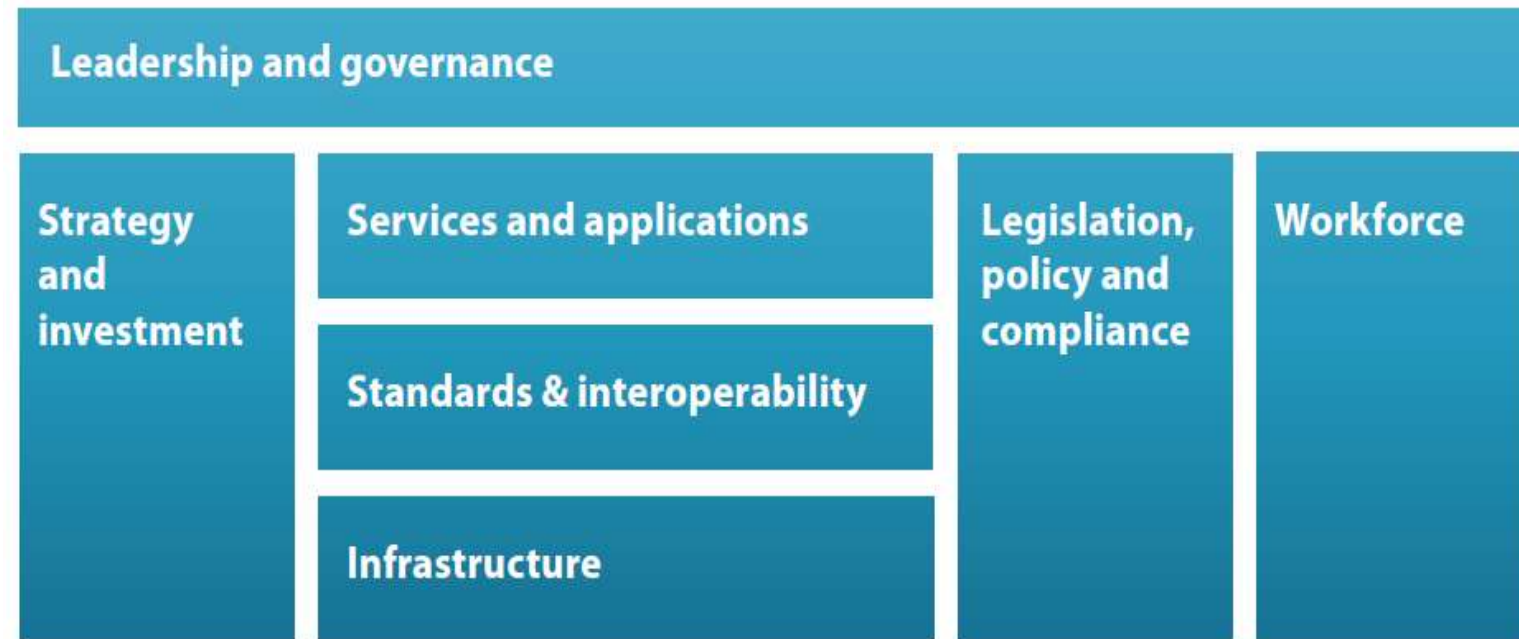
Global strategy on digital health

The Seventy-third World Health Assembly, having considered the consolidated report by the Director-General¹ and the draft global strategy on digital health,² decided:

- (1) to endorse the global strategy on digital health;
- (2) to request the Director-General to report back on progress in the implementation of the global strategy on digital health to the Seventy-sixth World Health Assembly in 2023.

Third plenary meeting, resumed session, 13 November 2020
A73/VR/3 (resumed)

The Digital Health Ecosystem





*We must ensure the
Digital Health
transformation is safe,
sustainable and leaves no
one behind.*

Thank you.



**World Health
Organization**