The Global Strategy on Digital Health (2020 - 2025), ratified by 194 member-states, advocates for people-centred health systems that are digitally enabled.

“place **people at the centre of digital health** through the appropriate health data ownership, adoption and use of digital health technologies”
The Global Digital Health Strategy: Actions and Requests

**Policy Actions**

- “An interoperable digital health ecosystem should enable the seamless and secure exchange of health data by and between users, health care providers, health systems managers, and health data services.”
- “The access of people to their health data and the processing thereof should be ensured…”
- “From a legal and organizational perspective, all health care providers, health service providers, patients and any other involved parties participating in an interoperable digital health ecosystem undergo a strong and reliable digital identification, authentication and authorization mechanism that guarantees trust in the exchange of health data and aligns with nationally appropriate means.”

**Requests to Secretariat**

- To develop a guideline on global interoperability standards for digital health
- To develop global minimum standards for electronic health records.
- Stresses the need for a strong legal and regulatory base to protect privacy, confidentiality, integrity and availability of data and the processing of personal health data, and to deal with cybersecurity, trust building, accountability and governance.
To achieve person-centred health systems and future pandemic resilience there is a need to strengthen personal health records in a digital format.

- Non communicable diseases
- Immunizations
- Allergies
- Maternal & Child Health Records
- Prescription
- Test Results
- COVID-19 certificates

Record of health information in a digital format held by the individual

Personal health records expand upon Electronic Health Records and are provided to and can be managed by individuals.
However, the implementation of Personal Health Records (PHR) faces numerous challenges at the individual, national and global levels.

**Individual level challenges**
- Lack of access to or control over own health records
- Paper based records can be easily lost, mishandled or damaged
- Inability to easily take information from one health service provider in one country to another provider in another country

**National level challenges**
- Lack of (semantic and syntactic) interoperability between existing systems
- Inadequate government resources to sustain implementation
- Inconsistencies in policies, governance and regulations

**Global level challenges**
- Inconsistent design, document type and data collected
- Lack of global coordinating platform and secure mechanism for exchange of records
- Inconsistent ownership of Personal Health Records in countries
- Concerns related to security and privacy
During the pandemic, WHO was asked to provide technical guidance on the establishment of standards and architecture to facilitate the sharing of COVID-19 vaccination status and test results within & across borders.

- **Published Guidance:**
  - Requirements & specifications for technology implementers
  - Implementation considerations (data protection, ethical considerations, governance)

- **Published reference software:**
  - Gateway
  - Products that meet DDCC specifications

- **Aligned with ~ 100 Member States**
Based on the experience from COVID-19 certificates, we recognize that consensus on technical standards and trust environment would be helpful to enable health documents to be recognized and used globally.

Each network has its own rules. Need to federate across them.

WHO DDCC Document
Signed HL7 FHIR document

- Varying public health policies across countries
- Many existing digital standards don’t interoperate
- Standards implemented in a variety of ways without unified governance
- Need to architect for multiple use cases beyond COVID-19
- Need for a directory to federate across trust networks
A trust architecture - consisting of technical framework, standards, governance and policies - provides an environment that enables data, carried by individuals, to be verified across members of the trust network.

E.g., many passports & ID cards contain technology, as part of a trust network (ICAO), which holds key personal data stored using agreed-to standards & format. This allows members of the network to issue, verify and modify ‘certificates’ that will be accepted by other members.
In response to member states, we are working to extend the DDCC standard for digital personal health records, built on a trust architecture that enables the secure issuance and verification of health documents across members of the trust network.
The trust network guidance, consisting of technical standards and infrastructure will outline and establish the processes necessary for trusted exchange of health information across various use cases.
WHO is currently working with its Member States through the Global Strategy on Digital Health and through a G20-led working group to outline the various leadership roles needed to enable a trust network as described.

WHO, through its a trusted relationship with its Member States, has provided guidance documentation, reference software, and technical support:

- Establishing **technical & governance policies**
- Establishing **interoperability framework**
- Developed **common standards** for health credentials

### Additional leadership is needed to:

- Establish & run **Public Key Directory**
- Monitor **Onboarding** Process
- Establish a **secure platform** that addresses security & data concerns
- **Custodian of the system**

**Custodian Role**

The role of a **custodian** in the global health trust architecture is needed to as the repository of trusted **sources** of health information (not the information itself).
A global health trust network would help address current challenges at individual, national and global levels

**Existing system without global health trust network**

- Limited control over own health records
- Paper based records
- Limited ability to exchange and/or verify health information globally
- Lack of clear policies, principles and regulations
- Lack of interoperability
- Inadequate government resources
- Inconsistent design, document type and data collected
- Lack of global coordinating platform
- Few mechanisms for exchange of records

**Digitally augmented system with global health trust network**

- Individuals have access to & control over their health information
- Digital records – always available
- Ability to verify online and/or offline
- Clearly documented policies, principles and regulatory framework based on consensus
- Standards compliant, interoperable infrastructure
- Standardized format for enabling exchange of health information
- Global platform with WHO as the mediator
To take this work forward, WHO will be convening a technical consultation with domain experts on digitizing personal health records

2021
- Established Smart Vaccination Certificate (SVC) working group
- Published DDCC:VS (Digital Documentation of COVID-19 Certificates: Vaccination Status) guidance document

2022
- Published the DDCC:TR (Digital Documentation of COVID-19 Certificates: Test Results) guidance document
- WHO supported Indonesia, G20 Presidency, in virtual pilot for establishing a trust architecture for COVID-19 credentials

Q1 2023
- Technical consultation on digitizing trusted personal health records
- Formation of one or more working groups to digitize personal health records

Objectives
- Understand the existing WHO guidance, and ongoing efforts by countries and international organizations
- Derive common goals, features, and functionalities for digitizing PHR
- Determine supportive national and international policies
- Achieve consensus around the standards and processes of digitization

2023-2025...
- Piloting in one or more regions
- Adjustment of governance and policy architecture
- Annual meetings to review performance and course-corrections
For next steps, we would like to ask for your support, engagement and feedback in the upcoming WHO working group meetings for Personal Health Records.

**Support**
- Contribute expertise and insights
- Build consensus around trust network leadership

**Engagement**
- Provide necessary governance, resources and guidance
- Support workplan and roadmap to accomplish this goal

**Feedback**
- Review existing and upcoming documentation including processes & workflows
Thank you

For more information, please contact:
Prof. Alain B. Labrique

Director
Digital Health & Innovation (Science Division)

WHO HQ
labriquea@who.int