



Pan American
Health
Organization



World Health
Organization

REGIONAL OFFICE FOR THE Americas



IS4H TOOLKIT KNOWLEDGE CAPSULES

**INTEROPERABILITY IN PUBLIC
HEALTH**

DEPARTMENT OF EVIDENCE AND INTELLIGENCE FOR
ACTION IN HEALTH

PAHO/WHO

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Information Systems for Health Toolkit

Knowledge Capsules

Interoperability in Public Health

IS4H- KMCI



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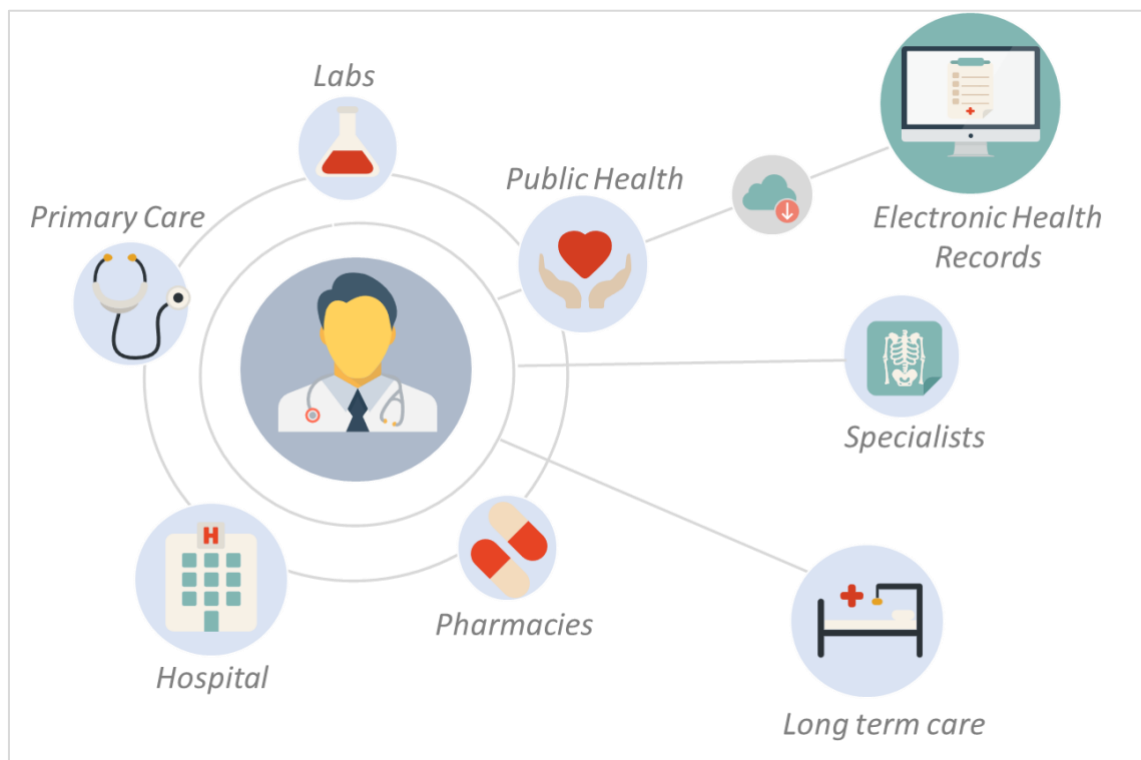
Knowledge capsule

Understanding Interoperability in Public Health

What does the concept interoperability mean?

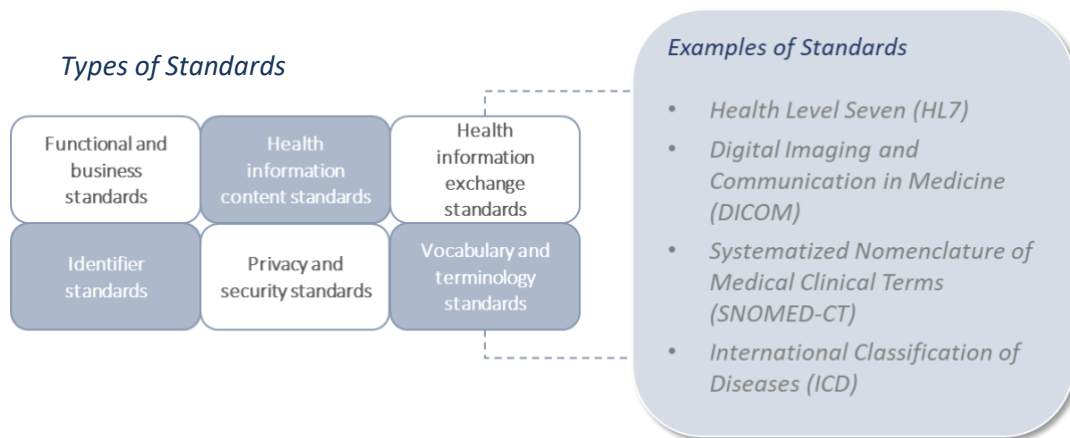
Interoperability is the ability of different information technology systems, software applications, and networks to communicate, to exchange data accurately, effectively and consistently and to use the information that has been exchanged.

In the health ecosystem, interoperability enables health information systems to transcend organizational boundaries and promote effective healthcare delivery by providing the right information to care providers needed to understand and address the health of individuals and populations. Systems, such as electronic health records play a vital role in this by providing a secure integrated collection of a persons encounters with the health care system.



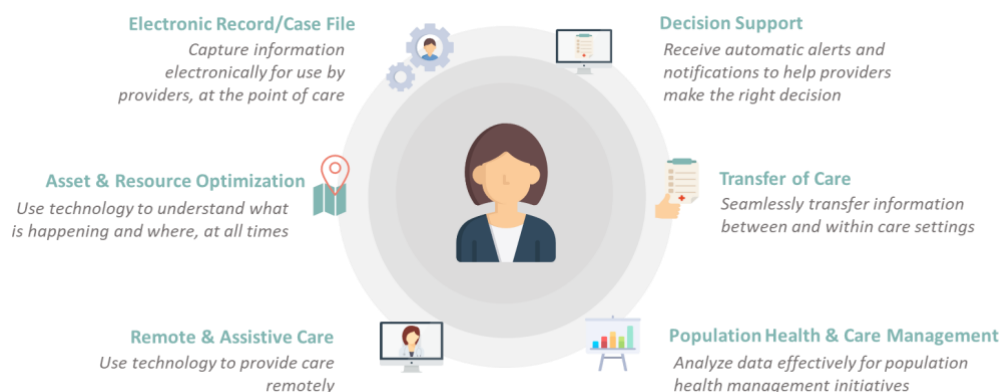
How can you achieve interoperability?

- Achieving interoperability can be considered as two problems that need to be solved. The first is ensuring that technical interoperability is achieved, which ensures that data can move reliably between systems. The second level is semantic interoperability which ensures that each system can understand the information received from others.
- To transmit and understand information received from different systems requires adherence to health data standards and related technology standards for timely and accurate exchange of data.
- Below are a examples of standards necessary for full interoperability of digital health systems and services.



What public health functions can interoperable solutions provide?

- While technical considerations are important, it is important to think about what the national priorities are for interoperability, and what functions should be achieved to best support person-centred care.
- However, in order for the full benefits of health data exchange to occur, systems must be able to interpret data, and then perform automatic functions, such as automatically integrating lab results from one facility into another provider's electronic health record.
- Below are some examples of some functions that can be achieved in a public health context, with solutions that can exchange data accurately and effectively.



What are the best practices for adoption of health standards?

- PAHO's role in driving interoperability is to support member countries by providing best practices in policy and governance mechanisms and strategies to promote health data standards adoption and data sharing, while ensuring there are data protection, privacy and security policies in place.
- Another key component involves collaborating at the national level to develop and sustain a national governance and accountability framework that focuses on improving health care delivery.
- Below are four important components to include in the policy framework:
 1. Security and privacy principles;
 2. Requirements and expectations for health information exchange across the health sector and at the national level;
 3. Formally adopts standards for messaging, data and information content;
 4. Policies on the use of national identifiers for patients, health care providers and facilities.

"A physician using a computer is not digital health, the real promise of digital health is a physician using a computer that can exchange data with orders as needed and as appropriate".