

INFORMATION SYSTEMS FOR HEALTH – IS4H

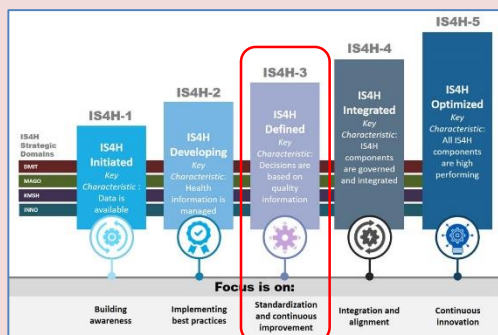


Pan American
Health
Organization



World Health
Organization
REGIONAL OFFICE FOR THE
Americas

Department of Evidence and Intelligence for Action in Health



The Information Systems for Health Maturity Assessment Tool (IS4H-MM) describes the method, tool and questions for assessing organizational capacity related to governance, data management, digital transformation, innovation and knowledge management. The IS4H-MM is organized according to the 4 strategic goals of the IS4H conceptual Framework and the 4 Strategic Areas of the Plan of Action for the Americas. The IS4H-MM is also a reference framework guiding Information Systems for Health to keep walking through the changing path of information and knowledge revolution, and how countries and organizations might grow in capabilities to operate, interact and benefit from them. The diagram above illustrates the five levels of maturity.

Data Management and Information Technologies

Maturity Level 3 Characteristics	IS4H Framework components
<ul style="list-style-type: none"> Health data are routinely collected from key data sources. Data is collected electronically using a variety of tools like spreadsheets, databases and electronic client-based information systems. Integration from different sources is often a manual process, and may be constrained by comparability issues. 	Data Sources
<ul style="list-style-type: none"> A range information product are efficiently and routinely produced from country information systems. Dissemination of information products is typically limited to senior-level decision makers. 	Information Products
<ul style="list-style-type: none"> Some standards have been identified for specific data sources, and there are formal plans for adoption. 	Standards for Quality and Interoperability
<ul style="list-style-type: none"> Data management processes and best practices are implemented for some facilities/units/teams. (e.g. data quality frameworks, data standards, policies, SOPs.) Core data sets are readily available. Data are often integrated for analysis across various sources. Some metadata are documented and maintained (indicator compendium, data dictionaries) support by a data governance body within the national health authority. 	Data Governance
<ul style="list-style-type: none"> There is evidence of interoperability between some health information platforms. 	IT Infrastructure

Management and Governance

Maturity Level 3 Characteristics	IS4H Framework components
<ul style="list-style-type: none"> There is a formal governance structure in place for strategic planning and oversight of IS4H among the national health authorities (e.g. MOH, regional health authorities, health facilities, etc.). 	Leadership and Coordination
<ul style="list-style-type: none"> There is a current National Health System Strategic Plan that include priorities for strengthening health information. IS4H is included within operational plans of national health authorities. 	Strategic and Operational Plans
<ul style="list-style-type: none"> Accountability and responsibility for IS4H functions within national health authorities have been defined. There are plans in place for organizational restructuring or re-alignment to rationalize functions and decision-making. 	Organizational Structures and Functions
<ul style="list-style-type: none"> There are policies and SOPs that address ethical use and protection of health data (e.g. privacy, security, secondary use), but there may be gaps in regulation or legislation. 	Legislation Policy and Compliance
<ul style="list-style-type: none"> Skills and job functions required to effectively support IS4H have been identified, although not all resources have yet been secured. There is some evidence of competency building activities (training, workshops, conferences) for IS4H domains but these are typically ad hoc. 	Human Resources
<ul style="list-style-type: none"> There is a plan in place for resource mobilization for specific IS4H capital investments. Financial resources secured for the sustainable implementation. Operations of IS4H have been secured with annual budgets. 	Financial Resources
<ul style="list-style-type: none"> Informal relationships have been established with key multisectoral national actors, including private sector organizations. 	Multisectoral Collaboration
<ul style="list-style-type: none"> Data and reporting obligations under national and international agreements are consistently met with an effective use of resources. 	National and International Agreements

Knowledge Management and Sharing

Maturity Level 3 Characteristics	IS4H Framework components
<ul style="list-style-type: none"> There are numerous knowledge management processes defined (lessons learned, trip reports, mentoring, shadowing, etc.) guided by formal policies and procedures. There is a formal basic KM strategy at the organizational level. 	Knowledge Processes
<ul style="list-style-type: none"> Basic KM infrastructure (e.g., share information repositories, content management standards, etc.) is in place. Some CG projects have been launched at some levels of the organizational structure. KM skills strengthening is part of a training program. 	Knowledge Architecture
<ul style="list-style-type: none"> A formal public health communication strategy in place with targeted messages to specific audiences. 	Strategic Communications
<ul style="list-style-type: none"> The participation of civil society in the health system is actively encouraged through social media and formal roles on governance bodies and advisory groups. 	Social Participation
<ul style="list-style-type: none"> Formal relationships with academia have been established to expand organizational knowledge and learning. 	Academia/Scientific Community
<ul style="list-style-type: none"> Participation in communities of practice is encouraged and staff routinely capture and share knowledge from these forums. 	Networks

Innovation

Maturity Level 3 Characteristics	IS4H Framework components
<ul style="list-style-type: none"> Most leadership and staff have an understanding of IS4H concepts. There are recent assessments that demonstrate strong digital literacy among most leadership and staff. 	Key Concepts
<ul style="list-style-type: none"> All essential information to support clinical, management, policy decision-making and is readily accessible, and end-users have on-demand access to information products or health analysis resources. There is capability among clinicians, administrators, and policymakers for evidence-informed decision-making, and clinical, management and policy decisions are data-driven. A range of health analysis approaches are routinely applied (e.g., ASIS ARMAR7, Health Inequalities, Multiple Cause of Death, etc.) 	Health Analysis for Decision-making
<ul style="list-style-type: none"> Advanced tools are routinely used for health analysis (e.g., spreadsheets, statistical packages, etc.) and all data is stored in relational databases. 	Tools
<ul style="list-style-type: none"> There is evidence of digital health tools being used to transform models of care, improve patient safety and quality of care, or for supporting population health approaches. Appropriate legislation and data protection policies around data access, sharing, consent, security, privacy, interoperability are being developed. 	Digital Health
<ul style="list-style-type: none"> The government has established an e-government strategy or unit. Currently the focus is on strengthening core IT infrastructure. Health is not a core stakeholder. 	eGovernment
<ul style="list-style-type: none"> Open data principles have been formally adopted in policy. 	Open Government
<ul style="list-style-type: none"> There is evidence that health information systems would be resilient during disasters and are able to support essential health system functions and disaster response. 	Preparedness and Resilience