

INFORMATION SYSTEMS FOR HEALTH – IS4H

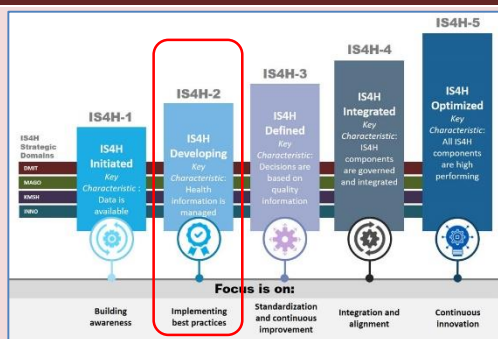


Pan American
Health
Organization



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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 2 Characteristics	IS4H Framework components
<ul style="list-style-type: none"> Data is sometimes obtained from few sources. Data frequently has limited utility because of quality or disaggregation issues. Data are largely collected using paper-based methods, although a few simple electronic tools like spreadsheets may be used for some data sources routinely collected electronically from all key sources. Some indicators definitions are defined but not easily accessible/shared. 	Data Sources
<ul style="list-style-type: none"> Some information products are generated, but not routinely, require intensive work and use of resources. Data is not readily shared across units, with stakeholders or public. Sharing data frequently requires permission from senior levels. Indicators generation largely relies on data from survey, census, and other ad hoc studies. 	Information Products
<ul style="list-style-type: none"> Some standards are defined in individual data sources but are not consistent or available across data sources. Standards for interoperability have been identified but not implemented. 	Standards for Quality and Interoperability
<ul style="list-style-type: none"> Data management best practices are in development, but not fully implemented. Data quality is not routinely monitored. Decision about standards quality and standards are made at the facility/unit/team level. 	Data Governance
<ul style="list-style-type: none"> Basic Tools are generally available but may be older or not performing well. 	IT Infrastructure

Knowledge Management and Sharing

Maturity Level 2 Characteristics	IS4H Framework components
<ul style="list-style-type: none"> There are some basic knowledge management mechanism and processes (e.g. formal meeting notes, trip reports, SOPs, documentation etc.) in place randomly accessible and updated, but these are not required in policy or practice. 	Knowledge Processes
<ul style="list-style-type: none"> There is an awareness among leadership and staff of the key concepts and importance of knowledge management. Some isolated KM&S pilot projects (not necessarily by management initiative). 	Knowledge Architecture
<ul style="list-style-type: none"> An informal public health communication strategy in place, not operationalized. Public health strategic communications include healthy lifestyle and prevention issues. 	Strategic Communications
<ul style="list-style-type: none"> There is limited engagement with civil society and the public through basic mechanisms such as surveys and focus groups. 	Social Participation
<ul style="list-style-type: none"> Relations with academia are fluid, informal and on demand. 	Academia/Scientific Community
<ul style="list-style-type: none"> Staff participate in knowledge networks (e.g. communities of practice, conferences, listservs) on ad hoc basis. 	Networks

Management and Governance

Maturity Level 2 Characteristics	IS4H Framework components
<ul style="list-style-type: none"> IS4H investment decisions are coordinated at the management level within individual national health authorities (e.g. MOH, regional health authorities, health facilities, etc.) but not formally coordinated among health authorities or other national actors. 	Leadership and Coordination
<ul style="list-style-type: none"> There is a National Health System Strategic Plan, but it does not address IS4H. Some individual units/departments/facilities include some components of IS4H in their operational plans. 	Strategic and Operational Plans
<ul style="list-style-type: none"> There are gaps in IS4H services or functions, and/or services and functions may be duplicated across units/programs. 	Organizational Structures and Functions
<ul style="list-style-type: none"> There are identified human resource constraints for planning, implementing, and managing IS4H, but there is no formal plan for addressing human resource needs. 	Human Resources
<ul style="list-style-type: none"> IS4H activities are identified in individual unit/program annual budgets of national health authorities, but are not integrated or aligned across units/programs. The financial resources requirements to effectively sustain IS4H have been identified, but not fully secured within operational budgets. 	Financial Resources
<ul style="list-style-type: none"> There are some relationships with other public sector stakeholder for specific some information and service needs. However, engagement and coordination are ad hoc. 	Multisectoral Collaboration
<ul style="list-style-type: none"> Requirements for IS4H enabling legislation, policy and compliance mechanism have been identified, but not yet implemented. 	Legislation Policy and Compliance
<ul style="list-style-type: none"> Data and reporting obligations under national and international agreements are frequently met, but with high resource impact. 	National and International Agreements

Innovation

Maturity Level 2 Characteristics	IS4H Framework components
<ul style="list-style-type: none"> While some IS4H concepts are understood, leadership and staff are not widely aware of all concepts. 	Key Concepts
<ul style="list-style-type: none"> Basic tools are routinely used for health analysis (e.g., spreadsheets, statistical packages, etc.) and data is stored in relational databases. 	Tools
<ul style="list-style-type: none"> Data typically flows from sources to central decision-makers for health analysis, but little health information is available for decision-making at the local level. There is evidence that data and information are routinely used to support policy and management decision-making. 	Health Analysis for Decision-making
<ul style="list-style-type: none"> Digital health tools such as electronic records, laboratory/pharmacy information systems and electronic order entry are being implemented with a focus on digitizing manual processes and operational efficiencies. Developed roadmap based on assessment to better integrate digital technologies into existing health systems including normative and technical aspects. 	Digital Health
<ul style="list-style-type: none"> E-government is on the national agenda, but there is no formal strategy or unit in place. 	eGovernment
<ul style="list-style-type: none"> There is broad knowledge of open government principles among national health authorities, and leadership support for advancing open government policies and initiatives. 	Open Government
<ul style="list-style-type: none"> There is evidence of approaches for ensuring business continuity in the case of disaster (e.g., routine off-site backups, downtime manual process SOPs, etc.). Some key data sets are available to support disaster response (e.g., facilities and health human resource databases, database of emergency centres, mortality data, etc.) 	Preparedness and Reliance