



Pan American  
Health  
Organization



World Health  
Organization

REGIONAL OFFICE FOR THE Americas



# IS4H TOOLKIT

**MONITORING AND EVALUATION  
FRAMEWORK**

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DEPARTMENT OF EVIDENCE AND INTELLIGENCE FOR  
ACTION IN HEALTH  
PAHO/WHO  
[www.paho.org/ish](http://www.paho.org/ish)



## GENERAL ORIENTATION

# MONITORING

### OKRs

## Objectives and Key Results

**IS4H Objectives and Key Results (IS4H-OKRs)** is part of the suggested Monitoring and Evaluation Framework (IS4H-MEF) for setting, communicating and analyzing short-term results in project implementation. The goal of the IS4H-OKRs is to connect institutions, teams and personal objectives for ensuring convergence in one unified direction and under a common vision and strategic goals<sup>1</sup>. It is recommended a list of 3 to 4 high-level objectives. Under each objective then 3-4 key measurable results are critical. Each key result should have a progress indicator or score of 0-100% that will show its achievement. It is recommended to add short comments on each Key Result.

# EVALUATION

### KPIs

## Key Performance Indicators

**IS4H Key Performance Indicators (IS4H-KPIs)** is part of the suggested Monitoring and Evaluation Framework (IS4H-MEF) for establishing a measurable value that demonstrates how effectively institutions or project team are achieving the national goals for having an integrated National Information Systems for Health. The goal of the IS4H-KPIs is also to support institutions and teams to evaluate their success at reaching project targets. It can also be used to evaluate the success of a particular activity, projects, programs, products and other connected initiatives in which it engages. IS4H-KPIs must be quantifiable and should be communicated throughout the entire Institution.

<sup>1</sup> IS4H Strategic goals were collectively agreed with Member States since November 2016

# IS4H Monitoring

## Objectives and Key Results (First year)





IS4H – Strategic Goal 1 – Data Management and Information Technologies			
<b>Objective 1</b>	Develop a comprehensive situation analysis on databases, technological applications, IT infrastructure and IT organizational structure		
	<b>Key result</b>	<b>Score</b> 	<b>Comment</b>
KR 1	Inventory of information products		Data bases, publications, technical reports, visualizations, etc
KR 2	Inventory of technological applications		Non administrative software
KR 3	Inventory of IT Infrastructure		Key hardware and connectivity
KR 4	Mapping of the IT entity (or similar) at the MoH organizational structure		Location (and functions) of the IT department within the institution. If it exists
<b>Objective 2</b>	Adopt and share among staff and stakeholders a Data Governance Strategy, as measured by:		
	<b>Key result</b>	<b>Score</b> 	<b>Comment</b>
KR 1	Data governance strategy		Process for having technical data that ensure its availability, usability, integrity, confidentiality, ethical use and security
KR 2	Data sharing agreements		A data-sharing agreement will be the formal mechanism for documenting what data are being shared among the IS4H stakeholders and how the data can be used
KR 3	Standard Operating Procedures (SOPs) for Data quality assurance (QA) identified		Formal and documented processes to monitor data quality and to take actions to address possible issues.
KR 4	National Open Data portal under development		Provision of open access to health data published by the IS4H Stakeholders.

### IS4H – Strategic Goal 1 – Data Management and Information Technologies

<b>Objective 3</b>	Define the Public Health Information Architecture		
<b>Key result</b>	<b>Score</b> 	<b>Comment</b>	
KR 1	Mapping of the Health-related information flows	Understood as the path that health data takes from its original place to its end use or reuse.	
KR 2	Mapping of the main data collection mechanisms	Some examples are: Interviews, Questionnaires, Surveys, Observations, Focus Groups, Case Studies, Documents and Records.	
KR 3	Mapping roles and responsibilities of the health workers	Staff involved in data collection, aggregation, analysis and dissemination	
KR 4	Decision on standards	Such as ICD-10 or higher, HL7, ATC (Anatomical, Therapeutic and Chemical), Healthcare Common Procedure Coding System (HCPCS), etc	
<b>Objective 4</b>	Develop a Technology Readiness Level Assessment		
<b>Key result</b>	<b>Score</b> 	<b>Comment</b>	
KR 1	Technology Readiness Level Assessment report	Technology readiness measures the extent to which a technology is suited for IS4H implementation in a real operational environment of the country	
KR 2	Technology Readiness Risk Assessment report	Risk assessment to point out possible risk associated with technology transition and adoption that can be mitigated as necessary.	

IS4H – Strategic Goal 2 –Management and Governance			
<b>Objective 1</b>	Adopt and share among stakeholders and key development partners the Vision, Mission and Goals for the National Information Systems for Health initiative, as measured by:		
	<b>Key result</b>	<b>Score</b> 	<b>Comment</b>
KR 1	Vision, mission and goals linked to a national health strategy		Common understanding by all the key stakeholders
KR 2	Rapid assessment report		Initial findings of a country maturity assessment
KR 3	Full assessment report		Maturity on information management processes, information governance readiness, open government initiatives and knowledge management process adoption
<b>Objective 2</b>	Establish the main foundations for the sustainability of the Information Systems for Health initiative, as measured by:		
	<b>Key result</b>	<b>Score</b> 	<b>Comment</b>
KR 1	Conceptual framework and National roadmap		The IS4H conceptual framework, supported by a National Roadmap, will be the tool that provides the overall picture of the IS4H vision and mission. It should be used to make conceptual definitions, define critical indicators and organize ideas.
KR 2	First draft of a National Policy		National Policies for IS4H, Strategies and Plans play an essential role in implementing the country's vision, policy directions and strategies for ensuring the health of its population. The development of National Health Policies, Strategies and Plans should be a dynamic process that considers multi stakeholder participation. <sup>2</sup>
	<b>Key result</b>	<b>Score</b>	<b>Comment</b>

<sup>2</sup> Adapted from: <http://www.who.int/nationalpolicies/nationalpolicies/en/>

IS4H – Strategic Goal 2 –Management and Governance			
			
KR 3	Terms of reference (TORs) for implementing a National IS4H committee		The National Committee for IS4H should be an advisory board, lead by the MoH, which works to provide technical and managerial guidance, and to ensure convergence of initiatives, investments and actions among the different stakeholders.
<b>Objective 3</b>	Instate a culture of quality data and information management among the health sector, as measured by:		
	<b>Key result</b>	<b>Score</b> 	<b>Comment</b>
KR 1	Internal communications strategy		An internal communications strategy will be a critical tool for a successful implementation of the National IS4H Roadmap. It is key for ensuring staff engagement and ultimately has a positive impact on the Country vision for this initiative.
KR 2	Knowledge sharing activities		Knowledge sharing activities are critical for strengthening a culture of learning and sharing among staff, institutions and countries that are implementing similar projects or strategies. Knowledge sharing activities could be supported by PAHO's knowledge management methodologies.
<b>Objective 4</b>	Prepare an Investment Case for Development Partners, as measured by:		
	<b>Key result</b>	<b>Score</b> 	<b>Comment</b>
KR 1	Research on possible Development Partners		Process for identifying financial, technical or academic partners that can contribute to the achievement of the National vision for an integrated IS4H.
KR 2	Concept paper for resource mobilization		Must be developed under the concept of “investment cases”
	<b>Key result</b>	<b>Score</b> 	<b>Comment</b>

**IS4H – Strategic Goal 2 –Management and Governance**

KR 3	Multi-stakeholder consultation		The multi-stakeholder consultation will bring together key stakeholders of the health sector to endorse the national vision, policy and roadmap. It should include the possible and development partners.
KR 4	Publication and dissemination		Investment cases, once agreed by within the National Committee and presented to the stakeholders, should be published online and widely disseminated.







IS4H – Strategic Goal 3 –Information and Knowledge Management			
<b>Objective 1</b>	Establish a formal collaboration with academic and scientific institutions for strengthening data and information management processes, as measured by:		
	<b>Key result</b>	<b>Score</b> 	<b>Comment</b>
KR 1	Memorandums of understanding with academic institutions		Academic and research institutions should be incorporated into the discussions of conceptual models as well as aspects related to the policy development and informed decisions.
KR 2	Series of lectures on the state of the art of the different components of IS4H		Promote the participation of Staff at the RELACSIS Webinars organized by PAHO
KR 3	Master and/or PhD students working ( <i>Thesis</i> ) on IS4H projects		Graduate students who intend to work their thesis on IS4H projects could be of great value for achieving the expected results by the country.
<b>Objective 2</b>	Adoption of Knowledge Management methodologies for strengthening IS4H, as measured by:		
	<b>Key result</b>	<b>Score</b> 	<b>Comment</b>
KR 1	Communities of Practices		Formal mechanism for information and knowledge sharing for strengthening IS4H implementation
KR 2	Lessons Learned		Formal process for documenting and learning from good (and bad) practices in project implementation
	<b>Key result</b>	<b>Score</b> 	<b>Comment</b>

IS4H – Strategic Goal 3 –Information and Knowledge Management			
KR 3	Develop functionally within the Information Society		In order to develop functionally within the information society, a person should attain, maintain and strengthen a set of abilities and capacities which enable him/her to critically create, integrate and share information and knowledge in his/her daily, official or personal activities using Information and Knowledge Technologies
KR 4	Institutional memory preservation		Criteria, methodologies and content management platforms that allow to record, sort, preserve and disseminate information and knowledge generated in the Institution
KR 5	Scientific writing		The fundamental purpose is to communicate information resulting from projects in spaces and scientific-technical means in a clear, precise, concise and simple way, with an adequate level for the target audience
<b>Objective 3</b>	Formal mechanism to improve processes and policies, as measured by:		
	<b>Key result</b>	<b>Score</b> 	<b>Comment</b>
KR 1	Conducting After Action Reviews (AAR) to formally discuss what went well, what went wrong, and other aspects of the processes		An institution will be defined as a "Learning Organization" when it imposes formal mechanisms for updating SOPs based on lessons learned and AAR
KR 2	Documentation of lessons learned about implemented processes (Data Sharing agreement)		
<b>Objective 4</b>	Interact and communicate with MOH target audiences		
	<b>Key result</b>	<b>Score</b> 	<b>Comment</b>
KR 1	Key communication messages		Are the main points and "benefits for having invested" that the MOH

### IS4H – Strategic Goal 3 –Information and Knowledge Management

			want its target audiences to hear and remember?
KR 2	Bibliometric analysis of the users interaction with the MOH portal		Bibliometric analysis should consider statistical analysis of web-based publications, MoH portals and/or online databases of the health sector.
KR 3	MoH policy for social networking		Personnel Policies on the use of social networks will be key when it comes to formal use in Information Systems and unstructured data processing
KR 4	Info-graphics		Graphic representation of the key components of the IS4H National Plan and outcomes.

IS4H – Strategic Goal 4 – Innovation			
<b>Objective 1</b>	Digital literacy		
	<b>Key result</b>	<b>Score</b> 	<b>Comment</b>
KR 1			
KR 2			
KR 3			
KR 4			
<b>Objective 2</b>	Change management strategy		
	<b>Key result</b>	<b>Score</b> 	<b>Comment</b>
KR 1			
KR 2			
KR 3			
KR 4			
<b>Objective 3</b>	Public health integrated with eGov		
	<b>Key result</b>	<b>Score</b> 	<b>Comment</b>
KR 1			
KR 2			
KR 3			
KR 4			
<b>Objective 4</b>	Monitoring and evaluation framework		
	<b>Key result</b>	<b>Score</b> 	<b>Comment</b>
KR 1			
KR 2			
KR 3			
KR 4			

# IS4H Evaluation

## Key Performance Indicators (First year)

IS4H – Strategic Goal 1 – Data Management and Information Technologies			
Key performance indicator		Comment	Means of Verification
#1	Status and plans for existing applications		
#2	Status and plans for existing infrastructure		
#3	Formal data sharing agreements		
#4	Adopted standards		
#5	SOPs for quality data		

IS4H – Strategic Goal 2 – Management and Governance			
Key performance indicator		Comment	Means of Verification
#1	National technical (and multi-stakeholder) working group		
#2	National IS4H Policy and roadmap		
#3	Updated legislation and/or policies		
#4	Core competencies mapped		

IS4H – Strategic Goal 3 – Information and Knowledge Management			
Key performance indicator		Comment	Means of Verification
#1	Knowledge management methodologies		
#2	Formal training on data management		
#3	Core staff with minimum set of skills for IS4H implementation		
#4			

IS4H – Strategic Goal 4 – Innovation			
Key performance indicator		Comment	Means of Verification
#1	Digital literacy program		
#2	Change management strategy		
#3	Public health integrated with eGov		
#4	Formal and collectively agreed Monitoring and evaluation framework for the National Roadmap		