



Navigator for Digital Health Capability Models Webinar

November 10, 2021

USAID





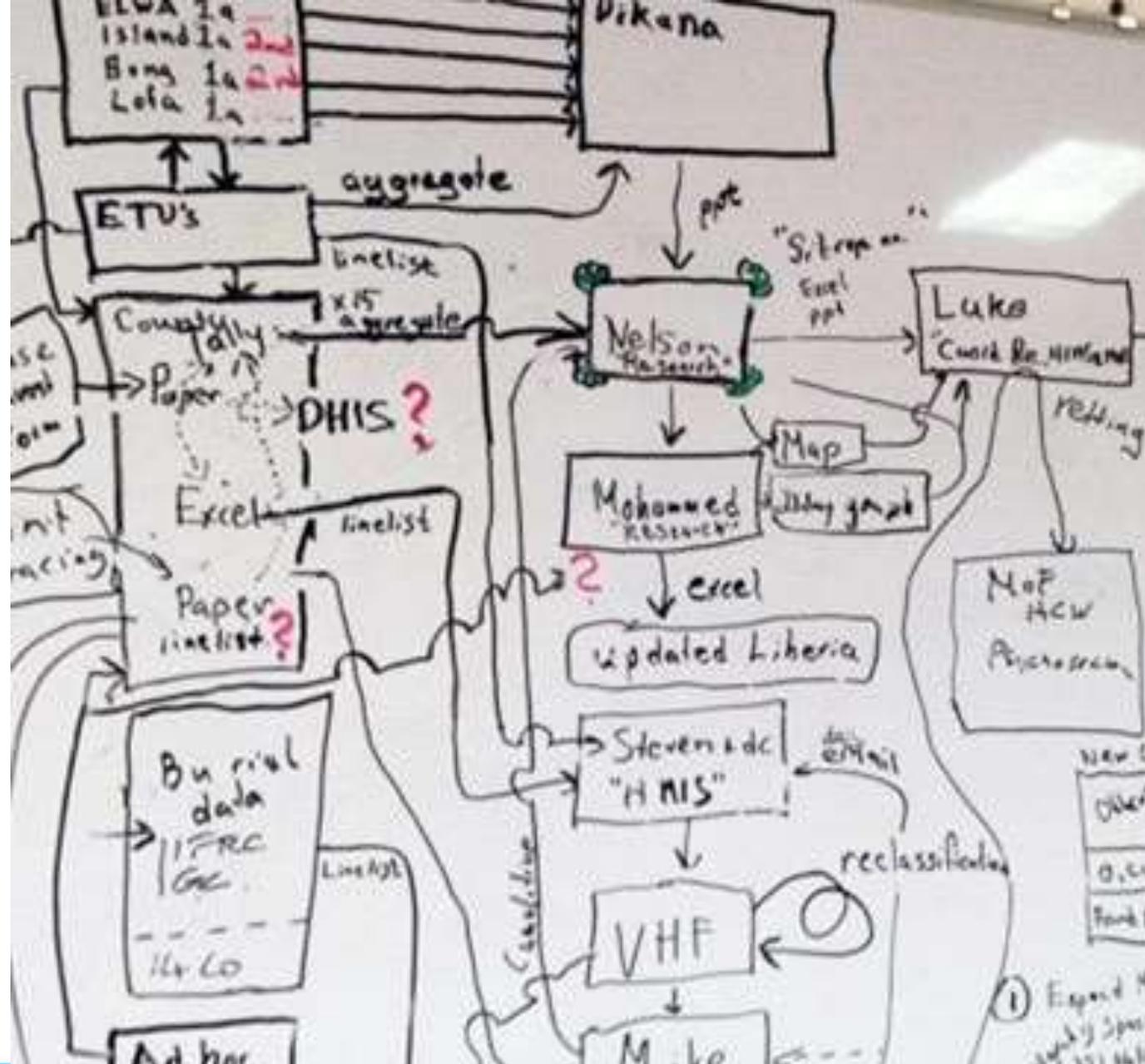
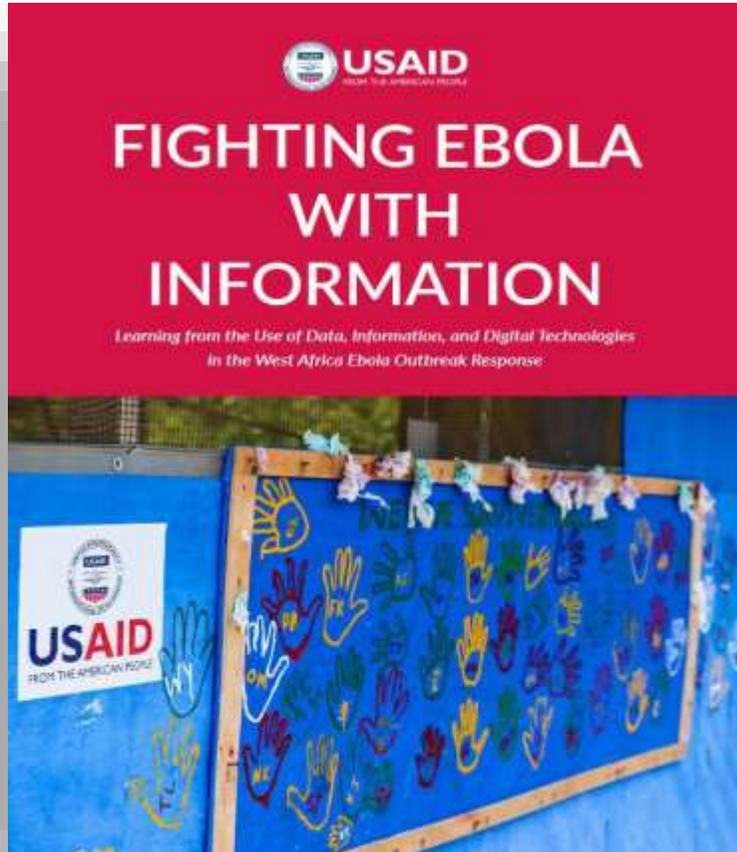
Navigating Digital Health Transformation: The Role of Assessments

Adele Waugaman,
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November 2021



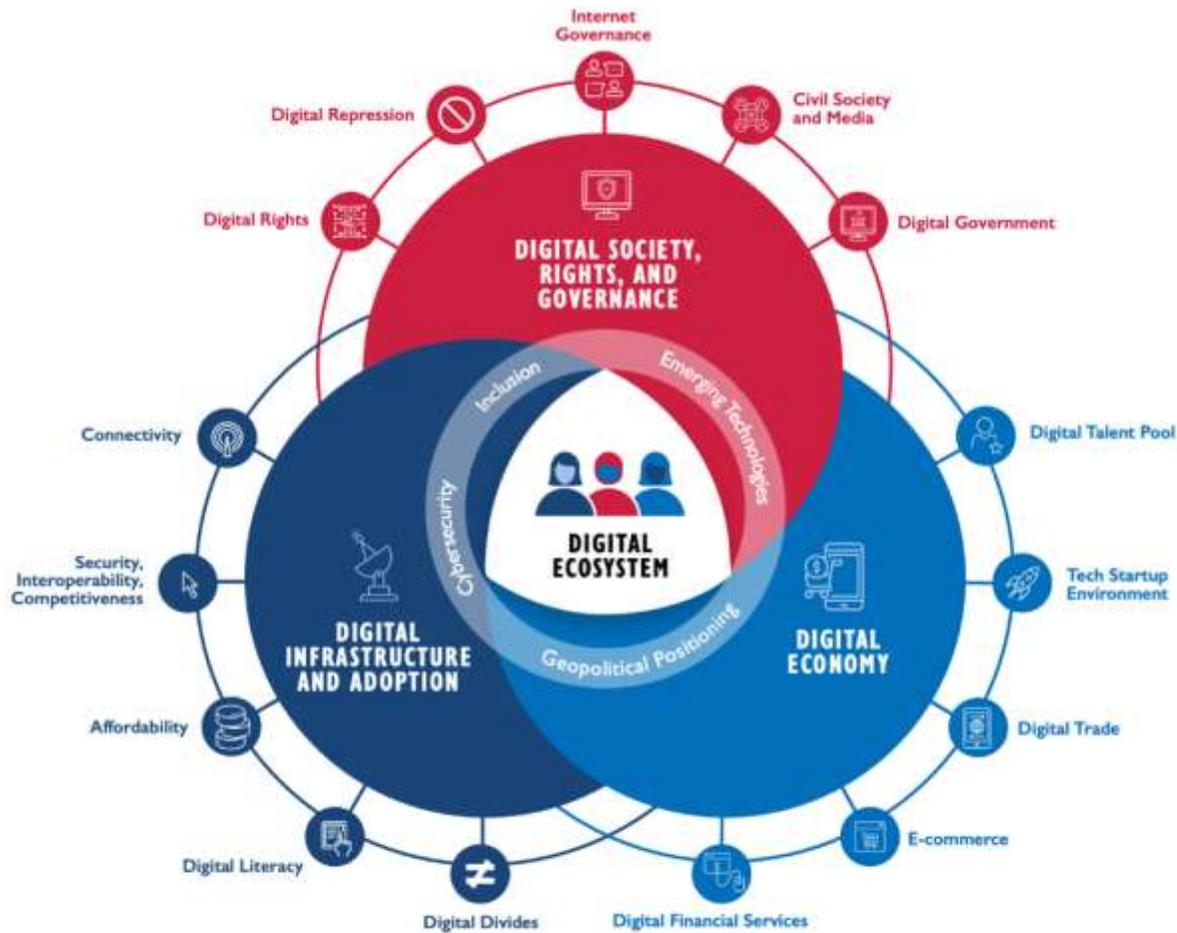
➤ Data, information, and digital technologies are critical to health



➤ USAID's approach to digital transformation



➤ Assessments are critical to digital transformation



➤ Assessments: Priority #1 of the USAID *Digital Health Vision*

**Assessing & Strengthening
Country Digital Health
Capacity**

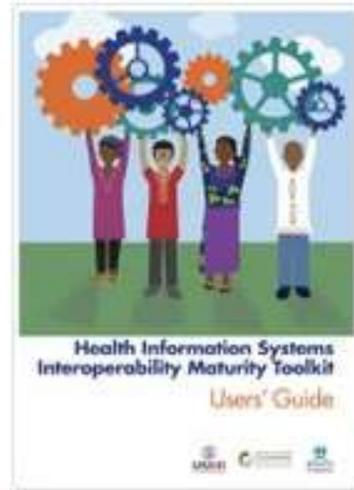
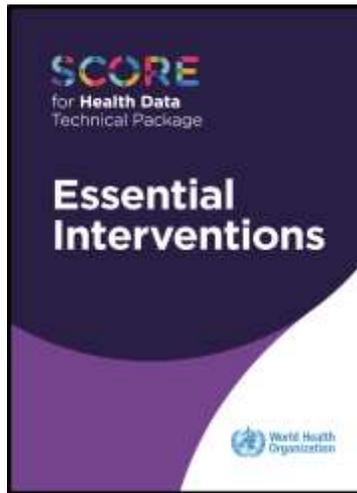
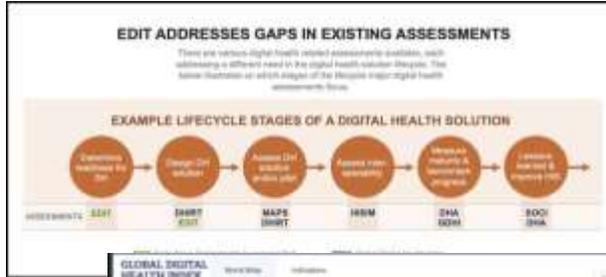
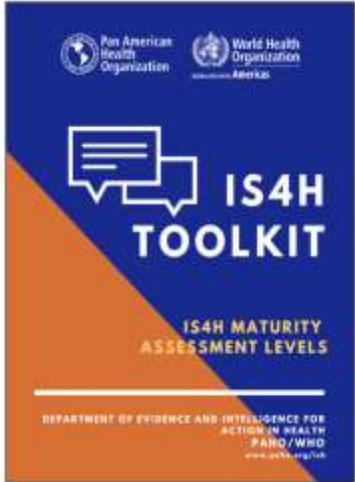
**Advancing National Digital
Health Strategies**



**Leveraging Global
Goods**

**Strengthening National Digital
Health Architectures**

➤ Harmonizing digital health assessment approaches



The Benefits of an Aligned Assessment Approach

- • The Navigator can establish a baseline and track digital transformation over time
- The Navigator is designed to support systems-level analysis:
 - Focused on advancing the maturity of national capabilities, not individual sub-domains
 - Disease agnostic
 - Available and accessible for the purpose of alignment
- The Navigator can leverage data from prior assessments and help identify gaps where further work needed





THANK YOU

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World Health Organization

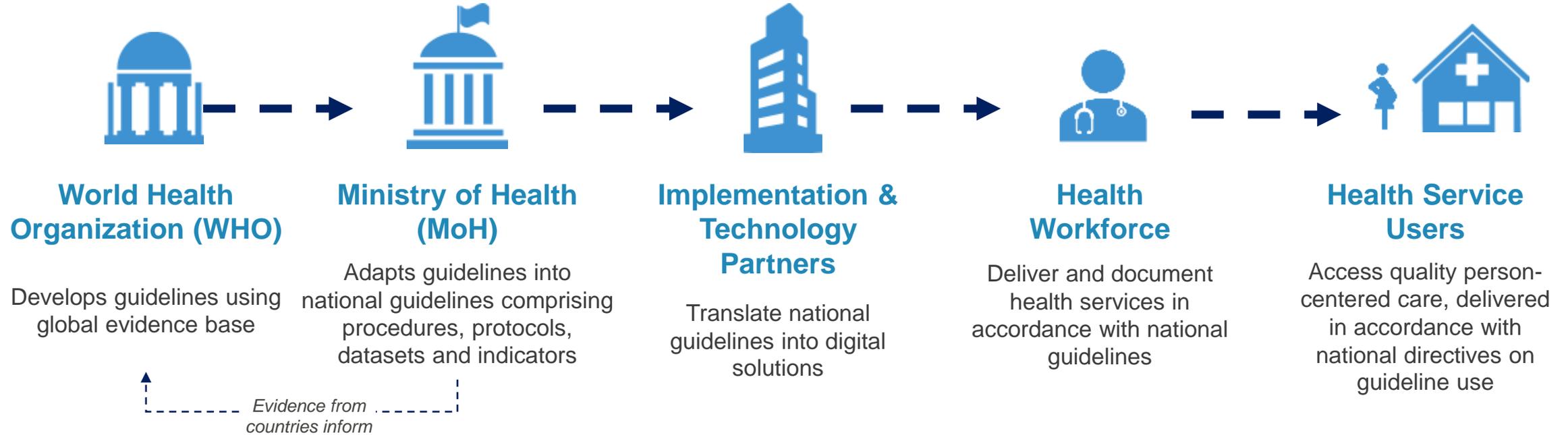




Smart Guidelines:
Advancing Use of WHO Guidelines in the Digital Age

August 2021

Today, WHO guidelines can take years to be fully adopted by member states, and accuracy can be compromised during adaptation



Today's guidelines are

r Not integrated quickly or fully into practice

r Resource intensive to adapt and scale to broader use

r Difficult to update or digitize with fidelity

r Infrequently digitized with interoperability and indicator standards

This is further complicated with digital leading to questionable results

MOH and their implementation partners need detailed specifications for digitizing guidelines so that they are not misinterpreted

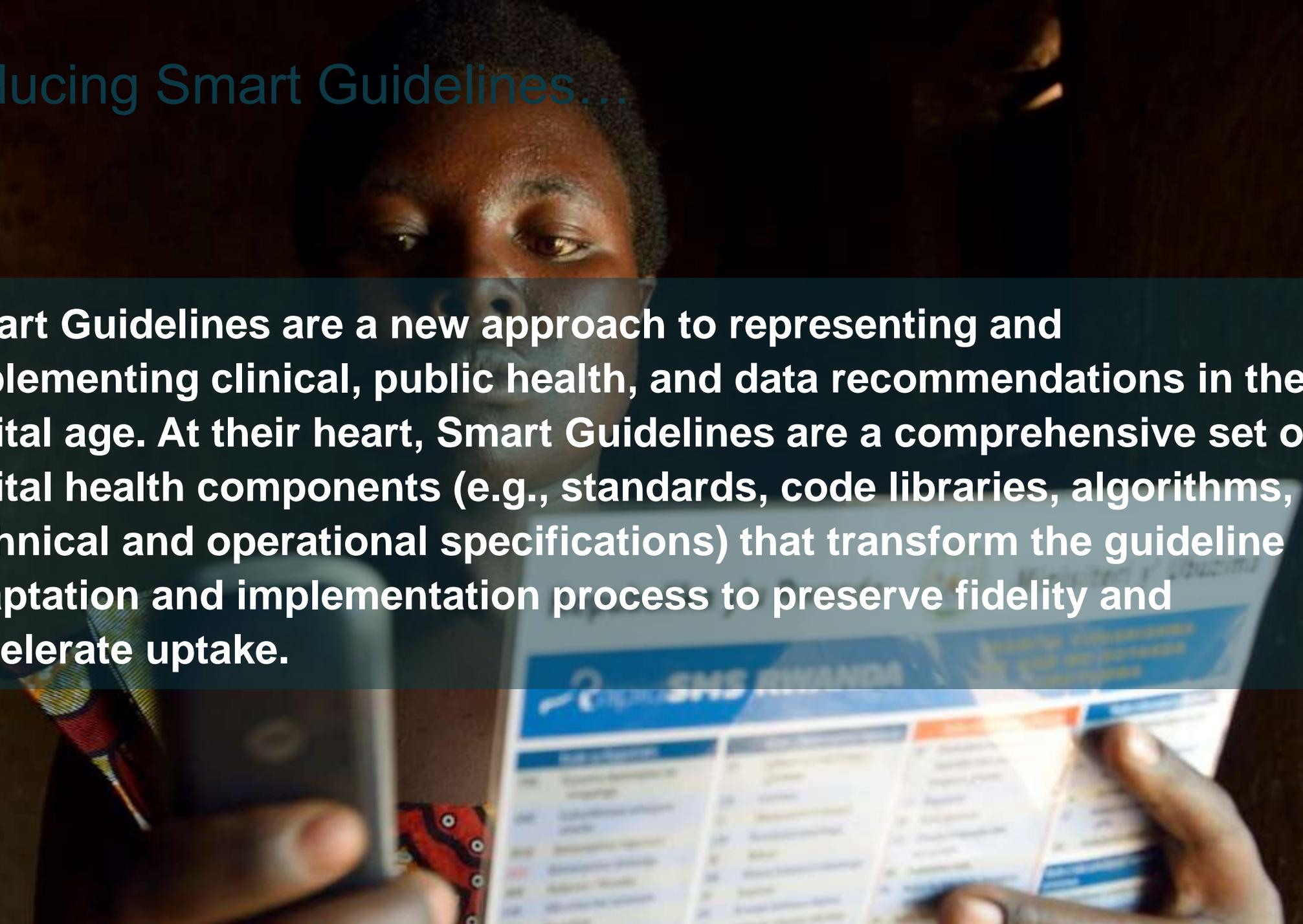


Today's digitized guidelines are

- r Not always accurate
- r Not fully trusted
- r Not cost-efficient
- r Uncoordinated
- r Not transparent
- r Not scalable
- r Not interoperable
- r Opaquely & inadequately represented in digital solutions

Introducing Smart Guidelines...

Smart Guidelines are a new approach to representing and implementing clinical, public health, and data recommendations in the digital age. At their heart, Smart Guidelines are a comprehensive set of digital health components (e.g., standards, code libraries, algorithms, technical and operational specifications) that transform the guideline adaptation and implementation process to preserve fidelity and accelerate uptake.



Smart Guidelines - Busting the Myths

Smart Guidelines are **NOT**

- r A digital app version of the guidelines
- r Bound to a specific digital solution, product, or platform
- r Just a clinical solution, or data solution
- r A way to push ministries into specific software solutions
- r A singular solution to system interoperability and health information exchange
- r Only about digital

Smart Guidelines **ARE**

- ✓ A pathway, or systematic approach, to digitizing guidelines (complementing *living guidelines*)
- ✓ A set of generic components applicable to many digital systems
- ✓ An operational hybrid of clinical and data recommendations intertwined
- ✓ A way to give ministries control over the digital products and services they implement
- ✓ Data standards that enable health information exchange between numerous solutions, and enabling consistent calculation of metrics
- ✓ An approach to improve guideline curation and use, even without digitization

STRATEGIC OBJECTIVES

The four strategic objectives are intended to provide guidance and coordination on global digital health transformation and to strengthen synergies between initiatives and stakeholders to improve health outcomes and mitigate associated risks at all levels.

Global strategy
on digital health
2020-2025

1

Promote global collaboration and advance the transfer of knowledge on digital health

2

Advance the implementation of national digital health strategies

3

Strengthen governance for digital health at global, regional and national levels

4

Advocate people-centred health systems that are enabled by digital health

University of North Carolina





A Navigator For
Digital Health
Capability Models

A Navigator for Digital Health Capability Models

Manish Kumar, Ph.D.

Liz Millar, MPH

University of North Carolina at Chapel Hill

November 10, 2021



Overview of the Navigator content

Why is the Navigator needed and what is it?

- The Navigator provides guidance to users in navigating publicly available maturity model-based tools designed to **assess digital health systems**.

Why use a maturity model-based assessment?

- These tools use a **systematic basis of measurement to describe the current level of capability and to inform progress**. Assessments are conducted using a measurement scale.

What tool(s) best fits my goal(s)?

- Depending on the context-specific goal(s), **one tool may yield more valuable results than another for a given setting**.

How can the tools be used together?

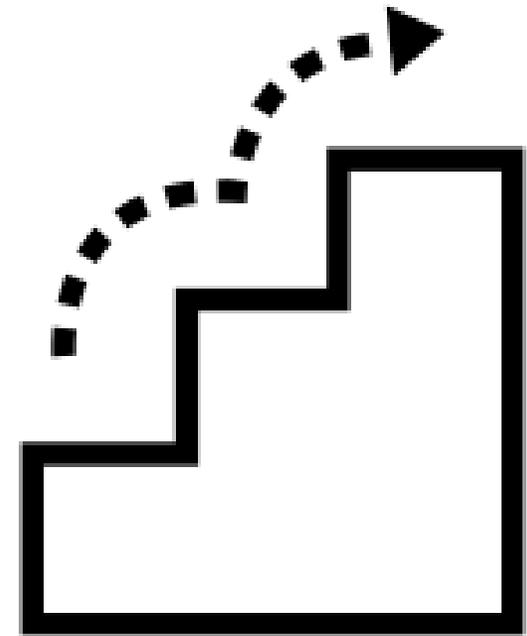
- Depending on the context and available resources, **one tool may be sufficient, or a combination of tools may best inform a path forward**. Past assessment results can be used to inform new assessments.

What about system-specific maturity models?

- Tools designed for a specific digital health system **may better suit specific assessment needs and complement holistic digital health assessment tools**.

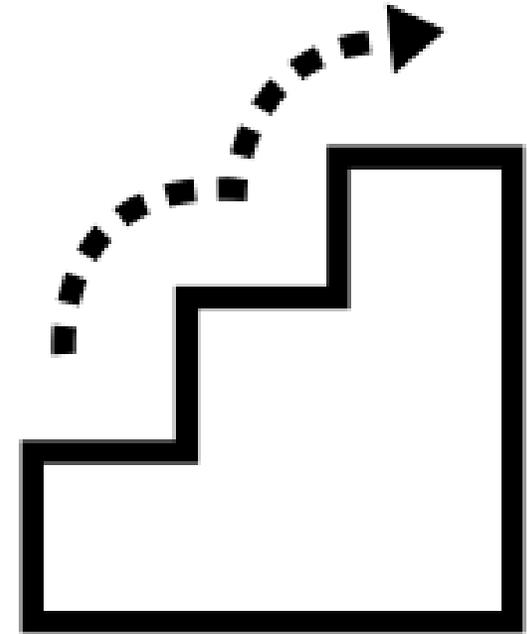
Why use a maturity model-based assessment tool? (1 of 2)

- Maturity model-based assessment tools for digital health establish a **systematic basis of measurement** to:
 1. Describe the **current maturity level of digital health systems** in terms of human resources, business processes, technology, and organizational capabilities.
 2. Facilitate users' ability to **set goals for future levels of maturity.**
 3. Inform the **development of improvement plans** to realize the next maturity level toward a stronger digital health system for a country to meet its public health targets.

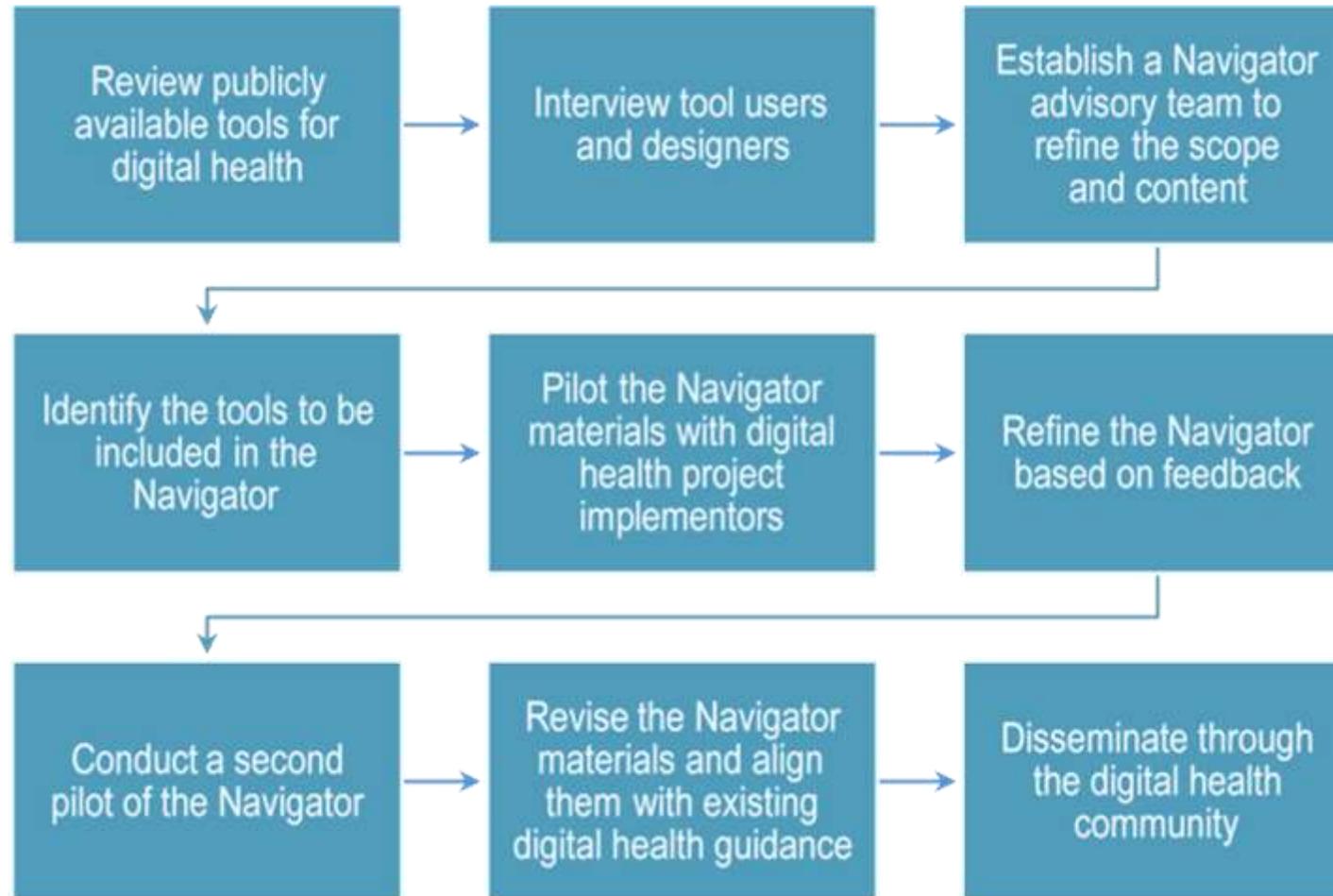


Why use a maturity model-based assessment tool? (2 of 2)

- The elements defined in a model can be **used to assess digital health capabilities**. Assessment results help an organization or country understand where it is on the path to maturity, and to visualize the future **workforce, business processes, and technology capability** required to achieve optimal function for purpose.
- Results from maturity model assessments **identify both strengths and shortfalls** in achieving the goals of a given health system.



How was the Navigator developed?



What tools are included in the Navigator?

	<p>The Early Stage Digital Health Investment Tool (EDIT) is a global good designed to assess a country's readiness to implement a digital solution(s).</p>
	<p>The Global Digital Health Index (GDHI) is an interactive digital resource that tracks, monitors, and evaluates the use of digital technology for health across countries.</p>
	<p>The HIS Interoperability Maturity Model (IMM) identifies the major components of HIS interoperability and lays out an organization's growth pathway through these components.</p>
	<p>The HIS Stages of Continuous Improvement (SOCI) Toolkit was collaboratively designed to help countries or organizations holistically assess, plan, and prioritize interventions and investments to strengthen an HIS.</p>
	<p>The Information Systems for Health (IS4H) Toolkit describes the method, tool, and questions for assessing organizational capacity.</p>
	<p>WHO's Survey, Count, Optimize, Review, Enable (SCORE) Essential Interventions is part of the SCORE for Health Data Technical Package of five essential interventions with key elements to strengthen country health data and information systems, and enable governments to track progress toward the health-related SDGs and national and subnational priorities.</p>

Tool selection parameters

The following criteria were used to include maturity models for alignment and developing a maturity model navigator.

- Focused on **advancing the maturity of national capabilities and not specific system** categories.
- **Agnostic to disease** (HIV, TB, malaria, etc.) domains.
- **Implemented by MOHs** in low- and middle-income countries.
- **Available and accessible** for the purpose of alignment (tool, user's guide, and accompanying documents available).

What about system-specific maturity models?



There are maturity model-based tools designed to assess specific information subsystems that can provide detailed and specific assessment criteria, indicators, and steps for improvement to support specific subsystems.



Such tools can be used in combination with the tools in the Navigator that take a broader lens to assessing systems for digital health.



Determination of when to use such tools will depend on the specific goals of a country or the organizational context.

System-specific maturity models can be used for the following system categories, as organized by the WHO Digital Implementation Investment Guide (DIIG) framework.

SYSTEM CATEGORIES

A	Census, population information & data warehouse*	I	Emergency response system*	R	Laboratory and diagnostics information system*
B	Civil registration and vital statistics	J	Environmental monitoring system*	S	Learning and training system
C	Client applications	K	Facility management information system	T	Logistics management information system (LMIS)
D	Client communication system	L	Geographic information system (GIS)	U	Pharmacy information system*
E	Clinical terminology and classifications*	M	Health finance and insurance information system*	V	Public health and disease surveillance system*
F	Community-based information system	N	Health management information system (HMIS)	W	Research information system
G	Data interchange interoperability and accessibility*	O	Human resource information system	X	Shared Health Record and health information repositories*
H	Electronic medical record*	P	Identification registries and directories*	Y	Telemedicine
		Q	Knowledge management system*		

*Adapted from the International Standards Organization [3]

WHO System Categories, DIIG

What tool best fits my goal?



Each tool is designed to serve specific purposes and functions related to assessing and advancing digital health.



The Excel-based Decision Support Workbook provides guidance on selecting a tool based on the goal(s) of the assessments, along with the intended audience, available resources, and priority areas of digital health to assess.



The Navigator will also include guidance on how to use tools and their results in combination, including a detailed mapping of indicators.

Main criteria for selecting a tool

A key first step in determining the best tool for a given context is to **determine the goal(s) of conducting the assessment**. The goal(s) should align with the purpose of the selected tool.

Possible goals for assessments:

- Assess and monitor digital health readiness to prioritize digital health investments.
- Track, monitor, assess, and benchmark the effective use of digital health.
- Develop a digital health (or eHealth) strategy.
- Develop an HIS interoperability strategy.
- Assess and improve HIS interoperability maturity.
- Develop an HIS strategy.
- Monitor and evaluate HIS process improvements.
- Determine current and desired maturity levels to develop a roadmap for continuous HIS improvement.
- Assess and strengthen country HIS and data to track progress toward the health-related SDGs.

Previous assessments

Assessment tools used in the past two years

Considering what, if any, maturity model-based tools have been used in the previous two years will be important for assessment planning purposes. Future assessments may be able to draw from past results.

The Navigator provides guidance on how to use tools in combination, including a detailed mapping of individual tool indicators.

Additional criteria for selecting a tool

Additional criteria: Audience and methods

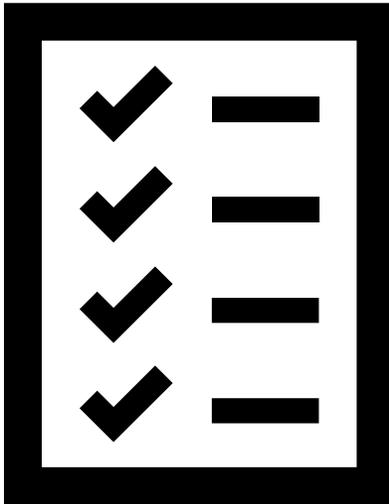
If multiple tools align with a given goal or goals, additional criteria can help determine a best-for-fit option.

Additional criteria include:

- **Assessment language** lists in what languages assessment materials are available. All assessments included in the Navigator are available in English; some assessment toolkits are also available in French, Spanish, Portuguese, or Arabic.
- **Methods** cover the prescribed process for conducting the assessment. This varies by tool from a half-day workshop with several key stakeholders, to multi-day workshops, to site visits and observations. The selection of methods should consider what resources are available to support the assessment methods.
- **Areas assessed** are the specific elements or components of digital health measured by a given assessment.

(See the next slide.)

Decision Support Workbook



- The Excel-based Decision Support Workbook asks users to input their **main goal or goals (up to two) in conducting an assessment** and makes a recommendation.
- Users are also asked to indicate whether any of the **tools have been used in the previous two years** in their specific context, country, or organization.
- Users may be prompted to **select additional criteria** if more than one tool aligns with the selected goal(s).
- Recommendations are meant to indicate which tools users should **review more closely to determine the best fit for purpose.**

Summary

- The Navigator is intended to provide guidance for selecting and using one or more maturity model-based tools.
- The accompanying Decision Support Workbook (in Excel) is intended to guide users in determining which tool or tools to review more closely.
- Assessment planners should consider what tools have been used previously and whether the assessment results can be reviewed to inform a new assessment.

What does each maturity model comprise? (1 of 2)

	EDIT	GDHI	IMM	IS4H	SCORE	SOCI
Number of levels/stages	Scale of 1-5	Five maturity phases	Five maturity levels	Five maturity levels	Five levels	Five stages for improvement
Notes on scoring	Average scores from multiple stakeholders; tool allows for weighting of certain stakeholder responses	In average phase calculations, the platform rounds up and is meant to celebrate achievements	Scoring allows for full completion of levels and partial completion (if only two of three attributes have been met for a given level)	Average of ranking scores for each goal	Scores given for each of the five intervention categories in the SCORE package; indicators are scored based on a country's current capacity	Initial scoring done by averaging scores from stakeholders; final assessment scores determined in consensus building workshop

What does each maturity model comprise? (2 of 2)

	EDIT	GDHI	IMM	SOCI	IS4H	SCORE
Attributes	Six essential building blocks with 19 respective subcategories and 71 total indicators; indicators are categorized as information, enabling, or critical	19 core indicators aligned with the seven components of the WHO-ITU Strategy Framework	Three domains and 18 respective subdomains	Five HIS core domains, 13 corresponding components, and 39 subcomponents	Four strategic goals, 26 components	Five technical areas
Main areas of assessment, as described by the tool	<ol style="list-style-type: none"> 1. Human capacity 2. Standards and interoperability 3. Governance and policy 4. Data capture and use 5. Investments and funding 6. Infrastructure 	<ol style="list-style-type: none"> 1. Leadership and governance 2. Strategy and investment 3. Legislation, policy, and compliance 4. Workforce 5. Standards and interoperability 6. Infrastructure 7. Services and applications 	<ol style="list-style-type: none"> 1. Leadership and governance 2. Human resources 3. Technology 	<ol style="list-style-type: none"> 1. Leadership and governance 2. Management and workforce 3. ICT infrastructure 4. Standards and interoperability 5. Data quality and use 	<ol style="list-style-type: none"> 1. Data management and information technologies 2. Management and governance 3. Knowledge management and sharing 4. Innovation 	<ol style="list-style-type: none"> 1. Survey populations and health risks 2. Count births, deaths, and causes of deaths 3. Optimize health service data 4. Review progress and performance 5. Enable data use for policy and action

Thank you!

For more information, please write to:
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