SMART Guidelines for National Digital Health Systems

WHO has launched its first SMART Guideline approach that includes documentation, procedures and digital health tools.

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Policies, procedures and digital systems vary greatly across different countries, which requires a systematic approach to ensure better efficiency, transparency and standardisation when adapting WHO recommendations. There is currently a lack of technical documentation and standards for accurate incorporation, and the SMART Guideline approach aims to support policymakers, technologists and health workers on this path.

SMART – Standards-based, Machine-readable, Adaptive, Requirements-based, and Testable – Guidelines are a set of reusable digital health components such as interoperability standards, code libraries, algorithms, etc., which are divided into five ‘knowledge layers’ (Mehl et al. 2021):

- **L1: Narrative layer – enhanced guidelines.** This layer focuses on the role of the current guideline development processes in digital transformation.
- **L2: Operational – digital adaptation kits (DAKs).** Bringing together the health authorities and software developers, this layer aims to render health data applicable to various digital systems so that to increase operational consistency and transparency.
- **L3: Machine readable – machine-readable recommendations.** Here code is provided to facilitate incorporation of the L2 data into digital systems based on H7 FHIR standards.
- **L4: Executable – reference applications and services.** It focusses on software applications and services within a digital ecosystem.
- **L5: Dynamic – precision health models.** Building on L4 digital systems, this layer explores the possibilities of big data, advanced analytics and dynamic algorithms.

The first in the future family of SMART Guidelines is Antenatal Care Guidelines focussed on improving
The first in the future family of SMART Guidelines is Antenatal Care Guidelines focused on improving maternal health and well-being, including through better implementation of digital solutions.

At a later stage this year, WHO is planning to launch SMART Guidelines for HIV, STIs, immunization, family planning, child health and humanitarian emergencies.

Source and image credit: WHO

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