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# WHO AFRO-ITU Regional Digital Health Capacity Building and Curriculum Development Workshop For Digital Health Leaders

Cotonou, Benin | November 25<sup>th</sup> - December 4<sup>th</sup> April 2019

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# 01

## Introduction of the Workshop



The workshop on Capacity Building and Curriculum Development for Digital Health Leaders in French-speaking countries of Africa took place between November 25<sup>th</sup> and December 4<sup>th</sup>, 2019, in Benin, Cotonou. It built upon the success of the first workshop for English Speaking countries that took place a year ago in Lesotho and brought together participants from both the ministries of Health and ICT in 14 African countries: Algeria, Burkina Faso, Benin, Cameroon, Comoros, Congo, Ivory Coast, Gabon, Guinea, Malawi, Mauritania, Niger, Senegal, Togo.

The World Health Organization (WHO) is committed to providing the highest level of healthcare services globally. The WHO committed to meeting national goals and internationally agreed targets for development, including the SDGs and UHC. To achieve this, the WHO regional office for Africa (AFRO) has continued to use innovative approaches, such as the application of ICT services for health, referred to as eHealth or Digital Health, to promote better health outcomes among member states.

On the 27<sup>th</sup> of October 2017, the World Health Organization Africa Regional Office (WHO AFRO) and the International Telecommunications Union (ITU) signed a cooperation agreement aimed at scaling up digital health applications and accelerating the attainment of the Universal Health Coverage (UHC) and the Sustainable Development Goals (SDGs) in the African region.

The purpose of this agreement was to enhance the application of digital and electronic health methods and innovations to accelerate the UHC and the SDGs agenda in the African region. This was designed in line with the principles of people-centered care and the enhanced role of UHC in the SDGs – particularly SDG3 – as part of global development efforts towards 2030. Digital health and eHealth encompass all concepts and activities at the intersection of health and information and communications technologies, including mobile health (mHealth), health information technology, Electronic Health Records (EHRs), and telehealth. Digital health has several areas of application, including:

- Artificial intelligence (AI) applications to support such health services as remote-aided diagnosis.
- The delivery of health information, for health professionals and health consumers, through the Internet and telecommunications media.

- The use of ICTs to improve public health services (e.g., through the education and training of health workers).
- The use of Health Information Systems (HIS) to capture, store, manage, or transmit information on patient health or health facility activities.

WHO AFRO recognizes the potential for digital health to support UHC and accelerate the attainment of the SDGs. Thus, after joining hands with ITU on 27th November 2017 to provide further support to scale up digital health in the African region in Lesotho, the second workshop in Benin was taking place on the same pillars, and this time intended for Francophone countries in the region.

Along the sidelines of the first regional capacity development workshop, WHO AFRO and ITU also initiated work around national interoperability platform development in Benin. Indeed, the product of the first initiative led to the development of the WHO/Afro digital health platform, making Lesotho the first of the six focus countries selected to model and design the digital health interoperability platform. Initial requirements were collected from various stakeholders in Lesotho, including the MoH, Ministry of ICT, Lesotho Telecommunication Authority, University of Lesotho, USAID, EGPAF, and ICAP, among others.

The workshop in Benin was very timely to support the WHO/Afro digital health platform also presented during the workshop and recommended as an excellent platform for countries willing to build an integrated health information system. The workshop also included presentations from all countries represented at the meeting outlining their current status of Digital Health to further elaborate on the need for interoperability.

# Summary

## and Objectives

The 71st WHO World Health Assembly urged member states on several recommendations on digital health, including “to build, especially through digital means, capacity for human resources for digital health, as appropriate, across both health and technology sectors, and to communicate areas of the specific need to WHO to receive appropriate technical assistance;” - WHO Resolution on Digital Health, WHA71.7.

It is widely accepted that digital health plays a pivotal role in health service delivery. This also includes key roles in health information strengthening, data analytics, mapping, etc. Due to the rapidity at which digital innovation is advancing, and the increasing range of its application in health, solid multisectoral leadership, coordination, and governance are needed at the national level. It is also critical for there to be sufficient capacity building for digital health for the long-term sustainability of systems. WHO and ITU have provided technical support to member states to fulfill the aspirations above. One of the key instruments in this endeavor has been the WHO-ITU national eHealth toolkit. The guiding principles have been drawn from various commitments to eHealth agreed upon by member states, including the above resolution on digital health. The digital health capacity building workshop responded in part to the above resolution’s call to action for member states to “...build, especially through digital means, capacity for human resources for digital health, as appropriate, across both health and technology sectors, and to communicate areas of the specific need to WHO to receive appropriate technical assistance”.

Given the emerging importance of digital health in support of UHC and the SDGs, and the World Health Assembly resolution on Digital health, investment in digital health capacity development for the health workforce is critical. Digital health systems and services can only deliver better health outcomes with the necessary digital health skills and competencies for healthcare end users. Capacity building for digital health leaders is also critical to ensure the rational use of policy and decision-making tools, scale-up, and sustainability.

## Workshop Objectives



**OBJECTIVE 1** To ensure that actions on digital health curricula initiated at Lesotho are spread accordingly throughout the whole region



**OBJECTIVE 2** To ensure that digital health leaders in the African Region are aware of their role in the digital transformation affecting health systems in their respective countries



**OBJECTIVE 3** To bring forward country representants for an outlining of the current status of digital health in their respective countries and the level of interoperability existing



**OBJECTIVE 4** To initiate long-term collaboration between ICT and Health Ministries for better approaches to tackle issues on lack of interoperability in digital health and build together sustainable systems based on solid architectures and integrated platforms reflecting both ICT and health stakeholders' contributions



**OBJECTIVE 5** To introduce participants to the new WHO Afro Platform for Digital Health developed for use at the national level of an integrated digital health platform to reduce the lack of interoperability in multiple solutions.



**OBJECTIVE 6** To build digital health leaders' capacity for a wide range of digital health-related skills focusing on health service delivery at the community, health facility, district, and national level and each country's basic package of care.



**OBJECTIVE 7** Develop a comprehensive digital health training curriculum to ensure consistency and coherence across different digital health topics and training modules.



**OBJECTIVE 8** Discuss holistic and system-level approaches to digital health to ensure scalability, sustainability, and interoperability

This workshop also fulfilled one of the WHO AFRO and ITU objectives, as articulated in the second pillar of the agreement, relating to capacity building for the digital health workforce. Elements were consolidated into a digital health curriculum for professionals implementing digital health at the national level, especially for national digital health leaders.

The workshop being among the first exposures of the digital health curriculum to national digital health leaders, the participants were expected to provide feedback on the technical materials and approaches recommended for digital health implementation; feedback was collected, and survey results will be shared further below.



# Methodology

Over thirteen modules were included in the training and transformed into a curriculum. These included: Introduction to Digital Health, Strategy, Governance and Regulations, Digital Health for RMNCH and NCDs, Global Goods, Partnership models, Digital Health

Implementation, Architecture Design, Interoperability Framework, Monitoring, Evaluation and Learning, Data Use and Analytics, Global Health Security: early warning, alert and response system (EWARS), geographic information systems (GIS), digital health innovations, and future trends. Training methodologies included face-to-face teaching sessions, video presentations from last year's workshop in Lesotho, high-level panel discussions, interactive sessions, and question-answer sessions to facilitate the exchange of ideas and knowledge between participants and facilitators.

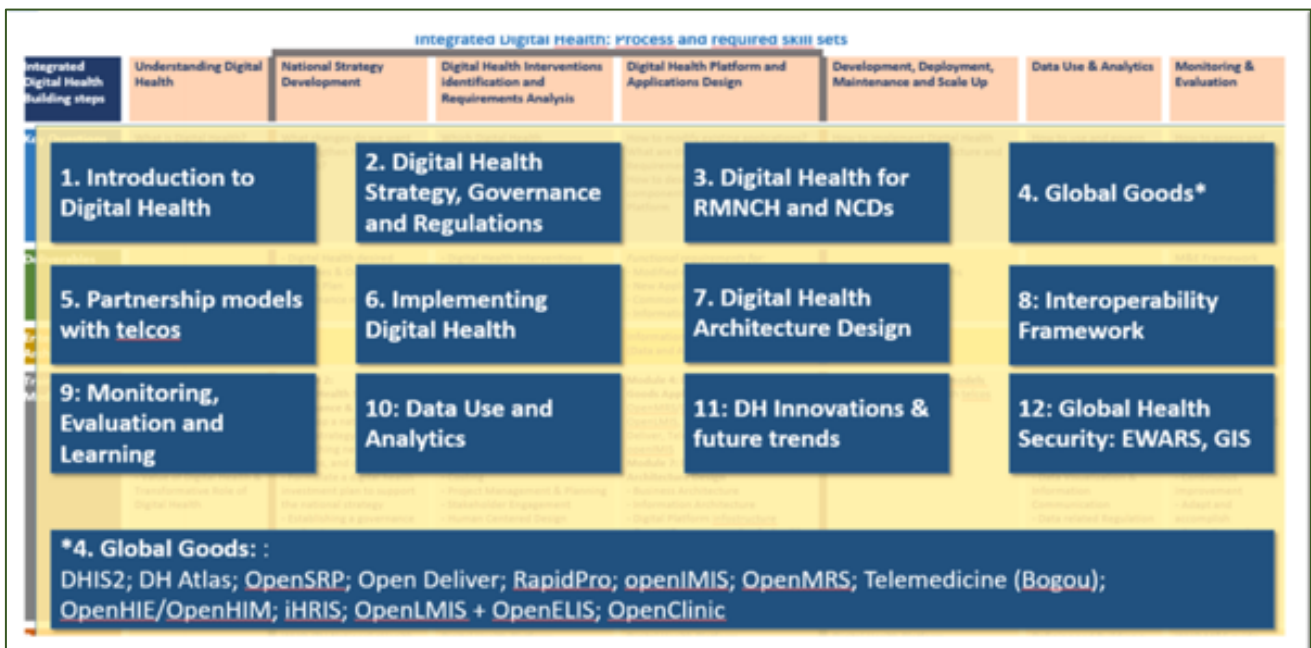




# 04

## Results

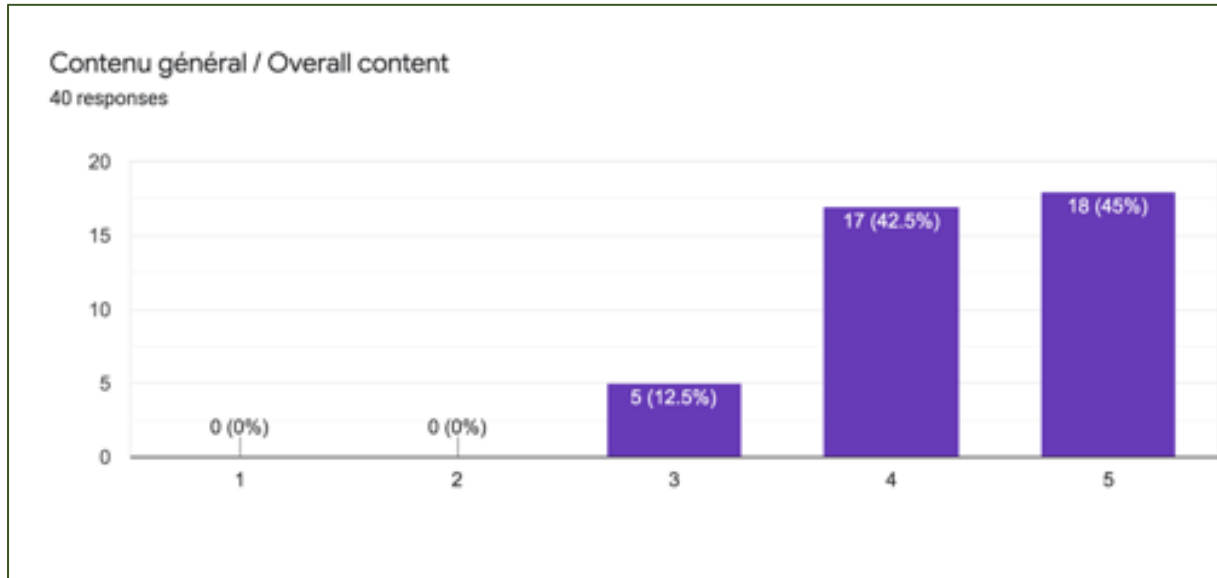
The workshop was completed successfully, with all modules delivered and feedback from the participants received. Two types of surveys were handed to the participants: one that was filled out anonymously to evaluate the overall quality of the workshop (N=41 respondents) and another to evaluate each of the modules presented during the workshop (N=40 respondents).



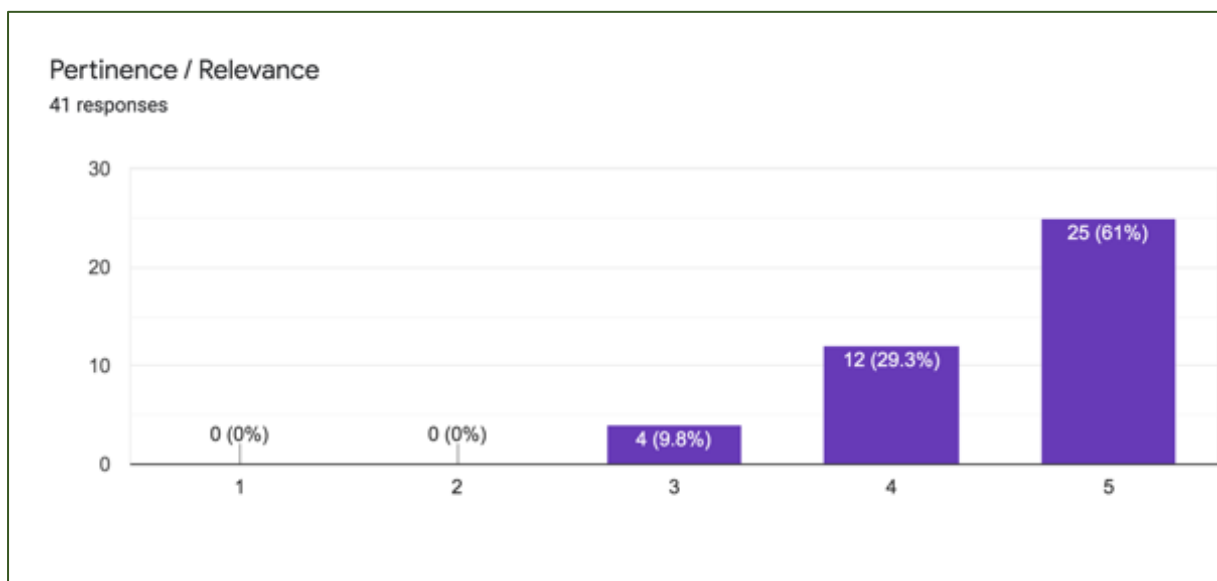
### Survey 1: Overall Workshop Content and Relevancy

About 90% of the respondents agreed that the overall content was good, the workshop was relevant in the field, and informative.

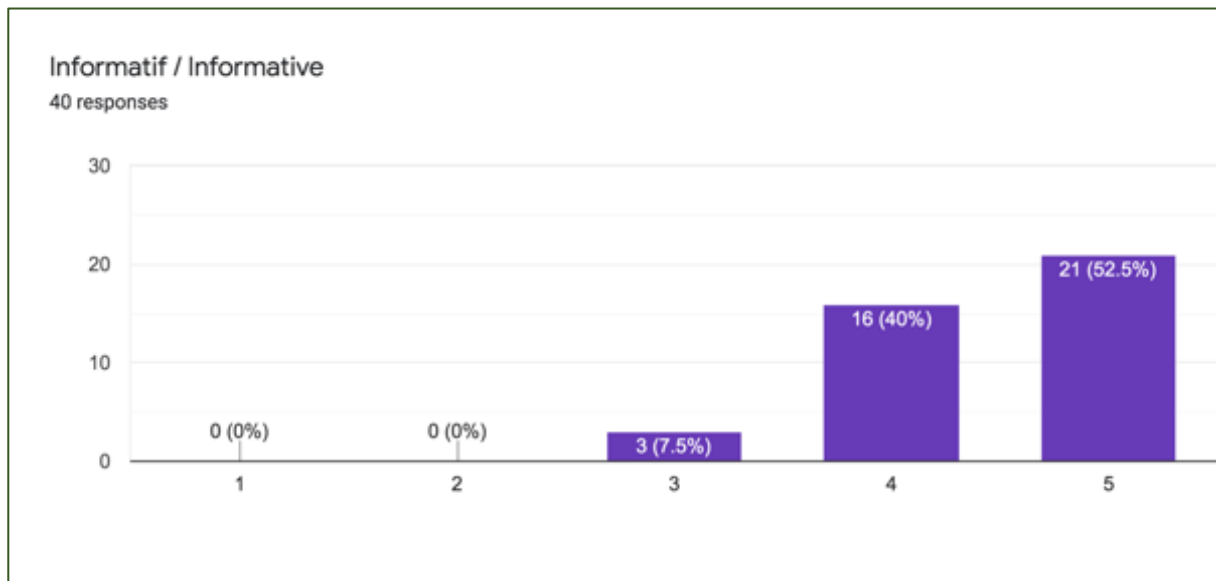
**FIGURE 1 : OVERALL CONTENT AND RELEVANCY**



**FIGURE 2 : PERTINENCE AND RELEVANCY**



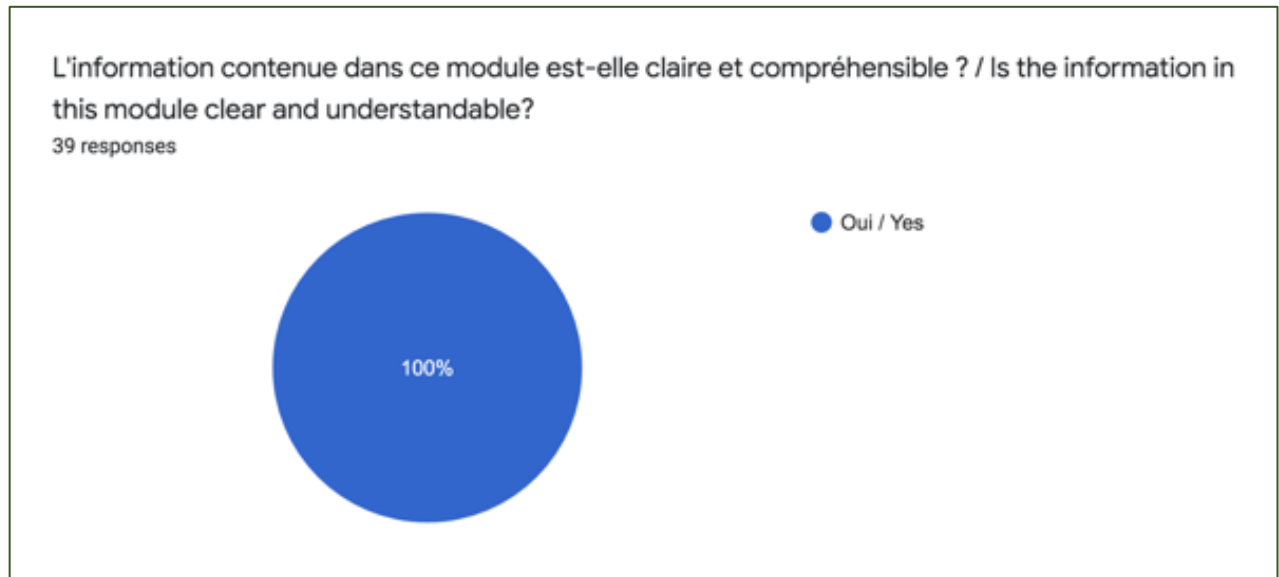
**FIGURE 3 : INFORMATIF VS INFORMATIVE**



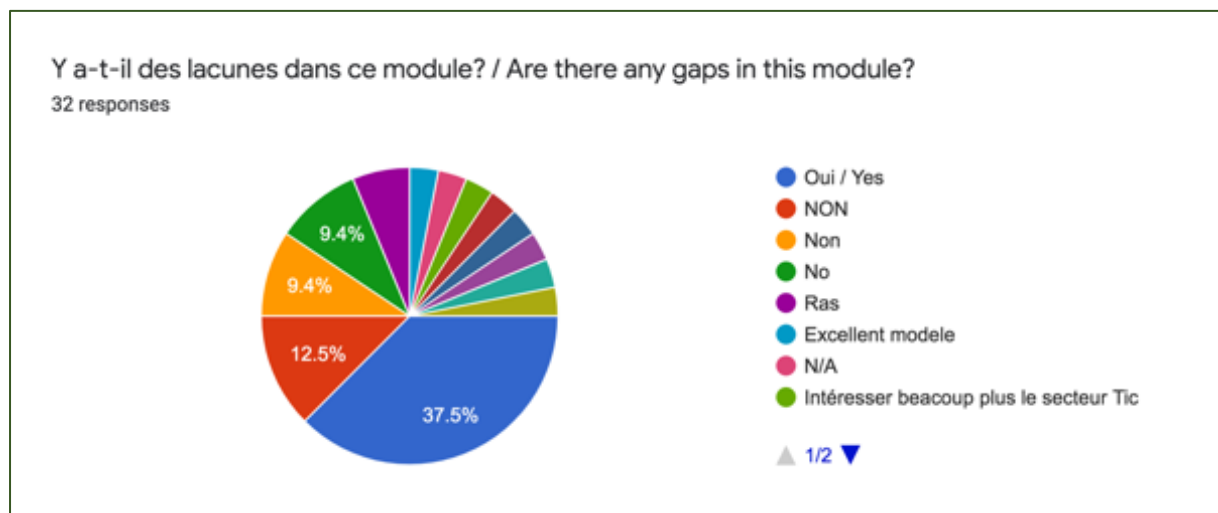
## Survey 2 : Content Relevancy and identification Of Gaps in Each Module

For each of the 13 modules delivered, over 80 % of the participants (35 < N < 41 ) agreed that the content delivered was relevant, but mainly, some of the modules received 100% approval on the content delivered, e.g., **Module 5** on Partnership Models with ICT Companies, **Module 6** on Implementation of Digital Health and **Module 8** on Interoperability Framework; those modules also had some gaps which were asked on the second question of the survey although they were more limited than others; those are showcased below:

**FIGURE 4 : l'information Contenue dans ce module est -elle claire et compréhensible ?/ Is the information in this module clear and undersandable ?**

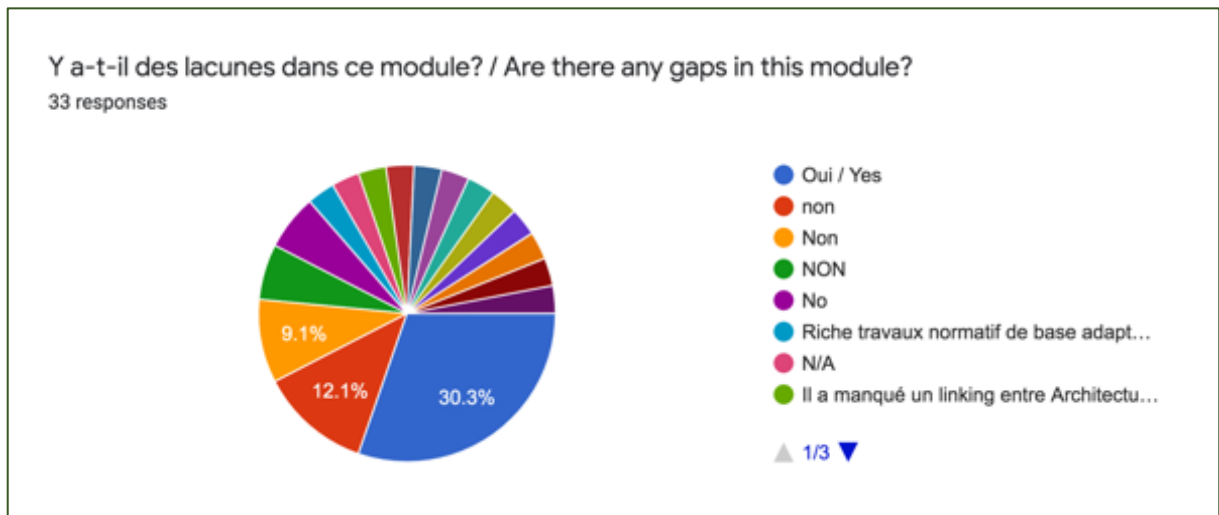


**FIGURE 5 : Y a-t-il des lacunes dans ce module ? / Are there any gaps in the Module?**



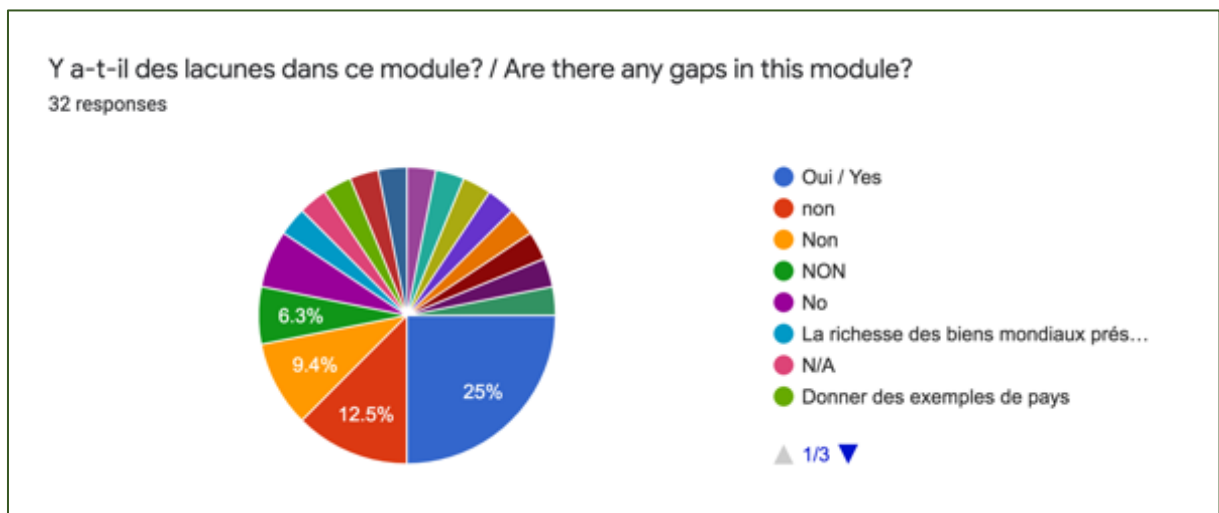
# Module 6

**FIGURE 7 : Y a-t-il des lacunes dans ce module ? /Are there any gaps in the module ?**



# Module 8

**FIGURE 8 : Y a-t-il des lacunes dans ce module ? /Are there any gaps in the module ?**



Participants also gave some written feedback, among which it was noted that they highly appreciated the initiative taken by WHO and ITU, which qualified them as an excellent example of partnership between ICT and Health sectors that they intend to learn from for a good collaboration between their two Ministries. The WHO Afro Digital Health Platform was also well-received by country representatives from ICT and Health Ministers. That was reflected in the written feedback with leaders making resolutions for its use and expected support from WHO.



# Recommendations



## Key Recommendations

- An architecture for the health system is critical to obtaining an integrated platform and interoperability in digital health; member states are then recommended to work on defining that architecture for digital health implementation at the national level.
- Member states are urged to continue investing in digital health learning and digital strategies.
- There is a need to continue to approach digital health learning with a multisectoral approach, including ministries of education, ICT, etc.

- There is a need to build digital systems from a holistic system perspective than silo implementation, thereby aligning with holistic digital health curricula.
- Ensuring legislation for digital health and continued learning in this area.
- Continue to support digital health platforms for interoperability & learning.

## WHO and ITU

- To ensure consistency in digital health learning for both pre and in-service, WHO and ITU will work with WHO collaborative centers in academic institutions to initiate processes that align pre-service digital health curricula to the WHO-ITU digital health curriculum.
- WHO and ITU will continue to support member states to ensure adequate arrangements for intersectoral coordination of digital health, especially between the ministries of Health, ICT, and Education. Related UN agencies, such as UNESCO, UNICEF, etc., must be engaged in the process.
- Moving from a solutions mindset to systems thinking is essential to ensure that digital health delivers health benefits. This ensures that digital health learning is communicated effectively. This will ensure the scale-up of digital systems and learning and promises national coverage. This is critical in contributing to the UHC 2030 agenda. Therefore, WHO and ITU will continue supporting countries in building integrated digital health platforms, learning systems, and digital health solutions. This will

be accompanied by relevant technical skills and capacity building relevant to the appropriate technology.

- Learning regarding legislation for digital health is essential to strengthen governance and sound digital health practices, mainly due to the rapidly changing nature of digital health. WHO and ITU will continue to support member states with guidelines for digital health regulations and will ensure that the relevant module on this subject is widely available.

## Member States

- Member states are urged to use the WHO ITU digital health curriculum to further the digital health literacy and implementation agenda.
- Member states are recommended to work on defining architectures for their health systems and use the WHO Afro Platform for Digital Health to overcome interoperability challenges in Digital Health.
- Member states are urged to ensure that they have digital health strategies in place for country ownership and governance and action plans for digital health learning.
- Member states are urged to take a complete inventory of their digital health investments at the country level, using tools like the WHO digital health Atlas, and communicate relevant learning gaps.
- Member states are urged to continue using the principles for digital development in implementing digital health at the country level and ensure that the module dealing with this area is used in the learning process.

# Development Partners

- Development partners are urged to support the implementation of the WHO-ITU digital health curriculum at the country level.
- Development partners are urged to institutionalize the WHO-ITU curriculum within their organizations to obtain consistency and sustainability in digital health practices.
- While working with relevant government bodies, development partners are urged to continue supporting financing and providing technical support for digital health learning and continued curriculum refinement.

## Next Steps



The following are summary next steps:

1. Country implementation of skills learned and initiation of country digital health ecosystem studies, use of the Atlas for Digital Health for inventories to start with, and the WHO Afro Digital Health Platform for integration (currently started in Lesotho).
2. Portuguese Speaking Digital Health Capacity Building and Curriculum Development workshop for Digital Health Leaders and follow-up on countries' current status on digital health ecosystem studies.

3. Implementation of learner mentorship/fellowship programmes.

**Representant of the Minister of Health in Benin (closing ceremony):** *“We have noted 7 points to follow up on as the **next steps** for this workshop:*

1. Implementing the architecture of DH (with Quick-win solutions),
2. The necessity for capacity building
3. Improving governance in DH
4. The need for a multisectoral collaboration
5. Strengthening partnerships with the private sector
6. Development of a partnership with technical advisors
7. Defining the provisions for the sustainability of DH in our countries

Outstanding leadership will be of great importance to achieve the goals defined!”

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