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Summary report on the

Second eHealth taskforce meeting

Cairo, Egypt
19–20 March 2015



**World Health
Organization**

Regional Office for the Eastern Mediterranean

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1. Introduction

The WHO Regional Office for the Eastern Mediterranean convened the second eHealth taskforce meeting in Cairo, Egypt, on 19–20 March 2015.

The objectives of the meeting were to:

- review the progress of eHealth adoption and implementation in the Eastern Mediterranean Region in relation to the recommendations of the first taskforce meeting (August 2012);
- discuss future regional directions for eHealth in relation to the regional five strategic areas, especially universal health coverage;
- identify innovations and opportunities in the eHealth field;
- explore potential partnerships, for example with the International Telecommunication Union (ITU) and European Union; and
- discuss establishing a platform for dialogue and experience exchange in eHealth among Eastern Mediterranean Region countries.

The meeting was attended by international experts in different aspects of eHealth and staff from the WHO Regional Office and WHO headquarters.

Dr Ala Alwan, WHO Regional Director for the Eastern Mediterranean, in his welcoming address outlined the expected role of the taskforce in supporting the work of WHO in the establishment of eHealth services and applications, and in particular, in support of the five regional strategic priority areas of work. Dr Alwan described his vision for eHealth implementation in the Region and noted the progress that had been achieved so far, with eHealth becoming a global WHO knowledge management strategic direction, reflected in the decision that World Health Day 2016 would focus on health information systems and eHealth. He concluded by saying that despite this, much remained to be done in the Region.

2. Summary of discussions

A regional perspective based on the results of the Global Observatory on eHealth

The progress of two regional eHealth projects was discussed: the regional HealthNet initiative launched in March 2013; and the mTobaccoCessation project in Tunisia launched in late 2014 as part of the global joint WHO/ITU Be He@lthy, Be Mobile mHealth initiative. The level of eHealth regional adoption was also discussed based on information from the Global Observatory on eHealth. It was agreed that there is high potential for mHealth in the Region, which has high levels of mobile coverage. This could have particular benefits for rural and displaced populations. It was also felt that there is great potential for internet-based applications for health in the Region, given the increasing levels of internet use. However, several challenges were identified, including the low priority given to eHealth and mHealth in countries due to limited resources for health and competing priorities, and the need to enhance the capacity of countries to be able to identify and select the most appropriate technologies and health applications for their needs.

The role of eHealth in health system strengthening for achieving universal health coverage

Universal health coverage is a regional priority and will remain so for the coming years. In achieving universal health coverage, eHealth is a strategic ally to solve or prevent health problems, expand coverage and improve access to health systems and services, and increase the efficiency of the health care system. Examples of the successful implementation of eHealth include early warning and health care alert systems, enabling the public health sector to detect outbreaks early and to monitor cases more accurately, swiftly identifying foodborne illnesses and facilitating an immediate response to emergency and

disaster situations by locating affected individuals more quickly than ever before.

For successful application of eHealth, it is important to ensure the highest levels of quality, safety, confidentiality, equity, equality, interoperability and ethics. However, there exist a number of health system-related obstacles to eHealth utilization for achieving universal health coverage. These include: the lack of professionals with the appropriate skills and experience to develop and execute eHealth projects; deficiencies in information and communication infrastructure; and a lack of the political commitment needed to mobilize the legal, financial, human and infrastructure resources required for adopting and implementing eHealth services.

Strategic eHealth priorities for emergency preparedness and response

The role of eHealth in emergencies during the cycle of emergency, preparedness, and response includes eHealth applications to support pre-event phases (mitigation and preparedness) and post-event phases (response, and recovery). There is a need to identify competencies for different roles (health partners, health staff and citizens/patients), develop standard protocols and operating procedures for eHealth utilization in emergency situations, identify awareness and training needs for different stakeholders and develop change management processes for innovation diffusion within the domain of emergency preparedness.

Noncommunicable diseases and mental health

There is huge potential for eHealth and mHealth in addressing the rise in noncommunicable diseases in the Region. This includes the challenges related to aging populations, the problem of accessibility to health care and the need to increase the coverage of services and overcome the increasing demand on services that requires more and better equipped health providers. It relates to all the main four areas of work in the noncommunicable disease regional framework:

governance, risk factors, health care and surveillance. Examples of the utilization of eHealth applications for noncommunicable diseases include mHealth for tobacco cessation, diabetes and cancer, the use of electronic health records for primary health care and the use of eLearning. Key challenges include limited political commitment and awareness, competing health and development priorities, limited resources, limited intersectoral collaboration, and privacy, security and confidentiality issues.

Communicable diseases prevention and control

Many examples were discussed of utilizing information and communication technology in the areas of vaccine-preventable diseases and immunization, International Health Regulations, pandemic and epidemic diseases, and HIV/AIDS. Potential functions include tracking and monitoring responses for treatment and engagement in care, coordination and information sharing among different stakeholders, monitoring capacity-development and country progress, and the use of mobile technologies for dissemination of information and reminders for target populations, tracking cases and mass gathering health management.

Challenges in utilizing eHealth applications and services in communicable disease programmes include inadequate health systems, cultural and behavioural factors, weak disease surveillance systems, deficient infection prevention and control practices, missing community engagement in prevention and response, and insufficient intersectoral collaboration. For instance, challenges for utilization of eHealth for vaccine-preventable diseases and immunization include inadequate infrastructure (electricity and hardware), especially in peripheral areas, and a lack of national human resources for implementing programmes.

Health protection and promotion

Different examples of utilization of information and communication technology to support maternal and child health were discussed, including the use of traditional websites for information dissemination, using short message service (SMS) for community mobilization in health promotion campaigns, supporting vaccination campaigns and social mobilization through the use of mobile phone messages, using eLearning for training, establishing telemedicine networks to link major maternity hospitals to provincial and county hospitals for appointments, and supporting health providers with access to the internet using laptops and handheld devices.

There is potential to use eHealth as a key enabler in the delivery of health care services such as growth monitoring, nutrition surveillance and the screening of malnourished children at health care facilities. Currently, several countries in the Region have developed their own nutrition surveillance system: Afghanistan, Bahrain, Pakistan and Palestine, as has the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA). Five countries have included eHealth in their national Commission on Information and Accountability roadmaps for country accountability frameworks: Afghanistan, Djibouti, Iraq, Morocco and Pakistan.

Challenges in implementing eHealth for maternal and child health include the absence of eHealth in country policies or strategies, the absence of legal frameworks to support the implementation of eHealth, inadequate, inaccessible and/or high cost infrastructure, not enough suitably-qualified or experienced health professionals, unsuitable business models for funding/investment in eHealth for maternal and child health, and inaccessible, unaffordable and/or inappropriate eHealth services for maternal and child health.

3. Conclusions

WHO has achieved significant progress in utilizing eHealth applications and services in all five strategic areas of work. However, each area is not fully aware of the directions of other areas and their adopted solutions and services, achievements and lessons learnt. Immature projects, waste of resources and redundant activities are not uncommon in the Region at both regional and national levels due to the lack of proper governance and communication. Good governance will create an environment that ensures transparency, accountability and better decisions that are endorsed by all stakeholders.

Countries face a lack of information on appropriate eHealth services and applications. WHO needs to collect and synthesize good practices and facilitate access to knowledge, experience, resources and networks in order to build a regional evidence-base in eHealth.

Common eHealth infrastructure components at the national level usually include: high-speed data connectivity; computing infrastructure; identification and authentication services; a directory of health care providers and services; information systems that capture, collect and view health information for individuals; individual electronic health records; and health datasets to support health care management and administration.

The lack of electronic health records in some countries has been identified as an infrastructural challenge for the appropriate management, exchange and analysis of health data. This is a barrier to implementing eHealth applications in normal and emergency situations

A common challenge facing the implementation of eHealth services is weak infrastructure in terms of quality and coverage of telecommunication services, as well as infrastructure failure in disaster and emergency situations due to systems becoming overloading and/or damaged.

4. The way forward

National strategic planning

1. The support for countries in the development and implementation of national eHealth strategies should start by adopting a clear regional eHealth “vision” and “strategic directions”, and a clear “mission statement” for the regional innovation and eHealth programme.
2. The regional eHealth vision statement should be driven by the regional five strategic priority areas in consultation with countries and in preparation for a Regional Committee discussion and endorsement by Member States.
3. The cross-cutting nature of this domain calls for the involvement of different stakeholders and regional/global partners to ensure roles and responsibilities are clearly identified for each party.
4. The role of the regional eHealth programme should involve overseeing the implementation of the adopted vision and action plans, raising awareness, capacity-building, fund raising and supporting implementation, assessments and evaluation.
5. The proposed regional eHealth programme should be responsible for building/fostering partnerships with different stakeholders. One example is the promotion of cooperation with ITU at the regional level to ensure the streamlining and synchronizing of eHealth activities and to interface with telecom operators and the private sector via ITU to develop agreements for the benefit of Member States to meet the critical need for low/no cost telecom services for nationwide projects, campaigns and disasters/emergencies.
6. Countries should be supported in utilizing the national eHealth strategy toolkit to develop/review national eHealth strategies through: conducting national training workshops and webinars; supporting the establishment of national eHealth programmes with proper capacity for eHealth planning, change management and implementation; developing an eHealth monitoring and evaluation

framework; and conducting national assessments and studies for readiness, innovation diffusion, adoption and measuring the impact of implementation.

eHealth governance

7. A regional eHealth governance initiative should be established to ensure commitment, encourage the adoption of unified standards/tools for routine services and unify the processes of assessment and monitoring of national progress and the impact of implementation. This will support the review of country cooperation strategy documents to map ICT/eHealth utilization across priority areas and provide information for updating the country cooperation strategy formulation process to include eHealth support in a collective and strategic manner.
8. Partnerships should be built with stakeholders. Funding for planned activities, projects and initiatives within the WHO programme budget is key to ensuring achievement of planned outcomes. Funding proposals can be developed in collaboration with WHO programmes and partners such as ITU.

eHealth applications as related to the five strategic areas

9. A regional directory of eHealth applications, services and training materials should be developed and maintained covering telemedicine, mHealth, eSurveillance and eLearning applications, pilots and best practices. This can be established with the support of an academic institution, a collaborating centre or nongovernmental organization. An online directory would be the basis for information sharing, exchange of experiences and exchange of services.
10. The WHO/ITU Be Healthy, Be Mobile mHealth programme for noncommunicable diseases should be extended. Currently, financial support for the initiative allows for implementation in only one country (Tunisia).

11. National capacities should be built in eHealth strategy development and technical eHealth application implementation and use. This can be achieved through the establishment of a regional eLearning network to support material preparation and conduct virtual seminars (webinars). This can be supported through engagement with academic institutions to review and promote eHealth training for different health workforce cadres.
12. Academic institutions from the Region should be identified and designated as WHO collaborating centres for eHealth and existing WHO designated collaborating centres for eHealth should be engaged with to extend capacity at the regional level by utilizing their services and capacities for the benefit of Member States.
13. A regional initiative should be developed to develop “mini” electronic health records for citizens that are accessible in emergency situations. These should utilize proper standards and can follow different strategies for storage and retrieval. For example, they could be stored on personal mobile devices, a cloud and/or on a small storage space on existing cards held by citizens such as national identifiers.
14. Agreements should be established with international telecom service providers to provide free/low cost coverage/use of telecom services and tools, such as broadband global area network, during emergencies and national campaigns in low- and middle-income countries.
15. Interested countries should be engaged with to initiate national projects for innovation diffusion at hospital or primary health care level according to national health needs. Introducing key eHealth applications/modules in identified health facilities would support making the case for eHealth, build national capacities and identify the local factors that might act as barriers or enablers for nationwide eHealth application.
16. The concept of using big data should be promoted to facilitate the identification of patterns, including cultural, ethnic, religious and

linguistic patterns, and the implementation of International Health Regulations. Training workshops should be organized to promote the concept and build national capacity on mechanisms and tools for managing and analyzing big data.

17. The eHealth programme, in collaboration with the Health Systems Division, should develop a reporting platform, utilizing mobile technologies and cloud computing, that would enable national authorities to: disseminate information to ensure that the entire population has access to affordable services, drugs, technologies and campaigns; and monitor dimensions of national health systems directly as reported by citizens, employees in the public and private sector, in rural and urban settings and for vulnerable groups. The platform should be piloted and implemented in priority countries including Afghanistan, Pakistan, Somalia, Sudan and Yemen. The platform would support decision-makers and policy-makers in planning for extending services to non-covered populations, including priority services as identified by different stakeholders, and reducing the cost of services.

eHealth networks

18. Member States should continue to be supported to establish reliable, dedicated and operational national health networks (HealthNet) as a key step to supporting the application of nationwide eHealth services, and ensuring cost-effectiveness, security, interoperability and scalability. Lebanon has successfully finished the first phase of conducting a national assessment of existing networks, applications and telecom services. Initiating the second phase to support establishment of Lebanon HealthNet will support the development of a standard package/guidelines for other countries to follow and implement. The lessons learnt from project implementation in Lebanon will support the development of a national HealthNet toolkit and guidelines/tools for calculating the national broadband requirements at health facility, catchment area, subnational and national levels.

19. National/regional eHealth information networks should be established to support digital literacy, information exchange, collaboration and sharing of available resources, the identification of eHealth experts, documentation of lessons learnt and research for eHealth. These networks would demonstrate the potential impact of eHealth for decision-makers and document best practices and success stories of eHealth applications related to the five strategic priority areas of work in different Member States, and a regional registry could be established to accept submitted stories and project profiles where best practices can be extracted and shared with the regional eHealth network. They would also develop and maintain a database of professionals and institutions in different eHealth domains (such as strategies, applications, standards, regulations, infrastructure) using existing profiles from public databases such as LinkedIn, and prepare and disseminate policy briefs in identified eHealth fields to demystify the concepts of eHealth and their applications for decision-makers. The topics of the policy briefs covered could include telemedicine, mHealth, hospital management information systems, strengthening civil registration and vital statistics, data revolution for surveillance and alerting (big data), eHealth for universal health coverage, e-Governance, International Health Regulations, cloud computing and harnessing eGov applications. These policy briefs could be utilized to support the development of country cooperation strategies to ensure the proper integration of eHealth components.
20. Different organizations should be coordinated with, in particular ITU, so that eHealth is introduced in different strategies and action plans, and national eHealth cases should be presented in regional and global events such as ITU's Telecom World.
21. Different information packages and tools should be made available in languages relevant to the Region such as Arabic, Farsi and Urdu.

eHealth standards

22. A regional study should be conducted to map the use of standards in the Region. The study should cover different categories of standards such as data, information content, information exchange, unique identifiers, privacy and security, and information technology.
23. A document should be prepared on the use of core standards in the health sector, describing the current use of standards in the Region (based on the results of the above study) and the requirements for supporting the adoption of standards, following the recommendations of the WHO handbook on standards and interoperability.
24. A core set of indicators should be identified for monitoring implementation of standards, including the Master Patient Index, International Classification of Diseases procedure classification, laboratory services and pharmaceutical coding.
25. A regional meeting should be convened on standardization and interoperability to discuss different adoption models and how to monitor progress and document challenges and lessons learnt. It is important to make sure that standard developing organizations and the private sector attend the meeting with the support of ITU, which has experience in collaboration with the private sector, industrial and nongovernmental entities.
26. In collaboration with the civil registration and vital statistics team, a position paper should be prepared based on observations and/or field research in identified countries to document best practices for utilizing eHealth applications and services to strengthen civil registration and vital statistics.
27. Civil registration and vital statistics strengthening activities should be supported in the Region, specifically in countries such as Afghanistan, Djibouti, Pakistan, Somalia, Sudan and Yemen where comprehensive assessments indicate that civil registration and vital statistics improvement is unachievable without eHealth support.



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