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MAY 2016

## AFRICAN STRATEGIES FOR HEALTH



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# REGIONAL ACTORS ADDRESSING DIGITAL HEALTH IN AFRICA:

## Comparative Advantages, Challenges, and Opportunities

In recent years, there has been a growing trend toward regionalization on the African continent, as integrated and cooperative efforts have created positive impact in political, economic, and social sectors. In Africa's health sector, regional actors have become active contributors to development and health agendas. The growth of information communication technology (ICT) and particularly the rapid expansion of access to mobile phones and networks in Africa have opened

opportunities to use these new technologies to improve the health and well-being of people across the continent.

The digital health field includes a wide range of activities and programs, including mobile health (mHealth) applications tailored to a specific context and location, and to broader health system initiatives such as nationally-implemented health information systems. Regional efforts in digital health may also be a component of a larger, health service delivery-specific effort, such as the collaboration that has emerged in integrating ICT in disease surveillance and response. As the digital health field has matured and progressed, consensus has built across public and private actors that successful utilization of the opportunity presented by new and developing technologies requires collaborative and coordinated efforts.

The advent of mHealth has produced a substantial number of pilot programs and single-function mobile applications. As the recently established field of digital health continues to develop, African regional stakeholders are growing and evolving. Many of the efforts to disseminate best practices in digital solutions for health, encourage harmonization, and strengthen regional and national capacity are undertaken at a global level and with international stakeholders. Understanding how regional actors in this field operate, the potential opportunities for regional actors to contribute to digital health, as well as their

The United States Agency for International Development's (USAID) Africa Bureau and their project, African Strategies for Health (ASH), conducted a landscape analysis of regional African health sector bodies. The study contributes to a larger analysis commissioned by Harmonizing for Health in Africa (HHA), supported by the Norwegian Agency for Development Cooperation (NORAD). This Technical Brief provides a summary of findings related to regional actors engaged in digital health work and their comparative advantages, challenges, and opportunities.

comparative advantages and challenges, will enable governments, policymakers, donors, and implementers to partner with them effectively to support the establishment and effective use of digital technology for health in Africa.

## Types of Regional Actors Working in Digital Health in Africa

Africa-based regional actors are organizations or institutions headquartered in Africa and comprised of groups of individuals or organized entities from more than one country with a relationship structured around a common purpose. They can be grouped into the following three categories:

- **Regional economic communities (RECs)** are groups of individual countries in a region that partner for the purpose of achieving greater economic integration. They are responsible for the planning, coordination, and monitoring of the integration or regionalization process, and for this reason are often referred to as the 'building blocks' of regional integration.
- **Regional networks and associations** include umbrella organizations for civil society organizations (CSOs); groups that bring together health professionals, ICT professionals, researchers, or policymakers; and groups of research and/or academic institutions. They may be organized under the broader category of science and technology, and often cite knowledge exchange, capacity building, and advocacy as their main objectives, and engage in monitoring and disseminating regional advances, and may advocate for the creation and strengthening of national and regional policies.
- **Regional technical organizations** bring together groups of people with deep technical expertise in digital technology for health that understand the African context and can conduct research or provide implementation guidance to digital health programs, ministries, and international partners. They engage in and are invested in technically sound, evidence-based interventions.

## Comparative Advantages of African Regional Actors in Addressing Digital Health

This section describes three of the key advantages African regional organizations have in addressing regional needs in digital technology for health on the African continent.

### ■ **Convening power**

RECs are well positioned to convene high-level African heads of state and government officials to discuss political, economic, and social issues in their region. Such meetings provide a platform for officials to negotiate regional responses to health priorities and make commitments on behalf of their individual countries. In the field of digital health, this convening power is particularly important as the stakeholders who can play a key role in furthering the development and use of technology for health come from across governmental sectors. These include not only ministries of health, but ministries or other government actors

working in ICT, science and technology, education, as well as finance in the case of mobile money systems.

An example of this convening power is seen in the 2015 Joint Meeting of National Health Information Systems (NHIS) and of Integrated Disease Surveillance and Response (IDSR) Managers from the Economic Community of West African States (ECOWAS) region, held in Accra, Ghana in May 2015. The conference brought together 150 participants from the 15 ECOWAS member countries, regional and international partners, nongovernmental organizations, academic institutions, and the private sector. A primary focus of the meeting was to identify practical actions to support the integration of member states' health information systems. Over the course of the meeting, participants identified nine specific recommendations for ECOWAS member states, WAHO, and technical and financial partners.<sup>1</sup>

### ■ **Regional strategy and system harmonizing**

Regional actors have the ability to facilitate the harmonization of strategies and develop regional-level systems to implement them. Regional strategy and action in the digital health sphere may organize around standards and interoperability in a broad sense, or coalesce around a specific disease or issue area. A recent example of collaboration around a particular health sector issue which focused on the use of digital health as a strategy solution is the joint effort between two regional organizations, the East African Integrated Disease Surveillance Network (EAIDSNet), and the Southern African Centre for Infections Disease Surveillance (SACIDS). EAIDSNet is an intergovernmental collaborative initiative, made up of the Ministries of Health that represent the East African Community, that was established to strengthen the region's fragmented health systems to more efficiently respond to cross-border disease outbreaks.<sup>2</sup> SACIDS is a One Health Virtual Centre that links academic and research institutions in Southern Africa dealing with infectious diseases of humans and animals, in an innovative partnership with world-renowned centers of research in high income countries.<sup>3</sup> The joint program, Enhancing Community Based Disease Outbreak Detection and Response in East and Southern Africa, launched in 2015, to address three objectives: 1) Work across animal and human sectors to fight epidemics in human and animal populations; 2) Develop ICT tools to support data capture, reporting and feedback at health facility and within the community that feed into the official IDSR and veterinary national systems; and 3) Strengthen local cross border collaboration to fight epidemics.<sup>4</sup> The launch workshop, which was held in Arusha, Tanzania, was led by SACIDS and EAIDSNet in collaboration with Connecting Organizations for Regional Disease Surveillance (CORDS) and leveraged the experience of Mekong Basin Disease Surveillance in mHealth.<sup>5</sup>

Efforts undertaken in West Africa also illustrate the capacity of RECs to facilitate regional-level strategies and system implementation in digital health. In 2012, the Health Information Policy and Strategies in the ECOWAS Region document was developed to support the vision of achieving "quality health information, easily accessible and used at all levels for policy formulation and informed decision-making." A 2014 landscape





Photo by Sala Lewis

assessment of mHealth in West Africa found that one of the trends providing momentum for the field in the region was the West African Health Organization's (WAHO) support for harmonized health information platforms and standards. This included WAHO support for the District Health Information Software 2 (DHIS2) as well as Open Source Human Resources Information Solutions (iHRIS).<sup>6</sup> WAHO's Health Information Programme includes the strategic objective to strengthen the development of health information systems for disease prevention and control in the ECOWAS sub-region. This strategy recognizes that the transmission of diseases has consequences beyond national borders, and that regional-level surveillance can lead to the implementation of appropriate measures with minimal interruption of the movement of persons and goods.<sup>7</sup>

#### ■ *Growing locally organized expert networks*

Regional networks can play a key role in disseminating best practices, connecting expert resources to programs and country needs, and building regional capacity in digital health. They can fill a growing and critical need in facilitating the exchange of emerging research, implementation experience, and expertise at local, national, and regional levels. The African Centre for eHealth Excellence (Acfee) is an international network of eHealth professionals established in 2012 to develop leadership and capacity to advance eHealth in African countries. A non-profit company registered in South Africa, Acfee's board is made up of African public health and eHealth professionals. The advisors meet annually at the African eHealth Forum, the first of which took place in Cape Town in July 2015.<sup>8</sup> The African Network for Digital Health (ANDH), is a network created by African eHealth experts to leverage ICTs to achieve better health outcomes. It is designed to empower individuals and institutions by sharing experiences and best practices.<sup>9</sup>

Health Enabled, a non-profit organization, advises governments and health programs, facilitates connections among experts working across the region, and promotes best practices in digital health. Health Enabled's four strategic roles are to: 1) build stronger government capacity and national policies in digital health, 2) empower health implementers to use digital health tools effectively, 3) raise the bar for national digital health standards and performance, and 4) facilitate connections among experts, implementers, academics, policymakers, and users so they can work together more effectively in digital health.

These activities include the facilitation of HealthE Africa – a peer assistance network that aims to strengthen existing digital health partnerships and foster new collaborations in Africa – in partnership with Knowledge for Health (K4Health). The community connects program needs with African technology experts and service providers, and so strengthens local and regional digital health. HealthE Africa aims to respond to the demand for assistance for eHealth programs by ensuring easily accessible, cost-effective local supply that creates context-appropriate solutions.<sup>10</sup>

## Challenges

Like other international and regional institutions and networks, some African regional bodies face complex challenges related to their mandates, working environment, coordination, and financial and human resources. Potential challenges to consider regarding the role of regional actors in advancing digital health in Africa are outlined below.

#### ■ *Difficulty measuring impact*

In contrast to direct service delivery programs, measuring the effect of regional work on system performance and, ultimately, on health outcomes is often challenging. Digital health programs have to-date primarily focused on country-level implementation at the sub-national and occasionally national levels. The effects from improved policies and technology standards may also be challenging to link directly to specific outcomes. As cross-country and regional collaboration and standards grow in this area, it is particularly important for institutions to also build robust performance management systems. Doing so will enable the institutions to demonstrate the influence and importance of their regional programs.

#### ■ *Limited financing*

Many regional actors depend on funding from external sources to carry out their missions. Organizations working in mobile and digital health typically obtain funding from the same group of donors and may rely on funding from multiple sources to support their work. The growing interest in digital technology solutions for health from the multi-sectoral international community may create opportunities for diversified funding sources. However, overreliance on donor and partner funding

can lead to inadequate ownership felt by members of regional networks and organizations, in addition to a lack of sustainable services.

### ■ Demand for local technical capacity exceeds availability

Africa has the highest rate of expansion of mobile phones and internet connectivity putting it in a unique position to revolutionize the health sector. As investments in digital solutions for health by international partners and ministries of health increases, the need for locally available subject matter expertise in fields including software development, digital health program implementation, health informatics, and enterprise architecture becomes all the more prominent. African governments require appropriate expertise to guide their investment in digital health solutions.

## Opportunities

Regional networks can leverage the collective expertise, experience, knowledge, and skills of professionals from different countries and diverse settings and connect that knowledge to need across the region. In-house eHealth expertise varies greatly across ministries of health and countries more generally. Regional actors can play a key role in making more local capacity available at the regional level. In the West Africa region, WAHO is establishing an HIS center of excellence to build and share human resource capacity.

Leadership on eHealth standards and development has been largely coordinated at high intergovernmental levels. In February 2014, the World Health Organization hosted the Joint Inter-Ministerial Policy Dialogue on eHealth Standardization and Second WHO Forum on eHealth Standardization and Interoperability, following the First Forum health in December 2012. Regional actors can serve a key role in promoting and supporting national level policies which follow and incorporate international standards and best practices.

RECs have the ability to convene heads of state, ministers, and politicians for meetings, where high-level officials establish health agenda priorities and sign subsequent commitments and declarations. In turn, regional networks and technical organizations can strengthen the capacity of public health professionals to operationalize such commitments within their respective countries through technically sound approaches. Further support and growth of regional capacity, including education opportunities in science, technology, and computer

science can further the availability of local expertise. Optimally implemented, the roles of regional bodies can complement one another in strengthening digital technology for health in Africa.

## Conclusion

The widespread growth in mobile and digital technology and innovations developed in the application of ICT for health presents great opportunities for improvements in health systems and health outcomes in Africa. Regional actors serve as important, strategic partners in the effort to effectively harness these opportunities. They are in a particular position to utilize their convening power and ability to harmonize strategies and priority setting across regions or continent-wide, and to pool expertise and foster the sharing of best practices and capacity building at the national level.

Regional action around digital health has to a large extent organized around specific health sector issues of particular regional concern, such as disease surveillance and response. Regional actors can play a leading role in expanding the progress of technology for health in Africa by further applying the learning and experience generated in through issue-specific regional digital health efforts. Donors, governments, and implementing partners must work together with regional economic communities, networks and associations, and technical organizations to effectively harness the opportunities that digital tools can provide to strengthening health programming and service delivery in Africa. ■

## ABOUT ASH

African Strategies for Health (ASH) is a five-year project funded by the U.S. Agency for International Development's (USAID) Bureau for Africa and implemented by Management Sciences for Health. ASH works to improve the health status of populations across Africa through identifying and advocating for best practices, enhancing technical capacity, and engaging African regional institutions to address health issues in a sustainable manner. ASH provides information on trends and developments on the continent to USAID and other development partners to enhance decision-making regarding investments in health.

## ENDNOTES

1. Annual Joint Meeting of National Health Information System (NHIS) and Integrated Disease Surveillance and Response (IDSR) Managers with Technical and Financial Partners in the ECOWAS Region: [General Report](#).
2. East Africa Community health Sector; "The East African Integrated Disease Surveillance Network (EAIDSNet)".
3. [Southern African Centre for Infectious Disease Surveillance](#).
4. [Enhancing community-based disease outbreak detection and response in East and](#)

5. [Southern Africa](#). SACIDS. 8 June 2015.
5. [Launch of Mobile Technology initiative to aid early identification of Infectious Diseases in Africa](#). CORDS. 5 Aug 2015.
6. Riley, Pamela. 2014. mHealth in West Africa: A Landscape Report. Bethesda, MD: Strengthening Health Outcomes through the Private Sector Project, Abt Associates.
7. WAHO, [Programme – Health Information](#).
8. [African Centre for eHealth Excellence](#).
9. [African Network for Digital Health](#).
10. [HealthE Africa](#). Health Enabled.

Additional information can be obtained from:

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This publication was made possible by the generous support of the United States Agency for International Development (USAID) under contract number AID-OAA-C-11-00161 with Management Sciences for Health. The contents are the responsibility of the authors and do not necessarily reflect the views of USAID or the United States Government.