

Toward an online Master of Public Health degree in Kenya: Moi University's path

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ABSTRACT

As higher education institutions around the world strive to ensure they remain relevant by meeting the needs of today's digitally-focused students, the number of online courses and degree programs is increasing dramatically. Not surprisingly, given this trend, in recent years the School of Public Health at Moi University, in Eldoret, Kenya, has received inquiries from students across Kenya and the neighboring countries of Rwanda, Zambia, and Malawi about the availability of online courses. Recognizing the benefits to both potential students and the institution, SPH set a goal to join the trend to offer online courses. This article details SPH's path toward that end. It discusses the rationale for this decision, examines the state of ICT in Africa in general and Kenya more specifically, the activities undertaken by SPH, resources that have been devoted to the effort, progress made, challenges faced, and the status of the work to date.

Keywords: *Online Learning; Online MPH; Kenya; One Health; e-learning*

INTRODUCTION

Officially inaugurated on December 6, 1985, Moi University has its main campuses in Eldoret, Kenya, was. Growing from a school of agriculture a little over 30 years ago, Moi University now has a total of 15 Schools, 9 Directorates and 2 Institutes. It currently serves more than 52,000 students (Moi University 2017).

Established with a vision to offer a substantive difference, the University approaches its curriculum with a distinct bias towards technology (Moi University 2017). Captured in its technological orientation the University's vision statement describes it as "the University of Choice in nurturing innovation and talent in science, technology, and development" (Moi University, 2017). In support of this vision, Moi has invested in structural support to offer Open and Distance Learning (ODL) and continuing education (Moi University, 2012). A School of Public Health (SPH) is one of the schools within Moi University.

SPH, a unit within the College of Health Sciences of Moi University, is located on the "Town Campus" in Eldoret. Established in 1998 as an Institute of Public Health, in 2004 it became the School of Public Health. At the writing, the School has 23 full-time and 5 part-time teaching faculty, a total of 40 Masters of Public Health (MPH) students and approximately 200 undergraduate students. Although there are many more qualified applicants for the MPH degree program, due to space limitations on campus, SPH admits only 30 students to the program annually. Through the creation of an online MPH, however, the School believes it can increase the annual intake to more than 80 students without significantly increasing faculty resources. The availability of an online program would also enable SPH to reach a wider audience, including potential students in remote areas of the country who cannot travel to Eldoret for full time study

due to financial, family or work related reasons. An online degree program would also make the MPH accessible to potential students from neighboring countries.

The job market in Kenya is clamoring for additional MPH qualified workers. Kenya's governmental structure has recently decentralized, placing greater responsibility on counties for their own management and administration of resources (Kenya School of Government, 2015). As a result, the forty-seven (47) counties that comprise the country of Kenya are responsible for hiring their own health care and surveillance personnel. This has increased the demand for highly trained personnel, especially in the areas of infectious disease prevention, detection and control, health informatics and biostatistics. Further, graduates of an MPH program addressing these areas of study would have employment opportunities with organizations and NGOs such as the Kenya Medical Research Institute, Kenya Red Cross, World Vision, CARE International and the Walter Reed program.

To effectively develop an online MPH, SPH acknowledges the need to draw on the expertise of others. One identified resource has been the One Health Central and East Africa network (OHCEA), a consortium of One Health¹ institutions across eight African countries (i.e., Cameroon, Democratic Republic of the Congo, Ethiopia, Kenya, Rwanda, Senegal, Tanzania and Uganda) that collaborate to strengthen leadership, governance, technical assistance and information sharing across countries. As an institutional member of OHCEA, SPH could benefit from the network's programs and services.

One of the OHCEA programs identified as a resource for SPH is the One Health Workforce (OHW) project. OHW is part of the larger Emerging Pandemic Threats 2² (EPT 2) program, funded by USAID. OHW works with OHCEA member institutions and institutions that are part of SEAHOHUN (Southeast Asia One Health University Network, which consists of Indonesia, Malaysia, Thailand, Vietnam) and four additional "out of network" countries (Ivory Coast, Myanmar, Cambodia and Laos). OHW provides the following support:

1. assisting networks to participate with government, academia, and other key partners in defining One Health workforce needs.
2. assisting government ministries to train the future OH workforce.
3. assisting government ministries to train the current OH workforce.
4. strengthening network faculty capacities for OH teaching, research, and community outreach, and
5. positioning the One Health Networks as long-term sustainable leaders in One Health.

Both financial support and technical support (in the form of subject area expertise) provided to a limited number of country specific activities by the OHW project. To receive support, activities need to be clearly articulated in each member-country's annual workplan and approved by USAID. By providing OHW support on approved activities, the emerging pandemic threats initiative assists networks and member countries to "to prevent, detect, and respond to infectious disease threats" which are key objectives of the Global Health Security Agenda and the International Health Regulations" (USAID). Moi University's SPH has utilized this relationship to obtain financial and technical resources from One Health Workforce (OHW) to support its efforts in the development of an online MPH degree.

¹ One Health is a philosophy and educational approach that considers the health of humans, animals and the environment as inextricably interconnected. It takes a multi-disciplinary view of health issues at the local, national and global levels.

² EPT-2, is funded for a period of 5 years (2014-2019). Its focus is on building and strengthening basic capacity in areas related to animal health in an effort to detect early and respond rapidly to emerging disease crises that threaten animal and human health.

BACKGROUND

Four key areas motivated and informed the design and development of the SPH's pathway toward the development of an online MPH degree program. First, the general trend seen in higher education institutions and training programs across the globe to embrace the online delivery of courses and programs; second, consideration of challenges encountered when using Information Communication Technology (ICT) in higher education in Africa; third, Kenya's efforts to infuse ICT in public education; and fourth, national and institutional efforts to promote online learning at Moi University. Each of these areas is discussed in the following sections.

Online Learning for Higher Education and Skill Development

Within the global arena, sweeping changes are underway, triggered by a shift in how information is produced, disseminated and used (Buabeng-Andoh, 2012). Clearly, the global shift has transformed access to sources of information in many ways,

... today the businesses of encyclopedias, newspapers, and record labels are in various stages of collapse. They all have lost their monopolies on the creation and delivery of content. They are being decimated by the digital age...the rise of new digital delivery channels, the infeasibility of old notions of intellectual property, and completely new business models—all enabled by the Internet (Tapscott & Williams, 2010, p. 18)

As the world of encyclopedia-invested university libraries becomes less of a resource than the readily available online internet-based materials, universities are responding by embracing technology in all aspects of their missions.

With the spread of technology, students increasingly seek options other than traditional brick and mortar institution offerings to develop their competencies and the credentials they need for employment. ICTs have gained considerable traction as learning environments as can be seen in activities ranging from watching a YouTube video on auto repair to completing a graduate degree online. Authors (Pechenkina & Aeschliman, 2017; Talebian et al, 2014; Oliver, 2002) attribute the popularity of ICT in education to many logical and compelling drivers. Key among these are the ubiquity of delivery devices—children and young adults have grown up in a world where ICTs always have been accessible and learners have grown accustomed to accessing the information they need at their convenience, electronically. Further, the compelling promise of the cost effectiveness that such flexible approaches offer, attracts the attention of budget-conscious program administrators.

From a societal, governmental, or institutional perspective there are other important reasons to develop competencies through online learning. Kanu and Glor (2006), outline the importance of technology in learning because through it, learners from underserved areas can access educational opportunities to gain skills to add to the workforces in their respective areas, the brick and mortar institutions can expand their geographical reach to serve qualified applicants that, due to space limitations, cannot be admitted to on-campus programs.

The World Bank also recognizes the value of ICT in developing appropriate technologically prepared workforces to manage information systems and to mitigate poverty around the world. Consequently, the Bank encourages and supports ICT related thematic education areas: teacher training and support; institutional capacity building and system strengthening; digital teaching and learning materials; digital literacy and skills development; monitoring and evaluation, research and development; distance and online learning; increased openness and transparency; and

media outreach (World Bank 2017). Clearly, this focus by the World Bank on ICT sets the agenda for member countries to prioritize it as a significant area for resource allocation.

As a result of these pressures and perceptions, governments, leading international organizations, businesses and students continue to acknowledge the increasing importance of ICT to economic and workforce development. Higher education institutions in developed countries are working aggressively on adopting the use of ICT for these purposes and institutions in the developing countries of Africa need to follow suit. Unfortunately, there are barriers to the use of ICT in higher education in Africa; several of these are discussed in the following section.

Challenges to ICT use in African Higher Education

Effective use of ICT requires a high quality, functional and reliable human and technical infrastructure, including many interrelated elements, such as consistent electrical power, fiber optic networks, hardware and software, structures and personnel who provide training and support, among others. In most African contexts, especially in sub-Saharan countries, technological infrastructures lag far behind those in other parts of the world (Kim, Kelly & Raja 2010). However, as can be seen in recent reports (Frempong, 2012; Esselaar and Adam, 2012; Ndiwalana and Tusubira, 2012), throughout the region, various organizations have worked aggressively to establish such ICT infrastructures as a means of promoting commerce and development.

Investments by telecoms, governments, and organizations, infrastructure, such as competitive broadband and the greater penetration of wireless and mobile platforms have increased connectivity and access (eTransform Africa, 2012). As improvements like these take place, students demand increased ICT- related access to and services from higher education. Therefore, in response to prospective clients, institutions are increasingly required to offer these services to remain relevant in the education marketplace.

Notwithstanding the challenges already cited, higher education institutions in sub-Saharan Africa continue to grow and improve their ICT infrastructure (Hoosen & Butcher, 2012; Betts, 2017), against real and significant challenges, such as limited financial resources, unreliable electricity supply, and insufficient equipment to serve the needs of students, staff and faculty.

As institutions gain fuller use of ICTs for the development and delivery of distance learning, educators must be prepared to use new technologies and their supporting methodologies for teaching and learning (Sales, 2005; Sales, 2009). This means providing services that promote staff developing basic computer literacy skills, competencies in online instructional design, and exposure to and an understanding of online distance education.

A number of factors work against full faculty engagement, and key among competing priorities is workload. This includes such things as advising students, serving on committees, writing grants, conducting research, and teaching courses which leave them little time to devote to module development (Tarus *et al*, 2015). This implies that institutions should put programs in place to help develop the relevant skillsets among faculty and ensure a timely adoption and use of ICT. Programs may even include incentives to motivate and reward faculty as they develop and apply the newly acquired skills.

Even when training options and incentives are offered, if the ICT infrastructure of an institution is inadequate, it complicates efforts to engage faculty in the level of preparation needed to commit to adopting new teaching and learning strategies (Tarus, *et al*, 2015). Examples of common ICT infrastructure issues in Africa that deter faculty engagement include: areas of campus without connectivity, low bandwidth and interruptions to internet connectivity, the absence of a well

functioning learning management system, limited technical support for course development and implementation, and limited online student services (e.g., course registration/cancellation; fee payment/remittance; library services; information regarding course requirements, class offerings and teaching faculty; scheduling meetings with and communicating with faculty and students). Moreover, in Kenya, there is an inadequate coordination of agencies within and across universities (Rivers *et al*, 2015). These conditions lead to inefficiencies in interrelated systems, or lack of competence in specific ICT related areas.

Given these situations, it is not surprising that Nyerere (2016), in a report commissioned by the Commonwealth of Learning, observed that with few exceptions, staff in Kenya's public universities rated their application of ICT in teaching between 20-50%. They also considered internet connectivity and access to computers to be "average". When focused specifically on Moi University, faculty rated their skills related as "average" with their rating of the development of interactive content at 10%, or less. Collectively, these limitations and low levels of engagement have represented major roadblocks to the adoption of ICT for better management, or for instructional use in higher education.

Broadly speaking, with their limited infrastructure, resources and administrative support, African institutions and the faculty who serve them face significant challenges when integrating ICT into instructional programs (Nyerere, 2016; Tarus, *et al*, 2015). Improvements of both the human and technical ICT infrastructures are basic needs to enhance staff confidence and efficiency in their online engagement. In the following section, the context for ICT in public education in Kenya is detailed.

ICT in Kenya's Public Education

Students entering higher education in Kenya are graduates of the country's basic education system. For more than a decade, organizations, agencies and institutes in Kenya have consciously worked to include ICT in the education system, exposing students to technology, developing skills, and indirectly creating expectations that ICT will be integral to students' future learning opportunities in higher education, the workplace and throughout life. Examples of Kenya's commitment to the development of a digitally literate student population are profiled in the paragraphs below.

For more than a decade, the Kenyan government has included a digital policy and pursued efforts towards a national development framework with a focus on technologically driven learning (Republic of Kenya, 2006b). Prior to this, to set the agenda for enhanced education a framework labelled "a Policy Framework for Education, Training and Research" Sessional Paper No. 1 of 2005) was developed. This document stated a "commitment for enhancement of access, quality and equity in delivery of education services at all levels...[and] to ensure that learning needs for all are met through appropriate learning and life long skills by 2015" (Republic of Kenya 2006a, p. 2). The Sessional paper laid a critical foundation to focus on open and distance learning and the use of ICT in all sectors of education. Specifically, realizing the challenge of the increasing university enrollments in times of limited resources, the policy recommended 'open universities, and distance education to increase learning opportunities' (Republic of Kenya 2005, p. 54). Moreover, this policy dedicated an entire chapter to clarifying policy paths on the use of ICT in education and stated, "the Government will make education the natural platform for equipping the nation with ICT skills in order to create dynamic and sustainable economic growth" (*ibid*, p. 80).

Following closely on the recommendations in the Sessional paper 1 of 2005, the Ministry of Education in 2006 identified the following ICT priority areas:

- a) establish of a policy framework,

- b) identify digital equipment requirements,
- c) determine connectivity and network infrastructure needs,
- d) recommend mechanisms for technical support,
- e) harness emerging technologies,
- f) develop digital content,
- g) integrate ICTs into education,
- h) train faculty (capacity building including professional development),
- i) conduct research,
- j) partner for resource mobilization,
- k) consider the Legal and regulatory framework, and
- l) monitor and evaluate (Republic of Kenya, 2006a).

These priority areas have either been articulated into law to give force to the requirement, or have been incorporated into systemic frameworks that focus on the role of ICT in teaching and learning. For example, the establishment of Kenya Institute of Curriculum Development (KICD) under an Act of Parliament (National Council for Law Reporting, 2017) demonstrated a commitment to embrace a legal paradigm in all matters related to curriculum. This Act specifically legalized KICD and its mandate. KICD is charged with developing curriculum and establishing policy frameworks for e-learning for lower levels of education, from preschool to high school. Another conscientious approach to embrace ICT use in the lower levels is represented by KICD's establishment, in collaboration with Microsoft and Intel, of a Curriculum Innovation Centre (CIC). The purpose of the CIC is to showcase best practices and innovations in ICT as a means of spearheading the integration of ICT in its entire program. The CIC has also partnered with the School Technology Information Centre (STIC), a global program that promotes and supports innovative use of ICT. With the support of STIC, CIC works to promote the innovative use of ICT to enhance modern teaching and learning through curriculum research, implementation, and utilization, and the sharing of innovations.

One final example of Kenya's efforts to fill the education pipeline with experience and capable ICT using students is the Digital Literacy Program (DLP). The DLP, part of the Ministry of Information, Communications, and Technology, was established as part of the government's commitment to using technology to "bring about systemic change in basic and higher education by transforming teaching and learning" (Republic of Kenya, 2017a). This program provides publicly funded learning tablets populated with digital content to all public primary school learners and teachers. One of the two factories for assembling these devices is on one of Moi University's campuses where approximate 1000 new digital devices are produced each day (Republic of Kenya, 2017b). The distribution of devices started with students and teachers in Class 1 in 2016. As of August 2017, approximately 931,300 digital learning devices had been distributed in Kenya's primary schools (Republic of Kenya, 2017b).

It won't be long before every Kenyan learner old enough to attend a university has a decade or more of experience using technology for learning. Moi University, and other institutions of higher education in Kenya, needs to meet students where they are and challenge them with new online learning experiences.

Promoting Online Learning at Moi University

With both the governmental mandate and the practical need to be a leader in the use of technology, Moi University is engaged in a number of ventures and has enacted numerous practices to promote ICT use for teaching and learning. Below several activities are discussed to highlight this work.

To bolster the ICT related capacities, Moi University, together with other universities in Kenya formed a consortium that receives support from the Kenya Educational Network (KENET). KENET, a not-for-profit organization, is licensed by the Communications Authority of Kenya (CA) to serve education and research institutions. It provides Moi and other universities within the consortia with “affordable”, cost-effective and low-congestion internet bandwidth services similar to those available to the research and education communities elsewhere in the world. In addition, KENET offers Moi University other services such as: co-location of servers, dedicated virtual servers for e-learning systems, video and web conferencing, and capacity building for technical staff (KENET, 2017).

The Moi University commitment to online learning also became apparent with the establishment of the Institute of Open Distance Learning (IODL) in 2007. The institute has seven objectives:

- 1) offer flexible approaches to the provision of Moi university academic programs through ODL,
- 2) provide alternative opportunities for further education to those who are eligible,
- 3) utilize ICT and other media in the provision and expansion of higher education,
- 4) leverage School and Departmental effectiveness by using ODL in instruction, learning and research,
- 5) provide an avenue for lifelong, continuing, professional education and training,
- 6) develop networks and linkages with other similar institutions with a view to adopt best practices and enhance our competitiveness, and
- 7) support the University mission in enhancing access and equity in education.

IODL has staff embedded in five sub-departments thereby promoting a holistic approach to ODL. Units with embedded staff include ICT, Student and Staff Support Services, Research Evaluation and Quality Assurance, Professional Continuing Education, and Instructional Media Design, Development and Production. IODL also manages an institution-wide learning management system (LMS), currently used primarily to support blended learning courses. The LMS has a user-base of approximately 25,000 students, staff and faculty (Moi University, 2012).

At a national level, the use of ICT at Moi and other higher education institutions was strengthened when the Commission for University Education (CUE) was established by Kenya’s Parliament in 2012 (Act No. 42). The main function of CUE is to set standards for and ensure the quality of higher education. However, among other activities, CUE’s responsibilities include regulating and accrediting university programs (CUE 2017). In an effort to both recognize the scholarly work of faculty and to promote online learning, CUE designated the award of points valid toward faculty promotion to individuals who complete the development of an online course (CUE 2014). The point value for completion of an online course is equivalent to the publication of an article. To further motivate faculty, Moi University is contemplating the allocation of funds as incentives to support focused efforts towards completed online courses. For each course developed, there is a proposal to reward faculty with a one time cash payment equivalent to roughly \$900 USD. This allocation, however, will depend on the availability of funds.

Given the improving infrastructure afforded by the relationship with KENET, the technical support available through IODL, and the incentives created by awarding points toward promotion and a potential cash award, conditions seemed right for the faculty at Moi University to begin producing online courses on a grand scale. However, few courses were actually produced. Many faculty members lacked skills in instructional design and course development, as well as the experience needed to bolster their confidence so that they could successfully produce online learning. Moreover, to design content into an ODL module requires time, a limitation that staff face due to competing teaching, research and administrative responsibilities.

SPH's TRANSFORMATINAL PATHWAY

Upon determining that an online MPH was a School goal, SPH began a journey of planned and serendipitous activities and interventions intended to scaffold faculty competence and confidence and moved them along the pathway toward the development of online courses. Collectively, the results of their labors would comprise the desired online MPH degree. This section describes a series of activities and interventions, their sequencing and outcomes.

Readiness Assessment (February 2016)

Once SPH's leadership determined that development of an online MPH degree should be pursued, it became clear that a better understanding of the ICT situation within the School was necessary. Also, Moi University's capability and ongoing capacity for producing, implementing and supporting online learning needed to be known. Through OHCEA, SPH requested support from OHW for an institutional online learning readiness analysis.

In February 2016, a three-person team was dispatched to conduct the readiness analysis. The team was comprised of two health care specialists with extensive experience in creating and delivering online courses and one online learning expert with a background in instructional design. Their analysis examined the following six (6) areas of online learning readiness for Moi University and SPH.

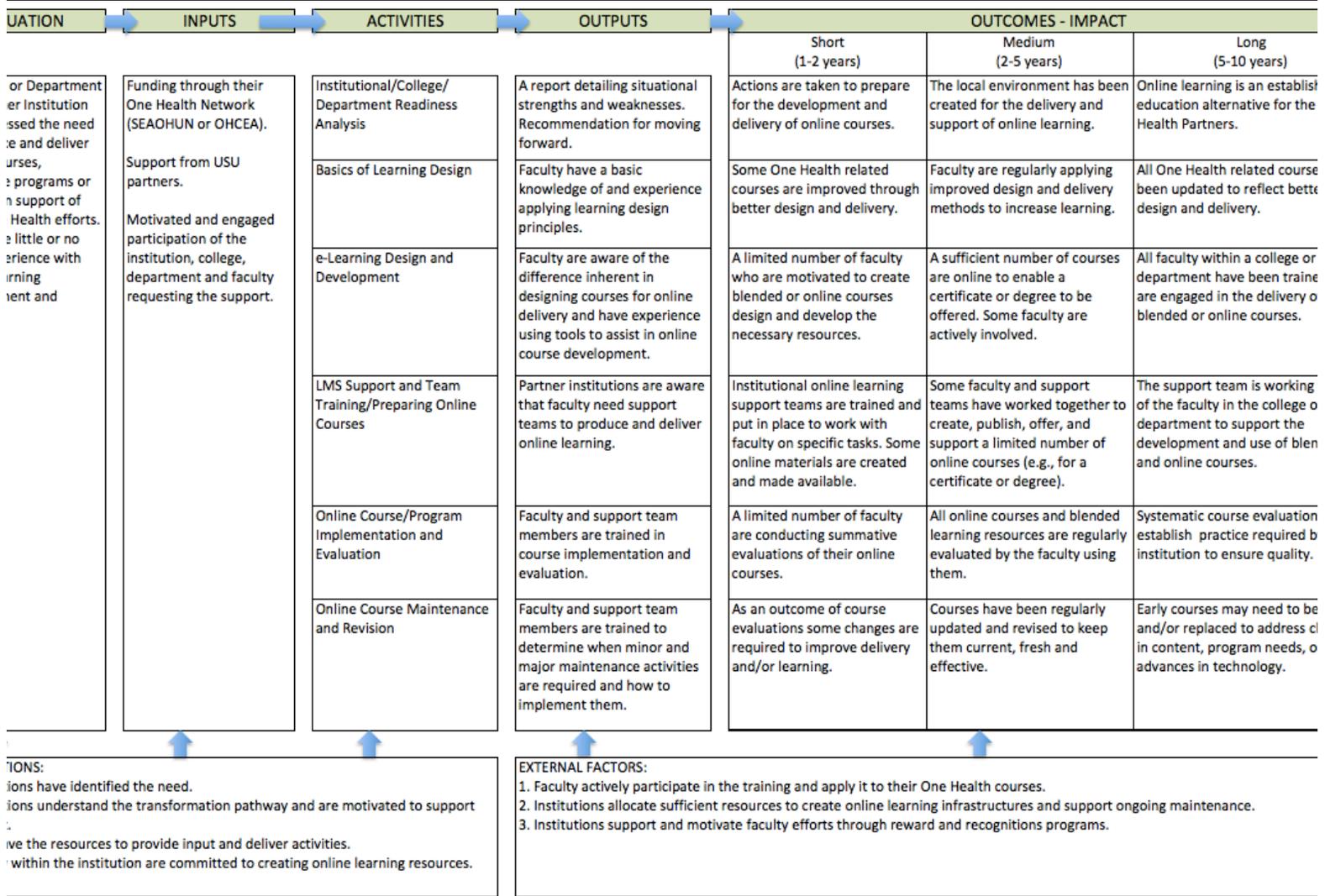
1. An articulated need for online courses and/or degrees
2. The institutional commitment to support online learning
3. The technology infrastructure (hardware, software, and connectivity)
4. The competencies and levels of interest or engagement among faculty
5. The availability and quality of online learning support services
6. The availability of e-Student Services

Information gathering methods included interviewing key stakeholders (i.e., the College of Health Sciences, deans, department heads, library officials, faculty members, students, leadership and staff of the Institute of Open and Distance Learning), conducting an examination of existing facilities and the review of key documents. Following the analysis, a number of recommendations were made that, if executed, would strengthen SPH's capabilities to create and support an online degree program. Recommendations focused on:

- a) ensuring reliable electrical power,
- b) increasing the bandwidth available to SPH faculty,
- c) creating internet connectivity throughout the SPH,
- d) ensuring that faculty and online students would have access to digital libraries,
- e) increasing the online learning competencies of IODL members and their accessibility to SPH faculty,
- f) establishing a school-level online learning committee to support increased faculty use of blended learning and related issues, and
- g) efforts at the University-level to establish more and better online student support and services.

Theory of Change (March 2016)

The readiness assessment team developed and presented a theory of change that detailed a systematic approach for achieving the ultimate goal of an online MPH degree. The theory of change described actions that should be taken and how each would contribute to the desired change--the creation, delivery and support of an online MPH. A supporting Logic Model (Figure 1) simplified the theory of change while illustrating the recommended sequence of activities to be undertaken, how each built on previous work and established the foundation for future efforts.



1: A Logic Model for the Development of Online Learning – SPH, Moi University

It went so far as to document “Assumptions”, such as United States Universities (USU) having resources to support activities. It also identified “Critical Factors”, like the active involvement of faculty. The resulting documents produced a realistic, well-grounded approach that would guide the work and enhance its probability of success. Further, the model was used to guide workplan development as well as activity design and implementation.

Introduction to Instructional Design (ID) and e-Learning (April and May 2016)

Based on approved OHW workplan activities, OHCEA organized regional workshops on instructional design and e-learning design and development for late April and early May of 2016. OHW experts from the University of Minnesota conducted two one-week workshops, in Addis Ababa, Ethiopia. Participants included two faculty representatives and one technology support person from each of the project’s partner countries in Africa, including three representatives from Moi University’s SPH.

The instructional design workshops provided an overview of systematic course design and development. Participants actively applied the principles and practices covered by the workshop to the redesign of an existing face-to-face course. In the process, they developed or improved course goals and objectives, created corresponding assessments, and revised content and delivery methods. Throughout this process, faculty developed an appreciation for the value of design models and a systematic approach to course creation.

A second workshop examined the concepts of blended and online courses while providing participants with practical skills for the development of e-learning modules. The textbook for the workshop was, *Instructional Design for eLearning* (Arshavskiy, 2013). A significant portion of the workshop was spent on the design and development of learning objects using LodeStar™, a template based authoring environment for creating SCORM compliant outputs. Each participant was given a license to the tool and was required to develop at least two learning objects that could be included in blended or online courses. Other tools to which participants were exposed include VoiceThread and Padlet. Through these two workshops, the representatives from the SPH received their first exposure to topics they and their colleagues would study further in subsequent workshops. By virtue of their participation, they became ICT advocates and leaders within the School.

Instructional Design (June 2016)

SPH hosted a OHW workshop on instructional design in Eldoret, in June of 2016. The workshop, attended by virtually all of School’s faculty as well as representatives from the University’s ICT department and the Institute for Open and Distance Learning, focused on course design and lesson development. A goal of the workshop was to strengthen the School’s face-to-face course offerings, with an expectation that well designed courses would be easier to convert for online delivery in the future.

Major topics covered in the workshop included, basic instructional design models for courses and lessons, ways of learning and teaching, motivating learning, the why and how of course goals and objectives, developing assessments for critical and creative thinking, development of content-specific learning experiences, and the importance of alignment throughout goals, objectives, assessments, content, and media. Participants in the workshop applied the content covered to the redesign and development of two of their courses.

Design and Development of e-Learning (September 2016)

Following the instructional design workshop came a OHW supported workshop on the design and development of e-learning, also held in Eldoret. The majority of workshop participants, from both SPH and IODL, had completed the ID training in late June. A goal of this workshop was to enlighten participants on the nature of interactive learning objects and the role they could play in both blended and online courses.

Like the workshop held in Ethiopia, this workshop familiarized participants with blended and online courses and e-learning design and development using a variety of tools. In addition, it covered desk-checking designs, conducting formative, summative and maintenance evaluations, and an introduction to the Moi University system of managing information (MUSOMI), the Moi University's learning management system (LMS).

SPH e-Learning Committee (September 2016)

Following the e-learning workshop, enthusiasm was high among the SPH faculty for the development of an online MPH. An e-learning committee was spontaneously formed by a group of faculty. The committee's mission was to monitor and advocate for technology issues within SPH. They also set a goal that all SPH courses should have some element of the instructional content online by the following September, thereby making each course blended.

IODL Schedule Support (September 2016)

Following the e-learning workshop, the IODL agreed to establish a regular and on-going presence within the SPH. An IODL IT support person, who had attended the workshop in Ethiopia and the two workshops in Eldoret, volunteered to be available in SPH each Thursday to provide technical and course development support to faculty members. This created a direct link between the SPH academic staff responsible for creating the online courses and IODL personnel who could assist with online course development, delivery and support.

Creating Online Learning (October 2016/ June 2017)

Scheduled for October of 2016, a OHW-supported workshop at the SPH would prepare faculty to put courses online. Due to schedule conflicts, however, the workshop was canceled and the fiscal year of the OHW project ended. This meant that the workshop would need to be included in the following year's workplan, causing a break in the flow of training and support.

The rescheduled workshop was conducted in June of 2017. The workshop reviewed course design, and introduced new content on differences between traditional and online courses, structuring course content for online delivery through an LMS, and the roles and responsibilities of faculty and students in an online course. Workshop participants were given time to create modules for online delivery (for peer review and facilitator feedback) and to create a schedule for completing their online course.

Upon completion of upgrades to the infrastructure, delivery of a series of online learning support workshops, and with assistance from the IODL, faculty within the SPH are ready and able to produce and deliver online learning courses that would ultimately lead to an MPH degree being available online from the School.

OBSTACLES ENCOUNTERED

While a number of activities were undertaken in support of SPH's movement toward an online MPH, the path has not been without difficulties; a number of obstacles were encountered. These obstacles were not intentionally placed along the pathway to prevent progress, but rather occurred as part of the reality of a project supported in an academic setting. The most confounding of these are described below.

Work Planning Process

The OHW project, which provided technical and financial support for many of the activities, imposed processes and practices that required activity and support requests to be identified more than six months in advance. The lead-time was necessary to ensure all requested support had adequate time to progress through all stages of the review and approval processes. This level of advanced planning constrained the ability of SPH to address unanticipated challenges and to be spontaneous in taking advantage of suddenly available opportunities. Further, once approved, support activities had to be completed within the fiscal year. These practices, while making support available, imposed inflexibility on an academic audience that typically has flexibility in their schedules.

Faculty Commitments

The roles and responsibilities of university faculty are not limited to teaching. They serve on committees, advise students, write grants, engage in research, write papers, attend professional conferences, consult and have other life commitments. Obviously, faculty are unable to devote all of their time to attending workshops, redesigning courses, creating interactive learning objects, redesigning courses for online delivery, and setting up courses in their LMS.

With limited time between workshops and related tasks, it was increasingly difficult for the faculty members to devote sufficient attention to the workshops and subsequent work that was expected of them. Workshop attendance, for some faculty, became sporadic and the follow-up to the workshops often was inconsistent or incomplete. A form of overload fatigue became apparent, one that was not conducive to completing the goal of an online MPH in a short period of time.

Current Status of Moi Online MPH

Despite the many challenges enumerated above, the online MPH from Moi University's School of Public Health is gradually taking shape. Nearly all of the faculty in the SPH have participated in multiple workshops on instructional design, e-learning and online learning. The SPH e-learning committee still exists, but is not meeting as regularly. The IODL continues to make a support person available every Thursday in the SPH to work with available faculty. In September of 2017 a new Dean was appointed for the SPH and she has identified that an online MPH is a high priority, and is motivating faculty and providing support where needed. Finally, the Director of the IODL is aggressively working with the new Dean to ensure that the online MPH becomes a reality in the near future.

SUMMARY

In the 21st century it is common for universities in the developed areas of the world to offer courses and degree programs online. In parts of Africa and other developing areas of the world, however, many countries are only in the early stages of acquiring the technical and human infrastructures needed to accomplish this task.

At Moi University, in Kenya, many factors have allowed for progress toward putting courses online, some factors have served to almost force this move, while others have provided incentives. For example, Kenya's basic education pipeline is quickly filling with students who expect online learning to be an option for higher education. At the university level, the University management through IODL is generating incentives for faculty who create online courses, an effort expected to motivate faculty towards production of online content development.

The School of Public Health at Moi University determined that an online MPH degree would increase enrollments and meet an unfilled need. In order to make the progress toward an online degree, the School built a followed a transformational pathway plan that includes seeking technical training and support in instructional design, e-learning design and development, and online learning development and delivery. These efforts have been supplemented by the development of an e-learning committee and support from the administration.

The combined actions of the Kenyan government, Moi University, and its School of Public Health are beginning to bear fruit. While there is not yet an online MPH, the trend line indicates the likelihood of fully online courses becoming available early in 2018, and a full MPH being available in 2019.

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