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Using a Community-Based Participatory Research Approach to Create a Competency Based Health Systems Strengthening Curriculum in a Developing Country

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Abstract

Achieving a targeted, competency-based curriculum through an international partnership focusing on health systems strengthening is a challenge. Guided by community-based participatory research (CBPR) principles, researchers from Saint Louis University's College for Public Health and Social Justice (SLU) Department of Health Management and Policy joined an international effort to develop a hospital-based leadership and governance curriculum in a sub-Saharan low- to middle-income country (LMIC). This qualitative case study provides insight for (a) working with international partners to develop a health systems strengthening competency-based framework, (b) enhancing healthcare leaders' ability to engage stakeholders in efforts to improve community capacity in delivering health services, and (c) analyzing a CBPR approach in developing a health systems strengthening competency framework. Results indicate that a tailored, culturally relevant CBPR approach for developing a competency-based curriculum in a LMIC country is possible despite challenges. In particular, the CBPR approach provides a way to incorporate culturally relevant issues unique to the healthcare environment and context when developing a competency-based curriculum, while honoring all partners' viewpoints. The CBPR approach builds a foundation of trust among all partners, including research partners, which is critical for a true collaborative engagement among all partners.

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INTRODUCTION

In 2013, researchers from Saint Louis University's College for Public Health and Social Justice (SLU) Department of Health Management and Policy joined a partnership effort consisting of an international nongovernmental organization (NGO), a national health system, and a mission hospital association to work in-country with local representatives of mission hospitals in a sub-Saharan African country. The purpose of the SLU team involvement was to develop a healthcare leadership and governance competency-based curriculum, incorporating the health systems strengthening (HSS) building blocks as outlined by the World Health Organization (World Health Organziation, 2007). The SLU team employed competencies identified by the in-country leaders to design and co-create a curriculum for mission hospital leadership teams, which consisted of local healthcare and community leaders. Employing a community-based participatory research (CBPR) approach for the identification of the competencies and curriculum design (Minkler & Wallerstein, 2003), the SLU research team guided the in-country local representatives through an equitable, collaborative, and collegial process using an existing evidence-based leadership framework with global application.

This qualitative case study summarizes the efforts and insights gained using a CBPR orientation to develop a targeted HSS curriculum within a low- to middle-income country (LMIC) in sub-Saharan Africa. Guided by CBPR principles to engage international stakeholders in a shared vision to (a) enhance leadership and governance capability among healthcare leaders and (b) improve community capacity to deliver health services, the following questions are explored:

- Is it feasible to develop a targeted competency-based curriculum to support health systems strengthening through an international partnership focused on enhancing in-country leaders' ability to improve capacity for delivering health services?

- How can a community-based participatory research approach be used to develop a competency-based curriculum for healthcare leaders in a LMIC within sub-Saharan Africa?

- What insights can be gained from engaging in a CBPR approach to develop a competency-based curriculum tailored for the local environment and context?

Background

Community-Based Participatory Research Approach (CBPR)

CBPR engages those affected by a community problem, typically in collaboration with others who have research skills, to analyze issues with the goal of improvement or resolution (Green, et al., 1995). CBPR is an orientation that seeks to lessen or eliminate the power distance that often occurs between researchers and community members. Designed as a bottom-up approach, CBPR places an emphasis on locally defined priorities and perspectives. As a result, a collegial form of participation with an equally reinforcing partnership ensues. Results using a CBPR approach are more likely to originate from and to benefit community members (Cornwall & Jewkes, 1995; Gaventa, 1993).

Under the CBPR framework, it is understood that people in an affected community are more likely to provide honest and direct answers to researchers they know and trust (Israel, Checkoway, Schulz, & Zimmerman, 1994). Community members experiencing the effects of an issue may also: (a) have circumstantial information not readily apparent to an outsider that may prove important to the project; (b) have the advantage of living and working within the study environment; and (c) have ongoing contact with both the issue and intervention (Minkler & Wallerstein, 2010).

Those affected by an issue may need assistance in framing the problem and seeking solutions. The understanding of context and the ability to help define problems and structure solutions becomes an important role for the researchers, and the collaborative nature of CBPR can provide a more accurate reflection of context (Minkler & Wallerstein, 2010). Such advantages can lead to a more accurate understanding of the issues, related causes, and resulting effects in the community. A key benefit of a CBPR approach, therefore, is a more sustainable approach to problem resolution.

Health Systems Strengthening (HSS)

The World Health Organization (WHO) defines a health system as "all organizations, people, and actions whose primary intent is to promote, restore, or maintain health"(World Health Organziation, 2007). The WHO outlines six inter-related building blocks of a health system for HSS: (1) service delivery; (2) health workforce; (3) information; (4) medical products, vaccines, and technologies; (5) financing; and (6) leadership and governance (World Health Organziation, 2007). Many organizations with a global focus, such as the WHO, United States Agency for International Development (USAID), and the Department for International Development (DFID), have had major initiatives to promote HSS incorporating the building blocks of a health system. From

the U.S. government's perspective, maximizing and sustaining investments in the health sector, particularly in LMICs, is achieved in part through HSS (US Government Global Health Initiative, 2012).

One of the challenges in strengthening health systems in LMICs is that many well-intended efforts are created from a predominance of a theoretical approach with Western culture and experiences as the contextual framing of solutions to problems. More recently, however, some efforts to mitigate the dominance of a Western culture approach in strengthening health systems in LMICs are underway. One such approach is to incorporate systems-thinking into the context of LMICs, emphasizing the actual experiences and examples of how systems-thinking can strengthen healthcare, particularly in LMIC settings (Taghreed & de Savigny, 2012).

The Link between Competency-Based Education and HSS

Parallels to LMICs and the United States exist when comparing needs for HSS through competency-based education. While the intensity of need for HSS and the building of an infrastructure is greater in LMICs, public health and healthcare management in the United States benefit from competency-based education to strengthen health systems. Public health systems in the United States are built on an infrastructure of workforce, information systems, and organizational capacity; in each of these areas, however, deficits and challenges are well documented (Baker Jr et al., 2005). Drawing from a 2003 Institute of Medicine report, Baker and colleagues (2005) highlight a weakness of US public health infrastructure to create a framework of initiatives to "systematically assess, invest in, rebuild, and evaluate workforce competency, information systems, and organizational capacity through public policy making, practical initiatives, and practice-oriented research," (p. 304). Subsequently, the defined problem derives from the need to address specific components of a complex, systemic problem of potential consequence to millions of people, particularly with regard to individual competence and system capability.

The importance of a properly trained healthcare workforce is widely recognized, particularly because the need to foster the development of incentives for lifelong learning and career growth is of current interest to U.S. public health-related associations, federal agencies, trainers/trainees, and researchers (Cioffi, Lichtveld, Thielen, & Miner, 2003; Potter, Ley, Fertman, Eggleston, & Duman, 2003). In a number of countries, including Australia, England, Scotland, New Zealand, Germany, South Africa, Costa Rica, Mexico, and Canada, competency-based curricula form the basis of various domestic professional and vocational training programs (Argüelles & Gonczi, 2000). Outside of government-sponsored and funded efforts, global business firms

have undertaken professional training initiatives that incorporate specific competence (e.g., leadership, management) to enhance organizational performance and productivity (Morrison, 2000; Potter et al., 2003).

According to a report published by the Commission on Education of Health Professionals for the 21st Century (2010), current efforts to redesign professional health education internationally seek to capitalize upon opportunities for mutual learning due to accelerated global interdependence associated with flows of knowledge, technologies, and financing, as well as the migration of patients and providers across borders. Therefore, a multiprofessional and global systems approach to professional education and institutional reform is necessary. Such reforms should include explicit competency development in the areas of collaboration and team-building so as to address institutional reforms that take into account: social origin, age distribution, and gender composition of the health workforce; expansion of academic systems through global networks of hospitals and primary care units; and nurture a culture of critical inquiry (Frenk et al., 2010).

Using CBPR to Develop a Competency Framework to address HSS

While a CBPR approach has been used widely in public health interventions, especially to address health disparities (Viswanathan, M., et al., 2004), the literature is not widely reflective of a CBPR approach in healthcare management, education, or in HSS. Yet, we consider key tenets of CBPR to be relevant and important in aligning stakeholders to achieve a specific goal, in this case a competency-based curriculum focused on leadership and governance, while preserving community leaders' needs to deliver value-added and sustained solutions to the problems encountered within the local health system. However, the questions for the SLU research team persisted: can we be successful in applying a CBPR approach to develop a tailored, competency-based HSS framework in an austere international setting?

We assert a CBPR archetype lends itself to successfully developing a competency-based HSS curriculum that embraces systems thinking, and that this framework addresses the lack of conceptual application, particularly within LMIC health systems. Furthermore, we posit specifically using the CBPR approach in developing a competency-based curriculum for HSS has not been widely used, especially within developing countries. Therefore, we speculate that in using a CBPR approach, this study satisfies a gap in field-based qualitative studies by delivering a competency-based curriculum that addresses leadership and governance needs to enhance HSS in a LMIC.

Methods

Feasibility and use of a CBPR approach to develop a targeted competency-based curriculum for health care leaders in a LMIC within sub-Saharan Africa

These research questions guiding our qualitative case study design drove the adoption of the CBPR framework and its application to competency-based learning. As such, we first engaged our international partners in a collaborative needs assessment to the program development process, which was important to curriculum adoption and sustainability (Cornwall, 1996; Green et al., 1995; Israel, Schulz, Parker, & Becker, 1998). Then, using a nominal group technique, we led international stakeholders and those from the community to generate questions and issues of interest, specifically to account for cultural influences regarding curriculum content, use of an evidence based competency model, and course delivery, which was important to this project (Taghreed & de Savigny, 2012). Because we elected to use the CBPR approach, mitigating effects of culture and local knowledge were more likely to be integrated by the team appropriately (Minkler, 2005). Key principles of CBPR, as outlined by Barbara Israel and colleagues (1998), also guided the work in developing the curriculum. These principles included: (a) recognizing "community" as a unit; (b) building on strengths and resources of the community; (c) facilitating collaborative partnerships in all phases of research; (d) integrating knowledge and action for mutual benefit of all partners; (e) incorporating a cyclical and iterative process; (f) addressing health from positive and ecological perspectives; and (g) disseminating findings and knowledge to all partners (Israel et al., 1998).

Data Collection

Participants for an initial needs and environmental analysis included: U.S. partnership of faith-based organizations, academic institutions, and health systems (*n*=13); in-country representatives of faith-based healthcare organizations and leadership (*n*=6); and four sub-Saharan mission hospital sites as determined by in-country representatives, which included leadership from each of those sites (*n*=4). Prior to the initial needs and environmental assessment, the SLU team met to discuss study and curricular requirements. The SLU team then provided scientific and content guidance for those who were to conduct the in-country assessment. In addition, the SLU team participated in conference calls with in-country training partners to begin important relationship building. Immediately following the information gathering sessions and meetings, the SLU team flew to the sub-Saharan location for 10 days of on-site evaluations and training.

Three main objectives guided the 10-day assessment: further develop the working relationship among the partnership and in-country trainers; conduct curriculum needs and environmental assessments; and meet with in-country mission hospital leaders for whom the competency-based curriculum would be developed. Four on-site hospital assessments were conducted with at least one U.S. partner and one in-country representative. These assessments included semistructured interviews with community and hospital representatives (*n*=20) that yielded environmental input regarding: sources of electricity; technology; leadership and governance capabilities; and Internet access. Facilities with capacity to host in-person training sessions were also identified during these sessions.

Developing the competency framework

The next step was to determine, through a CBPR approach, an appropriate competency-based framework consistent with the articulated needs of the partnership and assessment results. In-country partnership representatives confirmed that a competency-based approach was consistent with its desires and needs. Subsequently, the SLU team began a review of leadership and governance training models and competency-based frameworks. Central to the decision for determining a competency-based framework was relevance to the desired outcomes, adaptation in the particular sub-Saharan African culture, and the sustainability of a curriculum delivered by in-country partners.

The National Public Health Leadership Network (NPHLN) Competence Framework was identified by the SLU team and presented to the larger partnership. The reasons for choosing the NPHLN Leadership Framework were as follows:

- While not an exact representation, the existing domains and competencies in the NPHLN framework closely aligned with the articulated needs of the partnership.

- Logistically, the NPHLN framework provided a delivery mechanism consistent with the environmental assessment.

- The framework was evidence-based.

- The SLU team had experience with the framework, including one member who was involved in its development.

The NPHLN framework included four main competency areas (i.e., core; integrative and collective leadership; policy, politics and power; and crisis leadership), 17 domains within the four main areas, and 115 total competen-

cies within the domains (Wright et al., 2000). Through a series of communications with the in-country partners, the NPHLN Leadership Framework was confirmed as the evidence-based framework to build the leadership and governance competency-based curriculum.

Competency identification and the curriculum framework

To further answer the three research questions, the SLU team designed an on-site training for the in-country partners serving as trainers of the competency-based curriculum with the following goals: (a) confirm the competency-based approach; (b) introduce the existing NPHLN Leadership Competence Framework; (c) through a CBPR approach, employ a nominal group technique to investigate how a HSS curriculum may be adapted and tailored for the in-country needs and culture; and (d) obtain feedback from the partners on-site and through follow-up conversations to identify lessons learned. The finalized training approach and schedule was approved through an iterative process with in-country and U.S. partners.

Once on-site, the SLU team facilitated a discussion and with the in-country trainers regarding use of competency-based education in general, and the NPHLN Competence Framework as a foundation for curriculum development in particular. While new to competency-based curriculum, the participants were well versed on the content related to the competencies and needs of the hospital leadership. Participants of the in-country training included 10 individuals selected by in-country representatives on the basis of having: (a) knowledge of and experience with the four intended mission hospital sites; (b) master's-level academic preparation relevant to hospital leadership and governance; and (c) expertise in the service areas under consideration for deploying the competency-based curriculum. The in-country trainers serve as the curriculum facilitators and educators of the mission hospital leadership.

While on-site and following the initial curriculum training session, the SLU team led a modified nominal group technique (NGT) for the express purpose of adapting and refining the NPHLN Competence Framework for use in the LMIC health services setting. In-country trainers were asked to consider which competencies they believed were important to achieve leadership and governance capabilities within this workforce. Each trainer individually reviewed and ranked all domains and competencies of the NPHLN framework on a scale of priority (i.e., low, medium, or high priority). Individual rankings were then tabulated and shared with all trainers. If five or more of the trainers indicated that a domain or competency was a high priority, the domain and competence was included. Once the final list of ranked domains

and competencies was reviewed, trainers were led through a consensus process to further refine priority domains and competencies in consideration of culturally relevant issues not captured within the initial NGT process.

Following the confirmation of the modified NPHLN competence framework with the in-country trainers, a training and implementation timeline was developed. Discussions were led by the SLU team to determine in-country trainers' preferences regarding the best approach to use in educating mission hospital leaders. Using a consensus development process, the group settled upon a process of co-creating a curriculum that would result in a relevant and sustainable model. This process included relying on the expertise of the SLU team in curriculum development in collaboration with trainers who could discern culturally relevant content and approaches. The group also agreed upon a proposed timeline for implementation of an in-country training model.

Analyzing insights from using a CBPR approach to develop a competency framework

To obtain information about lessons learned, the SLU team facilitated structured daily reflection sessions regarding approaches used and content covered during the day. Additionally, the SLU team facilitated a reaction session with trainers and in-country partners at the conclusion of the training. Participants discussed the training, the CBPR approach, and adaptation of the curriculum. Additional feedback on the CBPR training process of identifying and adapting the HSS competency-based curriculum was obtained from the in-country partnership approximately one month after the team returned to the U.S.

Results

Feasibility of developing a targeted competency-based curriculum to support health systems strengthening through an international partnership focused on enhancing in-country leaders' ability to improve capacity for delivering health services

The results from the needs and environmental assessment – and the CBPR approach by which the information was obtained – provided important information regarding both the collaboration process and development of a competency-based framework to determine the feasibility of developing and delivering a targeted competency-based curriculum. The in-country partners confirmed the initial assessments, priorities, and issues, and provided further guidance as to how best to incorporate a culturally relevant community perspective. Priorities for curriculum development were determined by the hospital assessment teams and in-country partnership based on the information gathered from the assessments. Those priorities included competency

needs around leadership and governance in a health systems-strengthening context, the ability to incorporate the individual community and organizational context, and the political reality. Environmental assessment results included the importance of incorporating web-based technology, recognizing the limitations of Internet connections. The assessment also revealed the importance of face-to-face interaction with each other, recognizing limited away time, as well as organizational and travel challenges and restrictions.

A CBPR approach to developing a targeted competency-based curriculum for health care leaders in a LMIC within sub-Saharan Africa

Based on the qualitative environmental assessment, key informant interviews, input from in-country key stakeholders, a request from in-country partners to use an evidence-based framework, and the expressed desire to incorporate the WHO HSS building block strategy, the sub-Saharan partnership identified that leadership and governance were key leverage points to initiating the full HSS strategy. Further, in-country training yielded: (a) confirmation that a CBPR approach can be employed to develop a refined competency-based leadership and governance framework based on the NPHLN Competence Framework; (b) an agreed upon approach for creating the HSS competency-based curriculum; and (c) important lessons learned through structured reflection and feedback by the in-country partners on the CBPR approach for developing a competency-based HSS curriculum. Appendix A outlines the resulting domains and competencies identified by in-country partners through an initial NGT and consensus process.

The adapted framework identified 9 domains and 78 competencies within the domains. The domain "policy, politics and power" did not receive a high priority ranking by the group through NGT. However, through consensus among in-country trainers, it was included but modified to be more culturally relevant. It was anticipated that once the first iteration of the training and implementation with the in-country mission hospital leaders occurred, additional refinement of the competencies and curriculum content could be expected.

Analyzing insights from using a CBPR approach to develop a competency framework

The results of the structured reflection and feedback found: (a) a continuous, iterative process among the partners, including the SLU team, is important; (b) a competency-based curriculum may not have been identified without a CBPR approach and is an improvement over more traditional content-and-skills curricula; (c) in-country trainees greatly appreciated and embraced

the inclusion of a CBPR approach, noting the significance of using culturally relevant examples and the importance of their contributions in determining tailored competencies; and (d) an increased likelihood that a competency-based approach to curriculum (that is culturally relevant) will be accepted and sustainable in their country.

LIMITATIONS

Since a CBPR approach was used and yielded a tailored competency-based framework, tailoring and adapting of the curriculum may lead to limited generalizability of findings. Yet we assert the CBPR approach to the process of determining a competency-based curriculum is in itself largely generalizable. Nonetheless, with any CBPR approach, there exists potential for researcher bias and influence. To minimize such concerns, we employed CBPR methods specifically to emphasize the needs and desired outcomes of in-country partners; hence, the SLU team constantly reassessed study direction and actions taken. When uncertainty arose, additional input was solicited so as to achieve consensus and systematically triangulate input from stakeholders, including U.S. partners, in-country associates, and others.

The SLU team also facilitated review and discussion of the competencies of the in-country trainers prior to having the trainers determine the competencies, determined the adequacy of training content, and developed consensus regarding the appropriate training model. Insights from all partners were integrated, resulting in proposed training competencies, content, and process. This integrated approach is important when using CBPR methods (Creswell, 2012; Johnson, 1997). Since this is a tailored approach, the actual results of the competencies chosen by the in-country trainers are unique to their context and environment. At the level of the actual competencies chosen, generalizability is more difficult as this is a direct reflection of the in-country trainers perspective, expertise, and experience. However, the overall process used to obtain the tailored competency-based curriculum is generalizable to the larger population and results in a more appropriate competency-based curriculum to address the needs of the target population.

DISCUSSION

This study investigates the use of the CBPR approach in developing a targeted competency-based curriculum in the international setting. The combination of stakeholder alignment and executive development for the purpose of HSS creates a somewhat unique situation; this methodology requires careful consideration of relational strategies best suited for delivering preferred outcomes.

Hence, we assert a CBPR approach must prioritize and narrow the focus of curriculum development in a deliberately stakeholder-centered and culturally relevant manner to answer three specific research questions:

- Is it feasible to develop a targeted competency-based curriculum to support health systems strengthening through an international partnership focused on enhancing in-country leaders' ability to improve capacity for delivering health services?

- How can a community-based participatory research approach be used to develop a competency-based curriculum for health care leaders in a LMIC within sub-Saharan Africa?

- What can be learned from the process of using a CBPR approach to develop competency-based curriculum designed to empower international partners?

Feasibility of developing a targeted competency-based curriculum to support health systems strengthening through an international partnership

A tailored, culturally relevant CBPR approach in developing countries is possible despite perceived and real challenges. Developing countries, including this sub-Saharan African country, are more accustomed to having the community drive and influence change. The community perspective, incorporating cultural leaders, is central to most local decision-making. In many cases, it is considered offensive to not incorporate community or tribal leaders into the decision-making process. The role of the SLU team is to guide the in-country partners in recognizing their own strengths while facilitating a process to develop a competence framework that address local workforce development needs. In return, the in-country partners contribute cultural relevance, inclusion of key stakeholders and decision-makers, and a continuous articulation of development and desired outcomes. Use of a CBPR approach positively affects the process and produces results that demonstrate the critical roles and contributions of all partners to achieve a competency-based curriculum.

A community-based participatory research approach used to develop a competency-based curriculum for health care leaders in a LMIC within sub-Saharan Africa

Specifically, the CBPR approach must include consideration of the relational strategies best suited for achieving the outcomes desired for design and implementation of a competency-based curriculum. To engage in a community-based participatory approach in identifying competencies and curriculum, the SLU team established a co-learning process with all the partners in a culturally

relevant manner. In doing so, the SLU team was able to focus on contributing expertise around the desired capacity building outcomes and competencies identified by the in-country trainers and partners.

Throughout the process, the importance of developing a competency-based curriculum (rather than a skill-building training) was articulated by the in-country partners. They also articulated the importance implementing a team-based approach with those being trained within the hospitals. Previously, mostly skill-based training was offered to an individual at a hospital. This approach created a knowledge and power imbalance among hospital and management staff. Using a CBPR approach, the SLU team addressed this concern through the introduction of a competency-based team development approach which supported successful curriculum design for capacity development.

Analyzing insights from using a CBPR approach to develop a competency framework designed to empower international partners

Building trust among the partners is a critical component of implementing a CBPR approach. For the researcher, the foundation of trust among partners enables the transition to a CBPR approach and collaborative engagement required to accomplish objectives. For the community members, the foundation of trust assures that their contributions will lead to a culturally and community-relevant product and approach, meeting assessed needs and desired outcomes. For all partners, a CBPR approach is very rewarding as well as and a more sustainable approach considering limited time and resources. It is critical that the academic expertise perspective is integrated in a CBPR approach to developing a competency-based curriculum. The art of CBPR is in balancing the need for involvement of academic expertise while recognizing the critical role of practice partners to assure that stakeholders' needs, priorities, and culture are addressed. It is important to note that this is a critical priority for designing and implementing CBPR methodology.

A CBPR approach to curriculum development is challenging, especially in a developing country with limited resources. CBPR requires a more intentional focus and incorporation of the community. Initially, it requires more investment of time to clearly assess, understand, and incorporate the needs and desired outcomes of the stakeholders involved. It also requires understanding by the research team that, while the stakeholders and partners may request and appreciate expert advice and counsel, they may still choose a different path or approach to meeting needs.

Another challenge the SLU team encountered was the articulation by the in-country partners of previous attempts to health management education that imposed the Western view of what was needed. The CBPR methods used by the SLU team addressed these concerns with the in-country partners.

Another important factor in this project was ownership of the process, product, and implementation by the in-country partners. Therefore, it was important to develop an approach and product that incorporated the academic expertise, but created a result that was "owned" and deliverable by the in-country partners. This was critical for sustainability and continuity of the design and implementation process. Through a CBPR approach, a mutually agreeable, co-created approach to identifying competencies, content, and an implementation model for a competence and practice-based curriculum is possible.

Discussion summary points

- Not only is a CBPR approach to developing a competency-based curriculum possible, it is important to the target populations as demonstrated in this case study.

- The process for how a HSS competency-based curriculum may be adapted should (a) be shaped by information first gained through a needs and environmental assessment; (b) use existing frameworks that may be adaptable; and (c) engage stakeholders with the qualifications to adapt the curriculum.

- To advance competency-based education in healthcare management in an international setting, a tailored (rather than a "cookie cutter") approach may be necessary and is feasible to reflect the cultural and political context, experiences, and nuances in any given country.

Future Research and Conclusions

The purpose of this project was to develop a tailored leadership and governance competency-based healthcare curriculum as part of the HSS building blocks. The CBPR approach placed the power of decision-making for the identification of the competencies and development of the curriculum with the in-country partners. The SLU team provided academic expertise, but the in-country partners owned the decisions and the approach, resulting in empowered in-country partners. Why the in-country partners selected and prioritized the domains and competencies offers future research opportunities that incorporate contextual, social, and anthropological factors. Future development of competency-based curricula may want to consider examining these additional factors, especially for developing countries.

Often, the health management curriculum and practices used in developing countries is a varying adoption of U.S. best practices and experiences. While there is rich knowledge and experience to be gained by examining U.S. best practices and experiences, it may not be comprehensive or entirely relevant for the country of interest based on needs and culture. Decades of experience and evidence that supports the work in the U.S. or other developed country does not guarantee relevance in the developing country.

There is also much the U.S. may learn from these emerging systems of health management. There is often more emphasis on community in developing countries than in a U.S. approach. For example, in this case study, the in-country partners insisted that whatever approach was determined by the partners, it had to relate back to the community and to those who hold them accountable.

As work with developing countries expands, CBPR is an approach to consider. Many of these countries have a culture and expectation of working with communities and being held culturally accountable by their communities. The traditional approach to developing competencies and curricula may miss the subtle nuances of culture that have a significant impact on acceptance, adoption, implementation, and sustainability of healthcare management and leadership education. More research is needed to understand the long-term impact of such an approach with competency-based healthcare management and leadership curriculum.

Socioeconomic, financial, and cultural differences within a community may impact the design and organization of healthcare. Any curricula designed to improve competencies and build capacity among health care leadership must incorporate these important factors to assure relevancy and sustainability of the efforts. While a more prescribed approach may be resource-efficient in the short term, developing countries in need of these programs may not be able to sustain the efforts due to these differing factors.

Incorporating a CBPR approach provides innate ownership and vested community interest throughout the design and implementation process that may lead to long-term efficiencies and sustainability not necessarily possible when developed outside of the community context. Incorporating a CBPR approach in developing countries to address healthcare management and leadership needs and desired outcomes through a competency-based curriculum provides for an evidence-based, culturally relevant, and sustainable approach.

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Appendix A

Health Systems Strengthening Leadership and Governance Competency Framework* Results for a Sub-Saharan African Country using a CBPR/NGT approach

DOMAIN 1: Introduction to Leadership, Vision & Mission
1. Facilitates development of collective interest and benefit
2. Communicates professional values, beliefs, and ethics
3. Facilitates development of mission and purpose
4. Facilitates adaptation of mission to vision
5. Facilitates collective alignment and commitment to vision
6. Facilitates development of shared vision
7. Identifies emerging and acute problems
8. Facilitates effective communication
9. Develops strategic decisions and objectives
10. Uses transformational and transactional leadership skills
11. Uses change theories, models and methods
12. Facilitates effective group dynamics and risk taking
13. Develops alternative and emerging scenarios for change
14. Facilitates alignment of coordinated action
15. Develops strategic tactical assessment and gap analysis

DOMAIN 2: Collaborative Leadership
1. Facilitates systemic collaborative and collective leadership
2. Facilitates collective transformative learning
3. Develops cross-sector and inter-cultural partnerships
4. Facilitates boundary spanning and network development
5. Develops an inclusive and diverse leadership culture

DOMAIN 3: Systems Thinking
1. Develops active personal learning, self-development and mastery
2. Develops adaptive expertise, mental agility and flexibility
3. Facilitates systems thinking and complex decisions
4. Develops cross-sector and inter-cultural partnerships
5. Develops emergent predictions and forecasting methods

DOMAIN 4: Change Management

1. Facilitates effective communication
2. Develops strategic decisions and objectives
3. Uses transformational and transactional leadership skills
4. Uses change theories, models and methods
5. Facilitates effective group dynamics and risk taking
6. Develops alternative and emerging scenarios for change
7. Facilitates alignment of coordinated action
8. Develops strategic tactical assessment and gap analysis
9. Facilitates Development of shared leadership
10. Uses continuous improvement models and methods
11. Identifies personality styles and influence during crisis

DOMAIN 5: Crisis Leadership

1. Performs functional and leadership roles
2. Develops an emergency management capability
3. Develops a unified command capability
4. Performs critical decisions and decisive actions
5. Facilitates focus on mission and shared vision
6. Assesses performance and capability maturity levels
7. Develops systemic training, exercise and improvement plans
8. Develops anticipatory thinking capacity and capability
9. Analyses use of effective risk and crisis communication
10. Performs communication role during crisis events
11. Develops a crisis communication plan
12. Uses effective risk and crisis communication methods
13. Facilitates persuasion and collaboration under stress
14. Facilitates negotiation and conflict management during crisis
15. Identifies personality styles and influence during crisis
16. Identifies anxiety, emotions and stress during crisis

DOMAIN 6: Politics & Power

1. Develops systems, programs, and services to implement policy
2. Directs mission driven policy strategic planning
3. Develops regulatory actions and legislative proposals

DOMAIN 7: Organizational Development & Governance

1. Increases performance through capability alignment
2. Develops a learning organization
3. Facilitates workforce and leadership development
4. Uses strategic planning to link objectives to performance
5. Implements systemic performance assessment and quality improvement
6. Implements capacity and capability to meet objectives
7. Defines shared values and guiding principles
8. Facilitates ownership of organizational culture and objectives

DOMAIN 8: Social and Community Network Development

1. Facilitates engagement of diverse stakeholders
2. Develops social and complex networks and coalitions
3. Facilitates collaborative alliances
4. Facilitates a leadership culture for collective action
5. Facilitates alignment of partners as context changes
6. Facilitates collective learning and mutual transformation
7. Facilitates mutual influence building for social cooperation
8. Uses shared and distributed cross-sector leadership models
9. Facilitates bridging among stakeholders for transformative change
10. Facilitates collaborative social, political and collective processes
    •   Facilitates civic engagement
    •   Facilitates an interpersonal and collaborative mindset
    •   Facilitates goal blending for collective direction and benefit
    •   Facilitates commitment for collective interest
    •   Facilitates alignment and coordinated, collective action
    •   Facilitates collective responsibility for outcomes

DOMAIN 9: Team Development

1. Facilitates team learning and development
2. Creates incentive, performance review and reward systems
3. Celebrates team culture and accomplishments
4. Facilitates a collective entrepreneurial culture
5. Facilitates team assessment and quality improvement

Note: Adopted from the National Public Health Leadership Network Competency Framework and Leadership for Community Health, Safety & Resilience Competence Framework.