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International Humanitarian Efforts to Establish and Sustain Community Health Centers in Sub-Saharan Africa: A Qualitative Study from the Perspectives of Expatriate Health Workers

Cover Page Footnote
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INTERNATIONAL HUMANITARIAN EFFORTS TO ESTABLISH AND SUSTAIN COMMUNITY HEALTH CENTERS IN SUB-SAHARAN AFRICA: A QUALITATIVE STUDY FROM THE PERSPECTIVES OF EXPATRIATE HEALTH WORKERS

1. BACKGROUND

Africa experiences 24% of the world's burden of disease yet benefits from less than 1% of global health care finances and only 3% of the health workforce, most of whom are clustered in urban areas (Strasser et al., 2016; World Health Organization [WHO], 2006). 36 out of 57 countries identified by the WHO as having critical deficiencies in their health workforce are in Sub-Saharan Africa (SSA), and these shortages are the result of inadequate production and retention of workers (Kumar, 2007; Naicker et al., 2009). There are a number of factors that contribute to health disparities in SSA, with two of the primary causes being poverty and rural residence (Bonfrer et al., 2014; Kiwanuka et al., 2008; Okoronkwo et al., 2014; United Nations Economic Commission for Africa, 2008). Despite the fact that the majority of the population of SSA resides in rural areas, these communities suffer significant challenges, as poor infrastructure and long distances make traveling to a health facility difficult (Strasser et al., 2016).

The WHO has advocated for expansion of comprehensive, primary care services in developing nations to improve health outcomes (WHO, 2008). However, the majority of global health efforts in SSA have focused on specific diseases (e.g. HIV, tuberculosis, malaria), while neglecting broader community health needs (Kidia, 2016; WHO, 2008; WHO, 2011). Unfortunately, there is not only a deficit of providers trained for primary care in SSA, but the challenging work conditions in areas of poverty where primary care is most crucial tend to drive providers away (Besigye & Namatovu, 2014; Moosa et al., 2014; Willcox et al., 2015).

To promote global health, billions of dollars every year are funneled from wealthy governments and private organizations to developing countries (Dieleman et al., 2015). Medical missions to Africa date back to the mid-1800's, and now there are numerous medical humanitarian non-governmental organizations (NGOs), with thousands of members in the U.S. alone. NGOs often contribute finances and health workers to care for communities in SSA (Olakanmi & Perry, 2006). Although expatriates – those living outside their native country – constitute only a small percentage of the health workforce in SSA, their support may have potential to significantly improve health care delivery in underserved areas with critical workforce shortages (Laleman et al., 2007). However, currently there is no existing literature exploring the strategies and challenges of Western NGOs involved in creating primary care-centered, community health centers (CHCs) to expand access

to essential health services in SSA. This qualitative study attempts to provide some introductory information on this topic through the perspectives of expatriate medical providers.

2. METHODS

2.1. Sample

The study population for this descriptive qualitative research was expatriate health workers who have been involved in the establishment and/or ongoing operation of a CHC in SSA. In order to be eligible for this study, the participants needed to be licensed as health workers (e.g., physician, PA, NP, nurse, midwife); be 18 years or older; be an English speaker; and be willing to participate within the allotted data collection period of June to September of 2018. Additionally, participants needed to be involved with a CHC that provides ambulatory, primary care services in an underserved area; is located in a SSA country that is not the respective health worker's native country; and remains operational during the data collection period.

In order to identify participants for this study, the lone researcher used a snowball sampling technique wherein potential candidates were invited to recommend other acquaintances who would be appropriate for inclusion in the study. Focused internet search queries were conducted via Google search engine to find relevant international humanitarian aid websites with contact information for organizations with experience establishing or operating CHCs in SSA. Keywords including "Sub-Saharan Africa," "community health center," "primary care," "humanitarian organizations," and "medical missions" were used. The researcher reviewed the organizational information available online to determine which groups were likely to have individuals with relevant experience. The researcher then contacted these selected organizations via email to elicit whether they knew any individuals who would be interested in participating. In some cases, the initial contacts directed the researcher to additional partner organizations or acquaintances. Referred individuals were then contacted directly by email and invited to participate.

2.2. Data Collection & Analysis

The author conducted a single, semi-structured phone interview with each of the participants using a guiding question outline (see Appendix), with each interview lasting approximately one hour. The interviews were recorded and transcribed for subsequent analysis. After the interviews were complete, the researcher reviewed the transcripts while listening to the recordings to ensure accuracy. Then, the researcher read through the transcripts multiple times to code

narrative sections into common themes. This research protocol was approved by the University of Lynchburg Institutional Review Board for Human Subjects Research (approval number LHS1819001) and all human participants gave written informed consent.

3. RESULTS

A total of 32 organizations, several with multiple individual contacts, were solicited in this process. However, of this total group of potential candidates, only four persons met the inclusion criteria, responded with an interest in participating, and were available to interview within the allotted data collection time frame. The rest that were contacted either did not respond, declined to participate, or were not able to interview within the data collection period. The four interviewees included three males and one female and by practice comprised two physicians, one nurse practitioner, and one nurse. Cumulatively, they have been involved with CHCs in nine Sub-Saharan countries, as illustrated in Figure 1 (AMCharts, 2018).

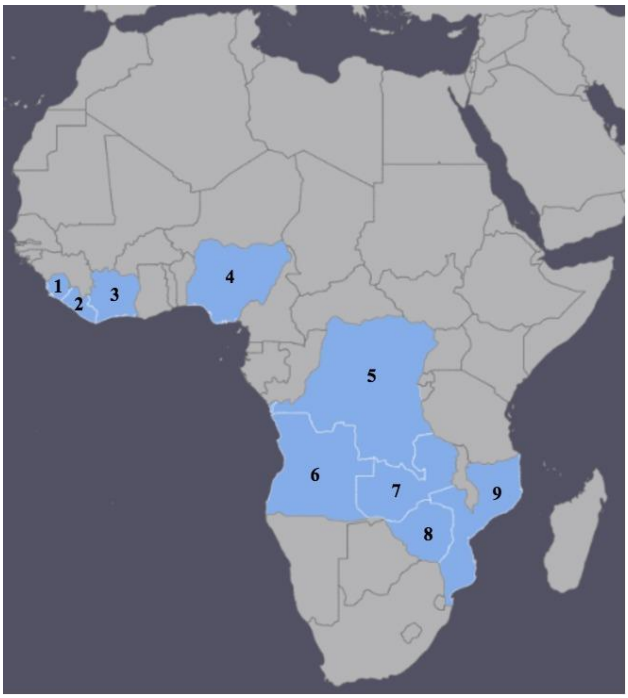

Figure 1. CHC Projects in SSA Countries
The nine SSA countries in which participants have assisted with CHC implementation are Sierra Leone (1), Liberia (2), Côte d'Ivoire (3), Nigeria (4), Democratic Republic of the

Congo (5), Angola (6), Zambia (7), Zimbabwe (8), and Mozambique (9).

All participants were involved with faith-based, non-profit organizations with like-minded goals to provide affordable, quality, primary care services to marginalized communities in SSA. Based on the narratives, common themes and practical lessons about creating CHCs in the SSA context are outlined in Table 1 and described below. The participants are referenced as P1, P2, P3, and P4, respectively. The core project stakeholders are described in Figure 2.

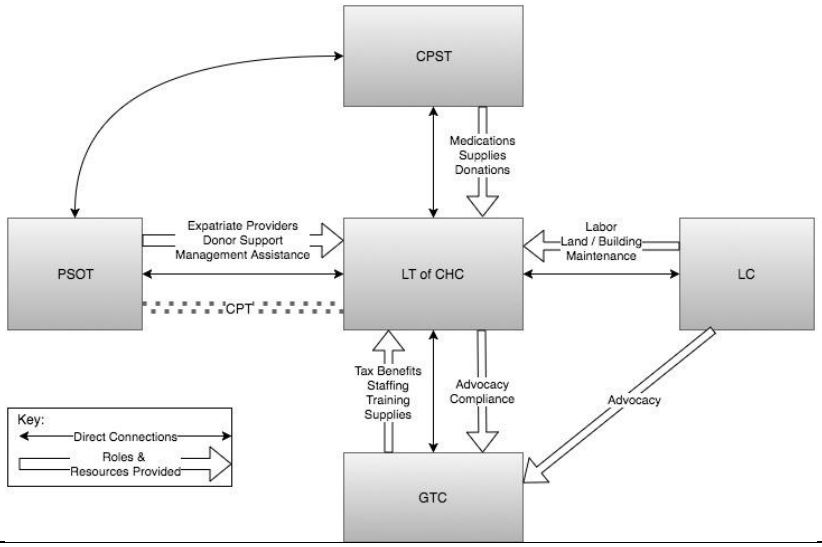

Figure 2. Relationship Between Core Stakeholders & Potential Contributions

The stakeholders involved in establishing each CHC include the PSOT (primary support and outreach team) and LT (local team), which together comprise the CPT (core partnership team) that assumes primary responsibility for implementation. The PSOTs in all of these cases are American-based NGOs that partnered with locals in SSA to fund and develop CHCs. The LT includes a local lead or contact, who is the primary negotiator between the PSOT and the rest of the LT and was often the individual who initially requested community assistance from the PSOT. The LT encompasses local staff, a local health management committee, and community health workers living nearby who are directly involved with CHC function. The LC (local community) represents the village members and leaders that the LT interacts with and cares for. The GTC (government of target country) is the government (e.g. Ministry of health) in the SSA country where the CHC is located. CPSTs (contributing partner support teams) refer to other NGOs that provide material donations (e.g. medications, equipment) to humanitarian projects.

CHC denotes community health center; NGO non-governmental organization; SSA Sub-Saharan Africa; PSOT primary support and outreach team; LT local team; CPT core partnership team; LC local community; GTC government of target country; and CPST contributing partner support teams.

3.1. Use Innovation to Build Local Relationships and Identify a Target Community

Before a project can begin, the PSOT needs to identify a geographic area with an addressable health care need. The narratives in this study reveal that the

participants operated in association with two different PSOT models for launching global health projects. The first type (P1) was a larger, faith-based, global organization with extensive church networks and a long history of healthcare and community development projects. This organization had the advantage of an established reputation and was able to draw from an extensive network of resources and local connections. Under these circumstances, initiatives for new projects usually began as an inquiry from a local that was familiar with the organization's work.

The second PSOT type (P2-4) was representative of a smaller, faith-based enterprise that did not yet have significant experience in international projects from which to draw knowledge, connections, or reputation from. However, their identification of communities in need also came through relationship with local contacts who came to the U.S. as refugees before returning to SSA.

A key technique exhibited by both of these PSOT types is the importance of using innovation to build relationships with motivated individuals who will give credibility to the project in the eyes of the community. These local contacts act as a bridge between cultures. The narratives conclude that it is crucial to connect with a dedicated local partner before project implementation.

3.2. Conduct a Participatory Appraisal with Asset Mapping and Community Needs Assessments

When determining whether a potential project is a wise choice, it is important to have a strategic method to assess what care gaps currently exist in the community, what resources can be channeled to address these needs, and what role each stakeholder needs to have in this process. This can be referred to as a participatory appraisal.

As part of this process, the CPT needs to utilize asset mapping, where research and scouting trips are used to identify the location and types of health services currently available to the LC, including referral centers. Additionally, the CPT needs to recognize specific health needs and barriers to care for the community, in order to determine the essential services for a CHC. The narratives exhort the team to be patient with this process and not commit too quickly to a project that is poorly planned. Asset mapping is key to determining if an undertaking is prudent.

"Maybe the knee-jerk reaction is … thinking that physical infrastructure is a good solution, not really thinking through the full implications of administration and funding and sustainability and doing true community needs assessments" (P4).

Participants recognize that a CHC is not always the right starting point. It is important to develop local relationships, identify root causes for health disparities, and be involved with community development and public health initiatives. If the team decides to move forward with constructing a CHC after performing a detailed

community assessment, they can capitalize on their knowledge of local resources to avoid duplicating services, to tailor their interventions to fill gaps in care, and to pick an ideal location. Geographic proximity to a community facilitates ease of access and is a significant determinant of the health impacts that a CHC can have.

"When you bring the health centers closer to where people live and work, they don't have to make those hard choices… it makes such a big difference between life and death." (P1)

The needs assessment should be an ongoing process, as there will always be changes and growth in the community that require adaptation by the CHC.

3.3. Inspire Local Ownership & Leadership

A major lesson that emerged from the narratives is that the LT should be central in the leadership process and have a strong sense of ownership of the project. Although it may feel more natural for the PSOT to take the chief leadership role, this can be detrimental to the project's long-term sustainability and local acceptance.

"Any health center that's 100% dependent on outside support cannot be sustainable. There is need to establish from the get-go that there is some local support that will be able to help continue the services." (P1)

Instead, the PSOT has an important function of mentoring the LT to unlock their leadership potential and instill in them responsibility for the project. In the narratives of this study, the PSOT contributed in ways such as providing financial support (e.g. fundraising) and management; sending workers on short-term trips to provide focused training for the LT; consulting during crises; and providing expatriate medical workers on a longer-term basis to serve at the CHCs. However, the LT acted as the central voice and key negotiator between Western PSOT and CPSTs, the LC, and the GTC. The LT also played the primary role in community outreach and facility operation. The LT made the day-to-day choices for the CHC, involving the PSOT in major decisions.

The narratives reflect that the community needs to be given a voice to outline their desires and vision for change, as well as commitments to contribute. It is helpful to identify or create a local health management committee as part of the LT that will represent the community and collaborate with project planning and implementation. The significance of the community's role and their potential to contribute may not be immediately apparent to them.

"In poor communities, people tend to think, 'I don't have anything.'" (P1)

It is helpful for the CPT to discuss some practical ideas with the community on how they can be involved, such as donating land or a building; assisting with the operation and upkeep of the facility; participating in village health initiatives; or contributing labor.

3.4. Become Familiar with the Local Supply Chain

The CPT often interconnects with CPSTs, which donate medications and supplies. Nevertheless, in most situations it was found that the local or regional supply chain was the most cost-effective method for obtaining supplies and equipment for the CHC.

"We try to work with local resources and to only invest in things that we are satisfied that the community will be able to maintain and sustain at every stage of their development." (P1)

3.5. Negotiate with the Government Through Local Advocacy

The LT was responsible for ensuring compliance with governmental regulations for the CHC and petitioning for support (e.g. staffing, training, funding, tax benefits, supplies, vaccinations). There were many perceived challenges in interacting with a GTC, including ambiguous processes (e.g. requirements that change day to day); corruption; biases towards Western NGOs; and cultural differences.

The participants reported that they learned several important lessons from this process. First, it is vital to develop strong relationships of mutual trust and respect with the community, GTC, and other partners. Second, it is crucial to exercise humility and cultural sensitivity, as the team's initial interactions will set the tone for how others respond to them in the future. Third, use local voices to advocate for the project. The process of interacting with GTCs often met less resistance when the local people negotiated their requests, rather than a Western organization. In this way, it became apparent to the GTC that the project was a benefit to their people.

3.6. Align the Project with Practical Guides

The candidates reported the need to be familiar with multiple protocols to help inform practical decisions about the project. These include recommendations from the WHO regarding essential medications and diagnostic testing that should be available at health facilities (WHO, 2017a; WHO, 2017b; WHO, 2018). Also, there are helpful consensuses from international humanitarian organizations on minimum standards of care, such as the Humanitarian Charter (The Sphere Project, 2011). Additionally, there are requirements from the GTC. These are country-specific, publicly-available, government guidelines outlining the basic requirements for every tier of health facility, including the basic infrastructure, staffing, and services that need to be offered and the appropriate geographic and community context in which to establish each type of facility. For example, the guidelines by the Ugandan Ministry of Health use the size of the target population to determine which level of health unit is needed and recommend that a new facility

be established when a community of at least 5,000 people is located greater than a 5 km walk from the nearest health unit (The Health lnfrastructure Working Group, 2011). These documents are essential tools in converting a vision to practical steps for implementation and in understanding what resources will be required.

3.7. Integrate Complementary Talents During Team Formation

Creating a multidisciplinary team for a CHC is a complex task and requires finding balance between medical and non-medical professionals. The aforementioned guiding protocols contribute practical information about staff requirements. Team composition depends on the size of the community, facility set-up, and what services will be offered.

"Where I feel like we sort of went wrong from the beginning … was we had the health expertise, we had people helping plan from a medical background, but I don't think we fully took into account the need for having administrative professionals and fundraising professionals, monitoring and evaluation professionals being part of the conversation." (P4)

3.8. Address the Unique Needs of Expatriate Workers

Individuals who came from outside the local community context to assist with the project often had unique challenges, including cultural differences, language barriers, and feelings of isolation. PSOT support included training on local culture and language and connection with a local mentor. Expatriates required adaptability, humility, perseverance, and openness to different perspectives.

"The most important thing is understanding what it means to function in a cross-cultural setting… to work with and really under the leadership of local staff." (P2).

3.9. Create Safeguards to Promote Staff Well-being

Recruiting and retaining staff was often difficult in these under-resourced communities. In order to overcome this, CPTs offered incentives including living quarters and professional development training. Other encouragements to staff included their connection to a faith community and local relationships; a sense of purpose in their work; and the thankfulness of the village for their service. Even relatively simple benefits are important in these contexts, as often local staff are poor themselves. Paying staff on time, providing meals, offering retreats and training, and providing access to outside information were all valued. Additionally, guarding against burnout was crucial.

"The work is never finished… being able to put in boundaries and step back is also kind of important for longer term health." (P4)

3.10. Reverse the Traditional Western-local Partnership

The centrality of local leadership advocated by these participants is a departure from what they would describe as the traditional approach to Western humanitarian efforts in SSA, where the shift in project control from Western expatriates to locals is usually not considered until late in the course of the project.

"One thing we don't want is to have medical clinics that are abandoned all over Africa. We don't want to be those people… We're building these clinics so that the neighborhood, the community owns it – and we're helping to manage it and make it sustainable." (P3)

By reversing the traditional method and incorporating local leadership from the beginning, the participants are more confident the health services they have founded will survive hardship.

3.11. Develop Sustainability

Although participants acknowledged that local sustainability of their CHCs is an ongoing challenge, there were a few practical insights that were offered to realize this goal. First of all, the team must understand the long-term changes that need to take place in a community and in a country in order for it to independently maintain its own health care system. There exists a vicious cycle of low resources leading to poor health, which in turn further damages resource capacity. Therefore, a permanent solution will require diverse investments in government advocacy, health care interventions, and community and economic development. One participant has already seen a number of sites transition completely to local sustainment and management through this strategy.

"There are a lot of success stories like that, but all of them are usually driven by development in those communities. So, the more people go to school, the more people have some sustainable income, the more likely it is that they will be able to keep their things – the hospitals and healthcare systems – open and functional." (P1)

The participants in this study all utilized some amount of financial contribution from patients to support the CHCs. As their communities were dependent on out-of-pocket payments for healthcare, the teams used sliding-scale systems based on income, with free care provided for pregnant and lactating mothers, children, and others who were too poor to contribute anything for their care. In the short-term, sustainability most likely will require the establishment of recurring donors, grant writing, and fundraising initiatives by the CPT.

4. DISCUSSION

There are a number of limitations to this study. Sample size was small and data saturation was not reached, so the findings may not be representative of the larger study population. Additionally, transcripts were not returned to the original participants for review, so there is potential of inaccuracies. There was only one unblinded researcher who collected and analyzed the data, which may have introduced bias. PSOTs were all American, faith-based, non-profits, which does not represent all medical humanitarian groups. Additionally, although SSA is a common regional division used in the literature, this term is controversial and prone to limitations, as it includes many countries with diverse sub-populations (Burke et al., 2016; United Nations Statistics Division, 2003). Also, the scope of CHCs managed by the participants was limited to nine SSA countries.

However, this study contributes new information to the literature by describing strategies used by Western medical workers to deliver primary care services in under-resourced areas of SSA in partnership with local communities. The narratives report a number of practical lessons, including the importance of strategic planning, local leadership, sponsorship procurement, broad community development, reflective learning, humility, and cross-cultural aptitude. Many of these make practical sense and find support in the literature (Cyril et al., 2015; Gizelis & Kosek, 2005; Gustavsson, 2003).

There exists a substantial amount of global financial and human resources available for investment in SSA by outside governments and NGOs, and this study outlines one way in which these resources can be utilized (Dieleman et al., 2015). Despite past initiatives to improve health in developing nations, many SSA countries have failed to make significant progress over the past quarter century (United Nations Development Program, 2015). Therefore, it is imperative that additional efforts be made to investigate how humanitarian aid can best be used to strengthen community and health system development. To build upon this study, future efforts should incorporate quantitative data; larger, diverse samples; and local perspectives.

In conclusion, Western humanitarian organizations and expatriate health workers have made important contributions to provision of health services in many parts of SSA. Their strategies and contributions are not well known, and this study represents some of the first qualitative data on this subject.

Table 1. Outline of Key Narrative Themes and Practical Strategies in creating a CHC
3.1. Use innovation to build local relationships and identify a target community
3.2. Conduct a participatory appraisal with asset mapping and community needs assessments
3.3. Inspire local ownership & leadership
3.4. Become familiar with the local supply chain
3.5. Negotiate with the government through local advocacy
3.6. Align the project with practical guides
3.7. Integrate complementary talents during team formation
3.8. Address the unique needs of expatriate workers
3.9. Create safeguards to promote staff well-being
3.10. Reverse the traditional Western-local partnership
3.11. Develop sustainability

REFERENCES

AMCharts. (2018). Interactive Visited Countries Map. Retrieved from http://www.amcharts.com/visited_countries/

Besigye, I. K., & Namatovu, J. F. (2014). Scaling up Family Medicine in Uganda. *African Journal of Primary Health Care & Family Medicine*, *6*(1), E1-3.

Bonfrer, I., van de Poel, E., Grimm, M., & Van Doorslaer, E. (2014). Does the Distribution of Healthcare Utilization Match Needs in Africa? *Health Policy and Planning*, *29*(7), 921–937. https://doi.org/10.1093/heapol/czt074

Burke, M., Heft-Neal, S., & Bendavid, E. (2016). Sources of Variation in Under-5 Mortality Across Sub-Saharan Africa: A Spatial Analysis. *The Lancet Global Health*, *4*(12), e936–e945. https://doi.org/10.1016/S2214-109X(16)30212-1

Cyril, S., Smith, B. J., Possamai-Inesedy, A., & Renzaho, A. M. N. (2015). Exploring the Role of Community Engagement in Improving the Health of

Disadvantaged Populations: A Systematic Review. *Global Health Action*, *8*, 29842.

Dieleman, J. L., Graves, C., Johnson, E., Templin, T., Birger, M., Hamavid, H., … Murray, C. J. L. (2015). Sources and Focus of Health Development Assistance, 1990–2014. *JAMA*, *313*(23), 2359–2368. https://doi.org/10.1001/jama.2015.5825

Gizelis, T.-I., & Kosek, K. E. (2005). Why Humanitarian Interventions Succeed or Fail: The Role of Local Participation. *Cooperation and Conflict*, *40*(4), 363–383. https://doi.org/10.1177/0010836705058224

Gustavsson, L. (2003). Humanitarian Logistics: Context and Challenges. *Forced Migration Review*, *18*(6), 6–8.

Kidia, K. K. (2016). Disheartening Disparities. *The New England Journal of Medicine*, *374*(10), 909–911. https://doi.org/10.1056/NEJMp1512888

Kiwanuka, S. N., Ekirapa, E. K., Peterson, S., Okui, O., Rahman, M. H., Peters, D., & Pariyo, G. W. (2008). Access to and Utilization of Health Services for the Poor in Uganda: A Systematic Review of Available Evidence. *Transactions of the Royal Society of Tropical Medicine and Hygiene*, *102*(11), 1067–1074. https://doi.org/10.1016/j.trstmh.2008.04.023

Kumar, P. (2007). Providing the Providers - Remedying Africa's Shortage of Health Care Workers. *The New England Journal of Medicine*, *356*(25), 2564–2567. https://doi.org/10.1056/NEJMp078091

Laleman, G., Kegels, G., Marchal, B., Van der Roost, D., Bogaert, I., & Van Damme, W. (2007). The Contribution of International Health Volunteers to the Health Workforce in Sub-Saharan Africa. *Human Resources for Health*, *5*(19). https://doi.org/10.1186/1478-4491-5-19

Moosa, S., Wojczewski, S., Hoffmann, K., Poppe, A., Nkomazana, O., Peersman, W., … Mant, D. (2014). The Inverse Primary Care Law in Sub-Saharan Africa: A Qualitative Study of the Views of Migrant Health Workers. *The British Journal of General Practice: The Journal of the Royal College of General Practitioners*, *64*(623), e321-328. https://doi.org/10.3399/bjgp14X680089

Naicker, S., Plange-Rhule, J., Tutt, R. C., & Eastwood, J. B. (2009). Shortage of Healthcare Workers in Developing Countries: Africa. *Ethnicity & Disease, 19*(1-S1), S1-60–64.

Okoronkwo, I. L., Onwujekwe, O. E., & Ani, F. O. (2014). The Long Walk to Universal Health Coverage: Patterns of Inequities in the Use of Primary Healthcare Services in Enugu, Southeast Nigeria. *BMC Health Services Research, 14*, 132. https://doi.org/10.1186/1472-6963-14-132

Olakanmi, O., & Perry, P. A. (2006). Medical Volunteerism in Africa: An Historical Sketch. *AMA Journal of Ethics*, *8*(12), 863–870. https://doi.org/10.1001/virtualmentor.2006.8.12.mhst1-0612.

Strasser, R., Kam, S. M., & Regalado, S. M. (2016). Rural Health Care Access and Policy in Developing Countries. *Annual Review of Public Health*, *37*, 395–412. https://doi.org/10.1146/annurev-publhealth-032315-021507

The Health lnfrastructure Working Group. (2011). *Guidelines for Designation, Establishment and Upgrading of Health Units*. Kampala, Uganda: Ministry of Health of the Republic of Uganda. Retrieved from http://health.go.ug/docs/guidelines.pdf

The Sphere Project. (2011). *Humanitarian Charter and Minimum Standards in Humanitarian Response*. Bourton on Dunsmore, Rugby, United Kingdom: Sphere Project. Retrieved from https://www.jstor.org/stable/j.ctt1hj54z7

United Nations Development Program. (2015). *The Millennium Development Goals Report 2015*. United Nations Development Program. Retrieved from http://www.undp.org/content/undp/en/home/librarypage/mdg/the-millennium-development-goals-report-2015.html

United Nations Economic Commission for Africa. (2008). *Mainstreaming Health Equity in the Development Agenda of African Countries*. Addis Ababa, Ethiopia: United Nations Economic Commission for Africa. Retrieved from http://repository.uneca.org/handle/10855/15111

United Nations Statistics Division. (2003). Millennium Development Indicators: World and Regional groupings - Africa. Retrieved from https://unstats.un.org/unsd/mi/africa.htm

Willcox, M. L., Peersman, W., Daou, P., Diakité, C., Bajunirwe, F., Mubangizi, V., … Mant, D. (2015). Human Resources for Primary Health Care in Sub-Saharan Africa: Progress or Stagnation? *Human Resources for Health, 13*. https://doi.org/10.1186/s12960-015-0073-8

World Health Organization. (2006). *World Health Report 2006: Working Together for Health*. Geneva, Switzerland: World Health Organization. Retrieved from http://www.who.int/whr/2006/en/

–. (2008). *The World Health Report 2008: Primary Health Care – Now More Than Ever*. Geneva, Switzerland: World Health Organization. Retrieved from http://www.who.int/whr/2008/en/

–. (2011). *Global Status Report on Noncommunicable Diseases: 2010*. Geneva, Switzerland: World Health Organization. Retrieved from http://www.who.int/nmh/publications/ncd_report2010/en/

–. (2017a). *WHO Model List of Essential Medicines* (20th ed.). Geneva, Switzerland: World Health Organization. Retrieved from http://apps.who.int/iris/bitstream/handle/10665/273826/EML-20-eng.pdf?ua=1

–. (2017b). *WHO Model List of Essential Medicines for Children* (6th ed.). Geneva, Switzerland: World Health Organization. Retrieved from http://apps.who.int/iris/bitstream/handle/10665/273825/EMLc-6-eng.pdf?ua=1

–. (2018). *WHO Model List of Essential In Vitro Diagnostics* (1st ed.). Geneva, Switzerland: World Health Organization. Retrieved from http://www.who.int/medical_devices/diagnostics/WHO_EDL_2018.pdf

APPENDIX: INTERVIEW QUESTIONNAIRE OUTLINE

1. PLANNING AND LAUNCH

1. What goals did you have or not have for the clinic?
2. How did you prepare, and what did your long-term vision for execution look like or not look like?
3. Did you plan for the role of the local community in the support and operation of your clinic to change or not change over time (why or how)?
4. Did you plan or not plan to collaborate with nationals in teaching, training, or other functions of the clinic (why or how)?
5. How did you decide where to and where not to plant your clinic?
6. What did you know or not know about the target community and the national health system, and how did you find this out?
7. How did you decide what services to offer and not to offer, what were they, and how did you plan to offer them?
8. How did you decide who would and would not be on your team, and how did you recruit and prepare them?
9. How did you determine the basic resources and funds you needed or did not need to start the clinic, what were they, and how did you attain them?
10. What were the greatest difficulties in starting your clinic?
    - 10.1. How did you respond to these difficulties?
    - 10.2. What did not work and what worked well (why)?

1. ONGOING OPERATION AND REFLECTION

1. What changed and what did not change about the goals, services, resources, and support of your clinic from its beginning until now (why)?
2. When living and working within the surrounding culture and community, what went well and what did not go well (why)?

3. What kind of impact or value did your clinic have in its community (why or for whom)?
4. What were the greatest difficulties in the ongoing operation of your clinic?
   4.1. How did you respond to these difficulties?
   4.2. What did not work and what worked well (why)?
5. How do you view this project as having succeeded or failed (why)?
6. If someone interested in a similar project approached you for advice, what would you tell them to do and not to do (why)?