



GHANA MEDICAL HELP DONOR REPORT

Fiscal Year 2018-2019

Report Date: October 11, 2019

REPORT PREPARED BY: Dr Kelly Hadfield

FOUNDER/EXECUTIVE DIRECTOR

kelly@ghanamedicalhelp.com



TABLE OF CONTENTS

1. Executive Summary	3
2. Project Rationale	3
3. Objectives	5
4. Partners and Stakeholders	5
5. Results to Date	10
6. Financial Summary	14
7. Challenges and Lessons Learned	15
8. Future Directions	16
9. Acknowledgements	18
10. References	18



1. EXECUTIVE SUMMARY

Ghana is a model for development on the African continent, yet it has been unable to meet the UN Sustainable Development Goals for health and exhibits marked regional bias in the distribution of health care resources and personnel. The goal of the GMH Hospital Support Program was to improve health service and delivery in the two most remote, stigmatized and underserved Regions of Ghana, namely the Upper East (UER) and Upper West (UWR) Regions. As of August 2019, the GMH Hospital Support Program has penetrated across and transformed the capacity for effective medical care at every level of the healthcare system – the community health compounds, subdistrict health centres, rural district hospitals and regional hospitals. The change we have witnessed is outstanding, and because our programs have been locally driven from their onset, we are seeing this change self-propagate and sustain itself.

2. PROJECT RATIONALE

Ghana is a West African nation with a well-established multi-party democratic government, a burgeoning economy, and a low incidence of violent crime (Kwasi Fosu, 2013). Yet Ghana experiences significant subnational disparities in access to and quality of healthcare (GHS, 2017). The Upper East and Upper West Regions of Ghana, the target areas of this initiative, are located at the far north of the country. These areas have extremely limited infrastructure and are among the poorest Regions, with average annual per capita earnings at less than GH¢3,000, equivalent to roughly US\$660.00 (GSS, 2014). As a result of the geographic isolation and lack of opportunity in these regions, health facilities are challenged to attract and retain skilled personnel (GHS, 2017). At the



onset of this project, the Upper Regions had among the worst doctor-to-patient ratios in the country, with our first partner hospital serving over 85,000 people with one doctor. This problem is compounded by how the north continues to suffer from epidemic levels of communicable disease like malaria, tuberculosis and AIDS, in addition to a rising prevalence of non-communicable disease like hypertension and diabetes. Unsurprisingly, these rural regions experience substantially higher under-five, infant, and maternal mortality rates on average than urban areas (GHS, 2010). The population served by the hospitals of the UER and UWR is estimated at around 2.5 million with over 150,000 patient admissions per year (GHS, 2010).

3. OBJECTIVES

The GMH Hospital Support Program aims to improve the baseline quality and availability of healthcare in the Upper East and Upper West Regions of Ghana in order to reduce the rates of communicable and non-communicable diseases, improve public opinion and usage of health services, secure a skilled health workforce, and ultimately reduce morbidity and mortality. The success of this program will serve as the proof-of-concept for our unique approach to sustainably improving health outcomes.

Specific Objectives

The GMH Hospital Support Program is divided into three separate project components.

1. The GMH Equipment Acquisition and Donation Project
 - a. Each district hospital in the UER and UWR will meet minimum equipment standards for health service and delivery, as determined by Ghana Health Services. These items enable the provision of eight essential hospital services: administration of oxygen, nebulization, monitoring of patient vital



signs, feto-maternal monitoring, equipment sterilization, patient stabilization, surgical procedures, and newborn delivery.

2. The GMH Ambassador Project

- a. Staff from each district hospital will have opportunities for Continued Professional Development through a cohort of locally established clinical trainers.
- b. Staff from each district hospital will conduct standardized monitoring, peer training and maintenance protocols for donated equipment.
- c. Staff from each district hospital will have access to an educational, collaborative network for inter-hospital development and support.

3. The GMH Biomedical Engineering Project

- a. All UER and UWR district hospital engineers will be supplied a basic engineering toolkit to facilitate the maintenance and repair of hospital equipment, including but not limited to GMH donations.
- b. All UER and UWR hospital engineers will have the opportunity for Continued Professional Development.
- c. All UER and UWR hospital engineers will have access to an educational collaborative network that engages engineers locally, nationally, and internationally.

4. PARTNERS AND STAKEHOLDERS

Establishing strong local partnerships and networks has enabled GMH to create a solid infrastructure upon which to conduct reliable, effective projects.



We have established partnerships with the regional offices for Ghana Health Service, the governmental health agency. This partnership provides the opportunity for us to build the project in sync with the goals and standards of the Ministry of Health, creating the framework for the transition to public ownership and operation of the project post-intervention.

We work closely with the hospital medical superintendents, ward in-charges, and other key staff to understand the culture and dynamics of each individual hospital. We have created a regional and national network of hospital engineers and nursing staff to ensure there's regular equipment maintenance and monitoring protocols in place. As such, any equipment concerns are promptly identified and addressed, and any repair parts not easily acquired by the hospitals are supplied. Moreover, these networks permit the perpetuation of locally driven clinical training programs, inter-hospital collaboration and research.

5. RESULTS TO DATE

Overall, the GMH Hospital Support Program, through its 3 components, have improved the accuracy, efficiency and effectiveness of health care workers, improved staff morale, increased staff retention, provided the only consistent opportunities for continued professional learning for health workers, established collaborative local and national networks, and reinforced the backend capacity for hospital equipment maintenance and repair.



Outcome No. 1: All district hospitals in the UER and UWR have the required equipment to perform eight fundamental services, including the administration of oxygen, nebulization, monitoring of patient vital signs, feto-maternal monitoring, equipment sterilization, patient stabilization, surgical procedures, and newborn deliveries.

Table 1 gives an overview of the degree of sufficiency achieved across all hospitals over the project timeline. All 15 district hospitals in the Upper Regions have increased to 100% sufficiency in 8 of the 8 essential services. Donated equipment includes primarily non-consumable, robust equipment tailored to the climate and specific environment which they are used. This sufficiency means that all district hospitals now meet the minimum equipment standard for healthcare service and delivery, as set out by Ghana Health Services. As such, this project is considered completed as of 2019.

Table 1. Summary of GMH partner hospital capacity to provide 8 fundamental services by year.

Service	Proportion of hospital partners at 100% sufficiency in 2010	Proportion of hospital partners at 100% sufficiency in 2017	Proportion of hospital partners at 100% sufficiency in 2019
Administration of oxygen	0/10	14/14	15/15
Nebulization	0/10	7/14	15/15
Monitoring patient vital signs	0/10	10/14	15/15
Feto-maternal monitoring	0/10	2/14	15/15



Equipment sterilization	0/10	6/14	15/15
Patient stabilization	0/10	14/14	15/15
Surgical procedures	0/10	9/14	15/15
Deliveries	0/10	9/14	15/15

When GMH began, the health infrastructure in northern Ghana was extremely poor and the hospitals were unable to match the standards of their southern counterparts. This project gave these hospitals a chance to ‘catch up’ and mature into better functioning hospitals which can more independently now meet their own needs. By having significantly impacted each area of fundamental service, the project has helped to reduce morbidity and mortality across all northern Ghanaian communities, as well as improve efficiency, diagnostic accuracy, and the ability to identify and monitor healthcare trends.

To monitor the downstream impact and evolution of our partner hospitals, we will continue to conduct annual research assessments. In addition, in Fall 2019 we will conduct a qualitative research project to more thoroughly capture the impact of this project.

Outcome No. 2: The GMH Ambassador program is fully operational, with an active network of volunteer representatives from each district hospital in the Upper Regions and a schedule of quarterly workshops that provide skills training and knowledge-



exchange, promote leadership and innovation, and facilitate on-going monitoring and evaluation of the project by on-site personnel.

As of 2019, 15 out of 15 district hospitals in the UER and UWR had committed to a partnership with GMH and possess 2 staff members actively enrolled in the GMH Ambassador program. The clinical training workshops, where we train GMH Ambassadors to teach a given medical topic at their own hospital, have been operational since 2013. In July 2019, we did something new with a workshop: we opened the invitation to all nurses across the Upper East and Upper West Regions. This provided CPR and basic emergency medicine training to over 100 nurses, in addition to our GMH Ambassadors. It was the largest emergency medicine training program that has ever been held in the Upper Regions and meets what has been identified by the Ministry of Health as the highest priority area for clinical skill improvement for nurses in Ghana. This training couldn't have been possible without the locally established trainers created through *Learning For Lives - Ghana*, an initiative driven by the University of Limerick, the University of Limerick Hospital Group, and GMH.

By bringing staff from each rural hospital together at regular intervals over several years, we have created a collaborative community. Instead of working competitively against each other, as they did prior to this project, they now share resources and knowledge in order to support each other. This strengthens the overall northern health system. This sustainable shift in hospital culture is one of the most valuable outcomes of this project.

GMH has abundant evidence of the positive effect of the Ambassador program on leadership and innovation. In one case, at the outset of the project, GMH was receiving reports of high rates of damage to the donated vital signs monitors. The Ambassadors'



investigations revealed that the cause was inexperienced hospital personnel utilising the devices without a voltage transformer, which were designed for use on the 110V power grid, on a 240V grid. To remedy this, one pair of Ambassadors implemented a “charging station”: a central location with voltage transformers permanently affixed to all power outlets. They systemized the charging station as the exclusive location for charging and storing the devices. Not only was their method enormously successful locally (damage reports for the vital signs monitors were virtually eliminated), they used the quarterly workshop to introduce their innovation to the other Ambassadors for implementation at hospitals across the region. This type of knowledge-propagation is incredibly empowering for the Ambassadors themselves and for the communities they serve.

We are currently conducting a qualitative research project to capture better data that describes and clarifies the diverse impact this project has had on northern healthcare workers and the health care system.

Outcome No 3: GMH successfully hosted the 3rd Annual National Clinical Engineering Training Conference.

Hospital engineers are the key to supporting the long-term maintenance and repair of donated items. In March 2019, GMH organized and ran our 3rd Annual National Clinical Engineering Training Conference over two days for all UER and UWR hospital engineers. Conference training was led by Mr John Zienaa, Deputy Director of Clinical Engineering for Ghana Health Services, and Dr. Bill Gentles, Director of the Canadian Society of Biological and Medical Engineers. No new engineering toolkits were needed in 2019, as each district hospital received one from GMH in previous years. Our research evaluating



the GMH engineering project provided significant useful feedback. A summary of the research findings includes:

- 100% of involved engineers indicate that they feel a very significant personal benefit by working with GMH.
- 92% of attending engineers indicate that being a part of GMH improves their work morale.
- 67% of participating engineers stated that GMH engineering projects have influenced their decision to continue living and working in a northern hospital, as opposed to moving south.
- 100% of the hospital engineers use their GMH engineering toolkit every day.
- 83% of the participants find the GMH online communication platform useful and want to see it continued in 2020.

6. FINANCIAL SUMMARY

After 5 years of having staff, GMH successfully completed its first full operational year back as an **100% volunteer-run** charity! The fact that we accomplished the above milestones is a testament to the strong administrative, financial, and project management infrastructure created by our previous staff. Moreover, these accomplishments were possible due the generosity of previous staff volunteering incredible amounts of time and effort to support the continuation of critical tasks.

Highlights of our financial analysis of our 2018-2019 fiscal year include firstly how 96% of GMH funds went directly to projects. Secondly, despite fundraising nearly \$100,000 less than our previous 2017-2018 fiscal, the amount going to projects remained nearly



the same: \$83,024 in 2017-2018 vs \$82,668 in 2018-2019. This indicates how GMH's reduced fundraising ability without staff did not negatively restrict our project success.

Table 2. Financial summary for GMH expenditures in 2018/2019 operational year.

Item	Amount (CDN)
Expenditures	
Projects	\$82,668.79 (96%)
Administration	\$755.33 (1%)
Professional fees (annual audit)	\$3,003.20 (3%)
Total	\$86,427.07

In our 2018/2019 operational year, 96% of funds raised went directly to projects in Ghana.

7. CHALLENGES AND LESSONS LEARNED

This project has offered innumerable learning opportunities for the organization. It is our aim that we may be able to disseminate the lessons we have learned to other non-profits, contribute to a base of best practices, and support a high operational standard for new humanitarian aid programs.

Returning to a fully volunteer-run framework created limitations in how much time and energy an individual could apply towards a given task. This affected our administrative efficiency and ability to run fundraising campaigns. Despite the slower administrative process and significantly reduced fundraising methodologies employed, key tasks were all accomplished, and projects were completed very successfully.



Another issue the organisation encountered is frequent turnover among the high-ranking officials of the hospitals and governmental health service agency. Each time a new director is installed at the regional directorate, GMH is required to re-establish our relationship there. To overcome this challenge, we have invested in building extensive networks within the directorates, such that we always have reliable advocates in place despite individual turnover.

8. FUTURE DIRECTIONS

GMH has transformed the capacity for delivering effective lifesaving care across the Upper East and Upper West Regions at all possible levels of health service and delivery. The change we have seen is outstanding, and what's especially exciting is that this change is self-propagating and sustainable.

Where does GMH see it's Hospital Support Program going in 3 years?

- i) GMH supports Ghana Health Service in running a 3-day annual clinical engineering training conference, open to *all rural hospital engineers in Ghana*.
- ii) GMH Ambassadors meet 2-3x/year for clinical skills training and professional skill development, with minimum 1 large workshop directly inviting all northern nurses. Workshops are run by GMH Ambassadors with minimal oversight and cost.
- iii) GMH will seek out conference, publication and networking opportunities to promote project models and good practice within the field of global health.

Your help is still needed!



We need your help in order to achieve our *2020 GMH Hospital Support Program goals* in Ghana. These include:

- **\$10K to run the 4th Annual Clinical Engineering Training Conference in March 2020**
 - Unlike 2019, this conference will include hospital engineers from the Northern Region, in addition to those based in the Upper East and West Regions.
- **\$20K to run 3 GMH Ambassador Clinical Training Workshops** (January, April, August)
 - This includes one very large, high yield training program open to all nurses in the Upper Region hospitals and health centres.

If you would be interested in supporting GMH generally or in pursuing one of the above goals, please contact kelly@ghanamedicalhelp.com for more details or visit www.ghanamedicalhelp.com to make an online donation in a one-off or monthly automatic donation package.

9. ACKNOWLEDGEMENTS

We wish to extend our deepest appreciation for your support and partnership last year. By your contribution, you have helped local health workers better support over 2 million people, prevent needless suffering, and save countless lives in northern Ghana. More than that, as a GMH donor you empower the creation of a network of highly trained, ambitious young health care professionals – the future leaders of health care –



who can create systemic change in their facilities. We are honoured to work toward the goal of a healthier global future together.

Thank you for your consideration of donating to GMH as we begin our 10th year of operations. With your continued help, we can continue to create sustainable, life saving change in a place where it's greatly needed.

All best wishes and yours sincerely,

A handwritten signature in dark ink, appearing to read "K Hadfield", is positioned above the typed name.

Dr Kelly Hadfield, MD
Founder/Executive Director
Ghana Medical Help



10. REFERENCES

Kwasi Fosu, A. (2013). Country Role Models for Development Success: The Ghana Case. From Achieving Development Success: Strategies and Lessons from the Developing World DOI:10.1093/acprof:oso/9780199671557.003.0013

Ghana Health Service. (2010). *The Health Sector in Ghana: Facts and Figures*. Retrieved from: http://www.ghanahealthservice.org/downloads/2010_Facts_and_Figures.pdf

Ghana Health Service. (2017). *2016 Annual Report*. Retrieved from https://www.ghanahealthservice.org/downloads/GHS_ANNUAL_REPORT_2016_n.pdf

Ghana Statistical Service. (2014). *Ghana Living Standards Survey Round 6: Main Report*. Retrieved from: http://www.statsghana.gov.gh/docfiles/glss6/GLSS6_Main%20Report.pdf