

Harvest SOZO Global Surgery Outreach in Liberia, West Africa

Faith L. Blamon

Robert Wood Johnson Medical School, Piscataway, NJ 08854

Introduction

Harvest Sozo, is a 501(c)(3) medical organization with NGO status. The organization was founded by native Liberians, and is dedicated to improving health, wellness, and quality of life by providing access to healthcare in underserved and vulnerable populations globally. Our surgical and medical outreach initiative in Liberia, West Africa is an ongoing endeavor that aims to enhance healthcare accessibility, empower local healthcare professionals, and foster sustainable improvements in the well-being of the communities we serve.

Background

According to the World Health Organization (WHO), Liberia is classified as a low-income country with the Gross Domestic Product (GDP) per capita being \$621. This means on average, each person in Liberia earned or produced goods and services equivalent to \$621 in a given year. The global average GDP per capita is \$11,300 (World Bank, 2022).

This figure is indicative of challenges such as widespread poverty, limited access to resources, and difficulties in providing essential services such as healthcare, education, and infrastructure. Furthermore, Liberia has faced a series of significant challenges that strained their healthcare system:

Civil War (1989-2003): The conflict resulted in widespread displacement, loss of life, and extensive damage to infrastructure, including healthcare facilities. Furthermore, during the civil war, healthcare infrastructure was severely disrupted, and many healthcare professionals fled the country. Medical facilities were damaged or destroyed, limiting access to essential services. The aftermath of the conflict created a challenging environment for rebuilding and strengthening the healthcare system.

Ebola Outbreak (2014-2016): Liberia, along with Sierra Leone and Guinea, experienced a devastating outbreak of the Ebola virus. The Ebola epidemic strained the healthcare system to its limits. The country faced challenges in identifying and isolating cases, providing adequate treatment, and managing the social and economic impacts of the outbreak.

The Ebola virus spread rapidly, overwhelming healthcare facilities and leading to a high number of infections and fatalities. The fear of infection also deterred individuals from seeking routine healthcare services, exacerbating existing health issues.

COVID-19 Pandemic: The COVID-19 pandemic further compounded Liberia's healthcare challenges. Liberia, like many other countries, faced difficulties in securing adequate personal protective equipment (PPE), testing resources, and medical supplies.

Impact on the Medical System:

The cumulative effect of these challenges has left Liberia with a healthcare system that is overworked, under-resourced, and struggling to meet the diverse healthcare needs of its population. The country continues to work towards rebuilding and strengthening its healthcare infrastructure, with international assistance playing a crucial role in supporting these efforts. Addressing the long-term consequences of these crises remains an ongoing challenge for Liberia's healthcare system.

Health Indicators in Liberia

Maternal and Child Health: Liberia has historically had high maternal and infant mortality rates, reporting . The global maternal mortality ratio was 211 per 100,000 live births, while Liberia's was 652 per 100,000 live births. Similarly, Liberia's infant mortality rate was 56 per 1,000 live births in comparison to the global average of 28 deaths per 1,000 live births. Neonatal conditions remain the leading cause of death in both male and female Liberians.

•Infectious Diseases: Liberia has faced challenges with infectious diseases. Infectious diseases remain a leading cause of death. In 2019 malaria, lower respiratory infections, HIV/AIDS and tuberculosis were 4 of the top 10 causes of death in Liberia.

•Healthcare Infrastructure/ Surgical Care: Access to surgical care in Liberia is often limited, with disparities between urban and rural areas. 39% of Liberians live more than 2 hours away from an emergency hospital. Furthermore, Liberia has a surgical specialty density of 1.6 per 100,000. So even if Liberians can make it to the nearest hospital, there is no guarantee of receiving surgical care.

•Vaccination Coverage :Liberia has made progress in improving vaccination coverage, but challenges persist. Immunization rates may be lower than the global average, contributing to the prevalence of vaccine-preventable diseases.

•Life Expectancy: Liberia's life expectancy at birth, 64, has been below the global average. As of 2019, the global average life expectancy was around 73 years.

•Prevalence of Non-Communicable Diseases: The burden of non-communicable diseases (NCDs) is rising globally, including in Liberia. NCDs may account for a growing proportion of the country's health challenges.

November 2019

In our dedication to advancing healthcare access, Harvest Sozo, a 501(c)(3) medical organization, donated 114 hospital beds to John F. Kennedy Medical Center (JFK) and conducted free major and minor surgeries at two of the largest hospitals in Liberia, ELWA and JFK. Notably, the impact extended beyond our initial donation, as the beds contributed to the establishment of a new ward at John F. Kennedy Hospital. The hospital administration expressed gratitude, emphasizing that the increased capacity significantly aided their response during the challenging times of the COVID-19 pandemic. Given JFK's pivotal role as a major hospital in Liberia, our collaborative efforts have proven instrumental in bolstering healthcare infrastructure and addressing critical needs in times of crisis.

Dr. Albert White Jr., MD, FACP, an infectious disease doctor, played a crucial role in our commitment to medical education and information exchange. Dr. White conducted grand rounds and lectured doctors in Liberia on the empiric use of antibiotics, providing valuable insights and knowledge transfer. This initiative contributes significantly to medical education in the country, fostering a platform for information exchange and professional development among healthcare practitioners.

Additionally, our two lead surgeons, Dr. Alfred Shaw and Dr. Gabriel Peal, demonstrated a commitment to the progression of medical education in Liberia. They actively engaged in teaching surgical residents from Liberia's medical school, Dogliotti College of Medicine. Through this collaboration, our surgeons shared their expertise, imparted essential surgical skills, and provided mentorship to the next generation of medical professionals. This sharing of skills and knowledge is integral to the progression of medical education in Liberia, ensuring the development of a skilled and proficient healthcare workforce capable of addressing the complex healthcare needs of the community. Harvest Sozo remains dedicated not only to immediate healthcare interventions but also to the sustainable advancement of medical education and expertise in Liberia.

March 2022

In March 2022, Harvest Sozo pivoted its efforts to address the pressing needs arising from the COVID-19 pandemic in Liberia and Sierra Leone. Through a dedicated Personal Protective Equipment (PPE) drive, we extended support to key healthcare institutions, including Connaught Hospital in Sierra Leone and key Liberian healthcare facilities (John F. Kennedy Hospital, ELWA, 14 Military Hospital, and DGJ Clinic). Despite facing travel restrictions that prevented our team from physically being present in Liberia, we adapted to the circumstances. Leveraging our networks in the United States, we successfully collected vital supplies and, once travel restrictions were lifted, efficiently delivered these critical resources to our partner institutions. This proactive response reflects our commitment to flexibility and innovation in navigating challenges to ensure the continued delivery of essential healthcare support to those in need.

February 2023

In February 2023, Harvest Sozo embarked on a multifaceted healthcare mission across several key sites in Liberia. Our outreach efforts extended to John F. Kennedy Memorial Hospital (JFK), Redemption Hospital, Darlington G. Johnson Medical Clinic, and Grace Healthcare Center. At Darlington G. Johnson Medical Clinic, we provided care for 770 medical patients and conducted 76 eye surgeries in collaboration with another outreach initiative. Additionally, we attended to 751 patients at Grace Healthcare Center. The scope of our impact expanded further with the execution of free major and minor surgeries, demonstrating a significant escalation from our 2019 trip, wherein we performed three times as many surgical procedures. Specifically, 88 surgeries were conducted at JFK, and 176 surgeries at Redemption, culminating in a total of 264 surgeries performed. In an effort to bolster the healthcare infrastructure, we engaged in capacity building by donating essential medical supplies based on identified needs. Furthermore, with the support of Senator Saar Joseph from Montserrado County, we secured additional supplies and a bus, which facilitated our outreach efforts and enabled us to extend our reach to a second clinic. This strategic addition aimed to enhance patient access, particularly for those residing in areas farther from Monrovia, the capital city. Harvest Sozo's comprehensive approach underscores our commitment to providing vital medical services, improving healthcare accessibility, and fostering sustainable enhancements in the Liberian healthcare landscape.

Challenges

Harvest Sozo's surgical outreach initiatives in Liberia West Africa are strategically targeted due to a myriad of healthcare challenges prevalent in the region. Limited access to healthcare services underscores the difficulties faced by rural areas, compounded by infrastructure limitations such as a lack of medical facilities, transportation options, and an insufficient number of healthcare professionals. The aftermath of infectious disease outbreaks, particularly the Ebola crisis, has strained healthcare systems and resources, negatively impacting the overall health of the population. Maternal and child health in Liberia is marked by high mortality rates, malnutrition, and restricted access to crucial prenatal and postnatal care.



Presentation of beds to John F. Kennedy Hospital (Nov. 2019). Pictured: Hon. Dama Koffia, Deputy Administrator of John F. Kennedy Hospital



Dr. Albert White (left) gives presentation on antibiotic resistance at grand rounds for doctors at John F. Kennedy Hospital (Nov. 2019).



Pastor Lawrence Kennedy presents PPE collected for Covid Relief to Dr. Jerry Brown (CEO of John F Kennedy Hospital, Time Magazine Person of the Year 2014, Ebola Fighters)



Left: Dr. Gabriel Peal performs surgery and teaches surgical resident. Right: Crowd at Darlington G. Johnson Clinic during outreach.



Harvest Sozo volunteers medical and non-medical volunteers take a group picture while at Redemption Hospital, New Kru Town, Liberia.

Challenges

Moreover, the healthcare landscape is further complicated by a lack of health education and awareness, resulting in limited knowledge about preventive healthcare measures and higher rates of preventable diseases. Economic factors, including poverty and disparities, create barriers to healthcare access. Inadequate infrastructure, including poorly developed roads and transportation networks, poses a significant challenge for individuals in remote areas to reach healthcare facilities. The shortage of healthcare professionals, including doctors, nurses, and other essential workers, exacerbates the strain on the healthcare system.

Furthermore, the limited availability of preventive care, such as vaccinations and health screenings, contributes to the prevalence of preventable diseases in the population. Issues related to water and sanitation further compound health challenges, leading to waterborne diseases. The post-conflict challenges stemming from Liberia's prolonged civil war have left lasting effects on the healthcare system. Rebuilding and strengthening healthcare infrastructure remain ongoing challenges, emphasizing the critical need for sustained interventions. By addressing these multifaceted challenges, Harvest Sozo aims to make a meaningful impact on healthcare accessibility and outcomes in Liberia West Africa.



Left: Harvest Sozo executive team with CEO of redemption hospital (left), myself with the two lead OR nurses at John F. Kennedy Memorial Hospital (right). Harvest Sozo Executive team with Senator Saar Joseph (bottom left). Dr. White gives lecture to doctors at ELWA hospital (bottom right).



Future Directions

Harvest Sozo is committed to sustainability through patient education, policy advocacy, research, and capacity building. Future projects include workshops during outreach to address health education gaps, advocating for economic factors, implementing mobile clinics to extend our reach to rural areas, research exploring the prevalence of HIV and Hepatitis infection, nurse education training, promoting volunteerism to address human resource shortages, and addressing water and sanitation issues.

Our mission is a continuous journey towards sustainable healthcare solutions, encompassing collaborative partnerships, innovative technologies, and comprehensive medical education. By addressing the root causes of healthcare challenges, Harvest Sozo endeavors to contribute significantly to the long-term improvement of healthcare in Liberia and neighboring West African countries like Sierra Leone.

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