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Robert Wood Johnson Medical School

Strengthening Surgical Access and Health Systems in West Africa Through Mobile Volunteer Outreach and Capacity Building: Harvest Sozo Surgical & Medical Outreach 2019–2024

Faith Blamon, Dawn Arumemi, Onumaraekwu Opara

[1]School of Graduate Studies, [2]Robert Wood Johnson Medical School, Piscataway, NJ 08854, [3]Harvest Sozo Surgical and Medical Outreach

Background

Significant gaps persist in surgical and preventive healthcare across Liberia and Sierra Leone, driven by limited infrastructure, workforce shortages, poverty, and post-conflict health system fragility. These challenges contribute to high maternal and infectious disease burdens and limited access to essential operative care. Liberia reports an infant mortality rate of 30.18/1,000 live births, an average adult mortality rate of 293/1,000, and an annual income of $760 USD. Sierra Leone reports an infant mortality rate of 29.81/1,000, an average adult mortality rate of 219/1,000, and an annual income of $840 USD. Harvest Sozo Surgical & Medical Outreach (501c3) seeks to improve quality of life by expanding access to essential surgical, medical, and preventive services while strengthening local healthcare capacity.

Methods

We partner with regional hospitals and ministries of health to conduct multidisciplinary outreach programs, securing medical equipment and pharmaceuticals through U.S.-based donor networks. Clinical services include general, ophthalmologic, and dental care supported by laboratory and pharmacy services. Capacity-building initiatives include surgical training, medical supply donations, and implementation of electronic medical record (EMR) systems. Data were collected during three international missions (2019, 2023, 2024), with additional pandemic relief in 2022.



Figure 1. Meeting with Chief Medical Officer Redemption Hospital Liberia, West Africa.



Figure 2. Donation of PPE to Dr. Jerry Brown, Time Magazine Person of the Year, Ebola fighter, and JFK CMO at the time.



Figure 3. Education session on breast cancer and reasons to get screened for members of the community.



Figure 4. Hernia repair by chief surgeon Dr. Gabriel Peal.



Figure 5. Surgical resident from Liberia's medical school scrubbed in with our surgeon Dr. Gabriel Peal.





Figures 6 & 7. Assembly where we teach students about dental hygiene and distribute dental supplies.

Results

Across three major surgical missions, **>4,600 patients** received free care and **>370 surgeries** were performed.

- **2019 – Liberia:** 84 surgeries; >1,000 outpatient evaluations; 114 hospital beds donated to JFK Medical Center.
- **2022 – Liberia & Sierra Leone:** PPE donation initiative supporting four major institutions during COVID-19.
- **2023 – Liberia:** 264 surgeries at JFK & Redemption Hospital; >1,500 medical patients served; major supply donations supporting local workforce.
- **2024 – Sierra Leone & Liberia:** 27 surgeries in Sierra Leone; 82 surgeries in Liberia; 956 screenings at DGJ Medical Center; 181 ophthalmology and 174 dental patients; **first-time deployment of EMR and REDCap**, improving documentation and continuity of care.

Conclusion

Mobile outreach paired with capacity-building interventions can rapidly expand access to essential surgical and preventive services in resource-limited settings. Our evolving focus on digital systems, training, and infrastructure support strengthens local autonomy and care continuity. Continued partnerships and longitudinal follow-up will guide sustainable program development as we prepare for our next mission to Liberia in **February 2026**.

For more info: Email FLB16@rwjms.rutgers.edu