



## **Terms of Reference (ToR) for engaging a National Consultant to undertake a study on the validation of pneumonia and all-cause neonatal and pediatric deaths occurring in inpatient wards in Sierra Leone**

### **CHAI Overview**

Founded in 2002 by President William J. Clinton, the Clinton Health Access Initiative (CHAI) works to broaden access to life-saving treatment for HIV/AIDS, tuberculosis, and malaria patients in the poorest parts of the world. As part of this mission, CHAI's programs approach global public health challenges with market-based strategies, using simultaneous engagement on both the supply and demand sides of the market. On the supply side, CHAI engages with suppliers of essential drugs and diagnostics to improve access to products by lowering prices, accelerating new products to market, and sharing market intelligence. On the demand side, CHAI organizes and consolidates demand for health commodities by helping governments to scale up treatment programs, mobilize new resources, improve procurement processes, and enhance local human resource capacity. Working with over 30 governments and other partners, CHAI is focused on large-scale impact on many of the largest barriers to effective treatment and care.

The team in Sierra Leone was engaged in 2015 by the Ministry of Health and Sanitation (MoHS) to support the health sector's recovery after the devastating Ebola crisis. CHAI began support to the MoHS with a focus on two areas: strengthening the supply chain for drugs and medical supplies and improving human resources for health. The team closely collaborated with the Government of Sierra Leone to strengthen national health systems and played a vital role in post-Ebola recovery efforts. In recent years CHAI has expanded its support to the Government to include programs on sexual and reproductive health, vaccines delivery, assistive technology, geospatial data use (GRID3), and medical oxygen.

### **Background**

Since 2015, Clinton Health Access Initiative (CHAI) has worked to strengthen medical oxygen systems in order to reduce the burden of preventable deaths, with a particular focus on children under 5, and pneumonia specifically. CHAI has worked with government partners to build the evidence base, refine our approach, and lay a foundation for scale. CHAI's approach builds on early successes in increasing oxygen access through pediatric pneumonia treatment pilots in Ethiopia, India, Kenya, Nigeria, and Uganda. When CHAI began its work on oxygen, most countries had extremely limited hypoxemia management readiness—but have since moved aggressively toward systems that are more comprehensive. CHAI has helped partner governments identify and pursue their best paths toward full readiness given their own contexts and realities—within a paradigm for prioritizing investments that reduce cost and accelerate progress. These efforts have demonstrated at scale that effective and sustainable oxygen delivery and maintenance systems are achievable with the appropriate investments.

CHAI is particularly interested in developing interventions in countries where pneumonia interventions might have the highest impact. To design cost-effective programs, it is crucial for program implementers to understand the true burden of mortality at facilities with insufficient oxygen systems. CHAI will be partnering with the Ministry of Health (MoH) to conduct a study that seeks to determine the burden of mortality at health facilities that provide inpatient care to neonatal

and pediatric patients and confirm the available oxygen equipment that already exists in 15 hospitals in Sierra Leone. CHAI is hiring a consultant to lead this work.

## Study Aims

The study has three primary aims:

1. Assess facility readiness to provide pulse oximetry and oxygen therapy in 15 hospitals in Sierra Leone
2. Capture admissions and mortality in pediatric and neonatal inpatients who die during admission or immediately following discharge from the target facilities.
3. Understand healthcare staff perspectives on contextual factors relating to oxygen provision, and mortality recording and reporting practices at the target facilities.

## Scope of Work

The consultant will be responsible for designing and implementing the study to achieve the above aims. The study will involve a cross-sectional assessment of health facilities, a review of patient admissions and mortality, and qualitative assessments of healthcare staff. The consultant will in collaboration with CHAI and MoH complete the following specific tasks:

- Lead the digitalization of the data collection tools using SurveyCTO
- Develop the training materials.
- Conduct training of the enumerators (data collectors)
- Supervise data collection. The data collection involves:
  - Capturing facility readiness aspects including current equipment resources, including oxygen sources (concentrators, piping infrastructure), delivery equipment, consumables, and pulse oximeters, staffing numbers and costing of oxygen-related equipment.
  - Reviewing clinical records to capture cause-specific neonatal and pediatric admissions and deaths over the past year.
  - Observing and recording admissions and deaths over a three-month period in neonatal and pediatric wards.
  - Conducting follow-up calls with caregivers of patients discharged from the facility after a 7-day period to collect outcome information.
  - Conducting qualitative interviews and focus groups with hospital administration, healthcare workers, biomedical engineers/technicians, and medical records managers.
  - Exploring therapy and care practices, particularly related to pneumonia and oxygen therapy, and understanding reporting and medical oxygen systems.
- Develop the data analysis plan.
- Conduct data cleaning and analysis using STATA or any other statistical software
- Develop the study report.

## Deliverables

- Finalized digital data collection tools ready for deployment
- Training materials and a report on training completion
- Data analysis plan outlining methodologies, statistical tools, and timelines.
- Quantitative and qualitative datasets
- Comprehensive study report, including methodology, findings, discussion, conclusions, and implications or recommendations.

## **Qualifications**

- Advanced degree in public health, epidemiology, or a related field
- Proven experience in conducting health facility assessments and mortality reviews.
- Strong qualitative and quantitative research skills.
- Familiarity with health systems in low-resource settings, particularly in Sierra Leone
- Excellent communication and report-writing skills.

## **Duration**

The consultancy is expected to run from the 1<sup>st</sup> of September 2024 to the 31<sup>st</sup> of December 2024, with a detailed timeline to be agreed upon at the start of the assignment.

## **Application procedure**

Applicants must submit a cover letter and CV to [SLHR@clintonhealthaccess.org](mailto:SLHR@clintonhealthaccess.org) not later than the 16th of August 2024.