

## Community Needs Assessment

### GG2689153: Provision of Essential Medical Equipment for the Neonatal Ward at Hôpital Prince Régent Charles

**Location:** Bujumbura, Burundi

**Rotary Area of Focus:** Maternal and Child Health

#### 1. Community Description

Hôpital Prince Régent Charles (HPRC), located in Bujumbura, is one of Burundi's largest public referral hospitals and a key provider of maternal and neonatal healthcare services. The hospital serves a dense urban population as well as patients referred from peri-urban and rural health facilities across multiple provinces.

HPRC conducts a high volume of deliveries each month, including a significant number of complicated and high-risk births. The neonatal ward receives newborns with conditions such as prematurity, low birth weight, birth asphyxia, neonatal infections, hypothermia, and jaundice. As a tertiary-level public hospital, HPRC plays a critical role in neonatal survival in Burundi.

Despite the high demand for neonatal services, the hospital operates in a resource-constrained environment with limited access to essential medical equipment.

#### 2. Identified Community Need

Neonatal mortality remains a significant public health concern in Burundi, including in urban referral settings such as HPRC. Hospital data and staff consultations indicate that many neonatal deaths and complications are linked to **insufficient access to appropriate and functional neonatal medical equipment**, rather than lack of trained personnel.

The neonatal ward at HPRC faces the following challenges:

- Inadequate number of incubators and radiant warmers relative to patient load
- Limited access to functional phototherapy units for neonatal jaundice
- Insufficient oxygen delivery systems for newborns with respiratory distress
- Limited monitoring equipment for early detection of neonatal complications

Existing equipment is often shared among multiple patients, outdated, or non-functional, reducing the quality and timeliness of care. These gaps increase the risk of preventable neonatal morbidity and mortality.

### **3. Needs Assessment Methodology**

The community needs assessment was conducted through:

- Consultations with HPRC hospital administration
- Interviews with neonatal ward nurses, midwives, and medical doctors
- Review of neonatal admissions, outcomes, and referral patterns
- Physical assessment of available neonatal equipment and ward capacity

All stakeholders confirmed that strengthening the neonatal ward with essential medical equipment is a **priority intervention** to improve newborn survival outcomes at HPRC.

### **4. Priority Needs Identified**

#### **a. Essential Neonatal Medical Equipment**

The assessment identified a critical need for the following equipment:

- Neonatal incubators and/or radiant warmers
- Phototherapy units for management of neonatal jaundice
- Oxygen concentrators and neonatal oxygen delivery accessories
- Neonatal resuscitation equipment (bag and mask, suction devices)
- Pulse oximeters with neonatal probes
- Infant weighing scales
- Neonatal thermometers and glucometers

Equipment will be selected based on durability, suitability for high-volume use, and compatibility with the hospital's power supply and backup systems.

#### **b. Capacity Building**

To ensure effective use and sustainability, training is required for neonatal healthcare workers on:

- Proper operation of donated equipment
- Infection prevention and equipment cleaning
- Basic troubleshooting and routine maintenance

### **5. Community and Stakeholder Involvement**

The project was identified and developed in collaboration with:

- HPRC hospital management
- Neonatal ward healthcare workers
- Host Rotary Club members

**HPRC leadership has committed to:**

- Assign trained staff to manage and operate the equipment
- Integrate the equipment into standard neonatal care protocols
- Ensure secure storage, routine maintenance, and accountability
- Allocate resources for consumables and minor repairs

The Host Rotary Club will monitor implementation and outcomes in coordination with hospital leadership.

**6. Target Population and Beneficiaries****Direct Beneficiaries**

- Newborn infants (0–28 days) admitted to the neonatal ward at HPRC, particularly premature and low-birth-weight babies
- Mothers whose newborns receive improved neonatal care

**Indirect Beneficiaries**

- Healthcare workers benefiting from improved working conditions and clinical capacity
- Families and communities through reduced neonatal morbidity and mortality

**7. Expected Outcomes and Measurable Results**

Expected outcomes include:

- Increased availability of functional neonatal medical equipment at HPRC
- Improved management of hypothermia, respiratory distress, and neonatal jaundice
- Improved monitoring and early intervention for critically ill newborns
- Reduction in preventable neonatal complications and deaths

Measurable indicators may include:

- Number of newborns treated using donated equipment
- Neonatal case fatality rate trends
- Staff trained on equipment use and maintenance

## 8. Sustainability

Project sustainability will be ensured through:

- Procurement of high-quality, low-maintenance equipment
- On-site training of neonatal ward staff
- Commitment from HPRC to incorporate the equipment into routine services
- Budget allocation by the hospital for consumables and minor repairs
- Ongoing monitoring and follow-up by Rotary Club

The project strengthens existing hospital systems and does not create parallel services, ensuring long-term benefit.

## 9. Alignment with Rotary Global Grant Criteria?

This project fulfills Rotary Global Grant requirements by:

- Addressing a **significant, community-identified need** at a major public referral hospital
- Aligning with the **Maternal and Child Health Area of Focus**
- Demonstrating strong **local ownership and stakeholder engagement**
- Including **sustainability and capacity building** components
- Providing **measurable and long-term impact**