



The IMPALA study aimed to improve early recognition of clinical deterioration in hospitalised children in Malawi, using enhanced vital signs monitoring and standardized clinical observations. The study was conducted in high-dependency units at Queen Elizabeth Central Hospital and Zomba Central Hospital.

#### Study Population:

- **1,610** children were screened
- **793** were enrolled
- **774** were included in the final analysis after exclusions

#### Outcomes Measured:

Among the 774 children, a range of **Critical Illness Events (CIEs)** were prospectively recorded:

- **Death:** 55 patients (7.1%)
- **Cardiopulmonary resuscitation (CPR):** 28 patients (3.6%)

- **Unplanned PICU admission:** 19 patients (2.5%)
- **Blantyre Coma Score decrease  $\geq 1$  point:** 79 patients (10.2%)
- **Convulsion requiring anticonvulsants:** 152 patients (19.6%)
- **Start or increase of inotropic support (IV/IM adrenaline):** 9 patients (1.2%)
- **Bag & mask ventilation or intubation:** 29 patients (3.8%)
- **Hypoglycaemia requiring correction:** 8 patients (1.0%)

These findings provide insight into the burden and profile of acute deterioration in children admitted to tertiary care settings in Malawi, and inform the development of targeted, context-appropriate monitoring systems to support timely clinical response.