PROJECT BACKGROUND & SUMMARY

Despite improved neurosurgical techniques in the neurosurgery ward at Mulago National Referral Hospital (MNRH) in Kampala, Uganda, high infection rates perpetuated disproportionately-poor outcomes.\(^1\)\(^,\)\(^2\)

**THE INTERVENTION: TWO PHASES**

- **PHASE 1 RESULTS (Summer 2016):**
  - Patients’ family members interacted with patients three times more than providers
  - Visibility was more effective than staff education in improving usage

- **PHASE 2: THE FOLLOW-UP STUDY (Summer 2017)**
  - Address gaps in usage seen in our previous study (i.e. hard-to-reach areas)

OUTCOMES

**PRELIMINARY FINDINGS**

- Bed and wall pumps highly used; mobile pumps were ineffective
- Staff and non-staff interacted equally, but staff hand hygiene compliance (49.5%) was greater than non-staff (17.9%) compliance
  - Although staff compliance is higher than non-staff, this level is still too low
- Interviewed staff were aware of the hand hygiene protocol (6/6 nurses) but cited the lack of a water source as a barrier to compliance (5/6 nurses)

**A STEP TOWARD SUSTAINABILITY: SARAYA**

- Partnership between DGNN and Saraya, a local hand sanitizer producer
- Secured one full year of solution and refill services

**PROJECT OBJECTIVES**

By assessing the relative usage of wall, bedside, and mobile pumps, we hope to improve accessibility and visibility, ultimately generating an efficient, sustainable, long-term protocol for hand hygiene practices in a low-to-middle income country (LMIC) health care facility.

**METHODOLOGY**

**IMPLEMENTATION of hand sanitizer devices in the neurosurgery ward at MNRH:**

- **11 wall pumps** with signage
  - by patient beds, at points of transition
- **20 bed pumps**
  - at foot of patient beds
- **24 mobile pumps**
  - distributed to medical staff

**DATA COLLECTION**

- **Daily mass of gel** used per pump
- **Observational data** detailing...
  - staff/non-staff - patient interactions
    - *positive* (i.e., successful use of the gel after patient interaction)
    - *negative* (i.e., failure to use gel after patient interaction)
  - source of gel (wall, bed, or mobile pump)
- **Staff interviews and feedback surveys**

**REFERENCES**


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