

## HAND HYGIENE INFRASTRUCTURE AND PRACTICES AMONG HEALTHCARE STAFF IN BELIZE DURING THE COVID-19 PANDEMIC

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**Background:** Healthcare workers are among the highest risk for infection with SARS-CoV-2 due to their close interaction with patients. Hand hygiene is an important method to mitigate COVID-19 transmission, but implementation of best practices for hand hygiene can be limited in low- and middle-income countries.

**Materials/Methods:** We conducted a baseline assessment at 11 public healthcare facilities in Belize in July 2021 to better understand hand hygiene practices and available resources. We assessed handwashing stations (HWS) and alcohol-based hand rub (ABHR) dispensers in patient and nonpatient contact areas. We also observed hand hygiene practices among staff, with proper hand hygiene defined as either handwashing with soap or using ABHR before and after patient contact. Descriptive statistics and logistic regression using generalized estimating equations to account for clustering within health facilities were used to analyze the data.

**Results:** Of the 363 rooms assessed, 278 (77%) had either a functional HWS with soap or an ABHR dispenser. Among the 228 of 363 rooms (63%) with a functional HWS with soap, 187 (82%) had drying materials. Specifically, within the 313 patient contact rooms, 209 (67%) had a functional HWS with soap, of which 174 (83%) had drying materials. Among 306 ABHR dispensers evaluated, 244 (80%) were functional. Proper hand hygiene occurred during 363 of 742 (49%) opportunities observed for hand hygiene before or after patient contact. Proper hand hygiene was less likely to be performed by lab technicians (AOR = 0.22; 95% CI = 0.11, 0.42) and patient care assistants (AOR = 0.07; 95% CI = 0.02, 0.26) compared with physicians. Proper hand hygiene was more than twice as likely to occur after patient contact, compared with before contact (AOR = 2.52; 95% CI = 1.84, 3.46).

**Conclusions:** Proper hand hygiene practice is critical to disease control and prevention efforts, and our study identified multiple opportunities for improvement. Based on WHO guidelines, we will assist with implementing measures to improve access to ABHR and hand hygiene practices, such as providing additional ABHR dispensers, hand hygiene education, and recommendations for ABHR production and management. These interventions will protect healthcare workers and patients during the COVID-19 pandemic and beyond.

**Images / Graph / Table:** No image uploaded