Health Worker and Family Caregiver Hand Hygiene in Bangladesh Healthcare Facilities: Results from a Nationally Representative Survey

Background
In healthcare facilities, hand hygiene affects patient care, health worker safety, and infection control, but research and policy are lacking in many low-income countries. We present a nationally representative study on hand hygiene infrastructure and behavior in healthcare facilities in Bangladesh.

Methods
• The 2013 Bangladesh National Hygiene Baseline Survey examined water, sanitation, and hand hygiene across households, schools, restaurants, food vendors, traditional birth attendants, and healthcare facilities.
• 100 rural and urban clusters were selected with probability proportional to size sampling using National Household Census data.
• In each cluster, we chose 8-9 facilities for hand hygiene infrastructure surveys.
• In each cluster, we chose 1 facility for 5 hours of structured observations of hand hygiene behavior on one inpatient ward.

Results
• A total of 875 facilities were surveyed: 432 rural and 443 urban; 136 government and 739 independent, private, or NGO.
• Over 90% of hand washing locations had water, but hand hygiene materials varied widely (Figure 1).
• Bar soap was most available to all users. When available, mean bar soap quantity was 2.6 grams (standard deviation 12.1).

• For health workers, 86-96% of hand washing locations had hand hygiene materials. Soap was available at 82-87% of locations and alcohol sanitizer at 21-48%.
• For patients and family caregivers, 25% of hand washing locations had any available hand hygiene materials.
• Observers noted 4676 hand hygiene opportunities (Figures 2 & 3). We defined ‘recommended’ washing as using both hands with soap then drying by air or clean cloth.

• Family caregivers used recommended hand hygiene in 1% of opportunities, usually washing hands with only water (48%) but infrequently using soap (3%).
• Health workers used recommended hand washing or alcohol sanitizer in 9% of opportunities, most commonly after contact with patients (26%) or body fluid (13%) than before patient contact (11%).

Conclusion
• In Bangladesh healthcare facilities, hand hygiene materials are often available for health workers, but not patients or family.
• Hand hygiene is better among health workers than family caregivers and after patient care.
• Increasing supplies and providing education about patient care-related hand hygiene could result in improved care and infection control.

References