

# Knowledge, attitudes and practices of health care workers on hand hygiene at Bindura PSMI Medical Centre in Bindura, Zimbabwe

Linnet Dzinduwa<sup>1,3</sup> and Marcelyn T. Magwenzi<sup>2,3</sup>

1. Premier Services Medical Investments, Harare, Zimbabwe 2. Bindura University of Science Education, Bindura, Zimbabwe 3. Infection Control Association of Zimbabwe

## The WHO multimodal strategies can be effectively implemented with minimum resources to improve hand hygiene compliance among health care workers at Bindura PSMI Medical Centre

### BACKGROUND

**Study setting:** Bindura PSMI Medical Centre is a walk-in out-patients private facility

**Services offered:** Clinical, Optometry, Dental, Pharmaceutical, Rehabilitation, Laboratory and Ambulance services.

**Staff compliment:** 40 health workers per shift, serving about 70 clients daily.

**Problem identified:** An audit on consumables in stock at the Centre done in August 2018, revealed that hand hygiene resources were not being used with most products nearing expiry.

#### Objectives:

1. To determine hand hygiene knowledge, attitudes and practices among healthcare workers (HCWs) at Bindura PSMI Medical Centre
2. To identify strategies for improving hand hygiene compliance among health workers at Bindura PSMI Medical Centre.

### METHODS

**Study design:** cross sectional

**Period:** October and November 2019

#### Methodology:

1. Self-administered questionnaire given to 106 HCWs across all professional categories to assess knowledge about hand hygiene best practices during patient care.
2. Assessment of hand hygiene infrastructure and resource-availability using an adapted World Health Organisation (WHO) hand hygiene self-assessment framework (HHSAF).
3. Hand hygiene compliance observations using a WHO adapted hand hygiene compliance observation tool.
4. Measured alcohol based hand rub (ABHR) consumption rate points for seven days.



Fig 1. ABHR and an in-house made tool used to measure ABHR consumption at the point of care

### RESULTS

The response rate to the self-administered questionnaire was 102, 96%.

Generally HCWs were knowledgeable about the WHO five moments of hand hygiene, with (83, 81%) knowing the hand hygiene method to use after emptying a bed pan and (86, 84%) aware of factors that compromise effective hand hygiene.

Fourteen (14) HCWs were observed for hand hygiene compliance. One moment was observed on each of them. The observed hand hygiene compliance rate (22%) was much lower than the self-reported compliance (64.8%)

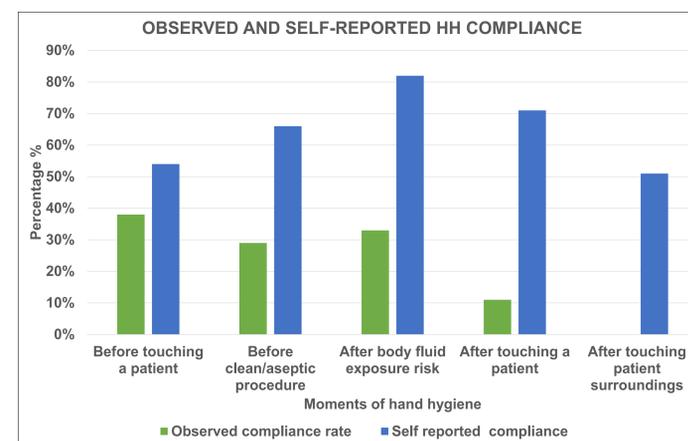


Fig 2: Comparison of observed and self-reported hand hygiene compliance rates

ABHR usage was extremely low. An average 304mls were used against a minimum expected 2123mls based on 2 moments calculated in relation to the average number of patients seen at the facility.

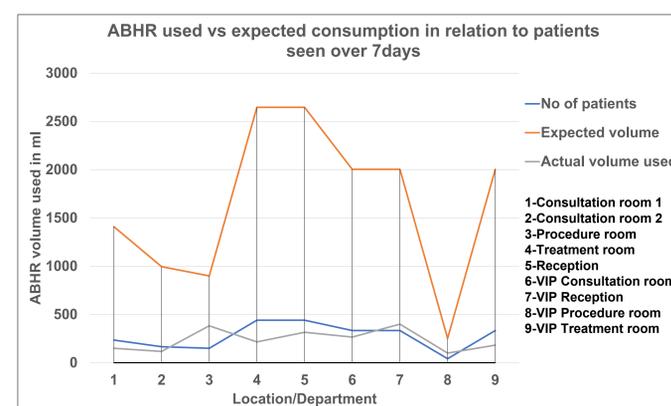


Fig 3. Alcohol based hand rub used against expected consumption

### RESULTS

The facility scored 63.7% on the HHSAF. Gaps were mainly related to:

- Infrastructure where hand wash basins were not functional
- Provision where single use towels were not readily available.

### CONCLUSIONS

- The WHO multimodal strategies have been used with success in other studies to improve hand hygiene compliance among health workers<sup>1,2</sup>.
- In our study the multimodal strategies were adapted to address specific challenges leading to poor hand hygiene compliance among health workers at Bindura PSMI Medical Centre. The interventions included training, fixing hand wash basins and having constant reminders.
- This study prepared the facility for COVID-19 in terms of hand hygiene, though unforeseen at the time.
- Very minimal resources were required for the study, making it replicable in any resource limited settings.

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### CONTACT

Linnet Dzinduwa

Email: [lindzinduwa@gmail.com](mailto:lindzinduwa@gmail.com)



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