

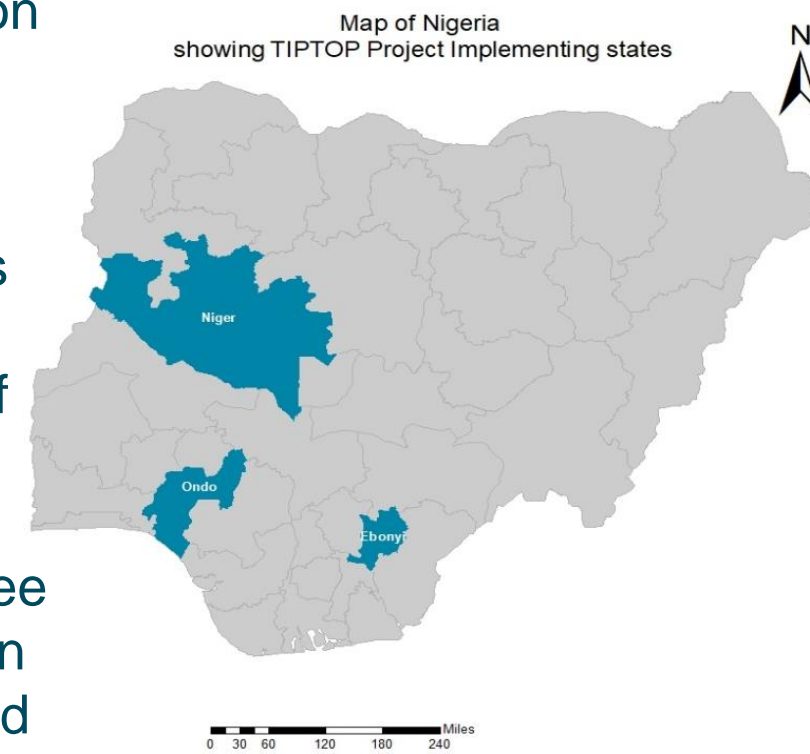
# Infection prevention and control knowledge and practices of frontline health care workers during the COVID-19 pandemic in Nigeria

By: Bright Orji<sup>1</sup> Elizabeth Oliveras<sup>1</sup> Emmanuel Ugwa<sup>2</sup> Bartholomew Odio<sup>1</sup> Herbert Onuoha<sup>1</sup> Christina Maly<sup>1</sup> Ibrahim Idris<sup>3</sup> Emmanuel 'Dipo Otolorin<sup>1</sup> Elaine Roman<sup>1</sup>

Affiliation: <sup>1</sup> Jhpiego, Nigeria <sup>2</sup> Federal Medical Centre, Jigawa State, <sup>3</sup> Ministry of Health, Niger State

## Background

Given the importance of infection prevention and control (IPC) measures for reducing the transmission of COVID-19, a cross-sectional, mixed-methods study was conducted to assess IPC knowledge and practices of frontline health workers – both facility- and community-based health workers (CHWs) – in three local government areas (LGA) in Nigeria: Akure South, Bosso and Ohaukwu.



## Methodology

In November 2020, a structured survey was administered to 622 health workers – 294 facility-based (47%) and 328 CHWs (53%) – at 174 primary health care centers. In each LGA, key informant interviews (KII) were conducted with health department management teams; 5 members from LGA and 3 from State health teams. Descriptive statistics were used to summarize the quantitative results. Logistic regression analysis was used to identify factors associated with the practice, attitude and knowledge of HCWs and CHWs towards IPC during COVID-19. Qualitative data were analyzed using Atlas.ti and in themes and specific quotes used for illustrations.

## Results

58% of health workers surveyed were trained in IPC during COVID (FHCWs – 53% & CHWs – 63%)

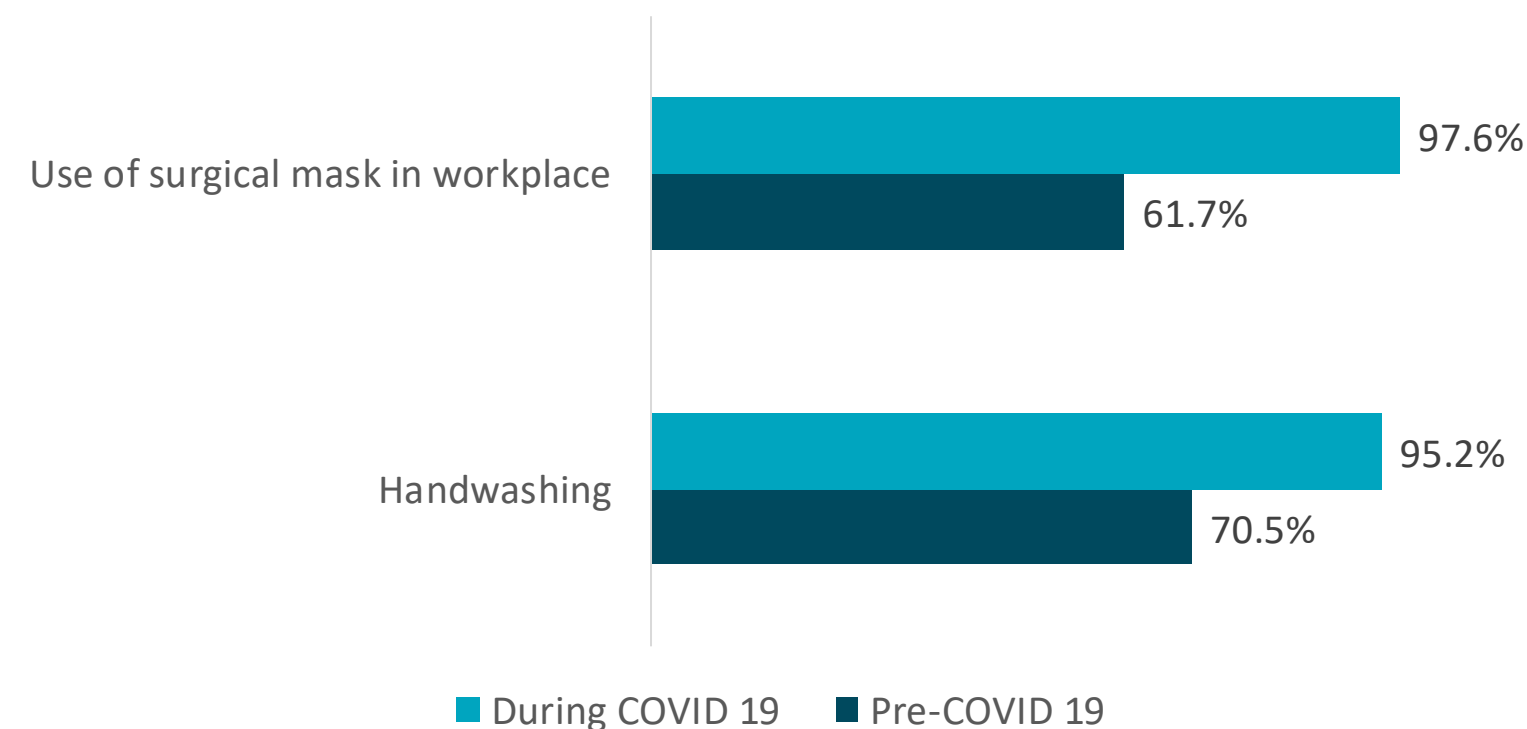
### Knowledge was high

- The mean knowledge score was 9.8 and did not differ between FHCWs and CHWs ( $p < 0.001$ )
- >94% of providers answered 5 of 11 questions correctly
- 65% or fewer providers answered 3 questions correctly

### Some practices improved during the pandemic, Some remained the same

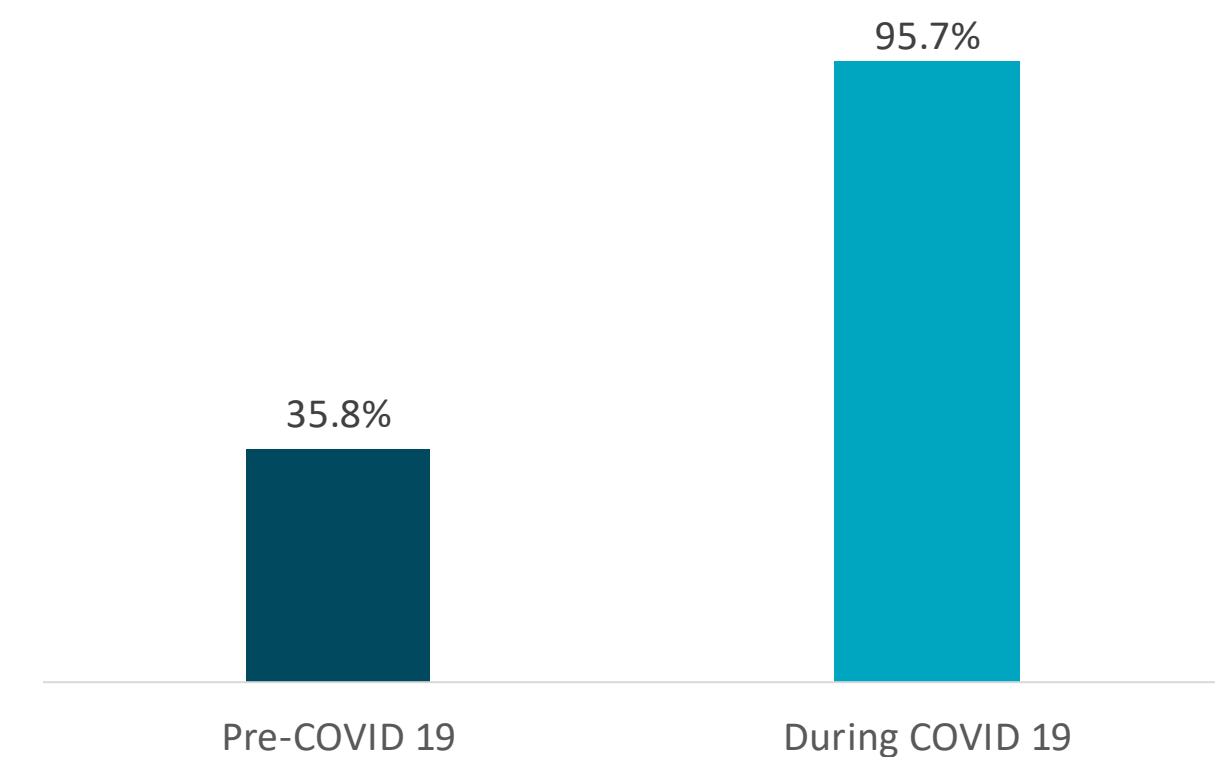
- Washing and disinfecting of hands after contact with each patient (69.0% before vs 68.6% during)
- Use of an N95 mask in the workplace (8.2% vs 9.1%)

Figure 1: Reported Handwashing and Use of Surgical Masks before and during COVID



### Incorrect use of hand sanitizer when hands are visibly soiled increased

Figure 2: Use of Sanitizer when Hands are soiled



Kills confirmed these findings. As one CHW in Ohaukwu said, “We increased our use of face masks, hand sanitizer and gloves,” while a facility-based health worker from Bosso said, “. . . now we take more precaution than then . . . unlike before we palpate with our hands but now, we use gloves.”

## Conclusion

Despite reports of improved IPC measures, use of N-95 masks and hand sanitizer practices remain sub-optimal. Correct use of these measures should be promoted, and supplies ensured to reduce infection and deaths among health workers, community health workers, and the clients they serve.