

Disease Outbreak Preparedness: A baseline assessment of infection and control practices in healthcare facilities in Lagos, Nigeria

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In overall, a total of 48.8% (202) of the surveyed facilities had inadequate level of IPC practices, 25.5% (106) had basic level, while the remaining 25.7% (107) had intermediate level of IPC practices.

BACKGROUND

Evidence-based infection prevention and control (IPC) measures in healthcare facilities are critical for preventing and containing outbreaks. However, studies have shown inadequate level of implementation of IPC practices among healthcare facilities in developing countries. To improve practice among healthcare facilities in Lagos, Nigeria, we conducted a baseline assessment of IPC practices in selected healthcare facilities, aimed to identify strengths and gaps, and give recommendations to promote standard practices among these facilities.

METHODS

We conducted an analytical cross-sectional survey using a multistage random sampling technique to select 415 healthcare facilities, with 214 being private and 201 public between the periods of July-October 2023. A structured questionnaire adapted from WHO Infection Prevention and Control Assessment Framework (IPCAF) for acute healthcare facilities was used for data collection. Data was analyzed using the Stata BE 17 statistical software. $P \leq 0.05$ at 95%CI was considered statistically significant, and ethical approval was obtained to conduct the study.

RESULTS

Based on the overall score achieved in the eight sections of the IPCAF, a total of 48.8% (202) of the surveyed facilities had inadequate level of IPC practices, 25.5% (106) had basic level of IPC practices, while the remaining 25.7% (107) had intermediate level of IPC practices (Table 1). None of the surveyed facilities had an advanced level of practice, while only 29.9% (124) had IPC programmes, 17.1% (71) had IPC committees, and 26.0% (108) had IPC team/focal persons for IPC purposes (Table 2). More of the public 57.7% (116) facilities had inadequate level of practices compared to 40.2% (86) of private facilities (p value ≤ 0.05) (Table 3). Majority of the facilities with inadequate level of practices were at public primary level-of-care, while the total median IPCAF score for the surveyed facilities was 207.5 (IQR, 132.5-415.0), a basic level of IPC practice (Figure 1-2).

Table 1 Distribution of level of IPC practices of the surveyed health facilities

Variable	Level of IPC practices (n = 415)			
	Basic	Inadequate	Intermediate	Total
Type of facilities				
Private	57(26.6)	86(40.2)	71(33.2)	214(100.0)
Public	49(24.4)	116(57.7)	36(17.9)	201(100.0)
Total	106(25.5)	202(48.8)	107(25.7)	415(100.0)

RESULTS CONTINUED

Table 2 Responses on availability of IPC programme, team/focal person and committee in the health facilities

Variable	Frequency (n = 415)	Percent (%)
Do you have an IPC programme		
No	291	70.1
Yes, with clearly defined objectives	71	17.1
Yes with clearly defined objectives and annual activity plan	53	12.8
Is the IPC programme supported by an IPC team comprising of IPC profession		
No	307	74.0
Not a team, only an IPC focal person	42	10.1
Yes	66	15.9
Do you have an IPC committee actively supporting the IPC team		
No	344	82.9
Yes	71	17.1

Table 3 Association between type of health facilities and level of IPC practices

Variable	Level of IPC practices (n = 415)				χ^2
	Basic	Inadequate	Intermediate	Total	
Type of facilities					
Private	57(26.6)	86(40.2)	71(33.2)	214(100.0)	16.1
Public	49(24.4)	116(57.7)	36(17.9)	201(100.0)	
Total	106(25.5)	202(48.8)	107(25.7)	415(100.0)	
	$P = 0.000$	df 2			

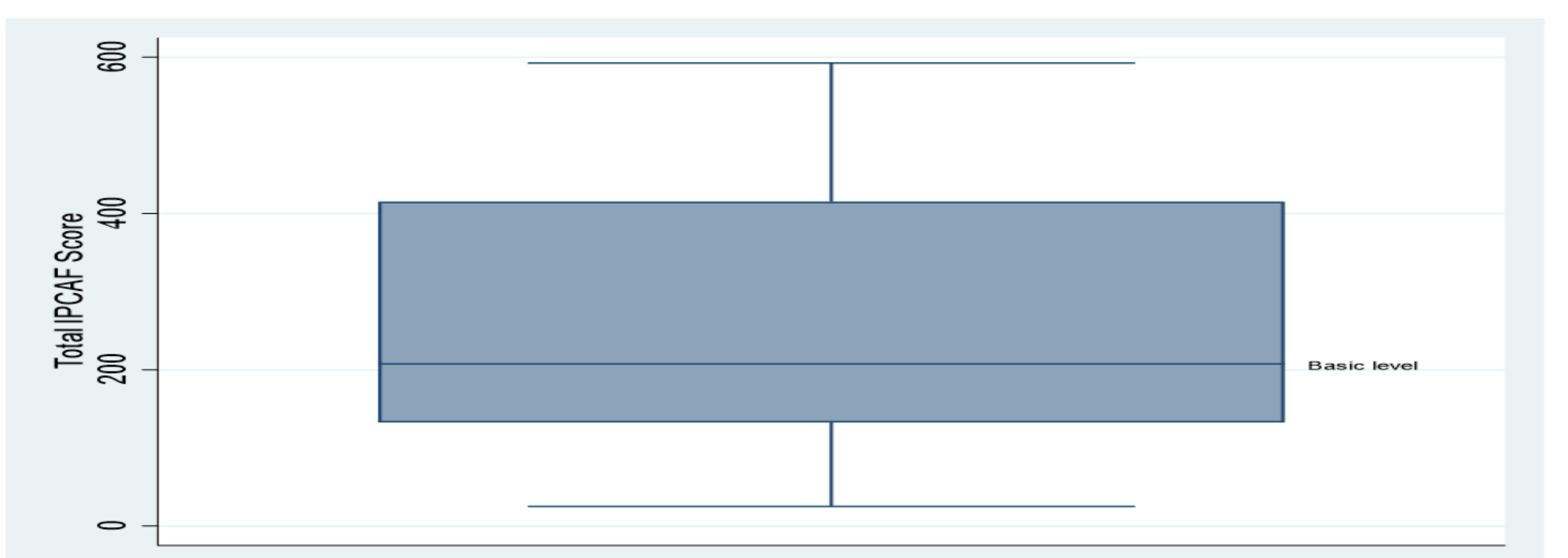


Fig 1: Box plot showing the total median IPCAF score of overall surveyed health facilities

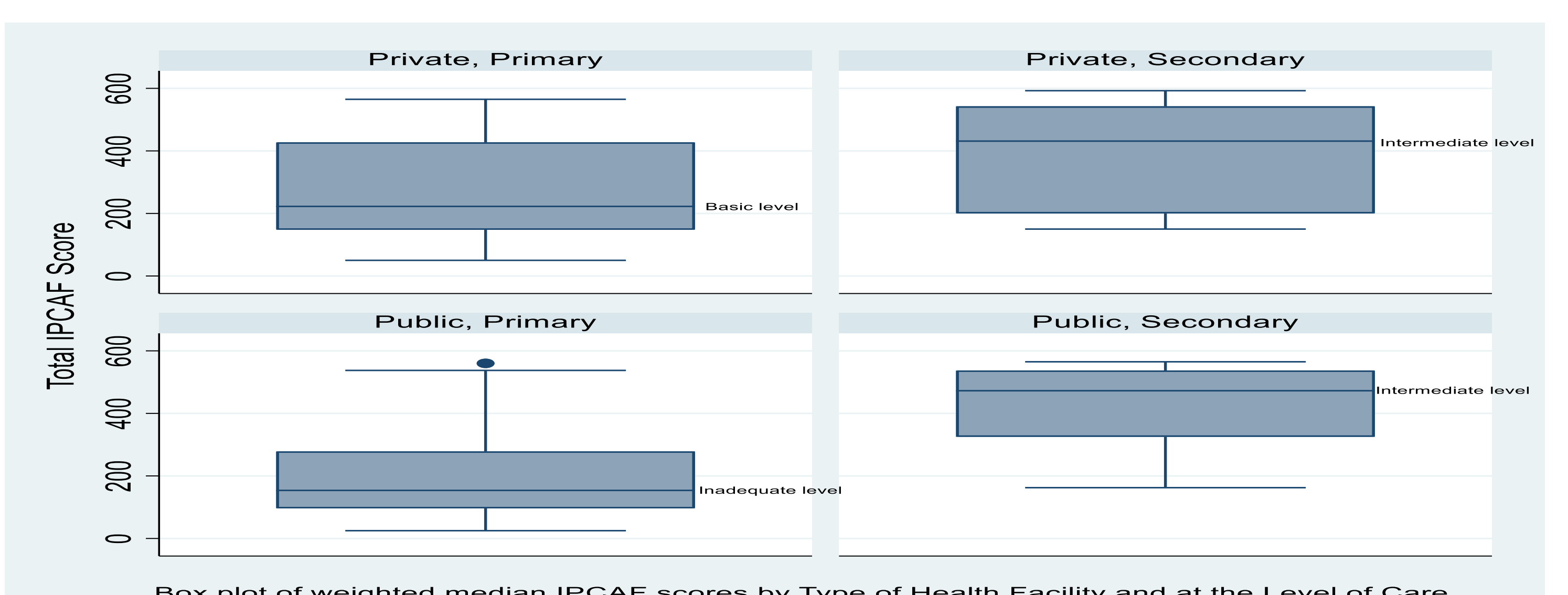


Fig 2: Box plot showing the total median IPCAF scores by type of health facilities and at the level of care

CONCLUSIONS

Findings from our study have identified gaps in the level of IPC practice according to WHO IPCAF standard in our healthcare facilities in Lagos, Nigeria that needs improvement. Therefore, we recommended that the State Ministry of Health should implement IPC programme to improve practices among healthcare facilities in the state.