

Prevalence and Health Facility Enablers and Barriers for COVID-19 Vaccine Uptake among Adult Tuberculosis Patients Attending Clinics in Nairobi, Kenya

P1-G7

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The prevalence of COVID-19 vaccine uptake stands at 46.1% (N = 179), 38.1% (N = 148) been fully vaccinated, 45.3% (N = 81/179) had received AstraZeneca vaccine brand. The health facility level enablers were variety of vaccine (supply chain), communication and awareness (consistent & accurately safety messaging on Covid-19 and vaccination having social benefits) while health facility level barriers included registration requirement before vaccination.

BACKGROUND

COVID-19 vaccines minimized the burden and impact of COVID-19. However, low COVID-19 vaccine uptake remains a major concern especially among high-risk groups as they face severe forms of both infection or coinfection. Immunosuppression caused by COVID-19, or TB aggravates progression and worsening of both diseases. This bidirectional interaction of twin pandemic poses substantial threats due to sustained community transmission. Kenya has highest TB-HIV co-infections rates and 47% of the population in Nairobi County were unvaccinated by 2023. Therefore, high COVID-19 vaccine uptake is crucial to TB & COVID-19 control and management. Many factors could contribute to the low COVID-19 vaccine, but there is no local evidence of enablers or barriers of COVID-19 vaccine uptake among TB patients.

METHODS

- **Cross-sectional mixed-method study** conducted at TB clinics across six sub-counties in Nairobi County and included **388 adult** Tb patients on treatment.
- **Purposively selected six facilities with high volume of TB** patients and participants selected using simple random method
- Frequencies and percentages used for descriptive data, while logistic regression was used to determine the association of health-system factors with vaccine uptake.
- Thematic analysis using **deductive coding approach** was utilized for qualitative data.

RESULTS

- The **prevalence** of COVID-19 vaccine uptake was **46.1%** (N = 179/388) (Figure 1), **38.1%** (N = 148/388) been **fully vaccinated**, and **45.3%** (N = 81/179) had received **AstraZeneca vaccine type** (Figure 2).
- **Health facility level enablers significantly associated with COVID-19 vaccine uptake** were (Table 1):
 - **Supply chain**
 - Having a variety of vaccines
 - **Communication and awareness**
 - Consistent and accurately safety messaging on Covid-19
 - Vaccination having social benefits
 - Having public awareness
- **Health facility level barrier** associated with uptake (Table 1):
 - Registration before vaccination
- **Key themes from the qualitative analysis** were:
 - Chain of vaccine, referral by health workers, control measures, and vaccination registration requirements.

RESULTS CONTINUED

Figure 1.

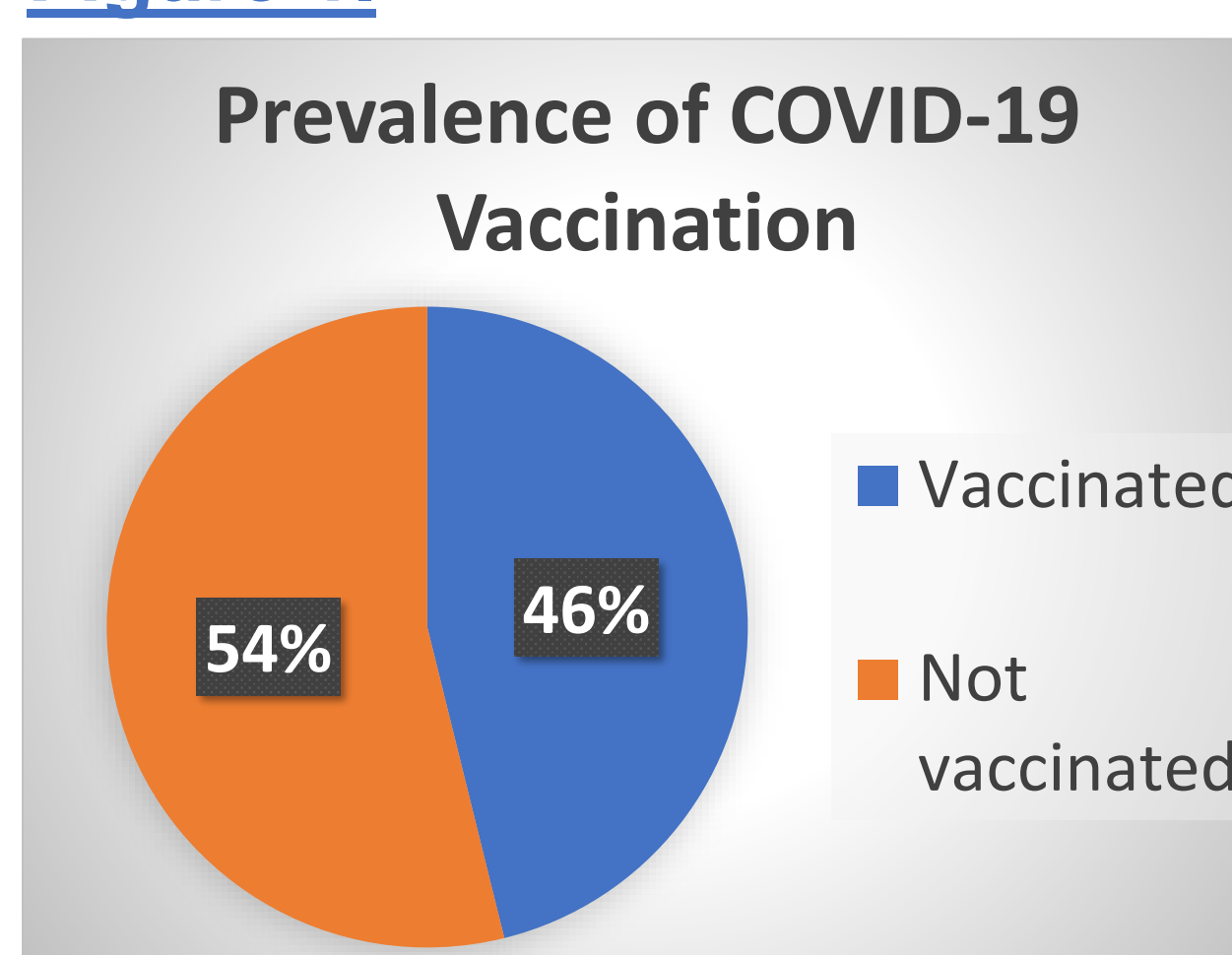


Figure 2.

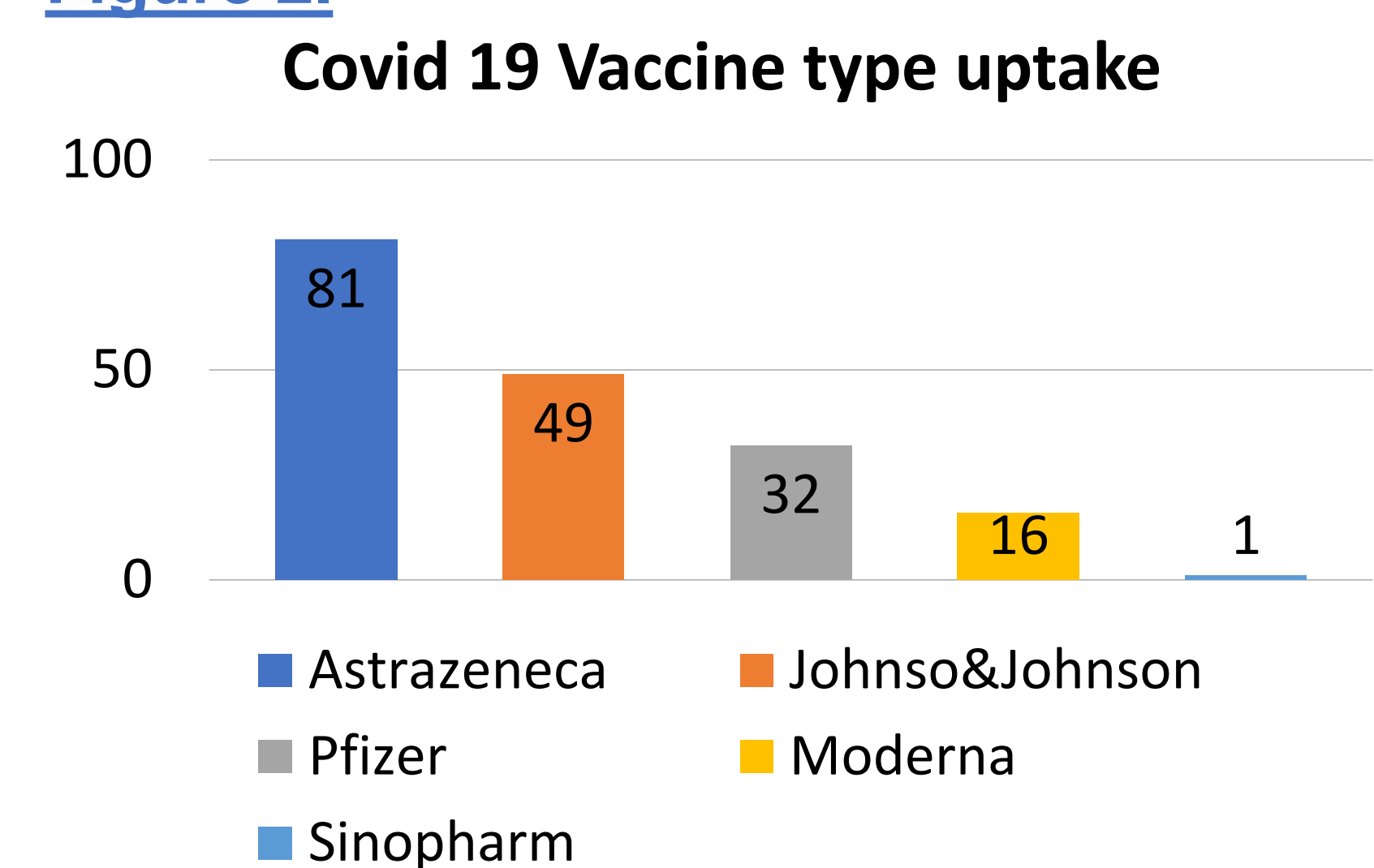


Table 1. Significant association between vaccination and health-system factors

Variable	Vaccinated	Not vaccinated	aOR (95%CI)	P
Had a Variety of Vaccines				
Had Influence	142 (79.3%)	61 (29.2%)	2.354 (1.959-5.779)	0.026
No Influence	37 (20.7%)	148 (70.8%)		
Consistent and Accurate Safety Message				
Had Influence	165 (92.2%)	71 (34.0%)	3.380 (1.217-9.384)	0.019
No Influence	14 (7.8%)	138 (66.0%)		
Emphasis on Social Benefits				
Had Influence	164 (91.6%)	81 (38.8%)	3.786 (1.204-11.908)	0.023
No Influence	15 (8.4%)	128 (61.2%)		
Public Awareness on Medication				
Had Influence	165 (92.2%)	80 (38.3%)	2.857 (1.689-8.254)	0.028
No Influence	14 (7.8%)	129 (61.7%)		
Registration Requirements				
Had Influence	107(59.8%)	163 (78.0%)	0.687 (0.270-0.743)	0.029
No Influence	72 (40.2%)	46 (22.0%)		

CONCLUSIONS

- Health facility-level enablers and barriers were **supply chain** (variety of vaccines) and **communication & awareness** (accurate messaging, social benefits and increased public awareness) and **registration requirement** respectively. Upscaling vaccination among TB patients will reduce mortalities and morbidities.
- **Findings call for** variety vaccine adequacy, demystification of misinformation and simplification of vaccination process.

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Conflicts of Interest

No conflict or competing interest were disclosed.