

Uptake of COVID vaccination in a diverse cohort of PLWHIV in Melbourne: how can we do better?

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Background

The Australian Government commenced its COVID-19 vaccination program on February 22, 2021. People Living With HIV (PLWHIV) were assigned Phase 1b, commencing March 22, 2021. On October 1, 2021, Victorian Premier Andrews announced all authorised workers would need to be vaccinated against COVID-19 to continue working onsite (the vaccine mandate). This date was selected to best indicate true intent to receive the vaccine, independent of potential threat to employment if the individual hadn't been vaccinated.

Objectives

To examine the uptake of COVID-19 vaccines at our institution, in PLWHIV before the vaccine mandate was announced. This date was selected to best indicate true intent to receive the vaccine, independent of potential threat to employment if the individual hadn't been vaccinated. Demographic factors within the cohort associated with high and low vaccine uptake were analysed to understand risks for vaccination non-adherence.

Methods

Adult PLWHIV were identified through the Monash Infectious Diseases HIV database. Only PLWHIV engaged with care (at least one clinic visit and/or one HIV viral load taken in both 2019 and 2020) were included. Demographic information was collected from medical records. COVID-19 vaccination status as of October 1, 2021 was collected from AIR (Australian Immunisation Register). For PLWHIV without a COVID-19 vaccine, a chart review was undertaken for a documented discussion with their HIV clinician about COVID-19 vaccination.

Results

A total of 290 participants were identified as eligible. 51 (18%) PLWHIV had not received a COVID-19 vaccine prior to 1st October. The overall vaccination rate in Victoria at this time was 80.5%.

The gender distribution was the same between groups but a greater proportion of unvaccinated PLWHIV were Australian born than in the vaccinated group (47% v 37%, 0.28)

Only 7/51 unvaccinated PLWHIV had a documented conversation with their treating clinician regarding their concerns. The most common reasons documented were fear of side effects and a desire to have the vaccine of their choice.

Table 1: Demographics between the two cohorts

Demographic characteristic	Vaccinated population n = 239	Unvaccinated population n = 51	p value
Age (years), mean ± SD	50.5 ± 13.9	46.0 ± 14.7	0.04
Sex at birth,			
Male	173 (72.4)	37 (72.5)	0.10
Female	66 (27.6)	14 (27.5)	
Country of birth,			
Australia	102 (42.7)	26 (51.0)	0.28
Overseas born	137 (57.3)	25 (49.0)	
Males			
Australian Born	88 (86.3)	21 (80.8)	0.52
Overseas Born	85 (62.0)	16 (64.0)	
Females			
Australian Born	14 (13.7)	5 (19.2)	0.25
Overseas Born	52 (38.0)	9 (36.0)	

Data presented as frequency (percentage) unless otherwise stated

Figure 1: Country of Birth of Vaccinated Population

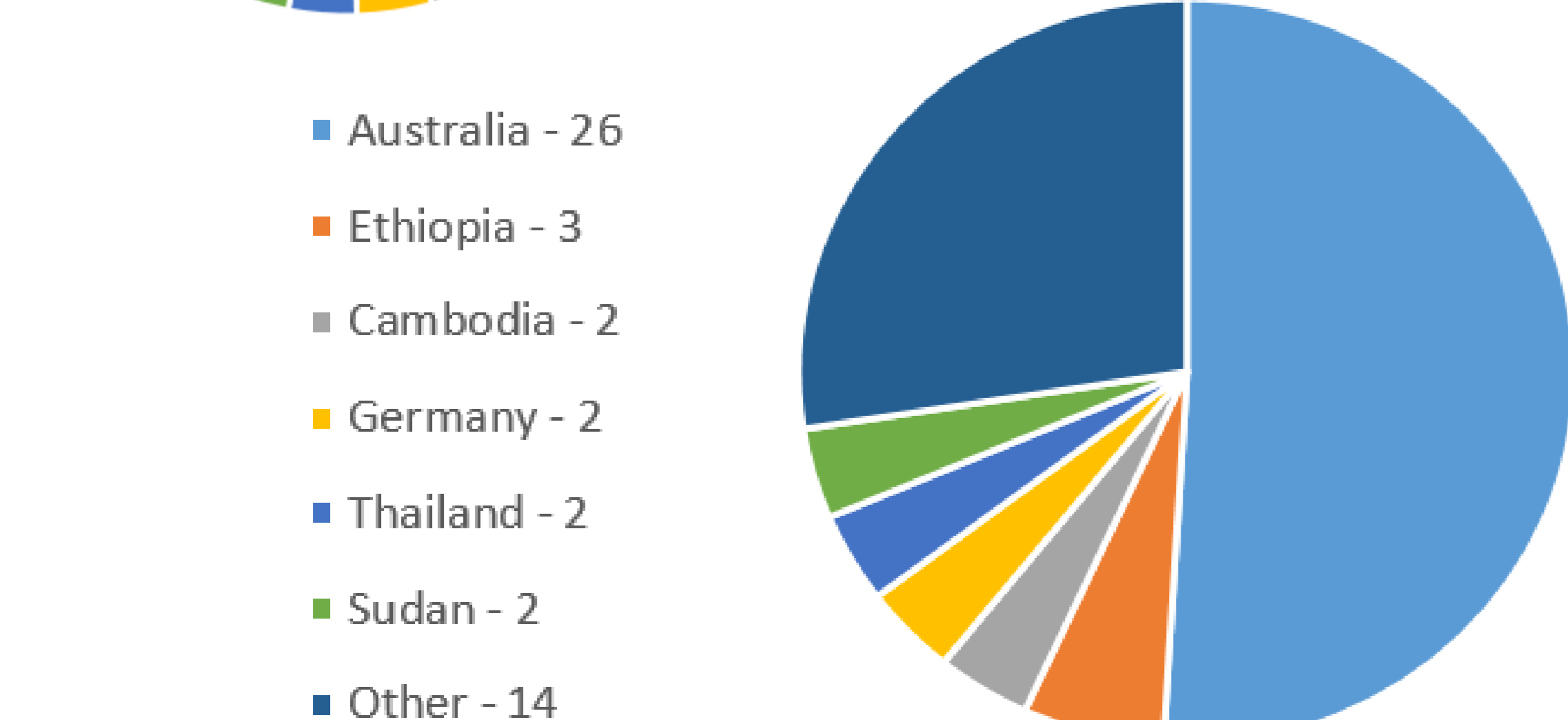
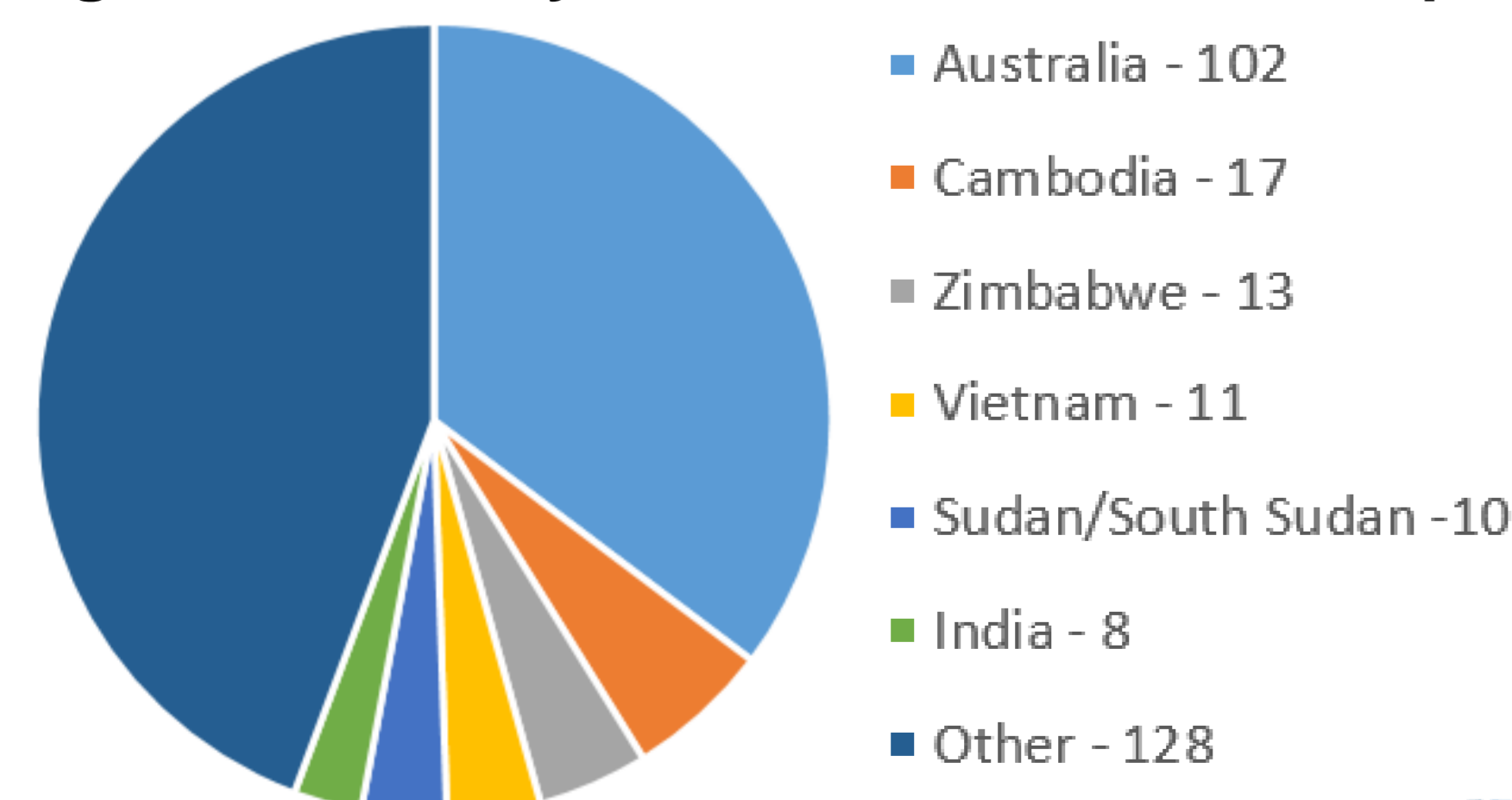


Figure 2: Country of Birth of Un-Vaccinated Population

The vaccination rates in the top 5 postcodes our participants lived in were compared to overall vaccination rates in that postcode.

- In 3 postcodes, the vaccination rate in our cohort was higher than that of the general population in that postcode.

Table 2: Vaccination rate via postcode

Postcode	Vaccination % in our cohort	Vaccination % in over 18yr in general suburb population
3175	74%	79%
3174	79%	79%
3977	88%	86%
3172	100%	79%
3171	82%	79%

Figure 3: Documented discussion between clinician and patient regarding COVID-19 vaccination

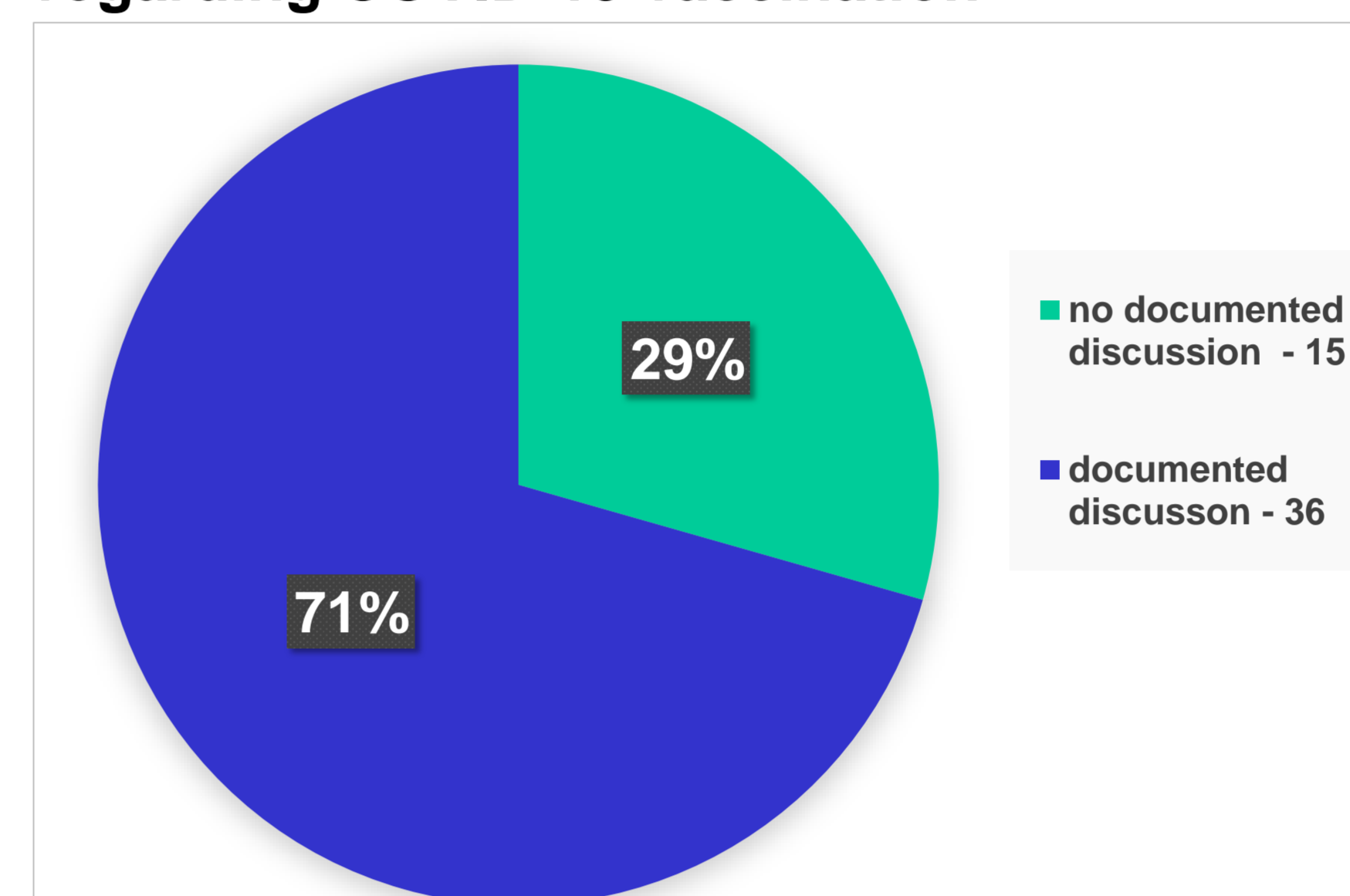
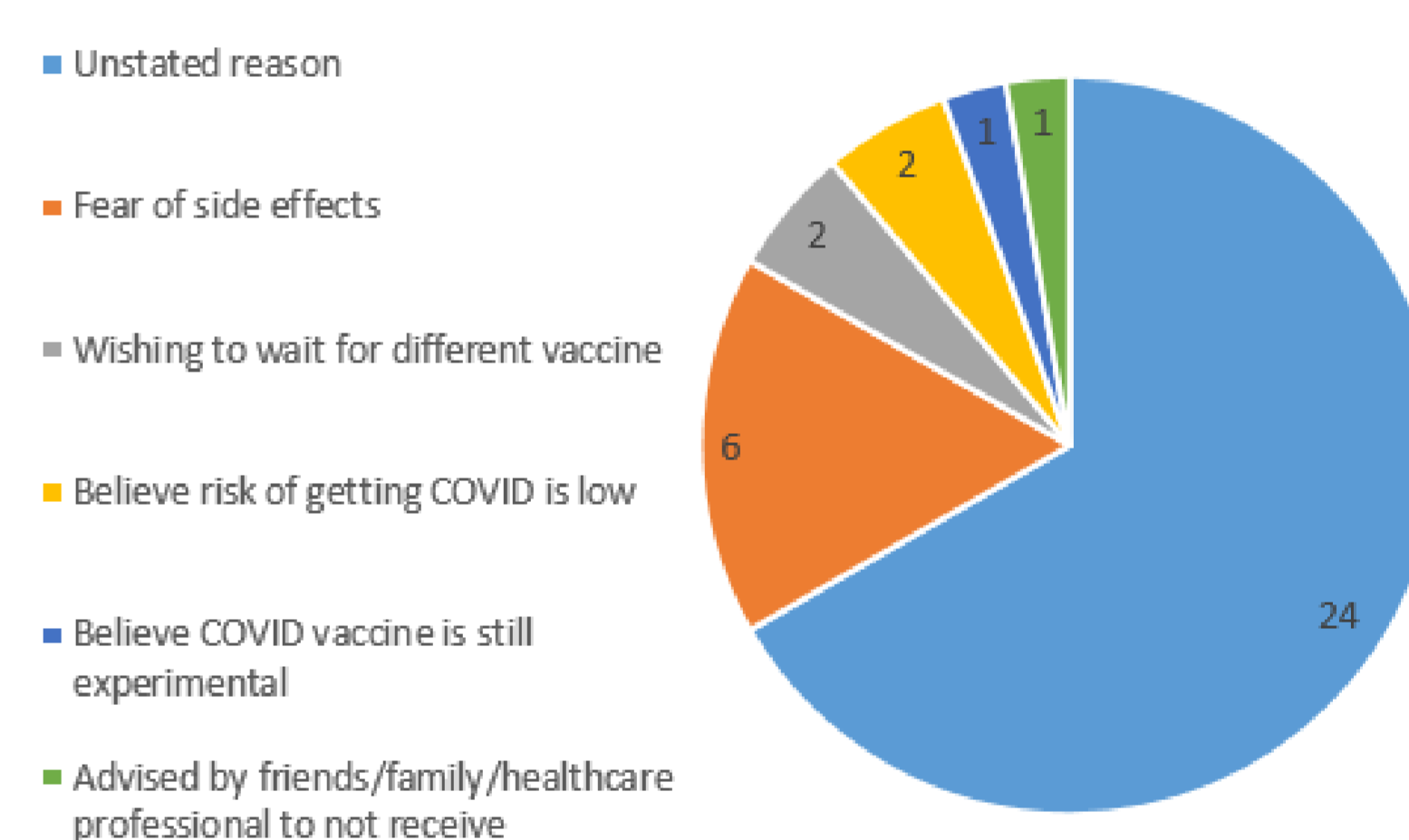


Figure 4: Why patients did not get a COVID-19 vaccine



Discussion

This study relied on documentation in medical records, which varies significantly between clinicians. Almost 30% of our unvaccinated cohort did not have a documented discussion with an HIV clinician regarding COVID-19 vaccination. This made it difficult to determine if the low rates of documented discussion were due to a true lack of discussion, or due to a lack of documentation. In addition to the discussion being had between patient and clinician, it is important for clinicians to document these discussions accurately. This allows health services to evaluate reasons why patients chose not to receive the COVID-19 vaccine.

The most common reason documented for not being vaccinated was fear of side effects, followed by patients wishing to wait for a different vaccine and believing their risk of getting COVID-19 was low. This is in line with other studies¹⁻³, however it also highlights the need for HIV clinicians to discuss vaccine safety during routine consultations.

In 2021, there were periods of time where it was difficult to book in for a COVID-19 vaccine. PLWHIV often have competing medical and personal issues. These may have impacted on the study population being able to prioritise or access vaccines. Thus, non-vaccination in this group may not have been due to true vaccine hesitancy but due to issues around access.

Conclusion and future directions

There was slightly higher uptake of COVID vaccines amongst PLWHIV at our institution compared to the general statewide population.

While clinicians may have had conversations with vaccine hesitant PLWHIV, these were poorly documented. This represents a lost opportunity to identify the reasons for vaccine hesitancy amongst PLWHIV and help inform further public health measures.

References

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3. Rhodes A, Hoq M, Measey M-A, Danchin M. Intention to vaccinate against COVID-19 in Australia. *The Lancet Infectious Diseases*. 2021;21(5):e110.