

Influenza vaccination uptake among people living with HIV in Melbourne, 2015-2025: a repeated cross-sectional analysis

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ABSTRACT

Background

People living with HIV (PLHIV) are at increased risk of severe influenza-related complications, and annual influenza vaccination is strongly recommended. However, vaccination uptake remains suboptimal, and data from Australia are limited. We assessed influenza vaccination coverage among PLHIV attending a specialist clinic in Melbourne and explored reasons for non-vaccination.

Methods

We conducted a repeated cross-sectional analysis of PLHIV attending the Melbourne Sexual Health Centre (MSHC) between 2015 and 2025. Vaccination status was determined based on vaccines administered at the clinic. Segmented logistic regression was used to assess trends before and after the COVID-19 pandemic. A random sample of 1,100 unvaccinated individuals (100 per year) underwent chart review to identify reasons for non-vaccination. An adjusted estimate of vaccination coverage was calculated by incorporating self-reported external vaccination.

Results

Among 18,879 records of PLHIV, the median age was 42 (IQR 34 to 53), and 39.6% (7,474/18,879) received influenza vaccination at MSHC. Coverage increased from 40.4% (527/1,305) in 2015 to 46.7% (779/1,667) in 2019, declined sharply to 22.9% (388/1,691) in 2021, and partially recovered to 40.1% (891/2,221) in 2025. Pre-pandemic, vaccination uptake increased by 4.8% annually (95% CI: 2.3-7.4, $p < 0.001$). Following the onset of COVID-19, vaccination odds were 65.5% lower than expected (95% CI: 60.9-69.7, $p < 0.001$), with subsequent annual increases of 20.3% (95% CI: 16.7-24.0). Among a random sample of 1,100 unvaccinated individuals, 40.6% ($n=447$) had no documented reason, and 31.8% ($n=350$) self-reported vaccination elsewhere. Overall, the adjusted influenza vaccination coverage estimates, including self-reported vaccination elsewhere, was 58.6% (11,058/18,879).

Conclusions

Influenza vaccination coverage among PLHIV in Melbourne remains suboptimal and was significantly disrupted by the COVID-19 pandemic. External vaccination appears to contribute substantially to overall coverage and may lead to underestimation when relying on clinic records alone. Improved documentation and linkage with the

Australian Immunisation Register are needed to better capture vaccination uptake and optimise preventive care.

Disclosure of Interest Statement:

None

Acknowledgement of funding

MYC and EPFC are each supported by an NHMRC Leadership Investigator Grant (GNT2025840 and GNT2033299, respectively). ETA, PML and NNS are each supported by EPFC's NHMRC Leadership Investigator Grant (GNT2033299).