

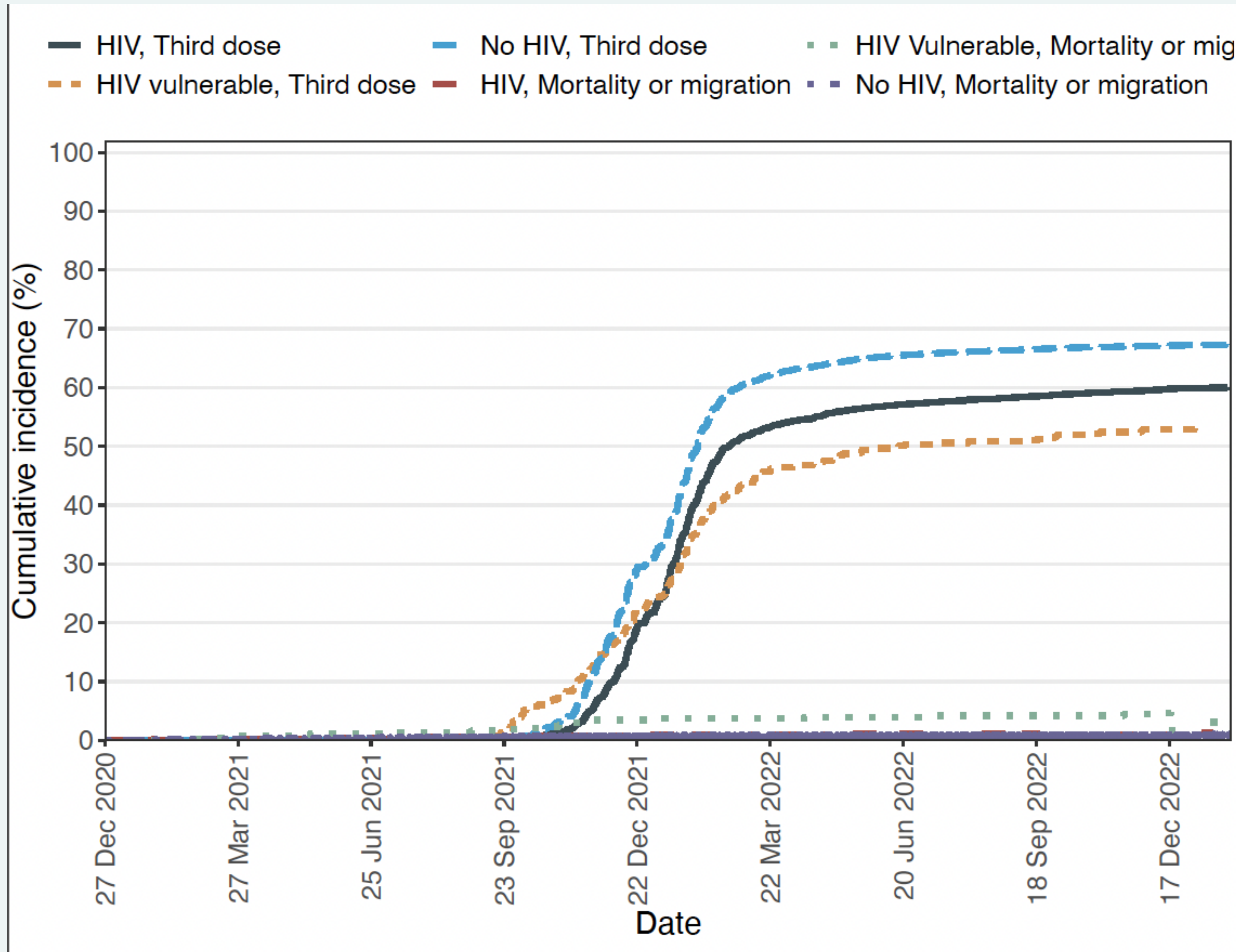
Differences in SARS-CoV-2 vaccine uptake among people living with HIV compared to people without HIV: a nationwide register-study in Sweden

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Conclusion

People living with HIV (PLHIV) had lower **unadjusted** SARS-CoV-2 vaccine uptake compared to people without HIV. **Adjusted** vaccine uptake was higher in PLHIV, especially when adjusting for being born outside Sweden.

PLHIV ≥65 years were less likely to be vaccinated with 3 or more doses vs. people without HIV.



Introduction & aim

Sparse data exists on SARS-CoV-2 vaccine uptake in PLHIV vs. people without HIV. This study aimed to compare their vaccine uptake.

Methods

- Register-based nationwide cohort study
- Study population: all adults alive by the 2020-02-01 in Sweden, **8 176 200**
- Clinically vulnerable HIV (prioritized for vaccination):
 - CD4+ T-cells <50, opportunistic illness the last 6 months before start of study OR
 - CD4+ T-cells between 50-200 combined with detectable viral load
- Modified Poisson regression → relative risks

Relative Risks of Vaccine Uptake

	All	Migrant	≥65 years	Low income
Dose 1, PLHIV	1.054 (1.044–1.064)	1.076 (1.061–1.09)	0.997 (0.979–1.016)	1.072 (1.053–1.091)
Dose 1, Vulnerable PLHIV	1.023 (0.979–1.069)	1.016 (0.956–1.079)	1.057 (1.014–1.102)	1.021 (0.957–1.088)
Dose 2, PLHIV	1.062 (1.051–1.072)	1.088 (1.072–1.104)	0.993 (0.974–1.013)	1.082 (1.062–1.103)
Dose 2, Vulnerable PLHIV	1.032 (0.984–1.082)	1.035 (0.971–1.104)	1.071 (1.027–1.116)	1.032 (0.964–1.105)
Dose 3, PLHIV	1.168 (1.148–1.189)	1.343 (1.307–1.38)	0.969 (0.942–0.997)	1.218 (1.178–1.259)
Dose 3, Vulnerable PLHIV	1.085 (0.999–1.178)	1.212 (1.078–1.361)	1.043 (0.946–1.15)	1.188 (1.058–1.335)
Dose 4, PLHIV	1.237 (1.198–1.277)	1.549 (1.459–1.646)	0.95 (0.912–0.989)	1.271 (1.194–1.354)
Dose 4, Vulnerable PLHIV	1.136 (0.982–1.315)	1.838 (1.481–2.281)	0.907 (0.757–1.086)	1.292 (1.029–1.624)
Dose 5, PLHIV	0.982 (0.924–1.043)	1.175 (1.02–1.353)	0.906 (0.854–0.961)	1.011 (0.886–1.154)
Dose 5, Vulnerable PLHIV	0.916 (0.701–1.198)	1.511 (0.913–2.503)	0.687 (0.513–0.921)	0.922 (0.579–1.467)

Adjusted for: Age, sex, socio-economic level, comorbidities, region of birth, previous SARS-CoV-2 infection. The analyses was performed on the whole study population,, people born outside Sweden (migrant), people over ≥65 years, and people with low income.

Results

- 7237 PLHIV, 431 clinically vulnerable PLHIV, and 8 168340 people without HIV.
- Median age: PLHIV 50y, clinically vulnerable PLHIV 53y, and PWoH 49y
 - Females: 39%, 39%, and 50%.
 - Migrants: 64%, 68%, and 22%

There was a significant interaction between region of birth and HIV-status, where adjustment for region of birth made PLHIV have higher vaccine uptake compared to people without HIV.

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