

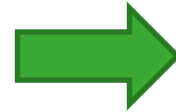
HELICONference – 1 February 2023

Sociodemographic and socioeconomic disparities in COVID-19 vaccine uptake in Belgium - A nationwide record linkage study

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No clear insights in social patterns in COVID-19 vaccination

- Higher rate of SARS-CoV-2 infection and COVID-19 severe outcomes among :
 - Certain **sociodemographic** (SD) groups (e.g. men, elderly, migrants)
 - **Socioeconomic** (SE) disadvantaged groups (e.g. low income, low education)
- COVID-19 vaccine reduces :
 - Transmission of the virus
 - Development of COVID-19 severe outcomes



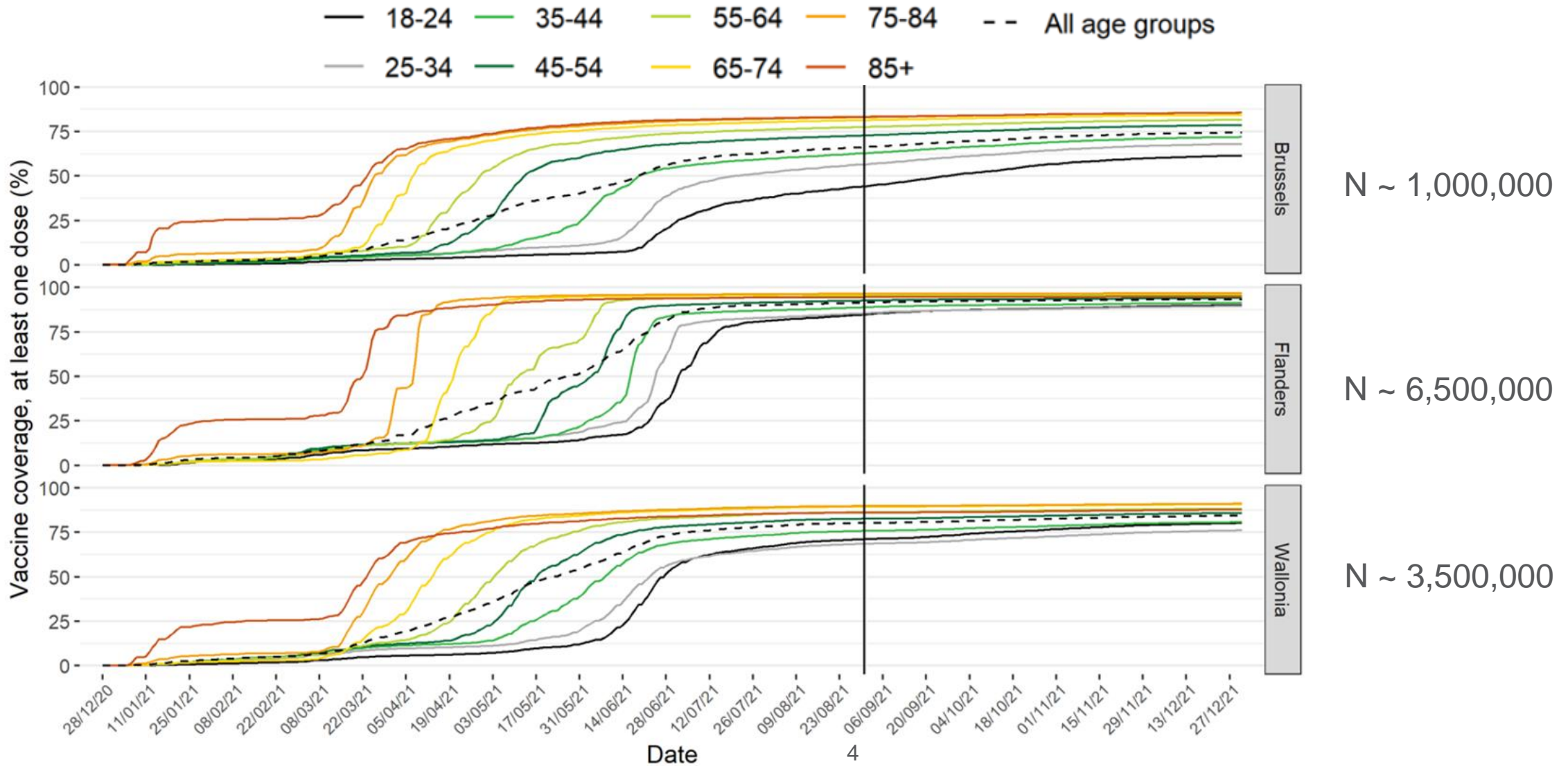
Research question

Are there any **sociodemographic** or **socioeconomic disparities** in **COVID-19 vaccine uptake** in Belgium and in all of its regions ?

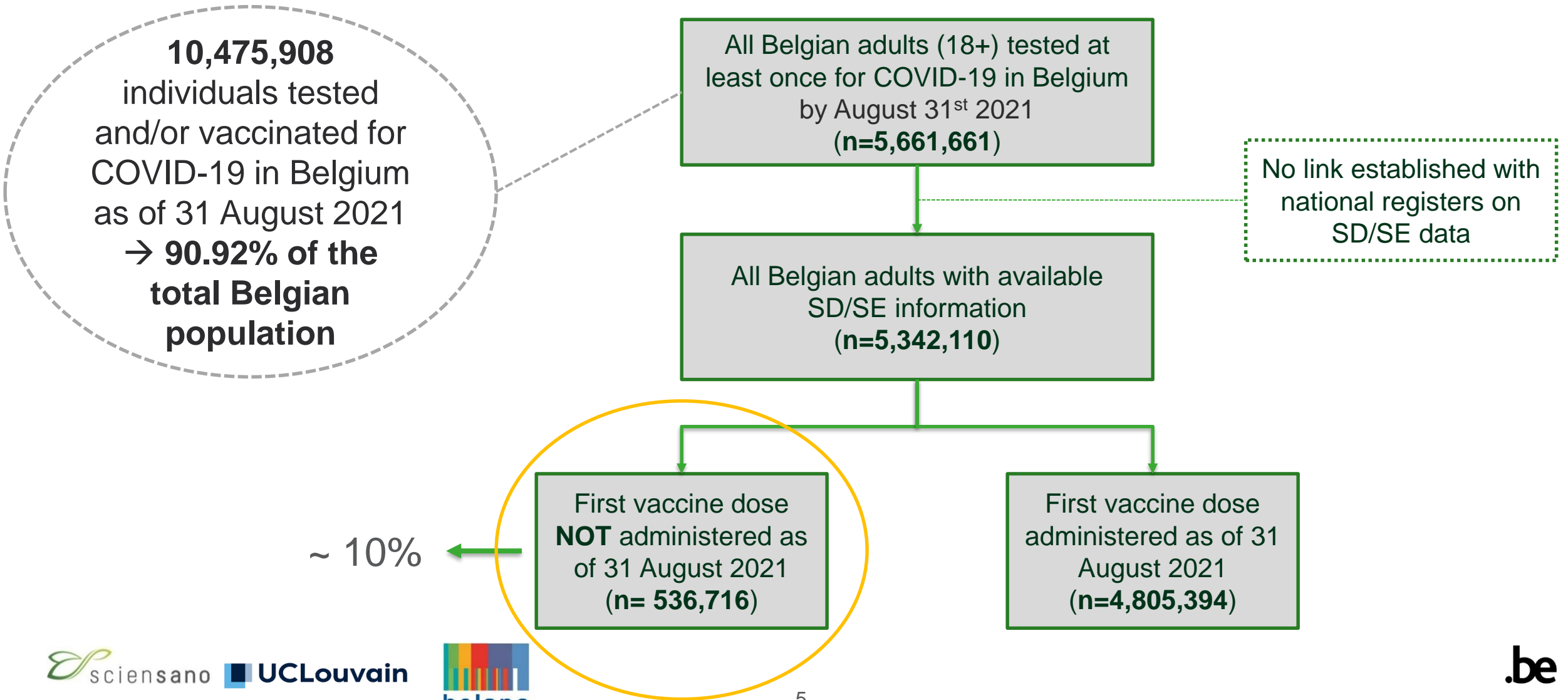
Method builds on individual-level data linkage

	Variables	Data holder	Time frame
Outcome	First vaccine dose	The Belgian vaccine register	As of 31 August 2021
	Age groups	National registry	March 2022
Determinants	Gender	National registry	March 2022
	Region	National registry	March 2022
	Household type	Statistics Belgium	August 2021
	Migration background	Statistics Belgium	August 2021
	Income	Statistics Belgium	2018 (fiscal year 2019)
	Education level	Statistics Belgium	2017
	Employment status	Statistics Belgium	Year 2019
	Health care diploma	Common Base Registry for HealthCare Actors	January 2021

Vaccination coverage of a first dose of COVID-19 vaccine over time by age groups and regions, Belgium, December 28th 2020 - December 27th 2021.



Flowchart of the study population, Belgium, December 28th 2020 - August 31st 2021

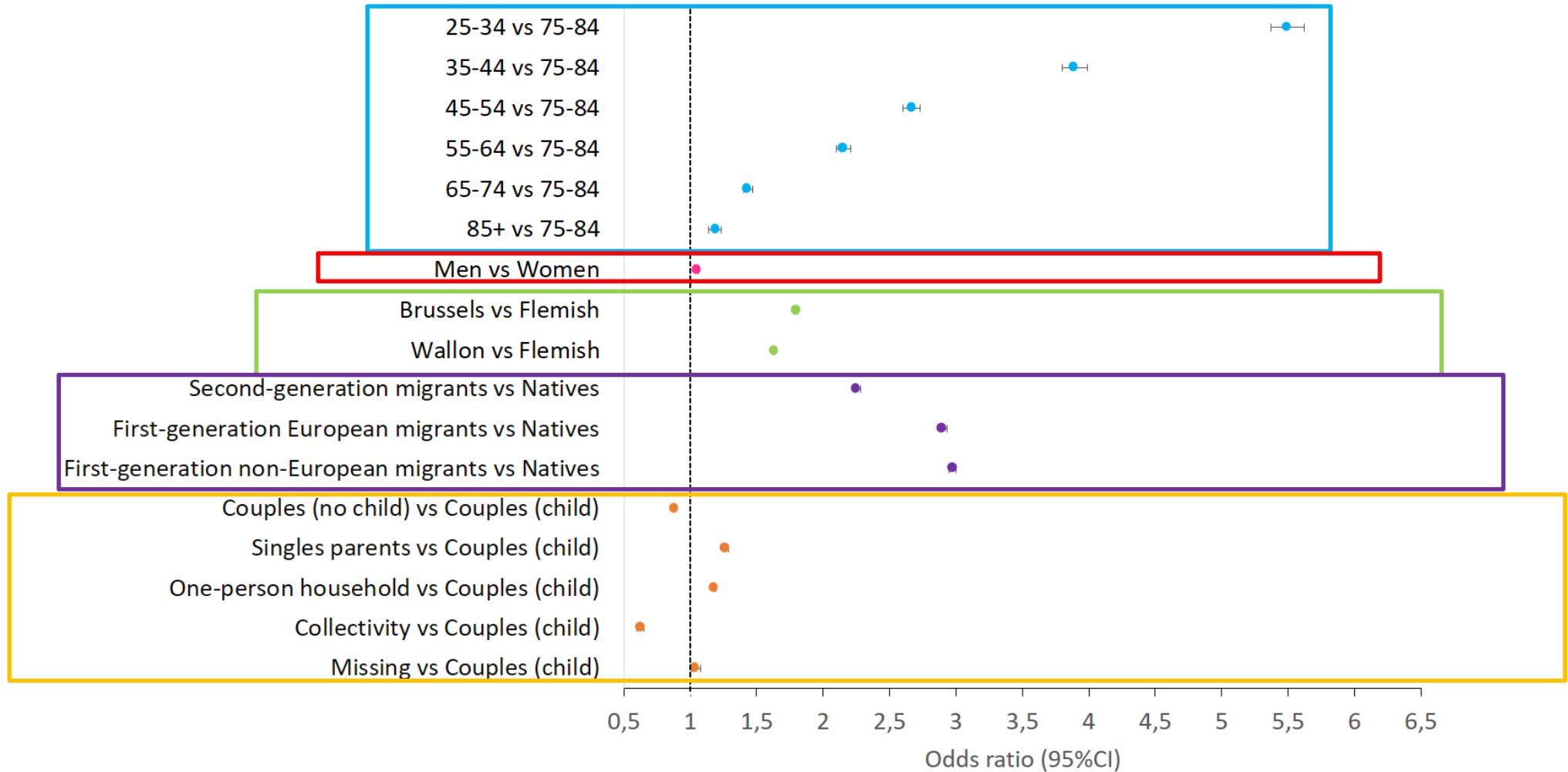


Statistical analyse : logistic regression models

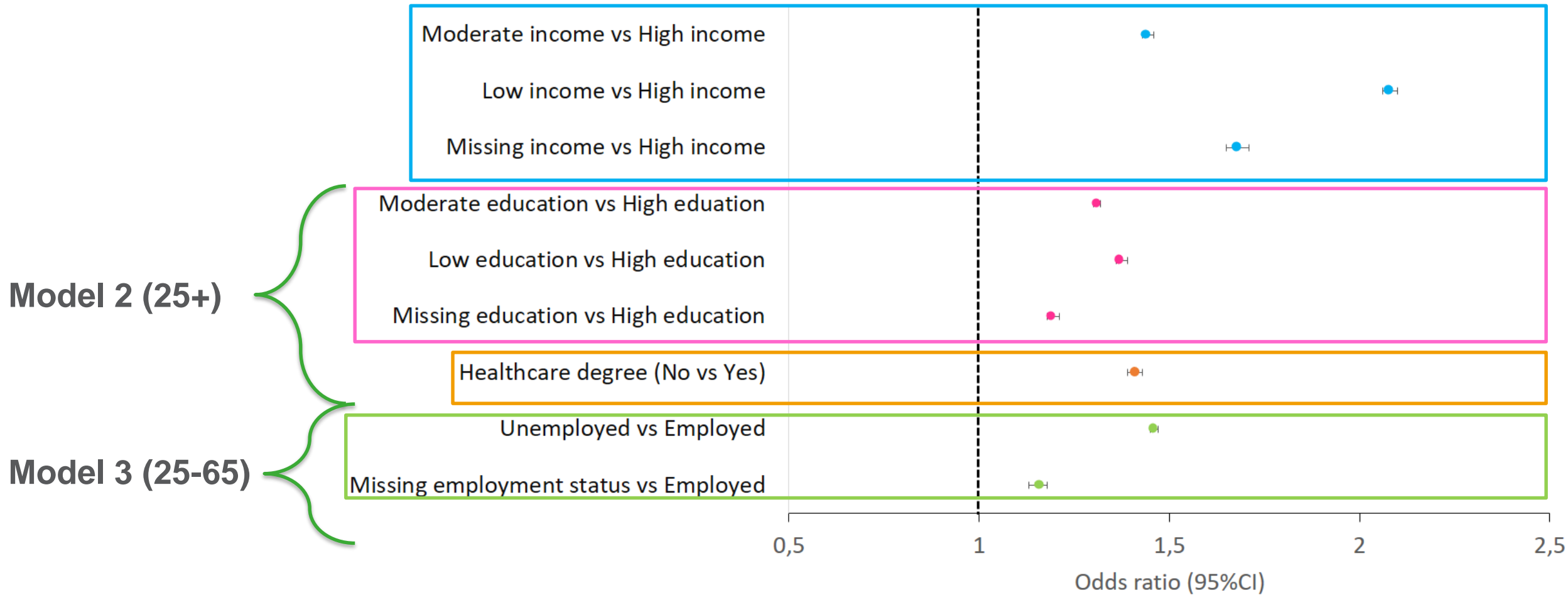
Modelling the probability of being not vaccinated with the first COVID-19 vaccine dose as of 31 August 2021

	Model 1	Model 2	Model 3
Age group	18+	25+	25-65
Sex	V	V	V
Region	V	V	V
Migration background	V	V	V
Household type	V	V	V
Income	V	V	X
Education level	X	V	X
Healthcare degree	X	V	X
Employment status	X	X	V

Adjusted OR and 95%CI for the association between SD determinants and the odds of not having received a first COVID-19 vaccine dose – Belgium – 31 August 2021



Adjusted OR and 95%CI for the association between SE determinants and the odds of not having received a first COVID-19 vaccine dose – Belgium – 31 August 2021



Conclusions



Important **social disparities** in COVID-19 vaccine uptake identified in Belgium:

- Young people
- Migrants
- Single parents, one-person household
- SE disadvantaged groups (low income, low education, unemployed)

Identical patterns were identified within each Belgian region.

New insights into social patterns in vaccine uptake useful to identify potentially **vulnerable population** in next waves of the epidemic.



*Thank you for your
attention 😊*

References

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