

# Differences in oral PrEP use patterns and intention to use long-acting regimens among MSM between governmental and non-governmental PrEP provision pathways in 20 European countries: A latent class analysis

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<sup>1</sup>Maastricht University

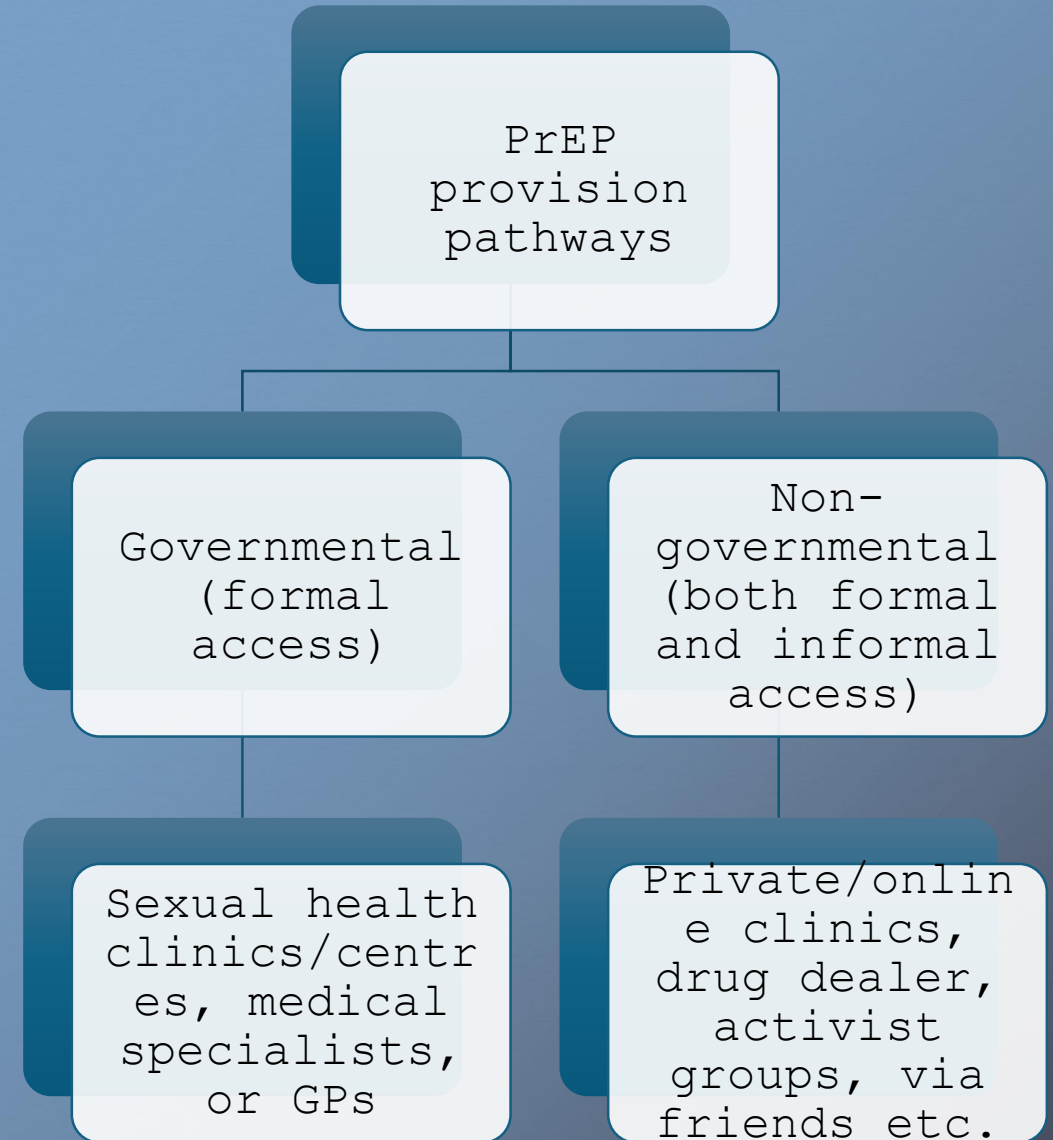
<sup>2</sup>ViiV Healthcare

Partially funded by: ViiV Healthcare



# Background

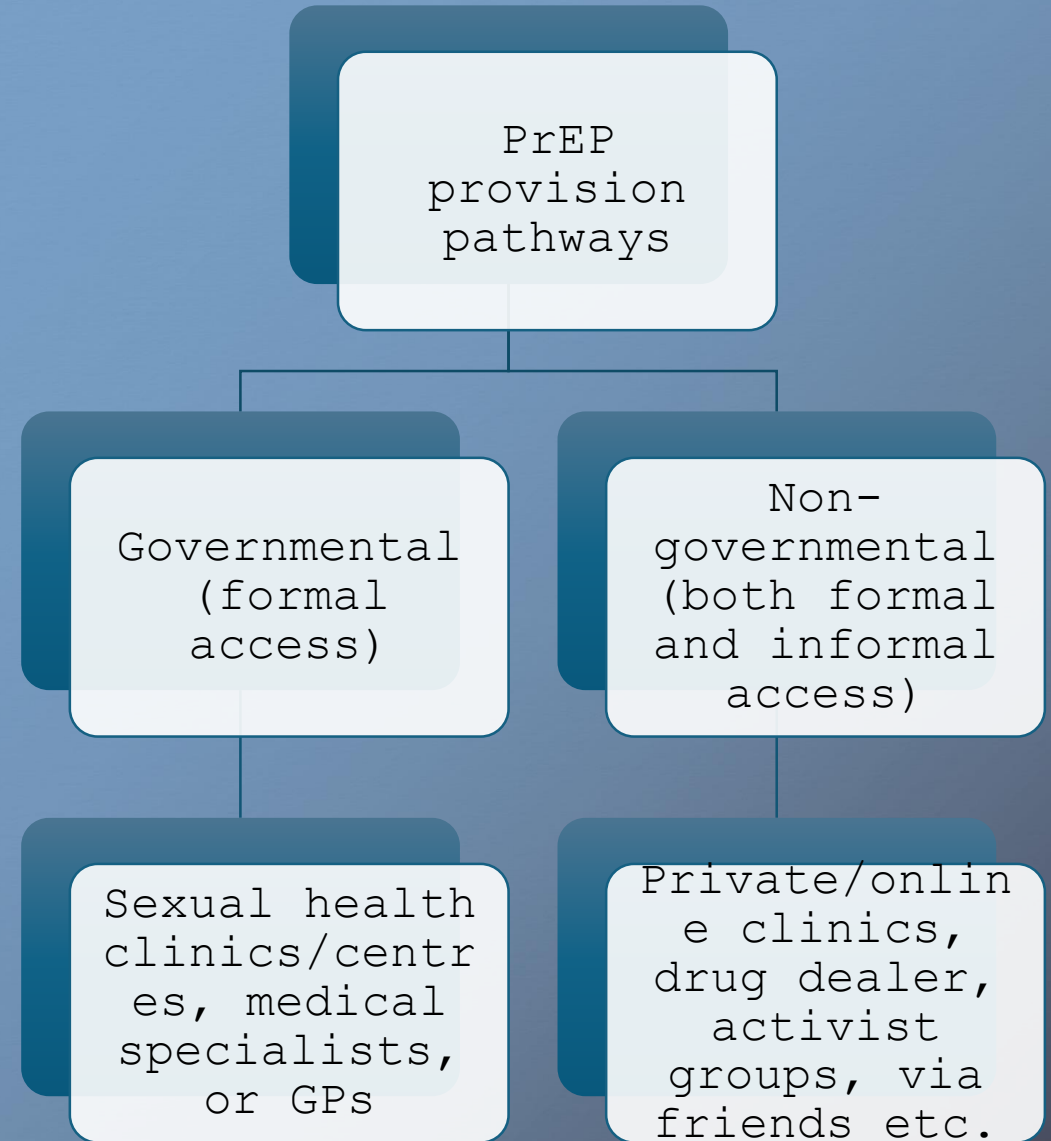
Different PrEP provision pathways (PPPs) exist across Europe<sup>1,2</sup>



# Background

Different PrEP provision pathways (PPPs) exist across Europe

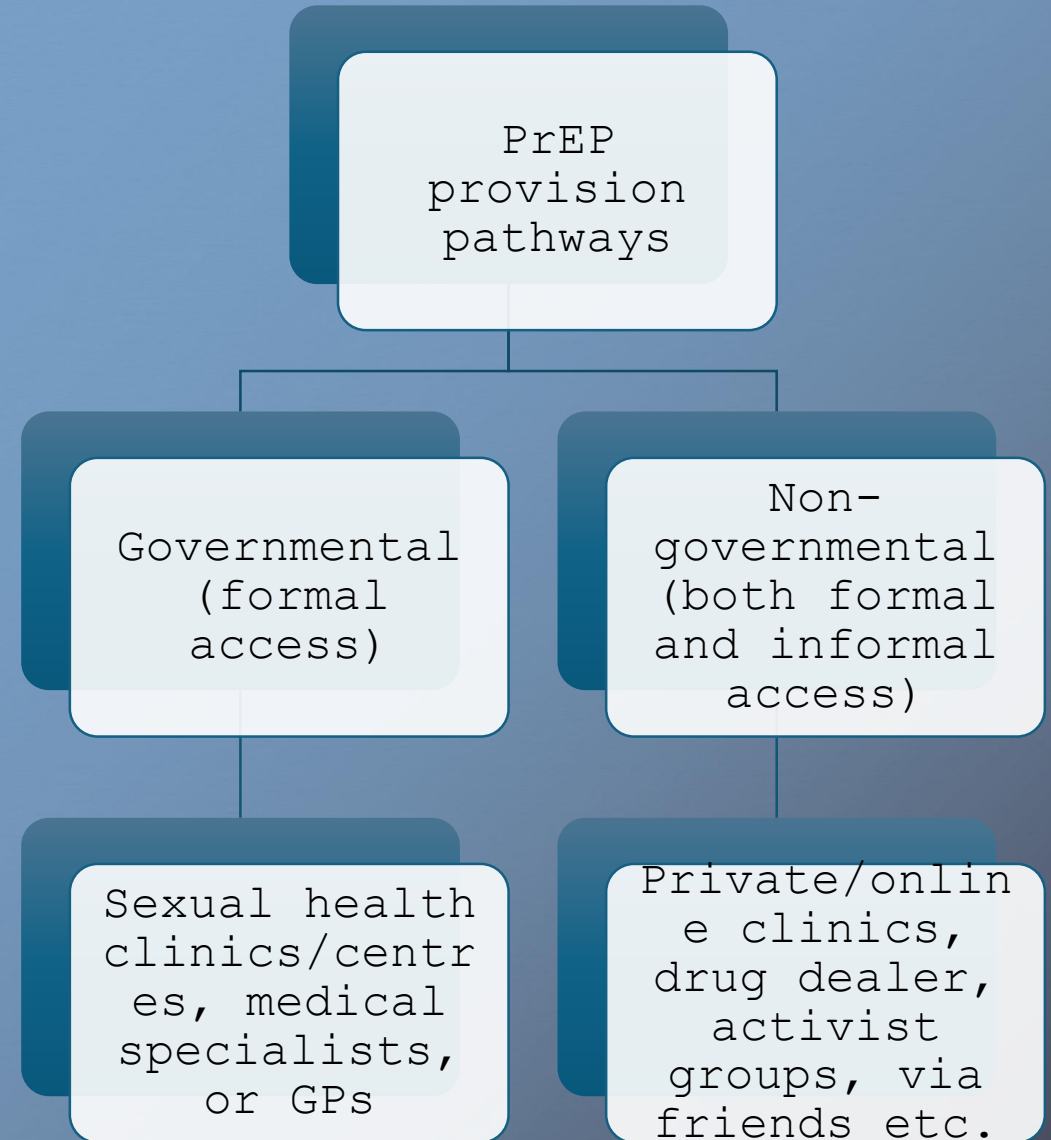
It is also a personal story



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Different PrEP provision pathways (PPPs) exist across Europe

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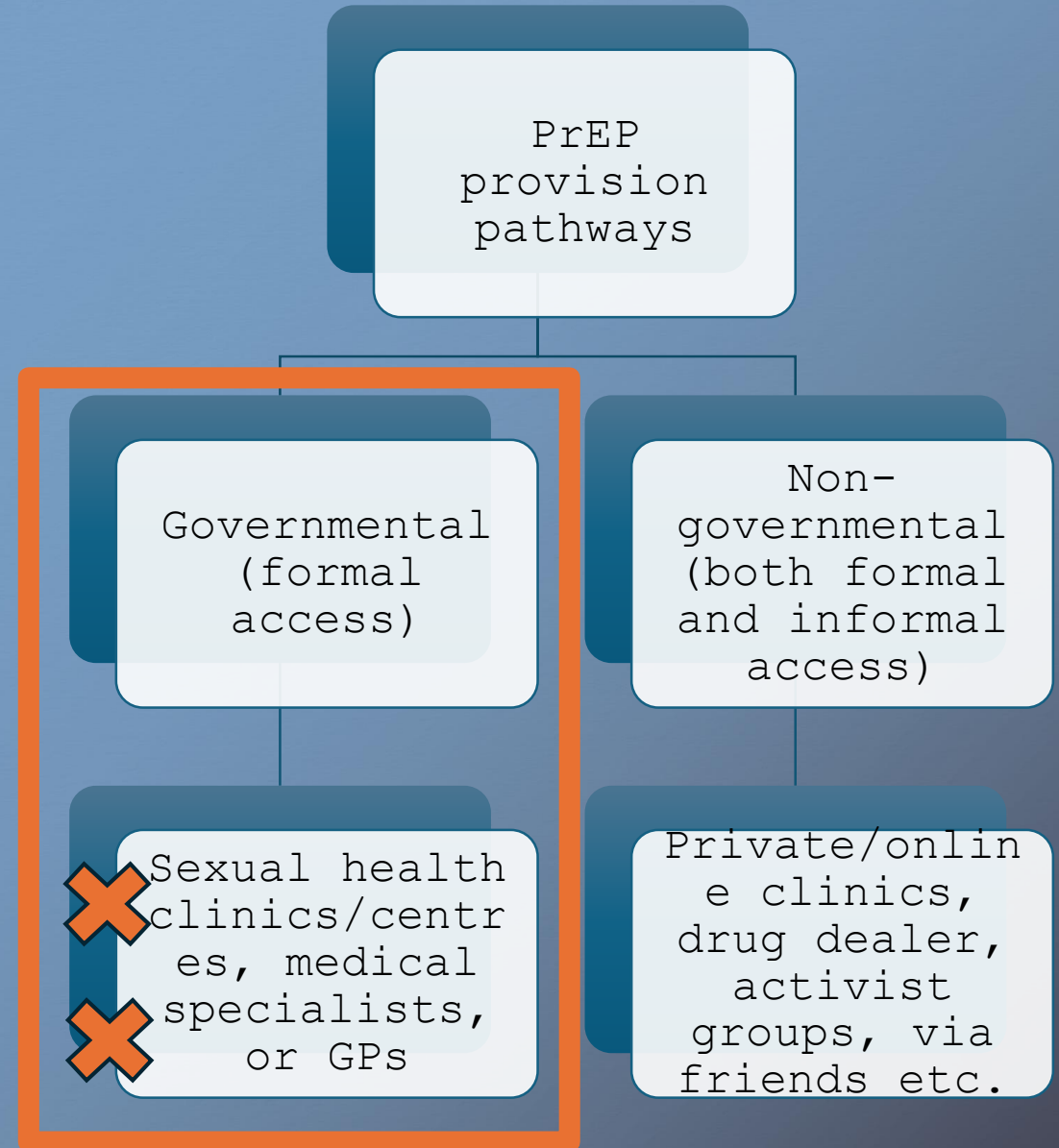
Different PrEP provision pathways (PPPs) exist across Europe

It is also a personal story



The national PrEP programme in the Netherlands was full with a waiting list of more than 2 years

My own GP refused providing PrEP, perceiving it to be out of her scope



# Background

Different PrEP provision pathways (PPPs) exist across Europe

It is also a personal story



So I went to an online clinic that promised all costs can be covered by my health insurance ...

After 2 PrEP appointments with a cost of 720€, my insurance rejected the reimbursement of my PrEP care :/



# Background

Different PrEP provision pathways (PPPs) exist across Europe

It is also a personal story

I don't know how you are otherwise satisfied with your health insurance, but when it comes to PrEP you could think about switching companies.



After being frustrated, I switched my PrEP provider to a GP that is 2 hours by train away from where I live

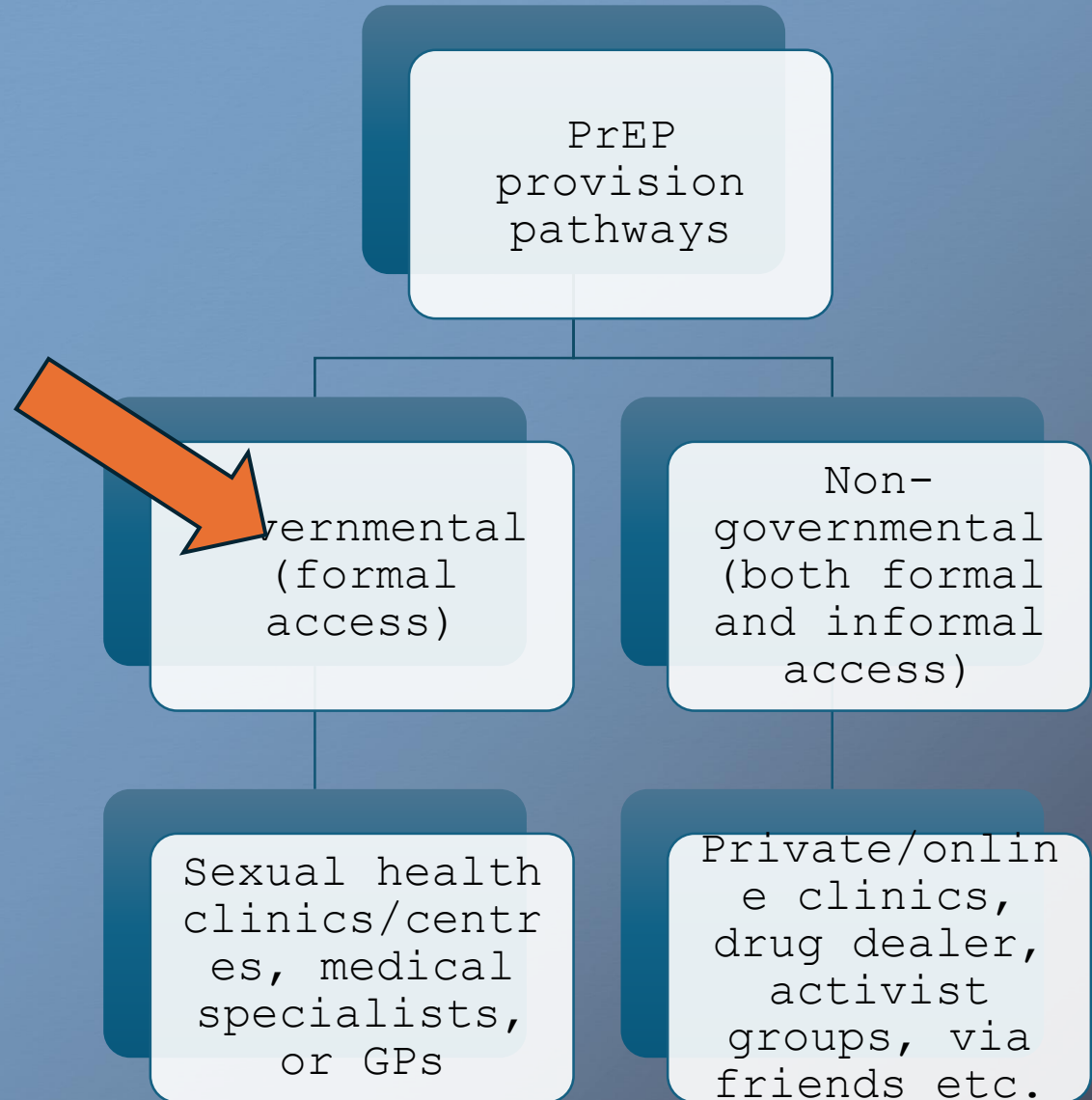


# Background

Different PrEP provision pathways (PPPs) exist across Europe

It is also a personal story - With privileged background and network

Studies showed that MSM with less advantaged socioeconomic positions were less likely to access oral PrEP<sup>1,2</sup>





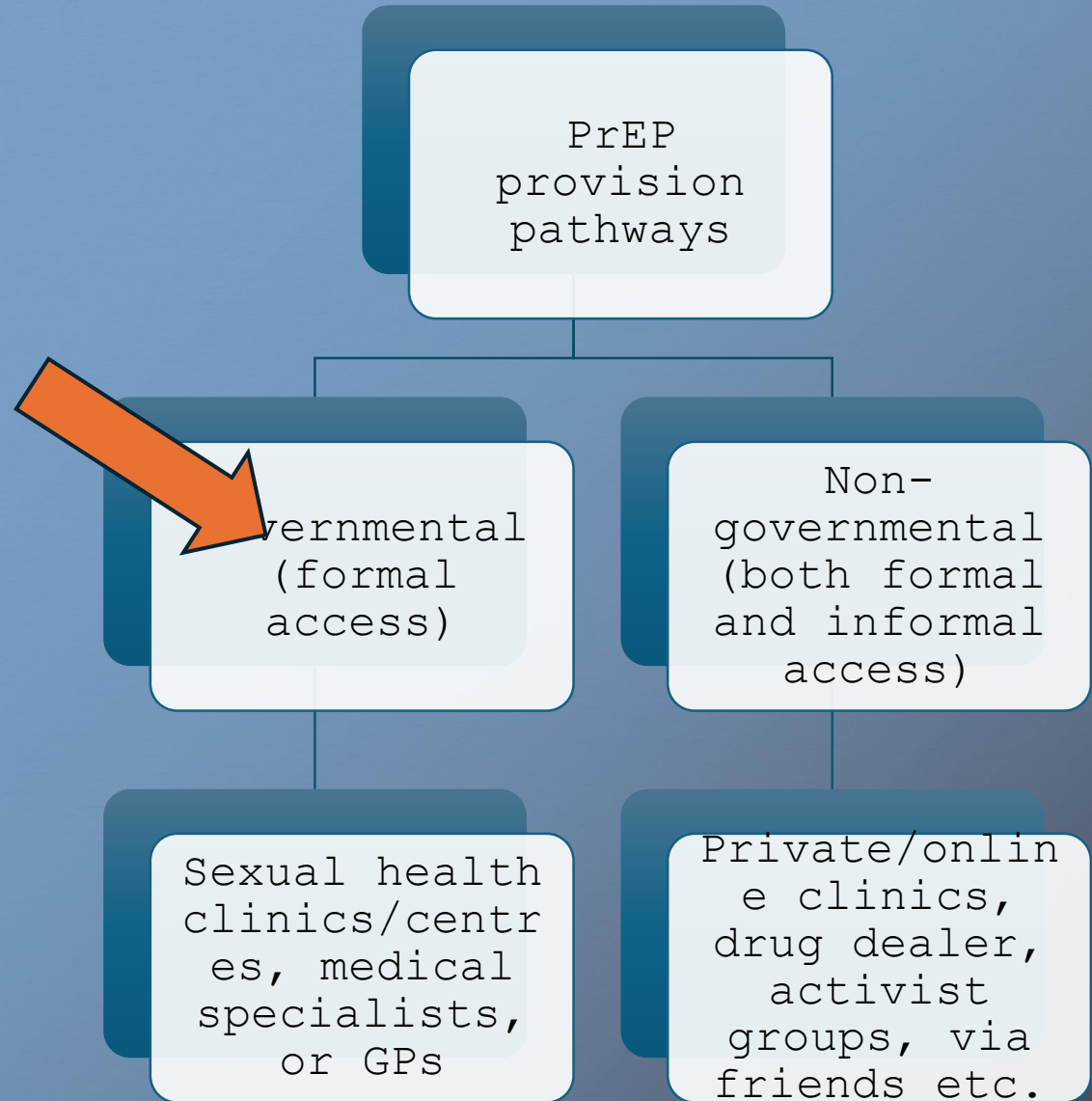
# Background

Different PrEP provision pathways (PPPs) exist across Europe

It is also a personal story - With privileged background and network

Studies showed that MSM with less advantaged socioeconomic positions were less likely to access oral PrEP

**RQ1: Who has trouble accessing PrEP services, and is less likely to access PrEP?**



# Background

Different PrEP provision pathways (PPPs) exist across Europe

Concerns of poorer adherence, retention among MSM accessing PrEP via non-governmental access, especially informal PPPs<sup>1-3</sup>



# Background

**Different PrEP provision pathways (PPPs) exist across Europe**

**Concerns of poorer adherence, retention among MSM accessing PrEP via non-governmental access, especially informal PPPs**

**Informal PrEP Users may face challenges in accessing<sup>1,2</sup>:**

- related healthcare services
- covering costs for necessary tests
- ensuring constant medication supply

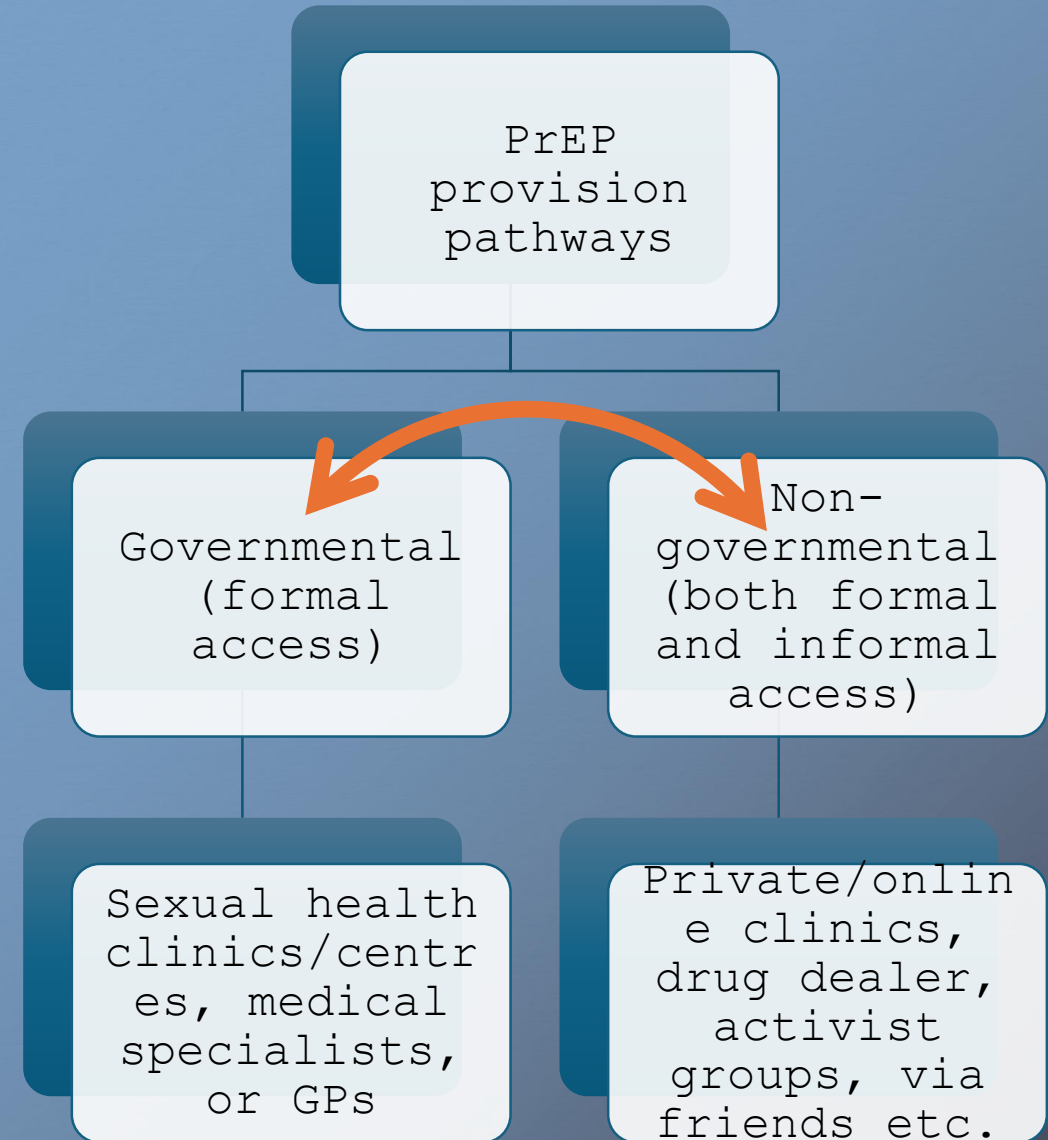


# Background

Different PrEP provision pathways (PPPs) exist across Europe

Concerns of poorer adherence, retention among MSM accessing PrEP via non-governmental access, especially informal PPPs

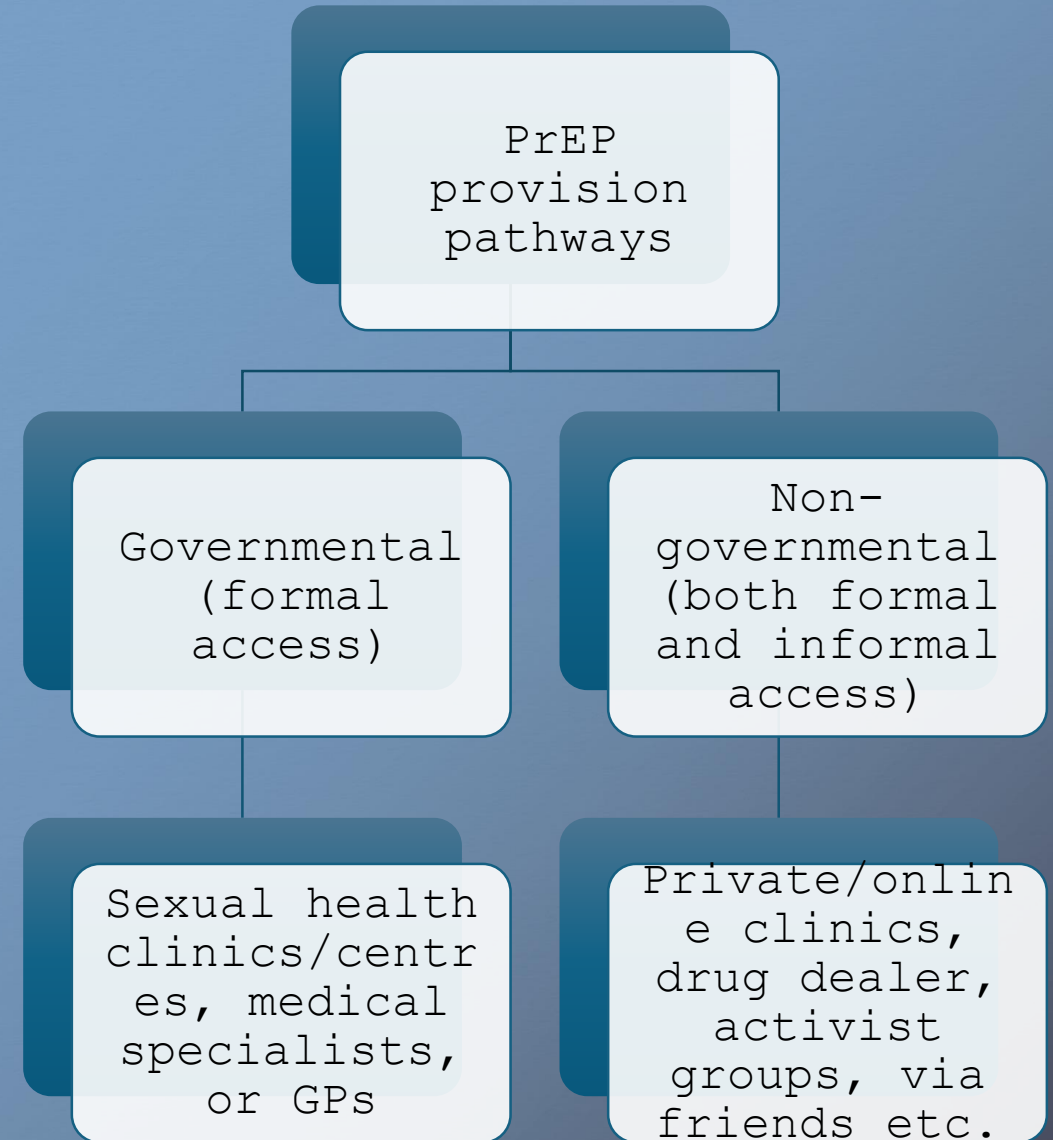
**RQ2: Is there any difference in PrEP use patterns (adherence and discontinuation) between governmental and non-governmental PrEP access**



# Background

Different PrEP provision pathways (PPPs) exist across Europe

Cabotegravir as long-acting PrEP has been authorized in Europe<sup>1</sup>, and more are in the pipeline<sup>2</sup>

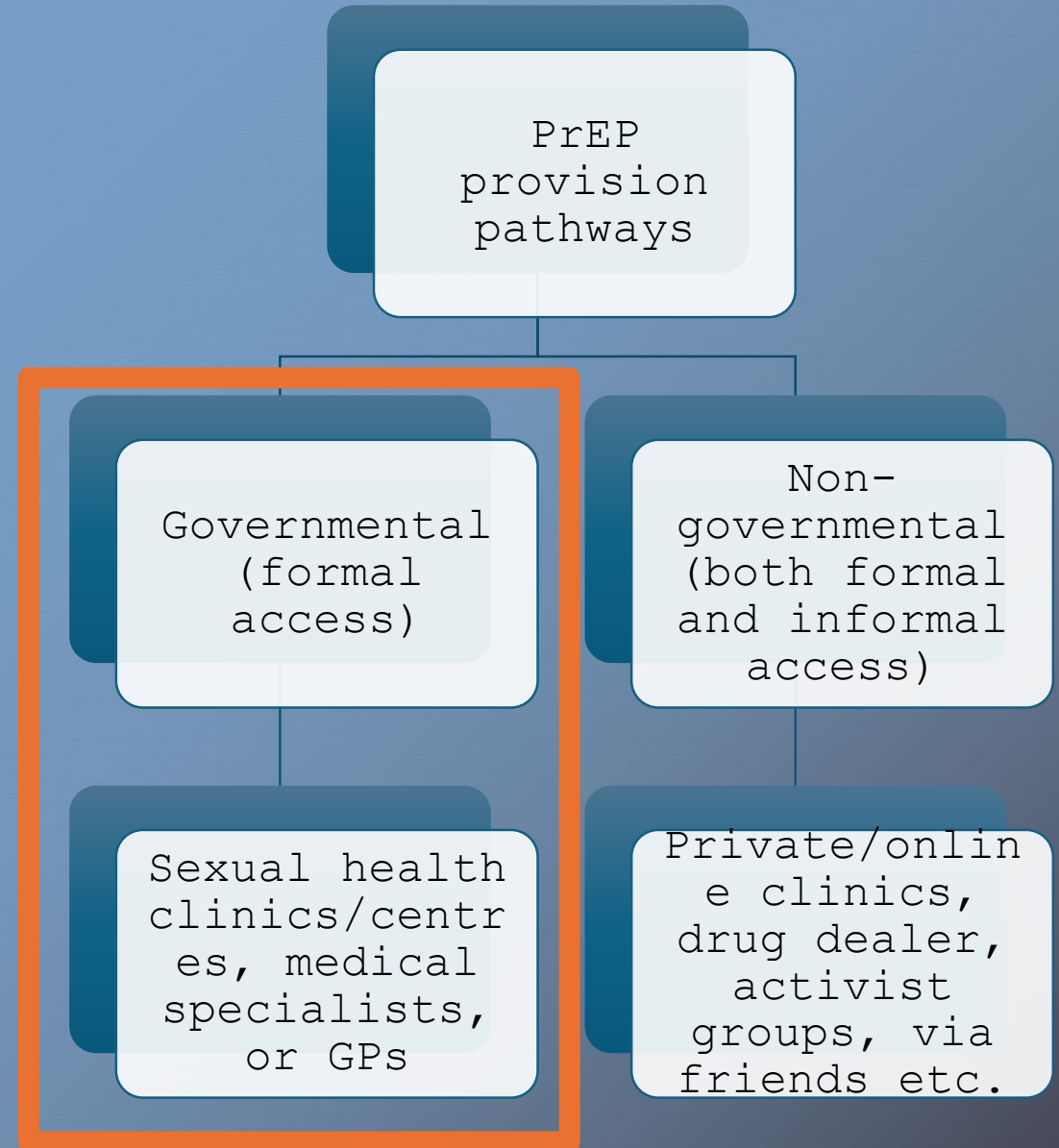


# Background

Different PrEP provision pathways (PPPs) exist across Europe

Cabotegravir as long-acting PrEP has been authorized in Europe, and more are in the pipeline

LA-PrEP will mostly be implemented in the governmental pathways given higher levels of healthcare provider involvement → making the current PrEP provision and access more complex

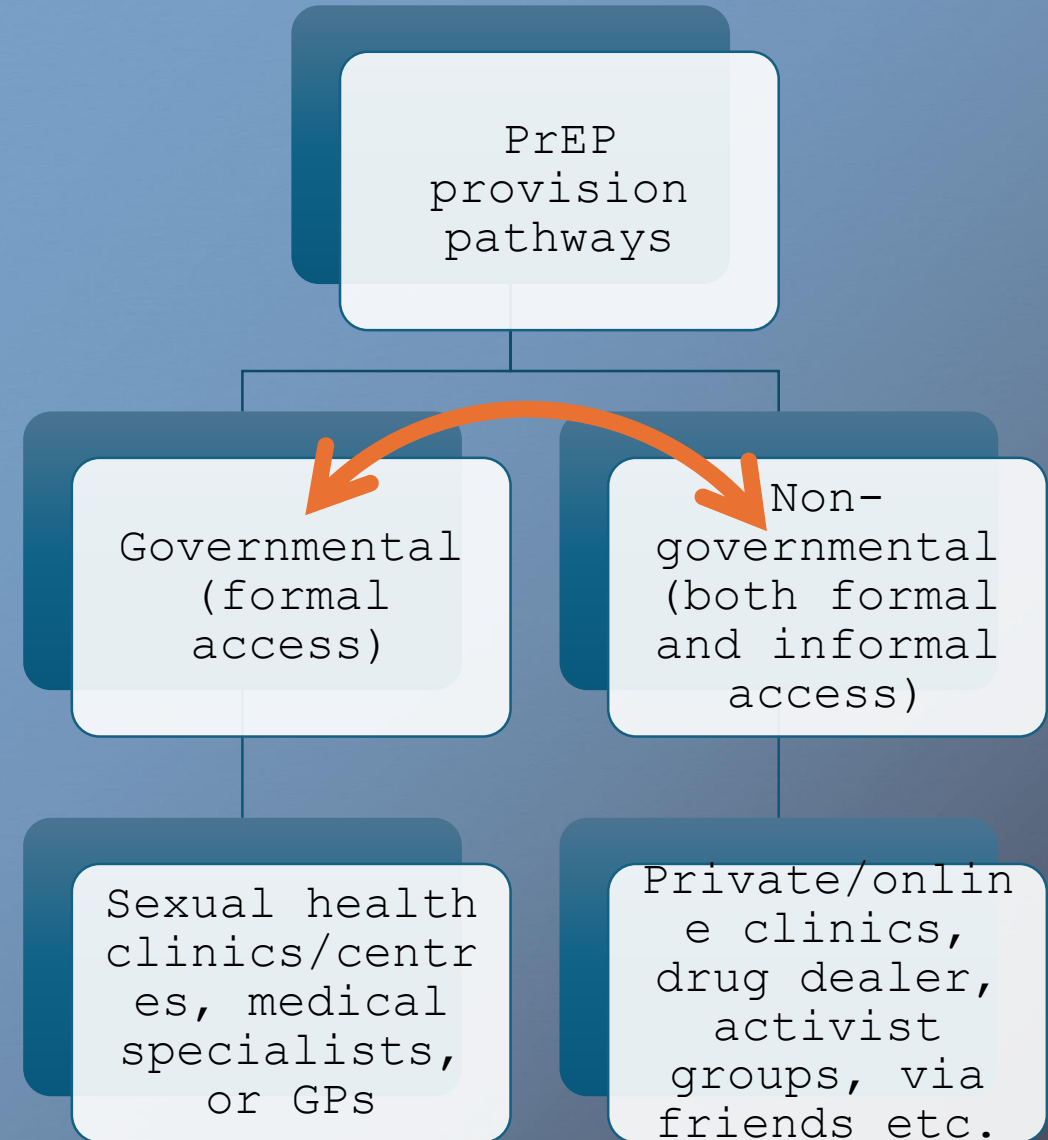


# Background

Different PrEP provision pathways (PPPs) exist across Europe

Cabotegravir as long-acting PrEP has been authorized in Europe, and more are in the pipeline

**RQ3: Will the current oral PrEP access pathways determine interest to use LA-PrEP?**



# Methods

We conducted a cross-sectional online survey in 20 European Countries (PROTECT), with 20,548 participants!

**20,548** participants

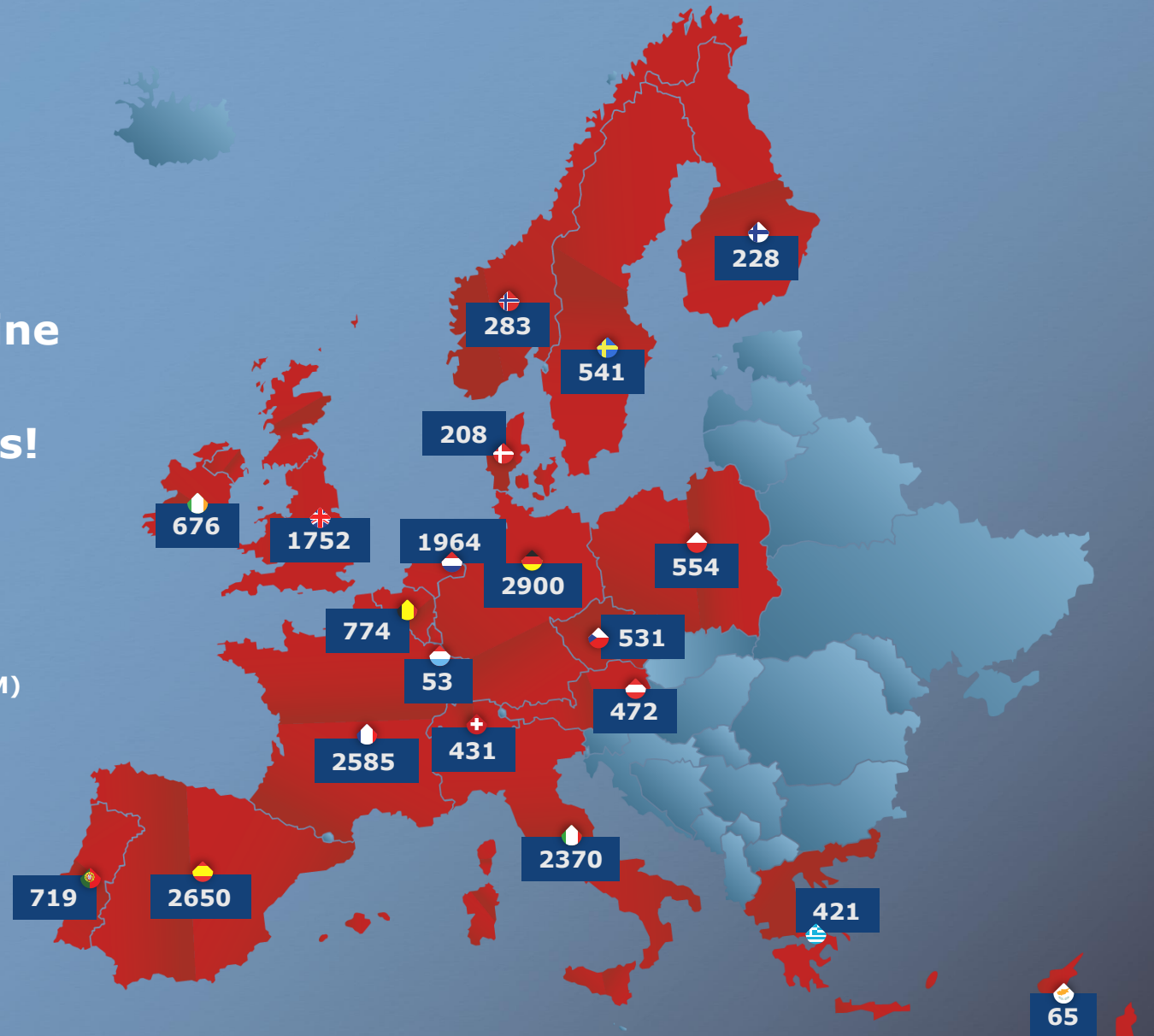
19,690 (96%)

HIV-negative

14,730 (75%)

Men who have sex with men (MSM)

We included all PrEP-experienced MSM from these 20 European countries (N=7,505)





# Methods



## 1. Latent class analysis to investigate the latent socioeconomic positions (SEP) background

## 2. Logistic regression for:

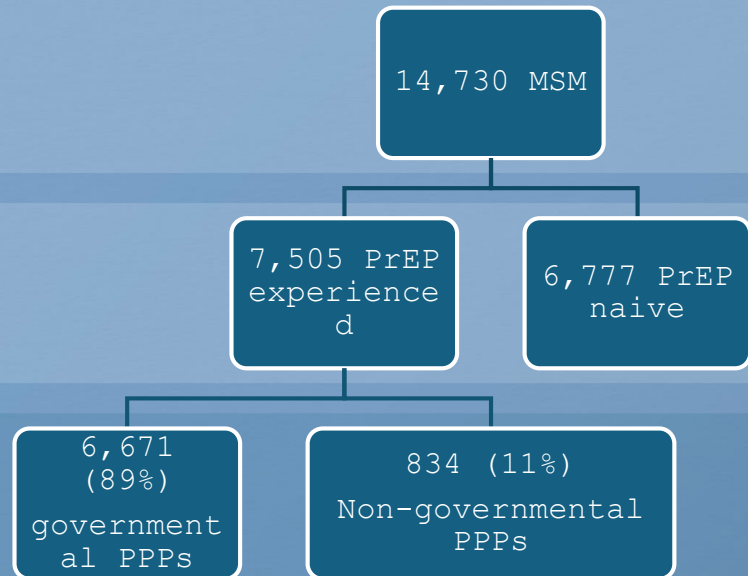
1. Associations between Latent SEP background and governmental/non-governmental PPPs, adjusting for oral PrEP reimbursement status
2. Associations between PPPs and oral PrEP adherence and discontinuation, adjusting for the latent SEP backgrounds and oral PrEP reimbursement status
3. Associations between PPPs and higher LA-PrEP intention, adjusting for the latent SEP backgrounds and oral PrEP reimbursement status

# Results – Study population

Total HIV-negative MSM participants

PrEP use history

PrEP access pathways



- The median age was 45 (IQR: 33-48)
- Compared to governmental PPP users, non-governmental PPP users were:
  - Less likely to be employed ( $p=0.029$ )
  - More likely to report struggling with current income ( $p=0.006$ )
  - More likely to be a migrant ( $p<0.001$ )
  - More likely living in a country where oral PrEP is fully reimbursed ( $p<0.001$ )

# Results – Study population

Total HIV-negative MSM participants

14,730 MSM

PrEP use history

7,505 PrEP experienced

6,777 PrEP naive

PrEP access pathways

6,671 (89%)  
governmental PPPs

834 (11%)  
Non-governmental PPPs

Non-governmental PrEP provision pathways are able to engage key populations that were less reached by the governmental pathways when PrEP services are fully

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With caution: it can also be due to a statistical ceiling effect due to the sample size difference

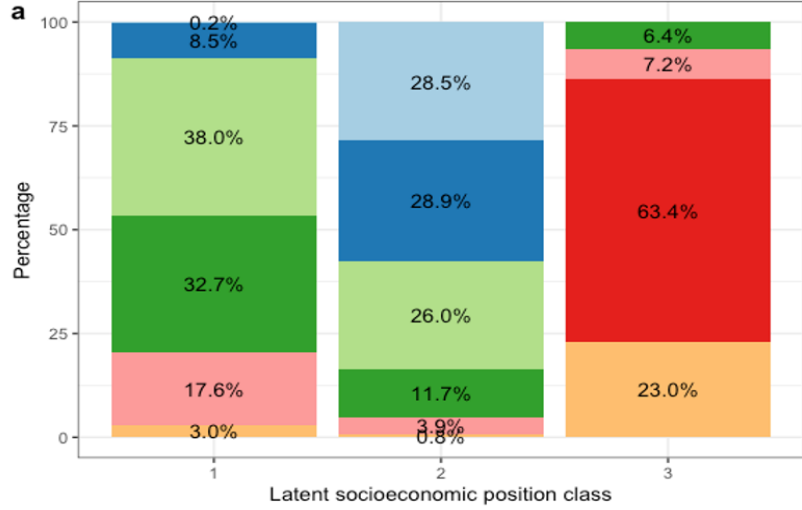
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# Results – LCA profiling

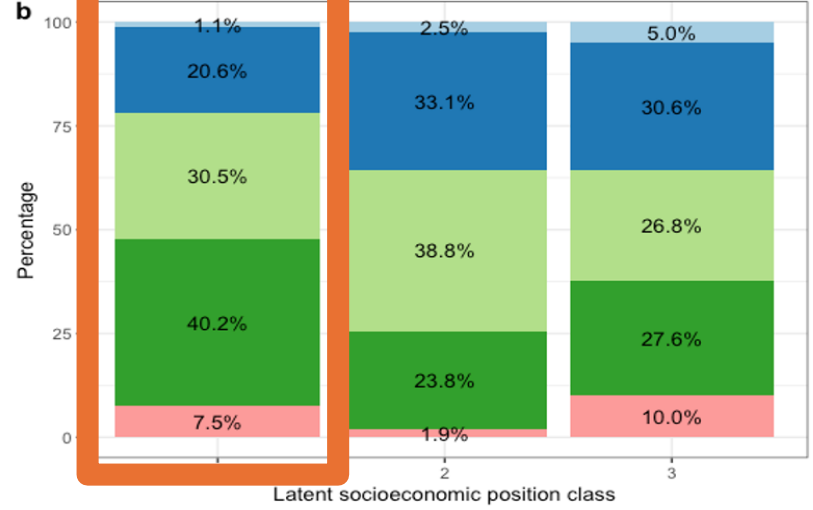


- **Five SEP variables were entered LCA**
  - Age
  - Education
  - Employment
  - Perceived income
  - Migration status
- **Three classes were identified**

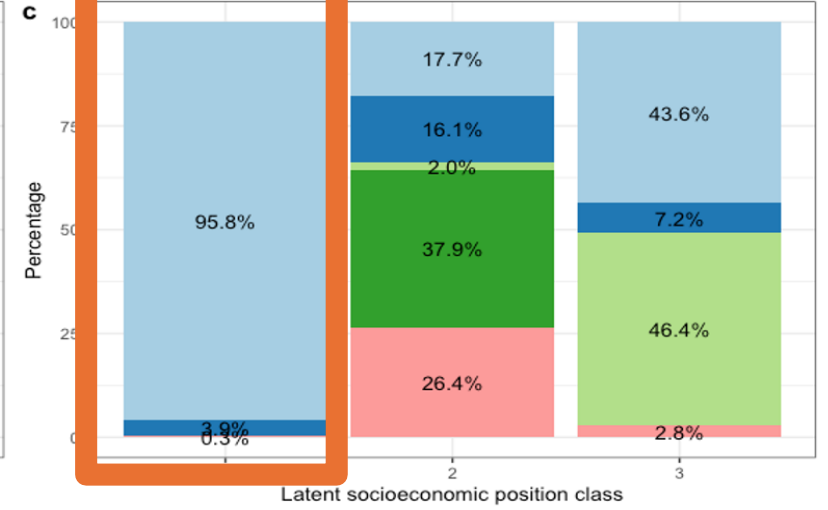
## Age



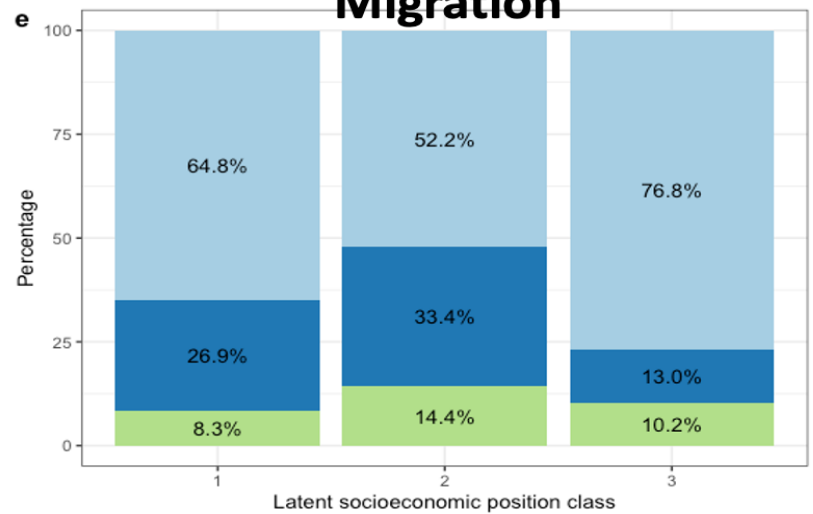
## Education



## Employment



## Migration

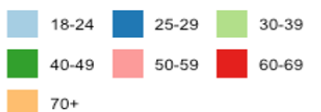
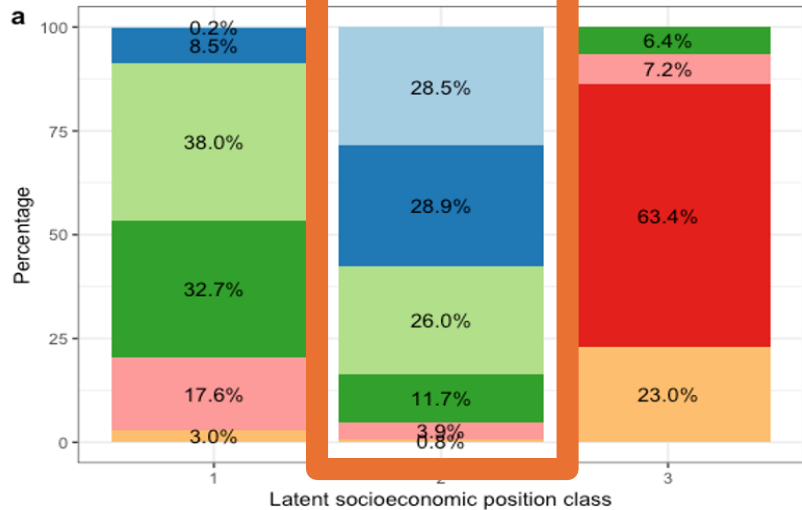


**Class 1: Employed MSM with more advantaged SEP**

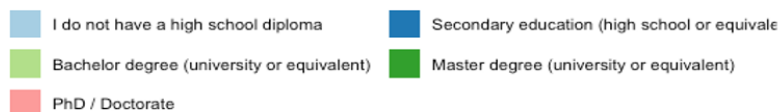
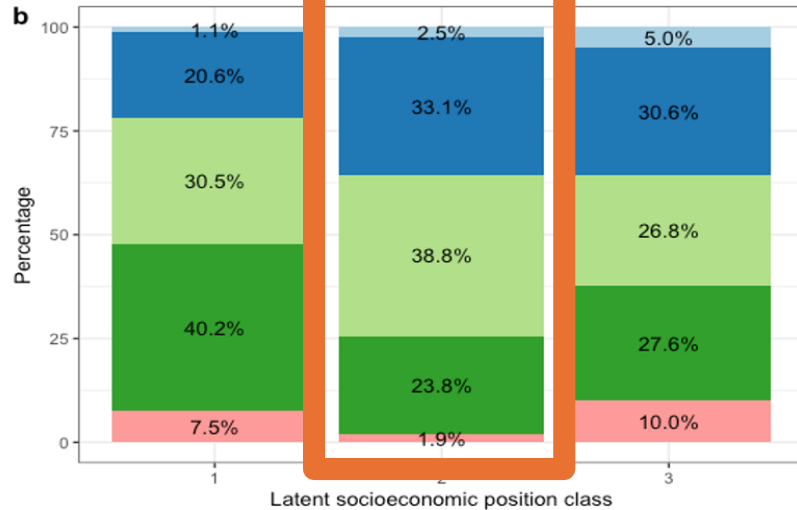
- Really struggling on present income
- Struggling on present income
- Neither comfortable nor struggling on present income
- Living comfortably on present income
- Living really comfortably on present income

- Local
- First Generation migrant
- Second Generation migrant

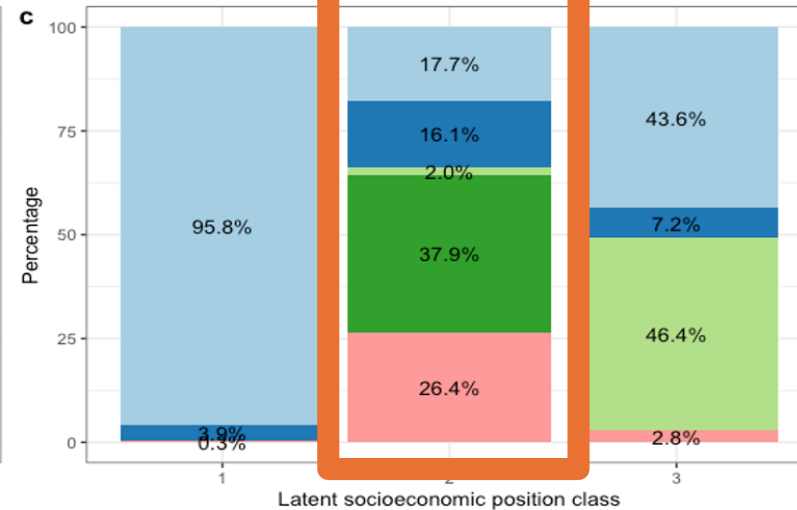
### Age



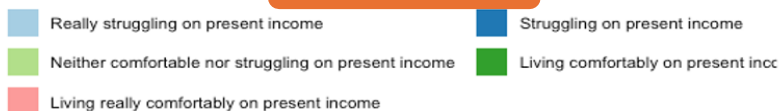
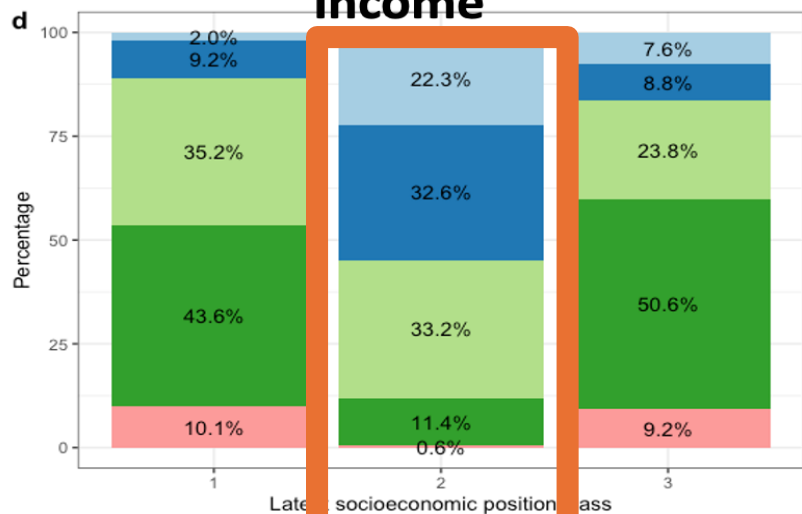
### Education



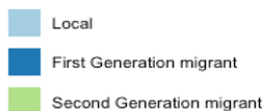
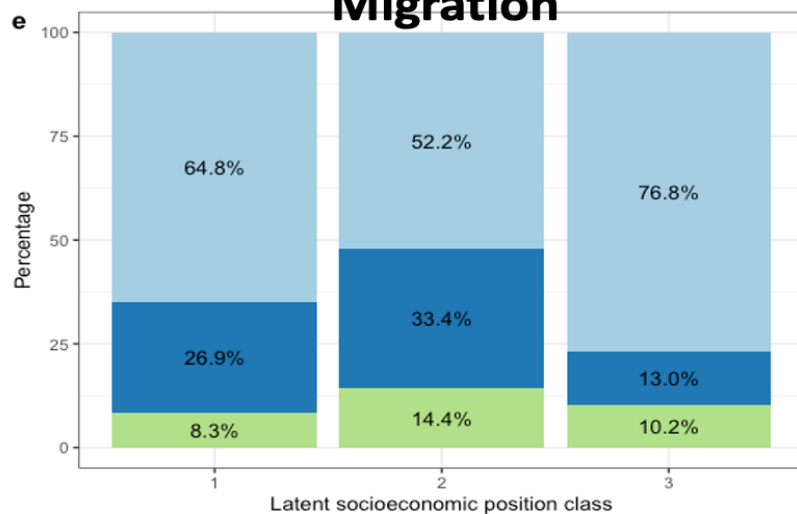
### Employment



### Income



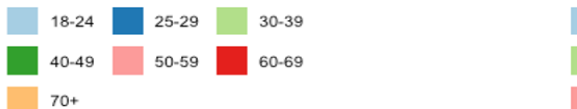
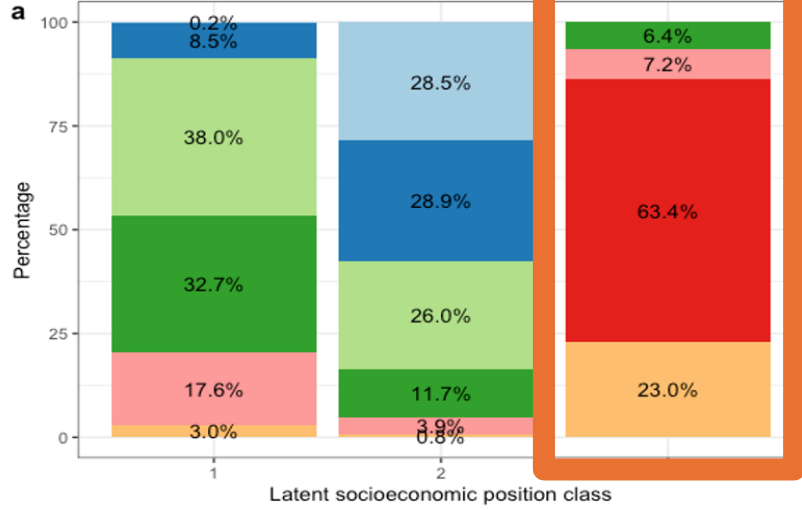
### Migration



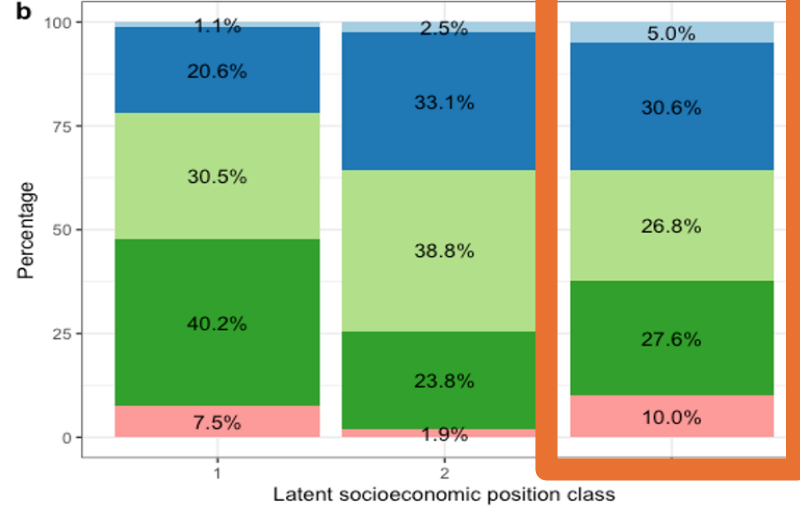
**Class 1: Employed MSM with more advantaged SEP**

**Class 2: Younger MSM with less advantaged SEP**

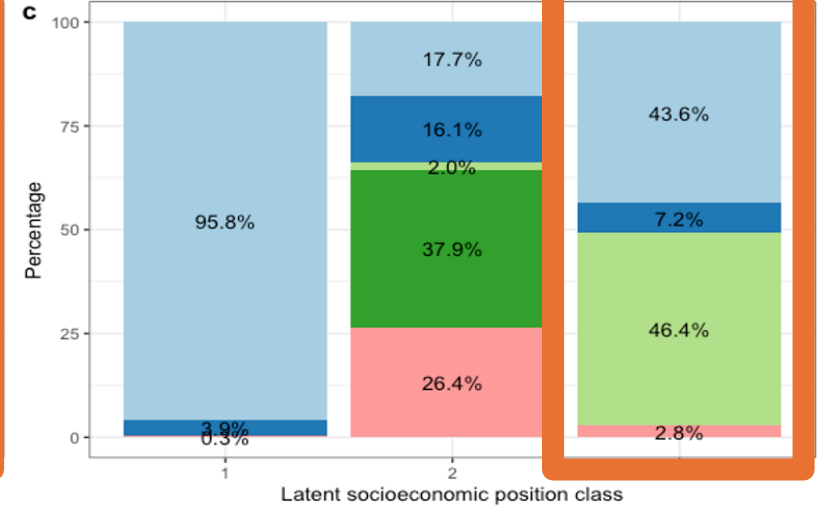
## Age



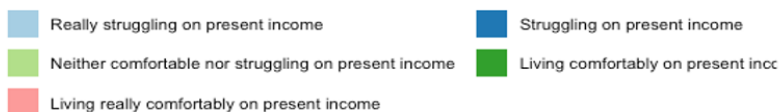
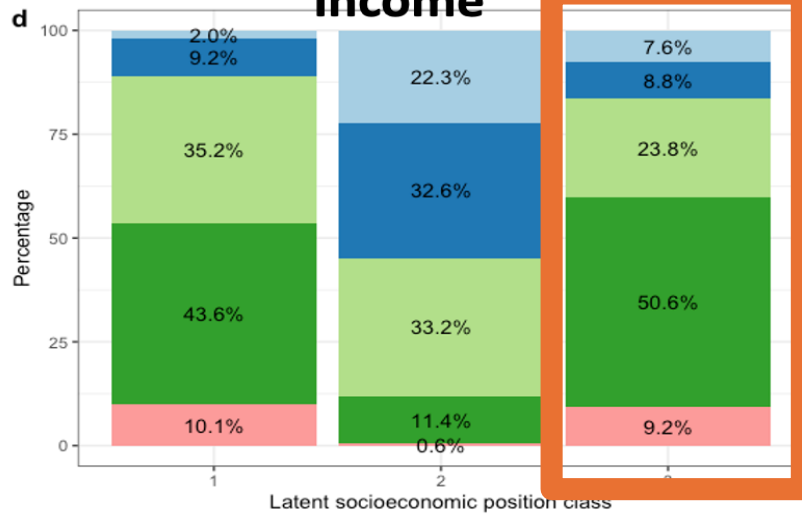
## Education



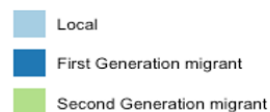
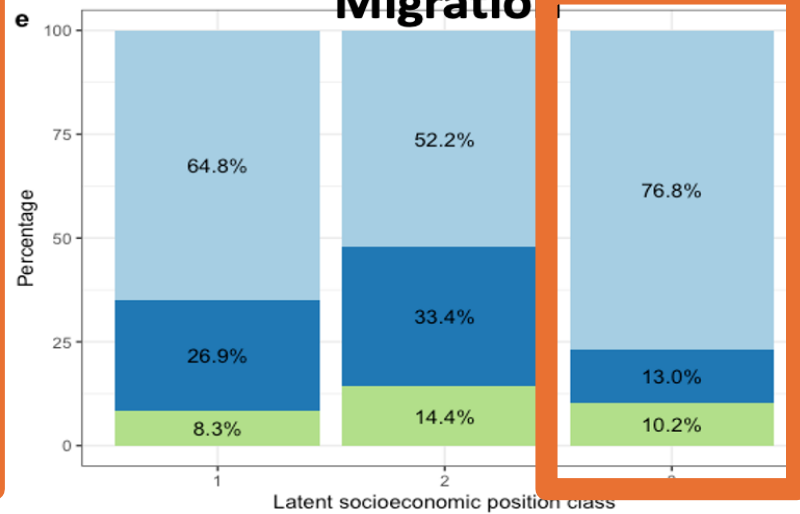
## Employment



## Income



## Migration



**Class 1: Employed MSM with more advantaged SEP**

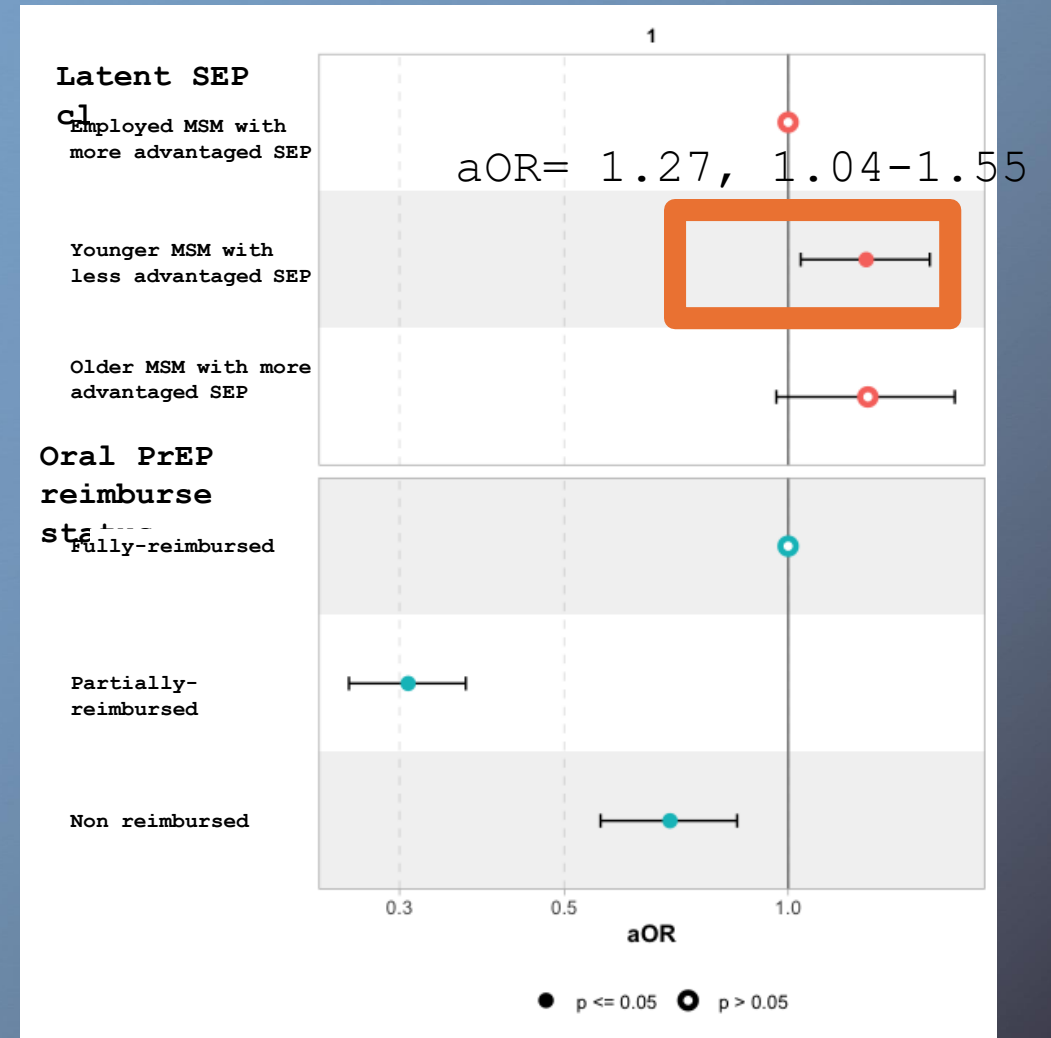
**Class 2: Younger MSM with less advantaged SEP**

**Class 3: Older MSM with more advantaged SEP**



# Association between latent SEP and PPPs access

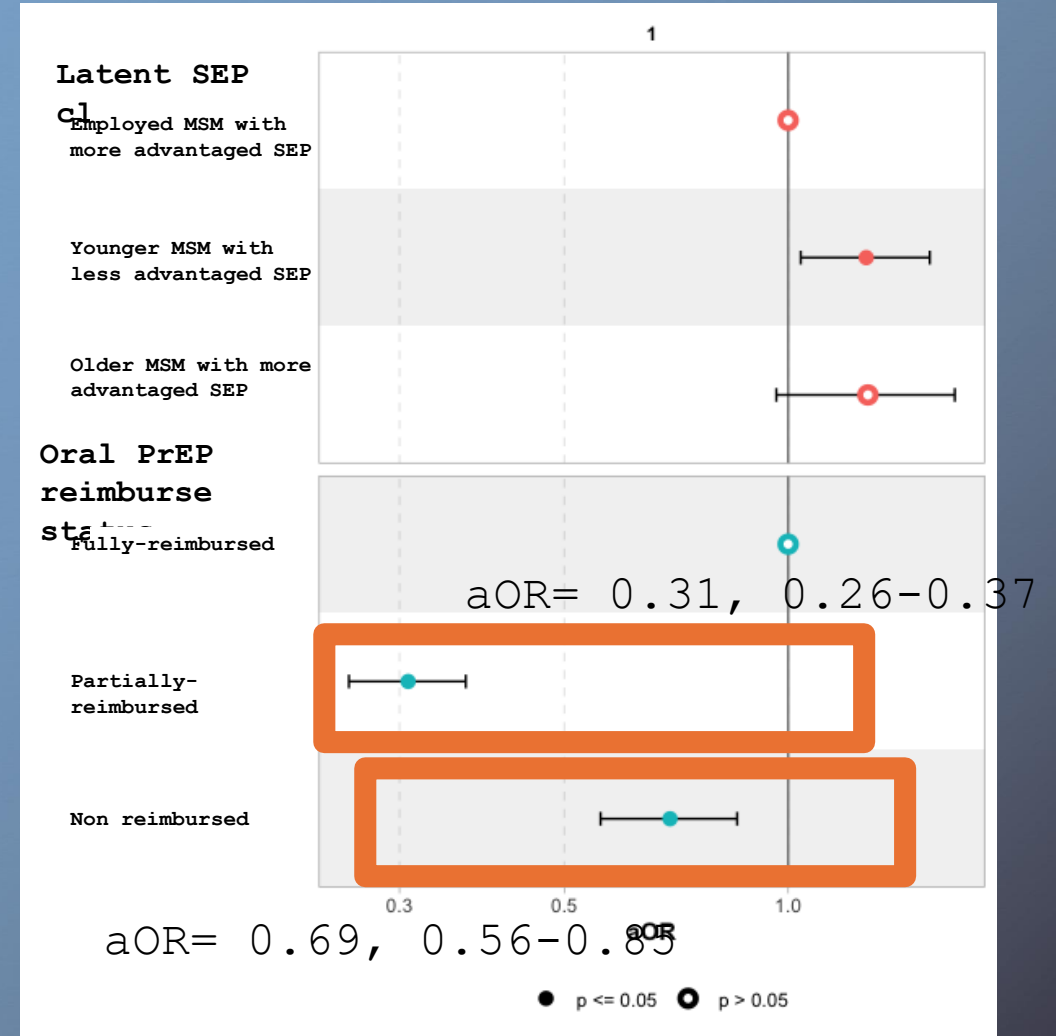
Younger MSM with less advantaged SEP are significantly more likely to access oral PrEP via non-governmental PPPs



# Association between latent SEP and PPPs access

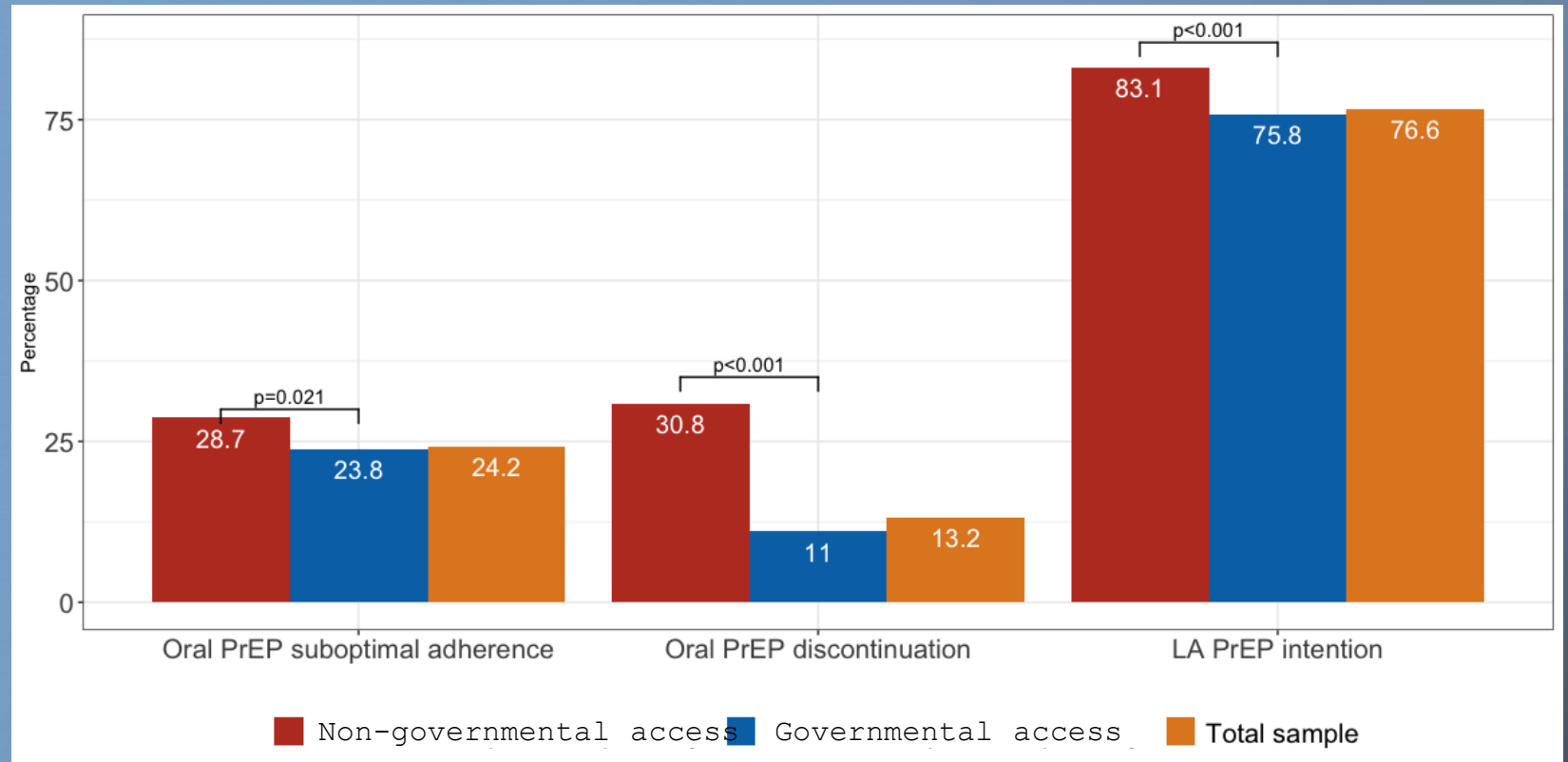
Younger MSM with less advantaged SEP are significantly more likely to access oral PrEP via non-governmental PPPs

MSM from countries with „partly reimbursed“ and „not reimbursed oral PrEP“ were less likely to to access oral PrEP via non-governmental PPPs



# Oral PrEP use patterns and LA-PrEP intention

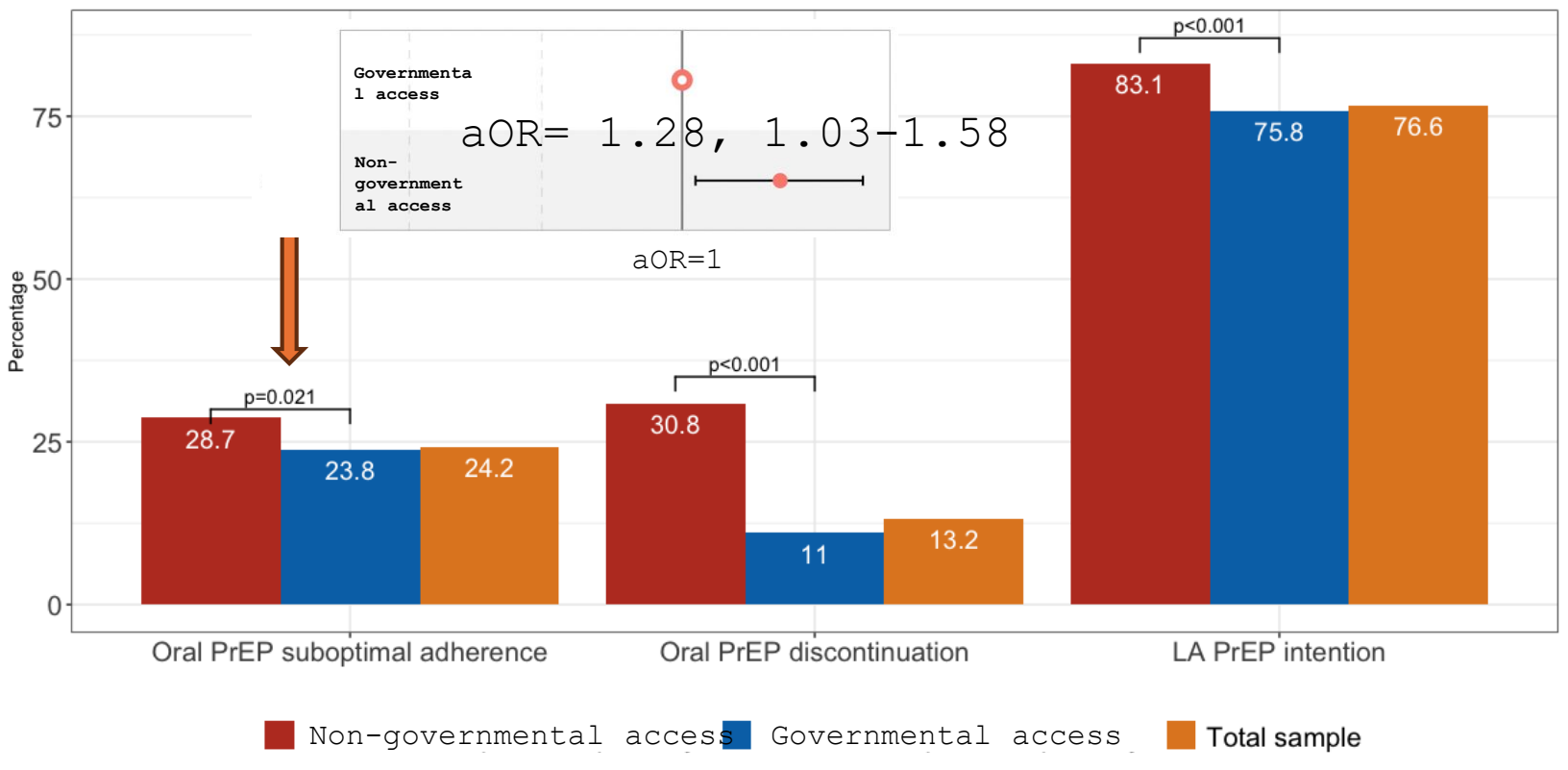
MSM who accessed oral PrEP via non-governmental pathways had:



# Oral PrEP use patterns and LA-PrEP intention

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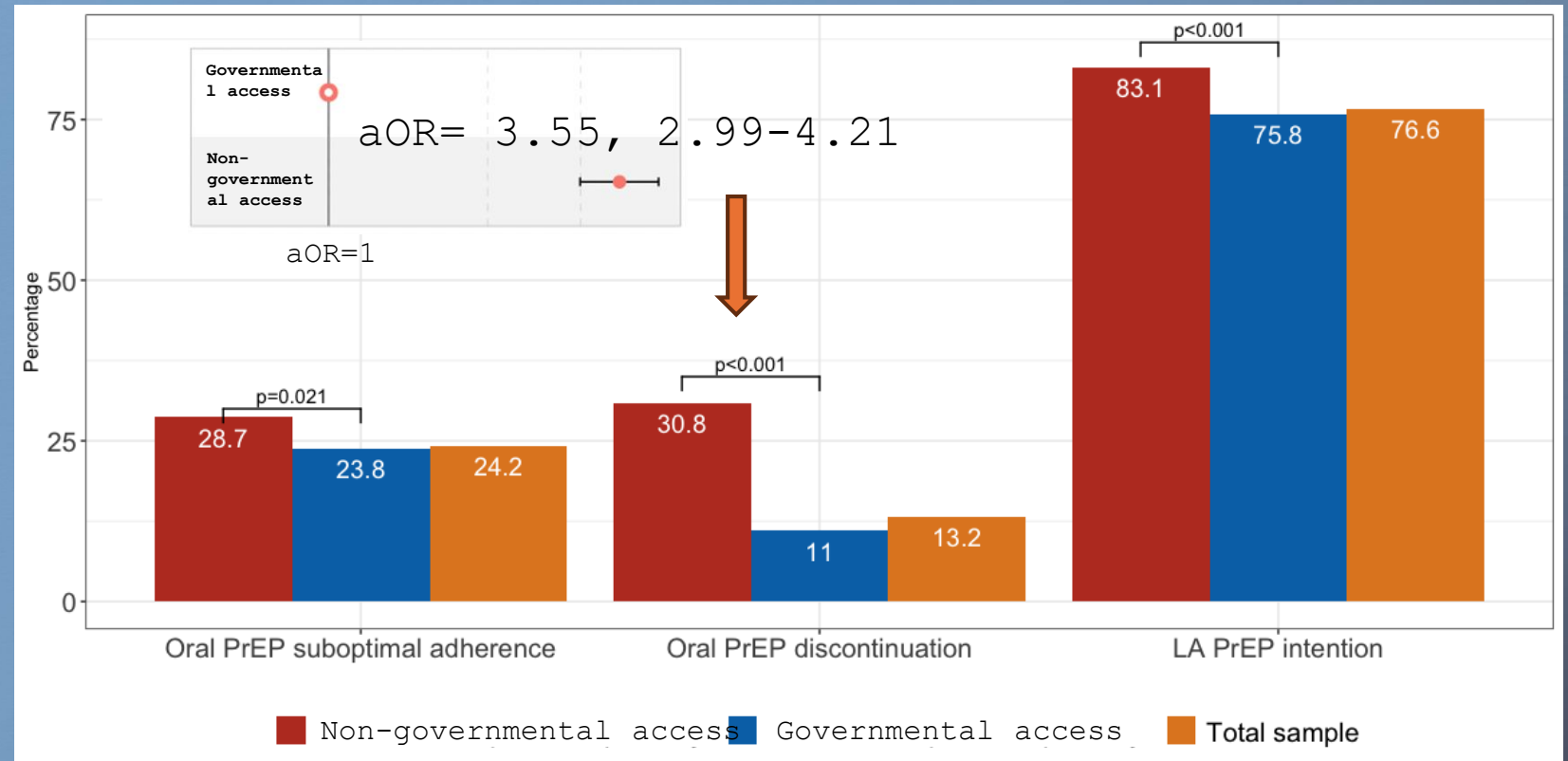
- Higher rates of suboptimal adherence



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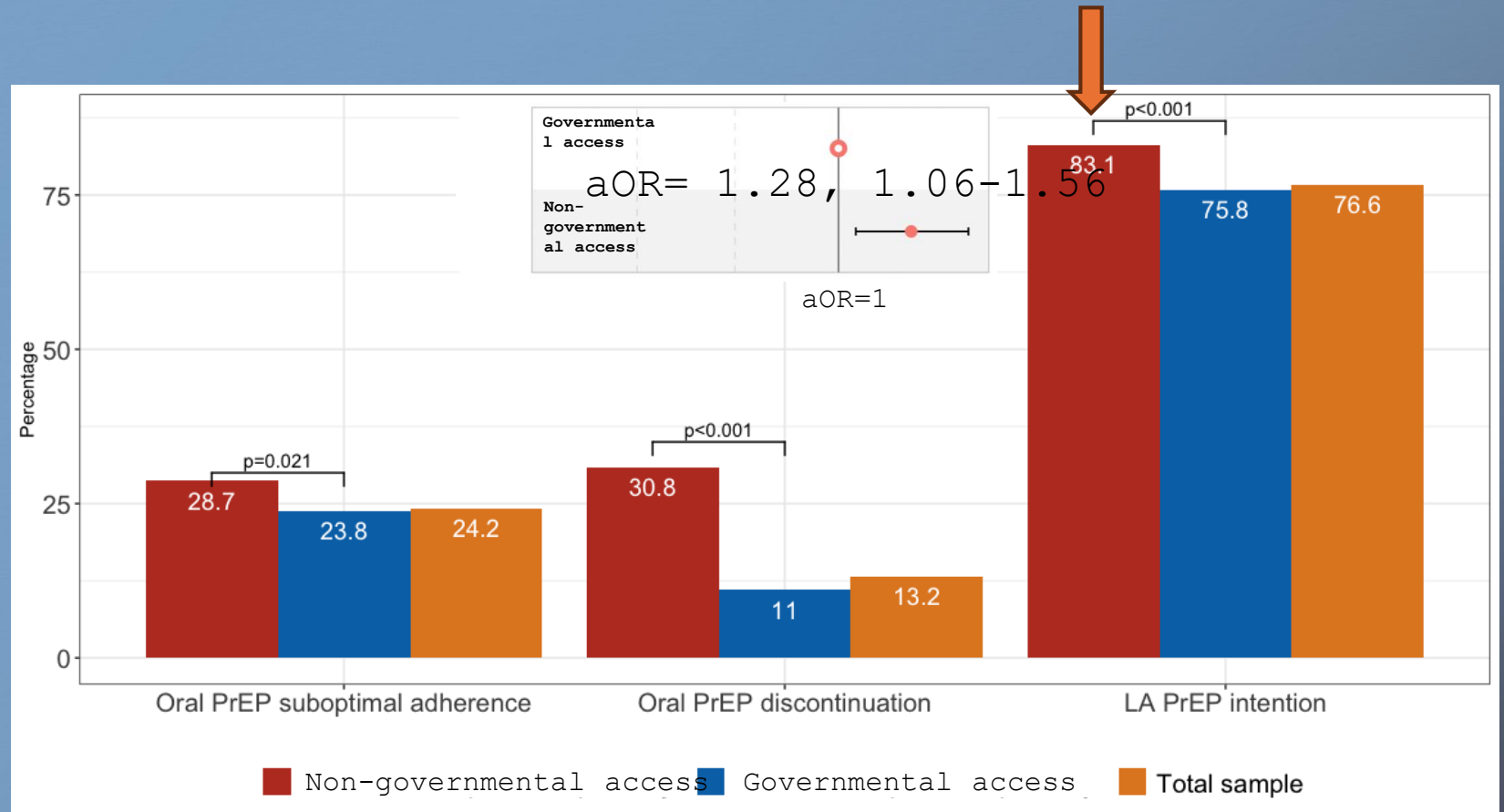
- Higher rates of suboptimal adherence
- Higher rates of discontinuation



# Oral PrEP use patterns and LA-PrEP intention

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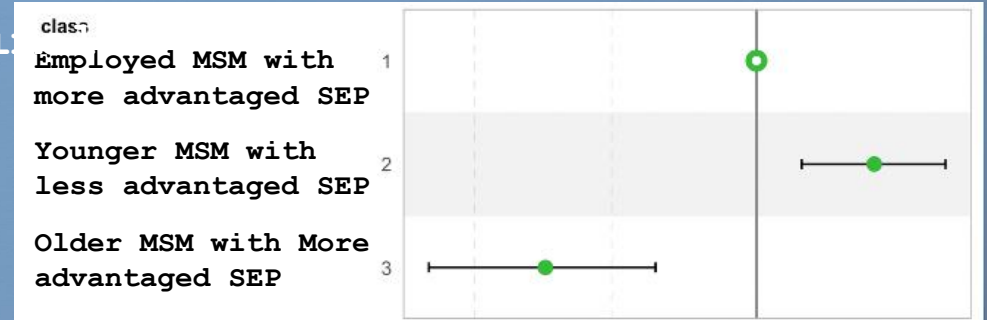
- Higher rates of suboptimal adherence
- Higher rates of discontinuation
- Higher intention to use LA-PrEP



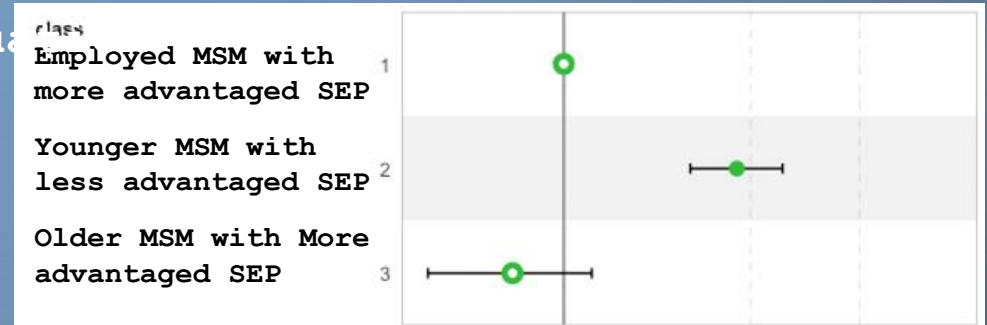
# Latent SEP and Oral PrEP use patterns and LA-PrEP intention

Latent SEP are also associated with oral PrEP use patterns and LA-PrEP intention. Compared to employed MSM with more advantaged SEP:

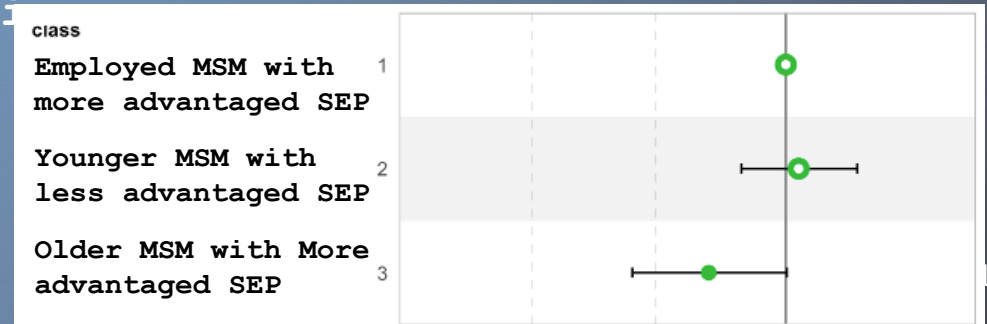
Oral PrEP suboptimal adherence



Oral PrEP discontinuation



LA PrEP intention



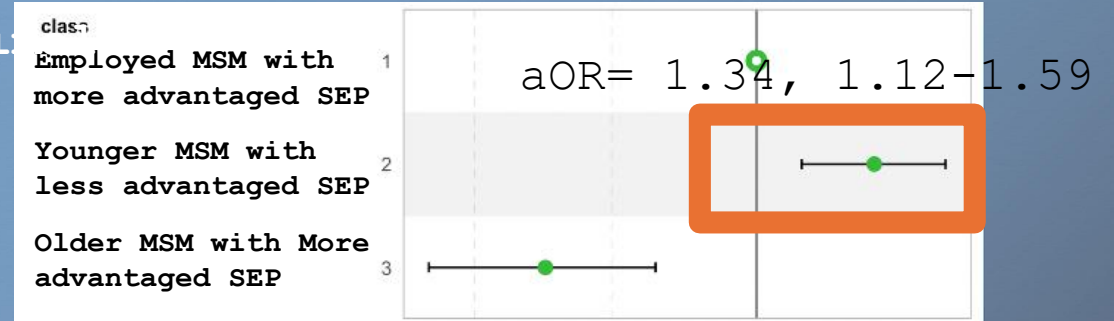
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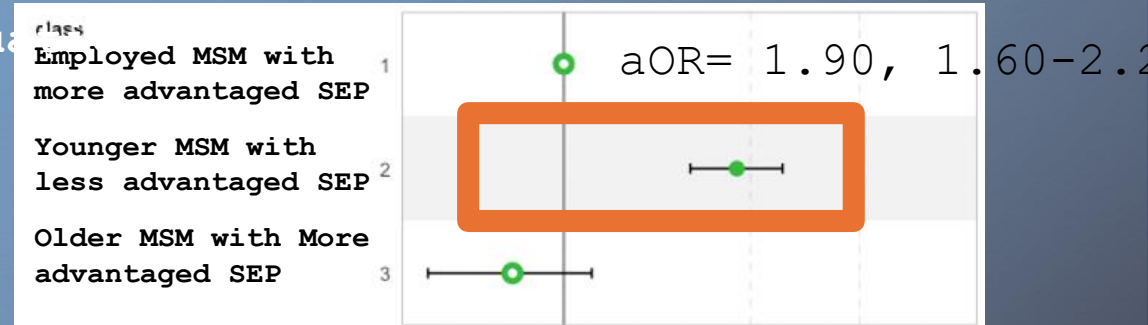
Compared to employed MSM with more advantaged SEP:

- Younger MSM with less advantaged SEP were more likely to show more oral PrEP suboptimal adherence, higher levels of oral PrEP discontinuation, and similar LA-PrEP intention

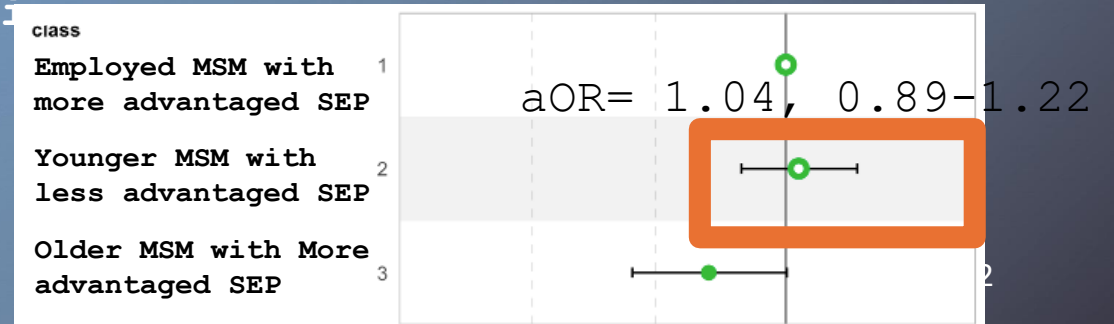
Oral PrEP suboptimal adherence



Oral PrEP discontinuation



LA PrEP intention





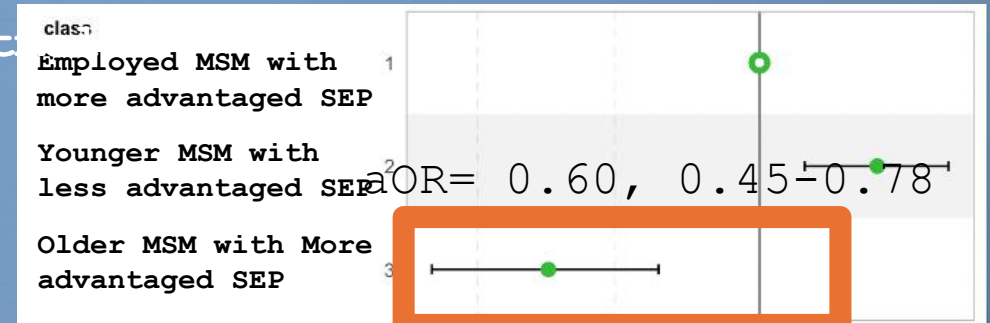
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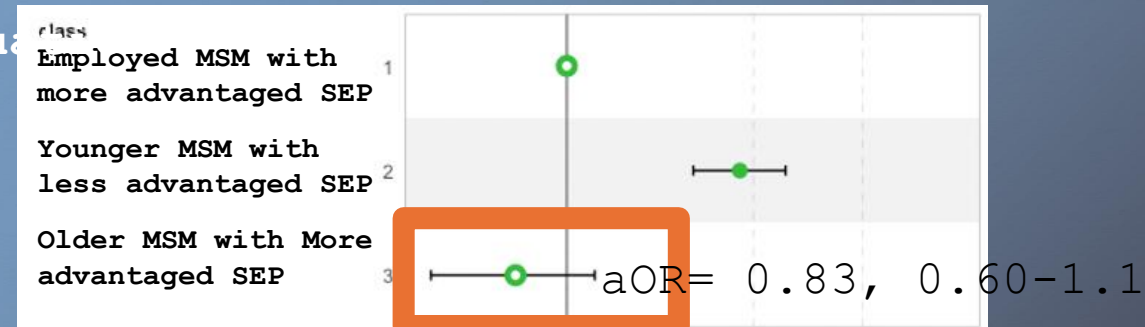
- Younger MSM with less advantaged SEP were more likely to show more oral PrEP suboptimal adherence, higher levels of oral PrEP discontinuation, and similar LA-PrEP intention

- Older MSM with more advantaged SEP were more likely to have lower oral PrEP suboptimal adherence,

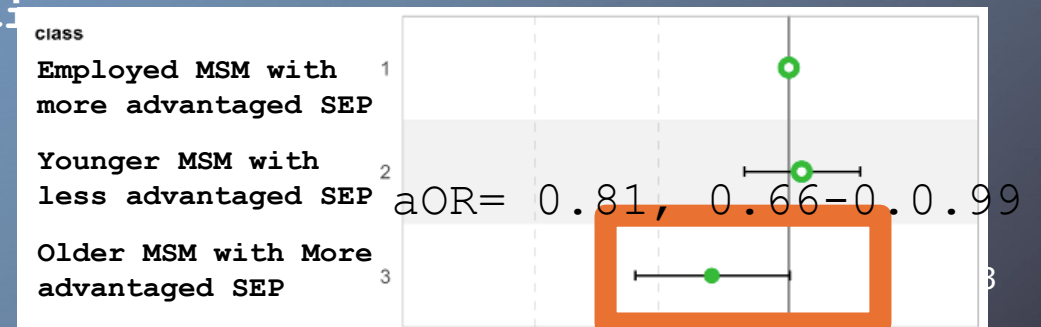
Oral PrEP suboptimal adherence



Oral PrEP discontinuation



LA PrEP intention



# Key messages



1. MSM who were younger, having a migration background, and with lower SEP were less likely to access PrEP via governmental formal provision pathways
2. Non-governmental PrEP provision pathways can offer “access” opportunities to engage people with less advantaged socioeconomic positions to benefit from PrEP, BUT...
3. Users on a non-governmental PrEP provision pathway showed higher rates of oral PrEP suboptimal adherence and discontinuation, but higher intention to use LA-PrEP
4. It is important to make PrEP accessible and affordable, as it is essential for enhancing the PrEP use cascade and preparing for future PrEP modalities, such as LA-PrEP

# Thank you!

**Email to:** [haoyi.wang@maastrichtuniversity.nl](mailto:haoyi.wang@maastrichtuniversity.nl)

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