



**WEO**

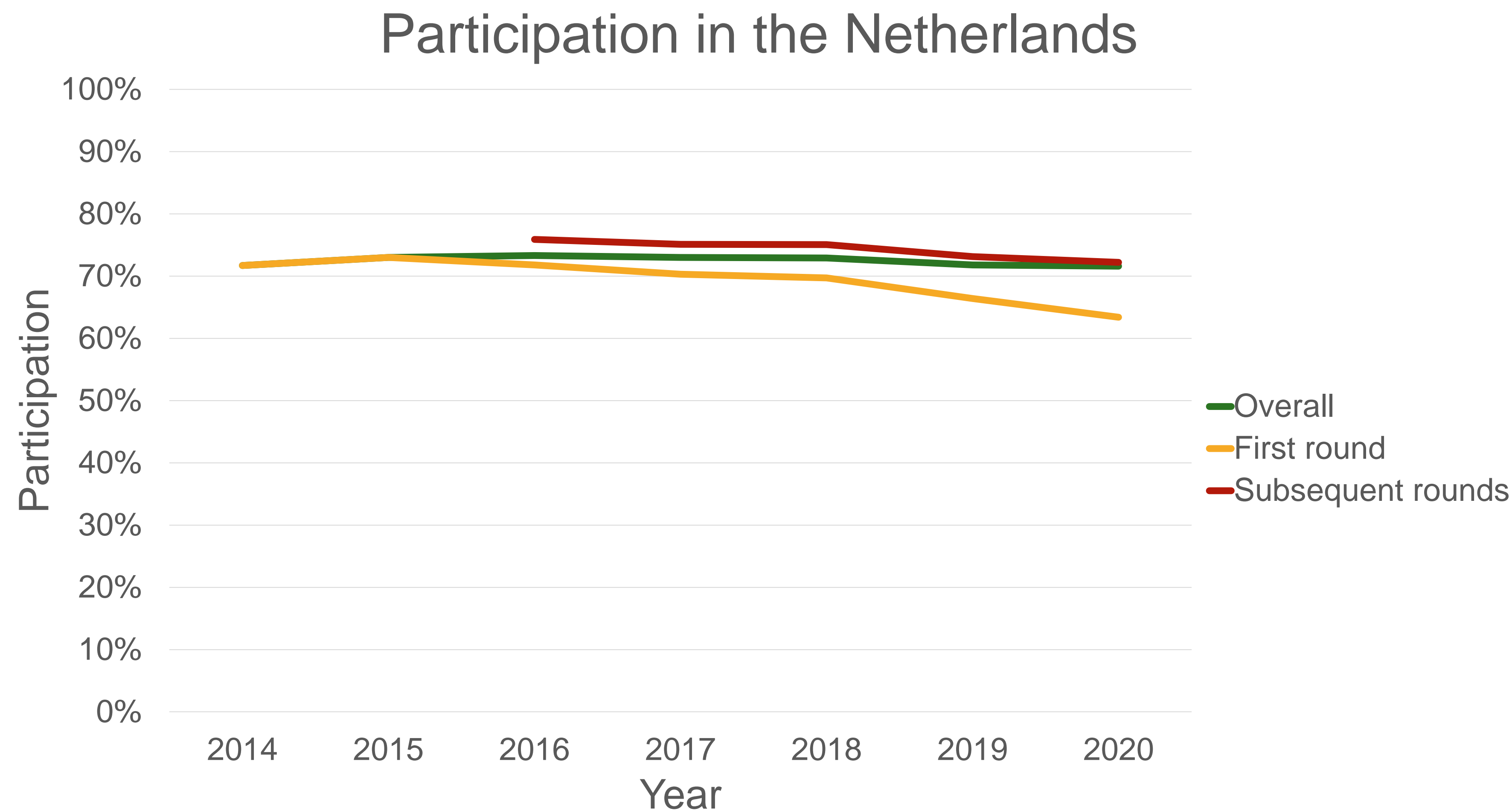
The voice of world  
endoscopy

# Participation in the Dutch Colorectal Cancer Screening Program

H.J. van de Schootbrugge-Vandermeer, C. van Iersel,  
M.E. van Leerdam, I. Lansdorp-Vogelaar, E. Toes-Zoutendijk



# Motivation



Source: National monitoring report colorectal cancer screening, 2014-2020

# Aim

Investigate demographic differences  
between participants and  
non-participants



# What is known already?

- Available data: sex, age, postal code
- Postal code > area SES

> PLoS One. 2022 Feb 17;17(2):e0264067. doi: 10.1371/journal.pone.0264067. eCollection 2022.

## Socioeconomic differences in participation and diagnostic yield within the Dutch national colorectal cancer screening programme with faecal immunochemical testing

Miriam P van der Meulen<sup>1</sup>, Esther Toes-Zoutendijk<sup>1</sup>, Manon C W Spaander<sup>2</sup>, Evelien Dekker<sup>3</sup>, Johannes M G Bonfrer<sup>4</sup>, Anneke J van Vuuren<sup>5</sup>, Ernst J Kuipers<sup>2</sup>, Folkert J van Kemenade<sup>5</sup>, M F van Velthuysen<sup>5</sup>, Maarten G J Thomeer<sup>6</sup>, Harriët van Veldhuizen<sup>7</sup>, Harry J de Koning<sup>1</sup>, Iris Lansdorp-Vogelaar<sup>1</sup>, Monique E van Leerdam<sup>8</sup>

	Odds Ratio *
Socialeconomic status	
Quintile 1 (highest SES)	<i>ref</i>
Quintile 2	1.07 (1.06-1.08)
Quintile 3	1.07 (1.06-1.08)
Quintile 4	0.96 (0.95-0.97)
Quintile 5 (lowest SES)	0.73 (0.72-0.74)

\* Corrected for age and sex





# What is known already?

- Available data: sex, age, postal code
- Postal code > urban density

[Prev Med Rep.](#) 2022 Jun; 27: 101791.

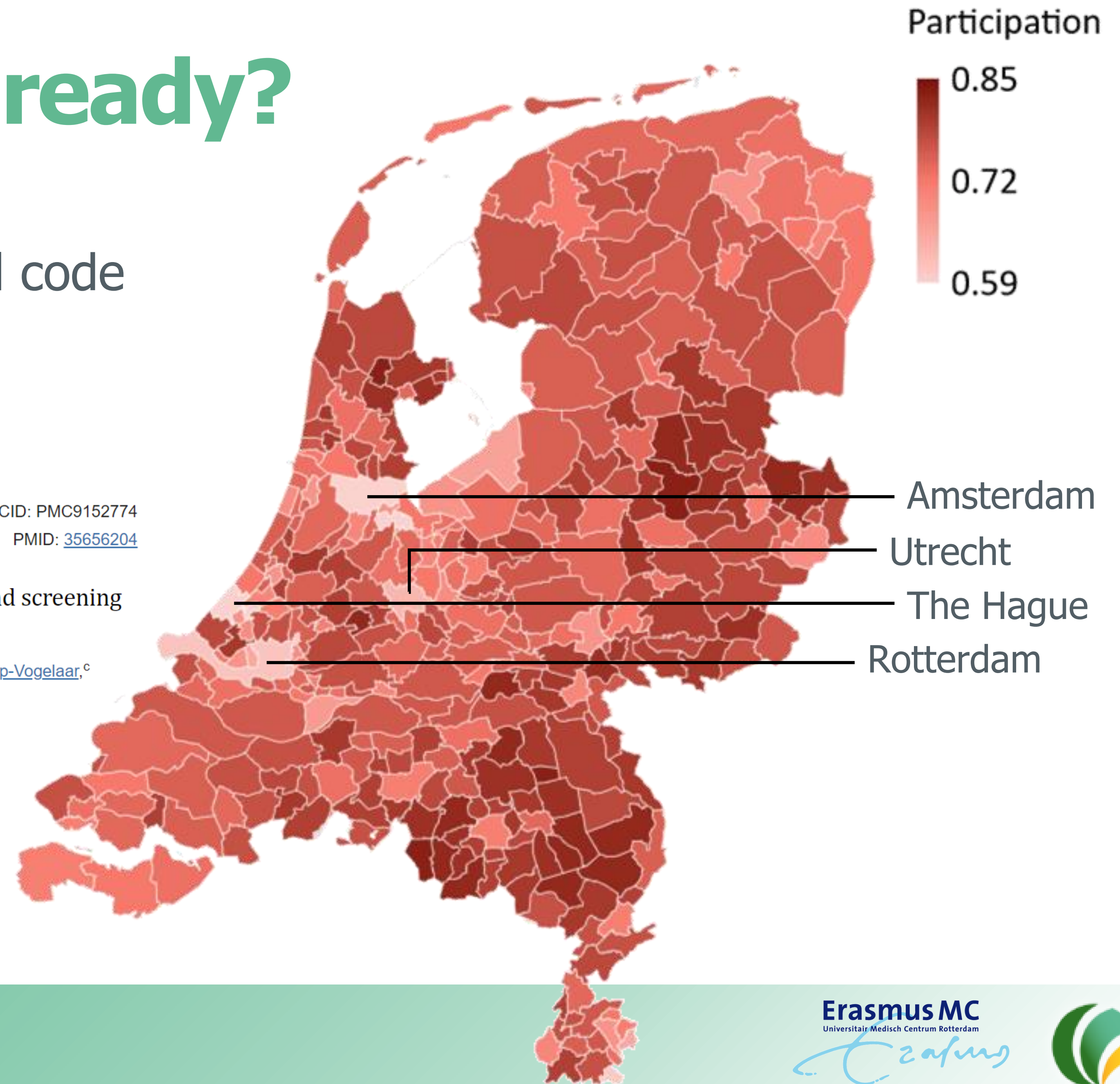
Published online 2022 Apr 5. doi: [10.1016/j.pmedr.2022.101791](https://doi.org/10.1016/j.pmedr.2022.101791)

PMCID: PMC9152774

PMID: [35656204](https://pubmed.ncbi.nlm.nih.gov/35656204/)

Urban density differences in colorectal cancer screening participation and screening yield in The Netherlands

[Clasine M. de Klerk](#),<sup>a</sup> [Manon van der Vlugt](#),<sup>a</sup> [Bente A. Smagge](#),<sup>b</sup> [Esther Toes-Zoutendijk](#),<sup>c</sup> [Iris Lansdorp-Vogelaar](#),<sup>c</sup> [Evelien Dekker](#),<sup>a,\*</sup> and [Patrick M. Bossuyt](#)<sup>d</sup>





# What is new?

- Individual-level data

Participation

Sex

Age

Income

Household characteristics

Migration background

Education

Employment status

- Advantage: possibility to combine different factors

# Multivariate logistic regression

- Sex
- Age
- Income
- Household type
- Migration background
- Education
- Employment status



LOGISTIC  
REGRESSION



Participation



# Multivariate logistic regression

- Sex ✓
- Age ✓
- Income
- Household type
- Migration background
- Education
- Employment status



LOGISTIC  
REGRESSION



Participation





# Participation by income quartile

Sex ✓

Age ✓

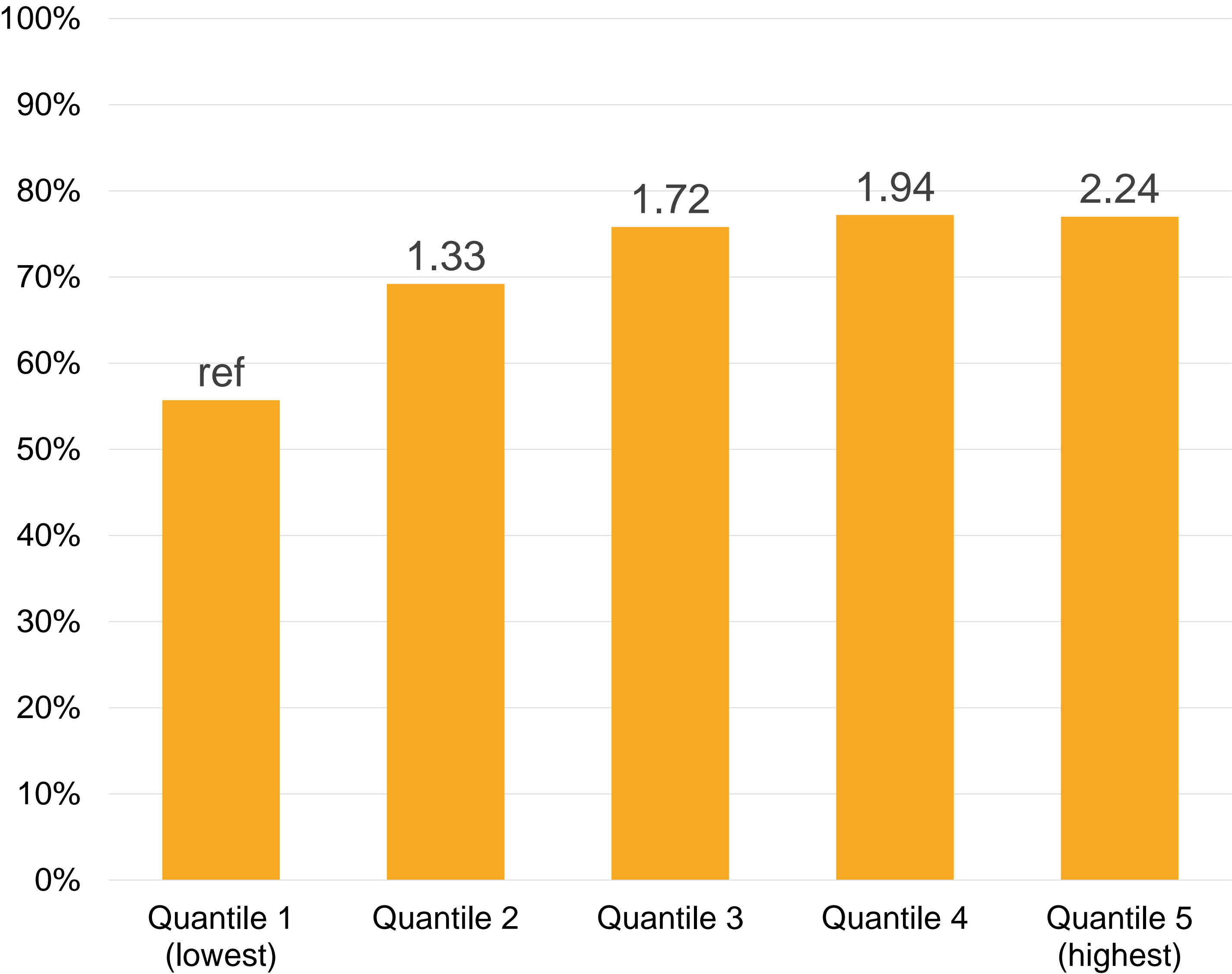
Income

Household type

Migration background

Education

Employment status



# Participation by household type

Sex ✓

Age ✓

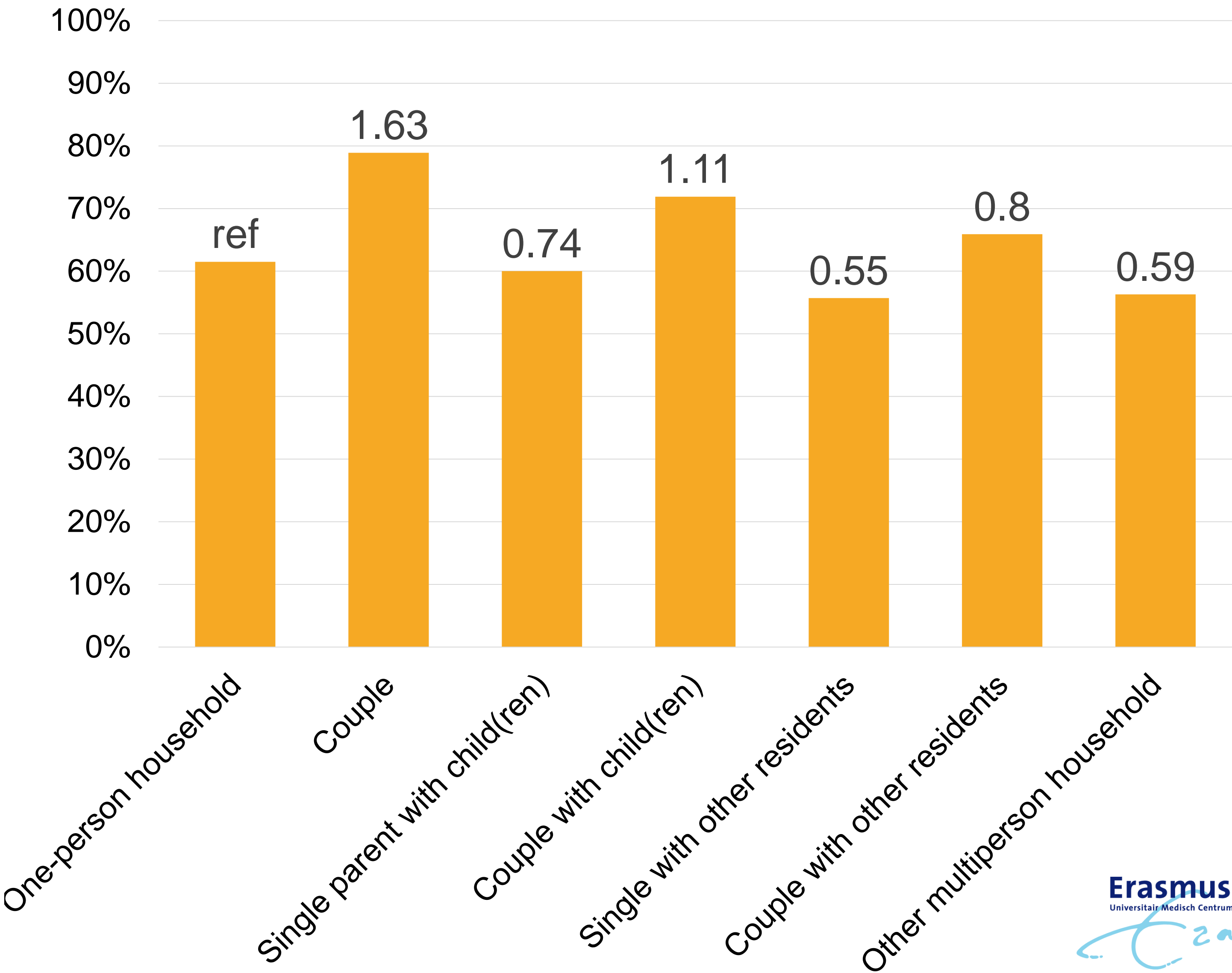
Income ✓

Household type

Migration background

Education

Employment status





# Participation by migration background

Sex ✓

Age ✓

Income ✓

Household type ✓

Migration background

Education

Employment status

- Five most common countries of origin
- Generation migrant



# Participation by migration background

Sex ✓

Age ✓

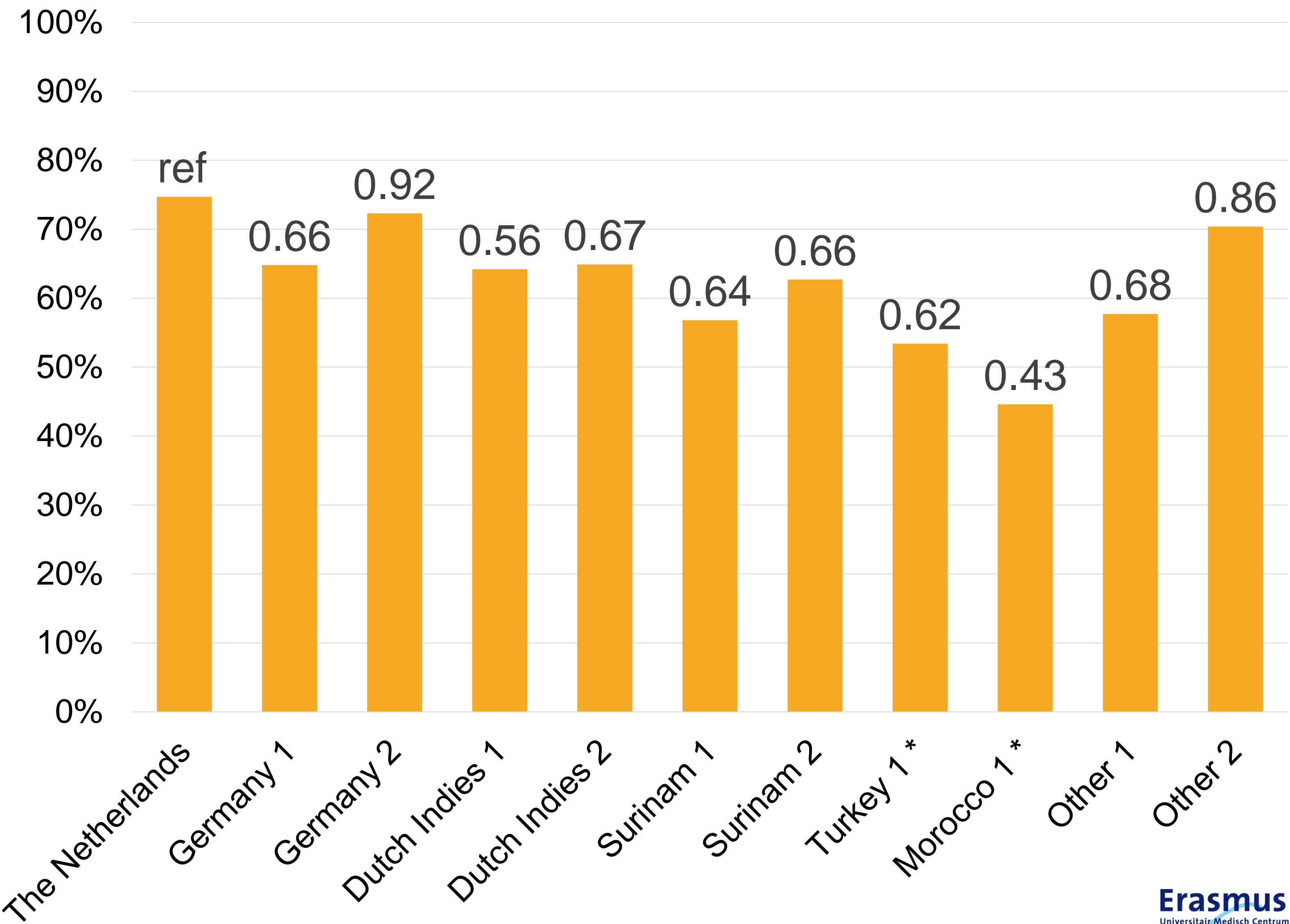
Income ✓

Household type ✓

Migration background

Education

Employment status



\* Turkish and Moroccan 2nd generation migrants are only small groups and are therefore left out





# Participation by education level

Sex ✓

Age ✓

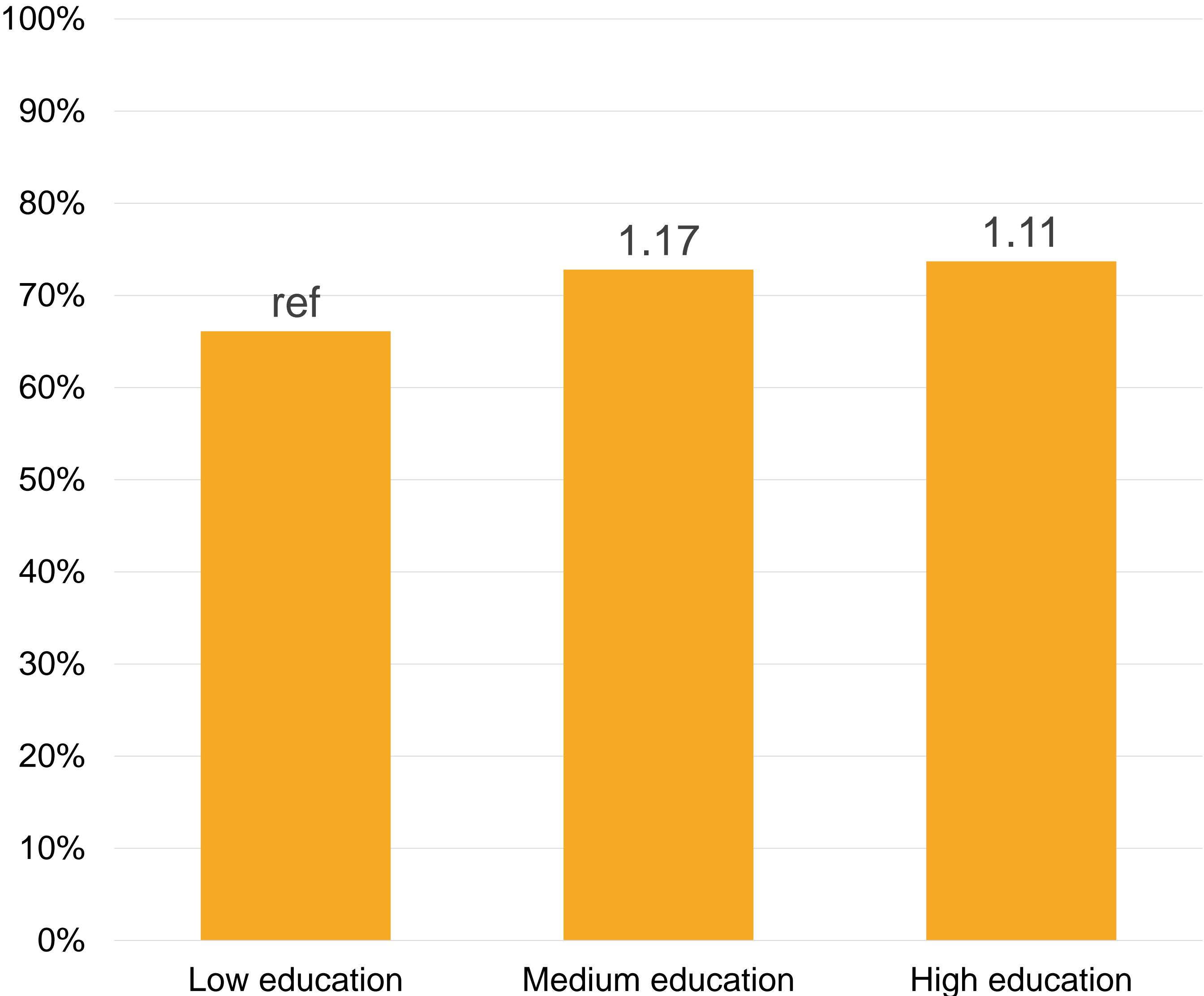
Income ✓

Household type ✓

Migration background ✓

Education

Employment status



# Participation by socioeconomic group

Sex ✓

Age ✓

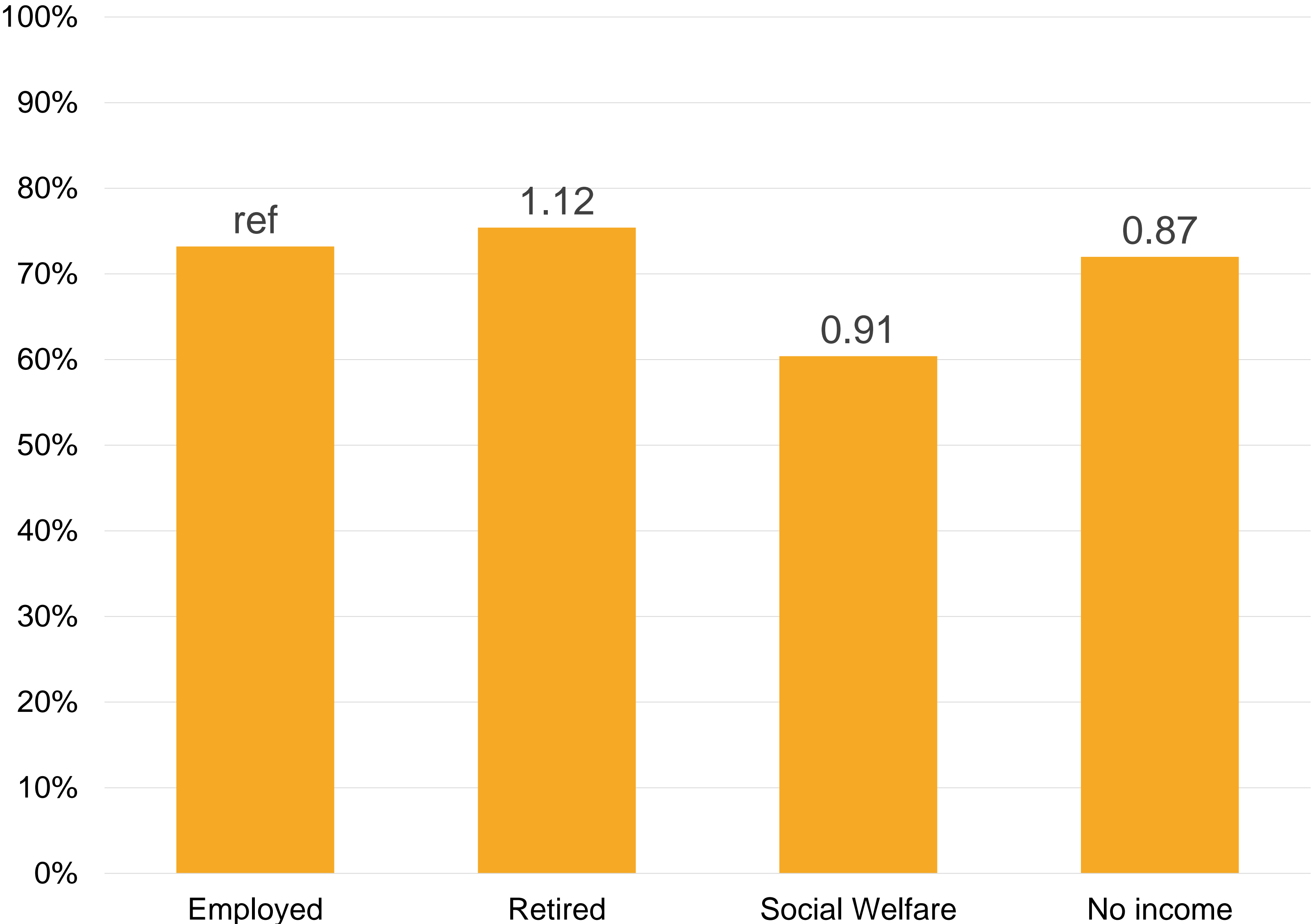
Income ✓

Household type ✓

Migration background ✓

Education ✓

Employment status





# Take-away message

- Participation in the Netherlands is high, but decreasing
- Health inequities are increased for certain subgroups:
  - Low income
  - Single
  - Migration background





# WEO

World Endoscopy  
Organization

**Erasmus MC**

Universitair Medisch Centrum Rotterdam



# Thank you!

[h.vandermeer@erasmusmc.nl](mailto:h.vandermeer@erasmusmc.nl)

