

Assessing the Belgian Cascade of Hypertension Care and its determinants

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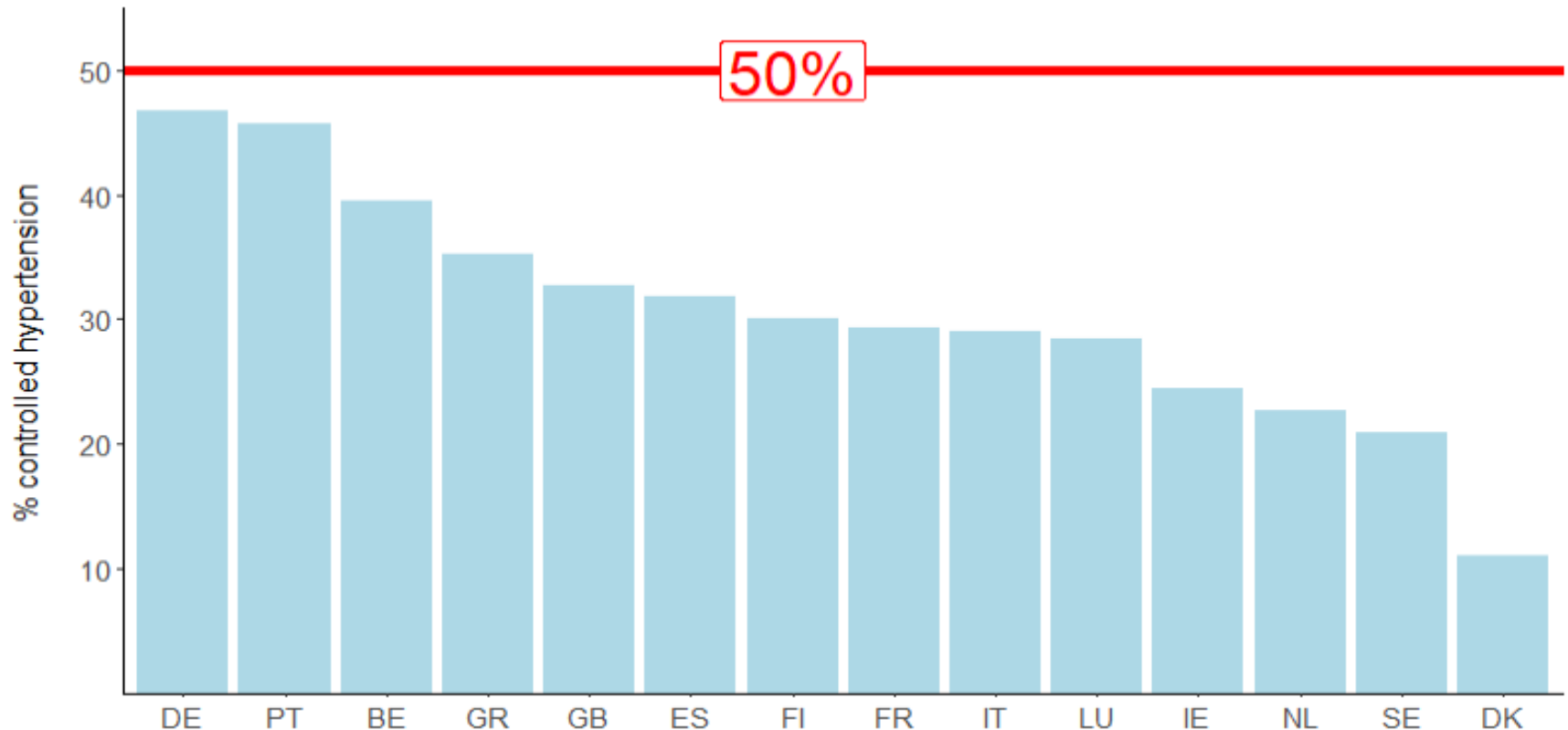




BACKGROUND

Wide-spread availability of effective antihypertensives, yet hypertension (HTN) control rates remain sub-optimal

Prevalence of controlled HTN among hypertensive adults (aged 30-79), 2018

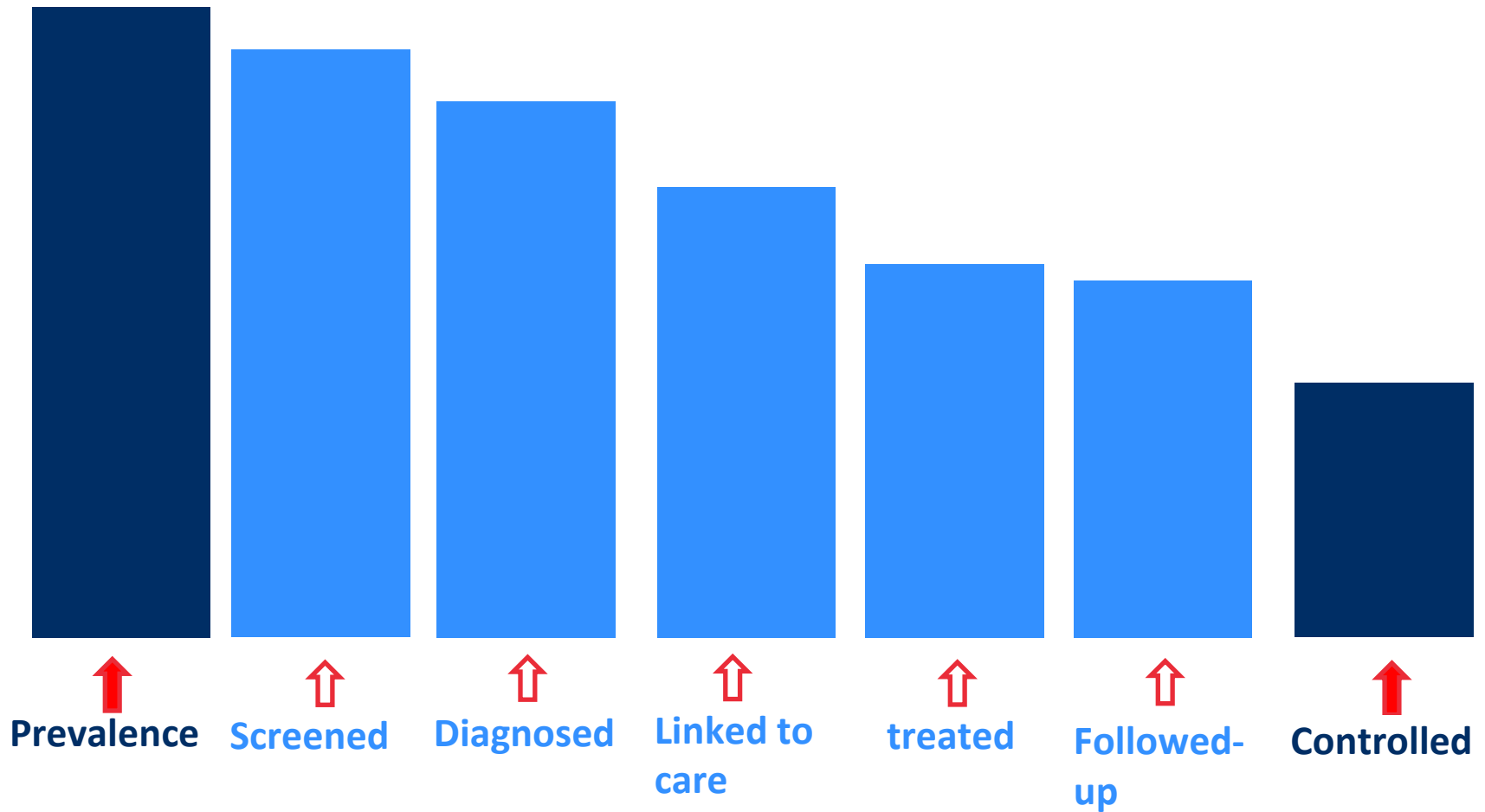


Source: data obtained from WHO - Global Health Observatory Data Repository



BACKGROUND

The continuum of HTN care





BACKGROUND



Need to evaluate the delivery of **HTN care** along the **continuum of care**

OBJECTIVES

1. Identify points of greatest attrition (i.e. leakages) along the continuum of HTN care in Belgium
2. Identify risk factors associated with attrition from HTN care



DATA

- **Belgian Health Interview Survey, 2018 (HIS)**
 - Cross-sectional
 - Face-to-face interviews & questionnaires
 - Nationally representative sample
- **Belgian Health Examination Study, 2018 (BELHES)**
 - Cross-sectional
 - Clinical examination → BP measurements
 - Subsample of BELHIS respondents
- **Target population**
 - = Belgian population aged 40-79 years

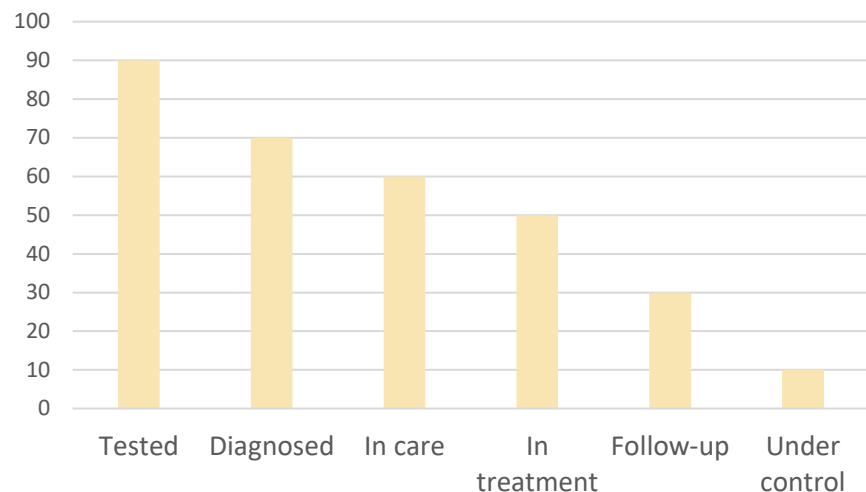


RO1: Leakages along the HTN CoC

Methodology

- Cascade of Care (CoC)
 - Fixed denominator (i.e. the estimated hypertensive population)
 - Mainly conditional approach

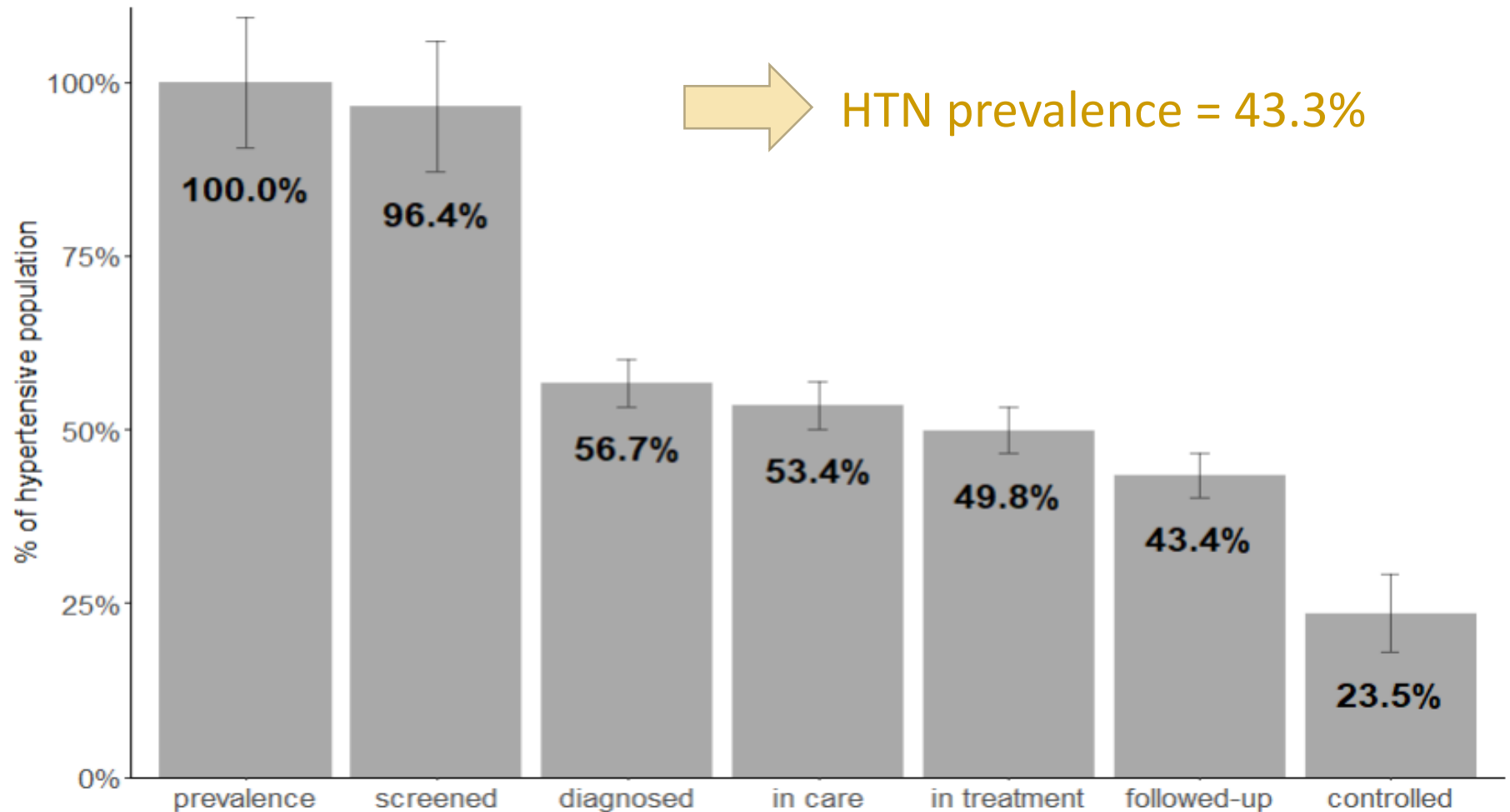
Example Cascade of Care





RO1: The cascade of HTN care

The Belgian cascade of HTN care





RO2: Determinants of HTN care

Measures

- Dependent variables:
 - Unlinked to care (1/0), among those diagnosed with HTN
 - Untreated (1/0), among those linked to HTN care
 - Not followed-up (1/0), among those treated for HTN
- Covariates
 - Age
 - Gender
 - Marital status
 - Educational level
 - Perceived financial hardship
 - Health literacy (HLS-EU-Q6)
 - Psychological distress (GHQ-12)
 - BMI
 - Smoke status
 - Comorbidity



RO2: Determinants of HTN care

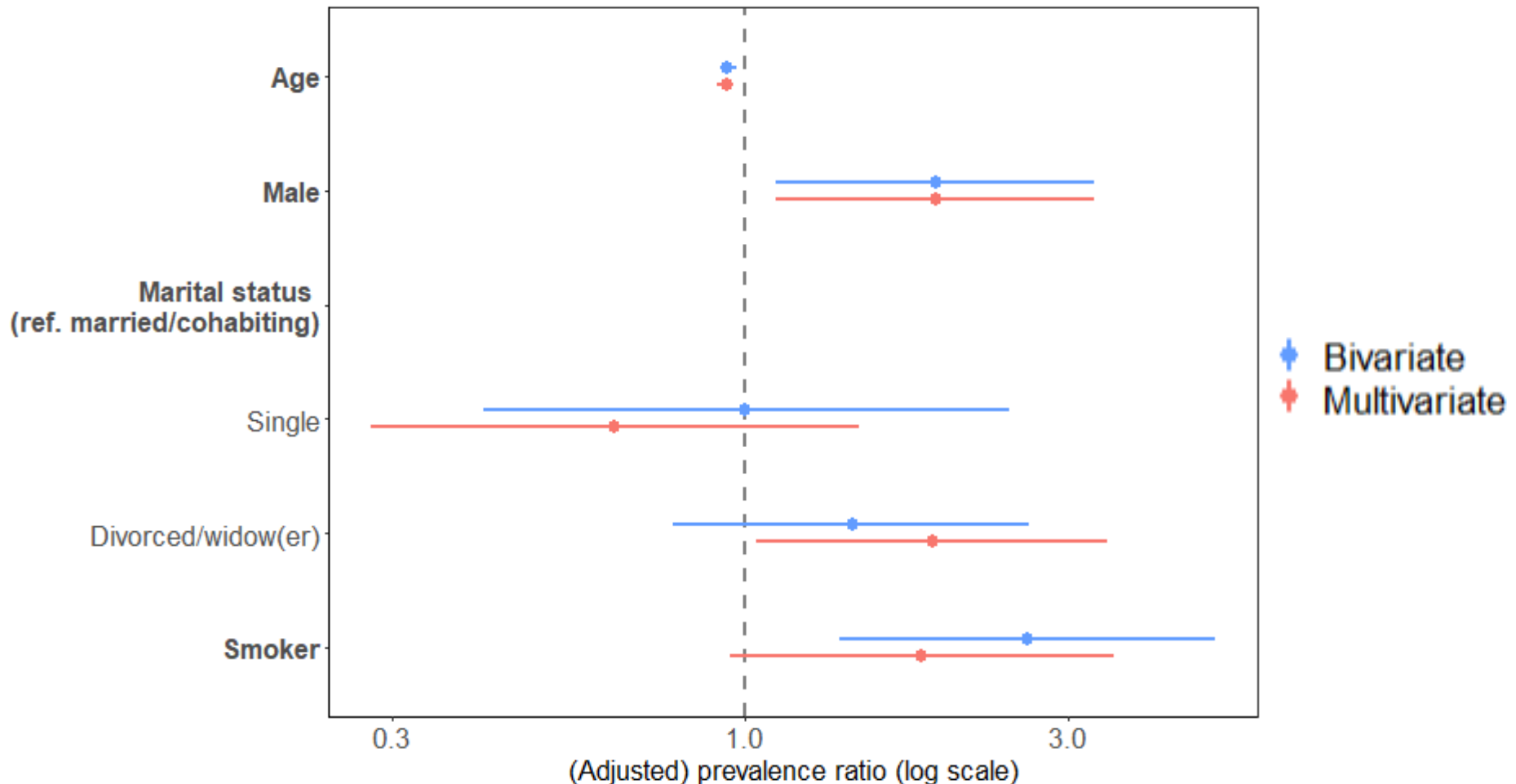
Methodology

- Multiple imputation
- Cox regression models
 - Adjusted for cross-sectional data
 - $\text{Exp}(B)$ = prevalence ratio
 - Both bivariate and multivariate models



RO2: Determinants of HTN care

Coefficient plot of significant predictors of being **unlinked to care**

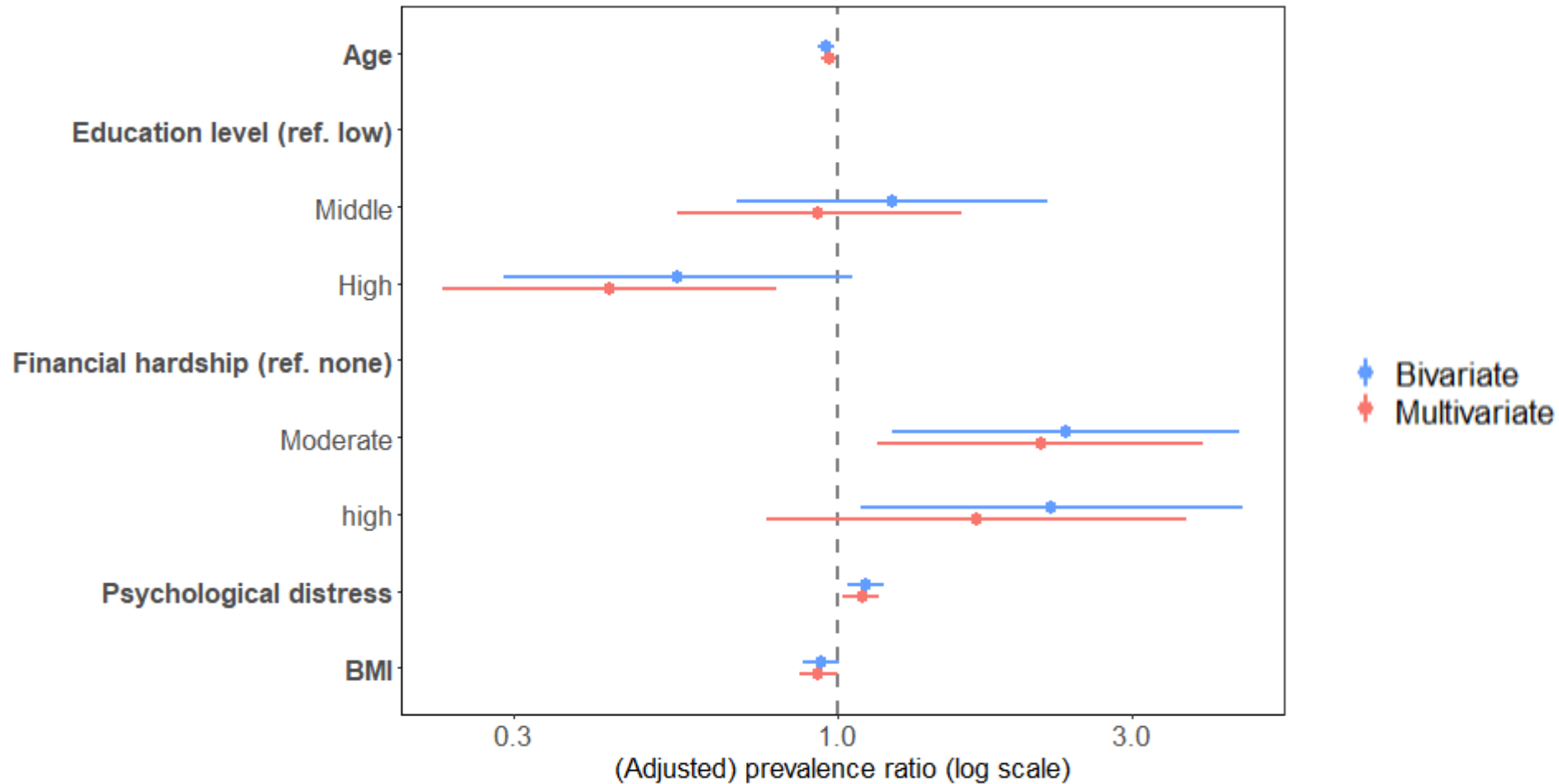


The multivariate estimates controlled for: age, gender, marital status, educational level, financial hardship, health literacy, psychological distress, BMI, smoke status and comorbidity



RO2: Determinants of HTN care

Coefficient plot of significant predictors of **being untreated**

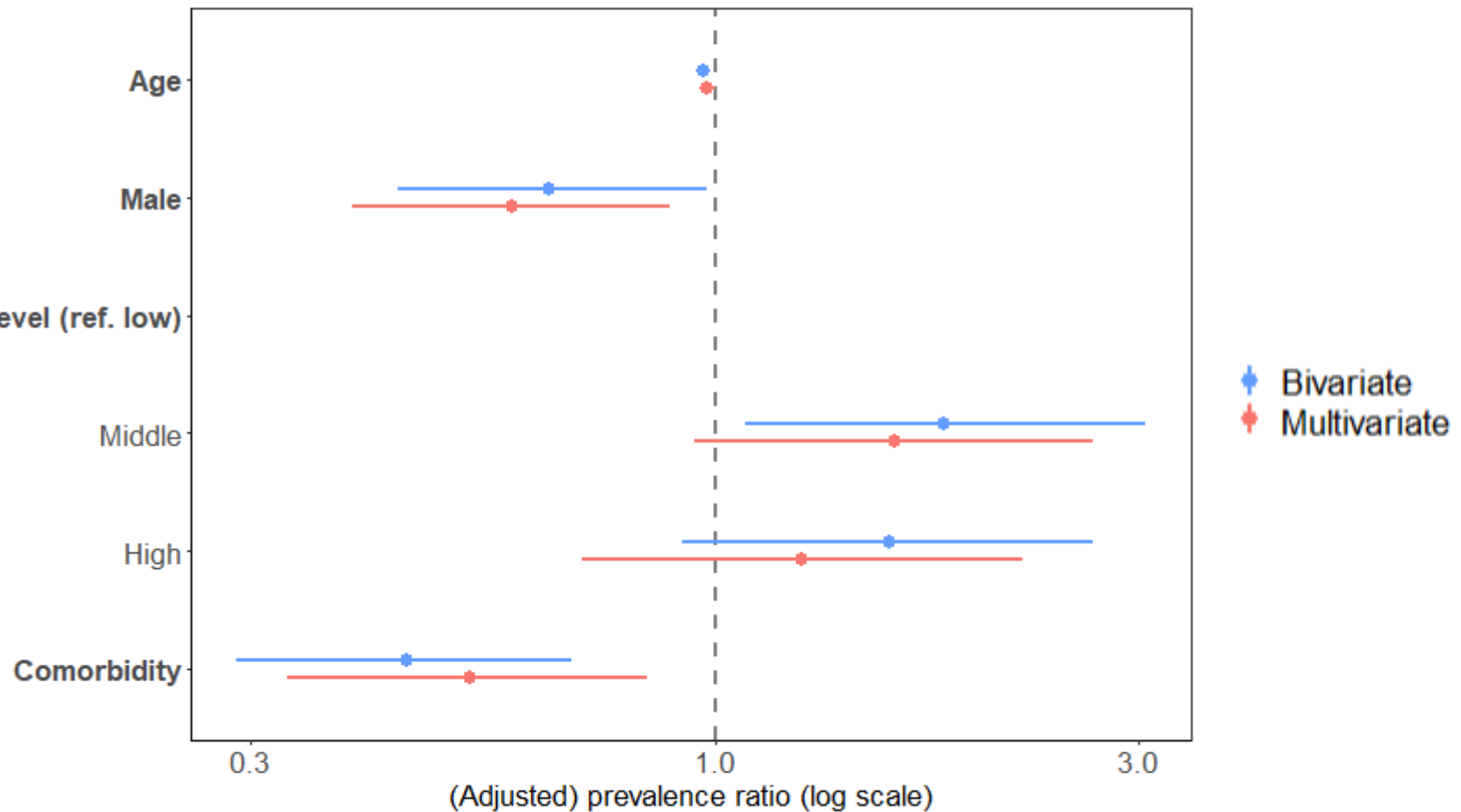


The multivariate estimates controlled for: age, gender, marital status, educational level, financial hardship, health literacy, psychological distress, BMI, smoke status and comorbidity



RO2: Determinants of HTN care

Coefficient plot of significant predictors of **not being followed-up**



The multivariate estimates controlled for: age, gender, marital status, educational level, financial hardship, health literacy, psychological distress, BMI, smoke status and comorbidity



DISCUSSION: main findings

Largest loss of patients occurs early on in the cascade: only 56.7% is diagnosed

- Despite large-scale BP screening
- Reducing 'diagnostic inertia' as a window of opportunity

Once diagnosed, patients are retained fairly well along the continuum of HTN care, but remarkable differences between population sub-groups



DISCUSSION: main findings

Lower treatment rates among hypertensive patients experiencing financial hardship

- out-of-pocket cost of antihypertensive medication

Once diagnosed, individuals with high risk for HTN and cardiovascular disease are more likely to be retained in HTN care



LIMITATIONS

- **No assessment of determinants of ‘undiagnosed HTN’**
- **Self-reported data**
 - Recall bias → Risk of underestimation
- **Three BP measurements during single visit**
 - White-coat HTN → risk of overestimation of prevalence of HTN



Thank you for your attention!

Any questions?



RO1: Leakages in the continuum of HTN care

- **Cascade of care definitions**

Stage	Definition	Data
1. prevalence	Either SBP ≥ 140 mmHg OR DBP ≥ 90 mmHg OR self-reported use of antihypertensives in past 2 weeks OR or self-reported HTN in past year	BELHES
2. Screening	BP measurement less than 3 years ago	BELHES
3. Diagnosis	Self-reported HTN in past year	BELHIS
4. Linkage to care	Being followed by a health care professional for HTN in past year	BELHIS
5. Treatment	Either self-reported use of medication OR following a diet for HTN in past year	BELHIS
6. Follow-up	Blood cholesterol level measurement in past year	BELHIS
7. BP control	Being treated for HTN AND currently having SBP < 140 mmHg and DBP < 90 mmHg	BELHES