

Prevalence, outcomes, and factors associated with testing for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection among people living with HIV across Europe in the multinational EuroSIDA cohort.

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BACKGROUND

- People living with HIV (PLWH) have a high prevalence of conditions such as AIDS and non-AIDS defining comorbidities, that increase the risk of severe coronavirus disease (COVID-19).
- Increasing age of the population living with HIV also increases their vulnerability to the symptomatic COVID-19 and severe outcomes.
- While timely diagnosis improves the prognosis, testing capacities and COVID policies varied across regions during the first year of the pandemic.

OBJECTIVES

- To describe SARS-CoV-2 testing in a large European cohort of PLWH during 2020
- To investigate factors associated with PCR testing and with positive test results.

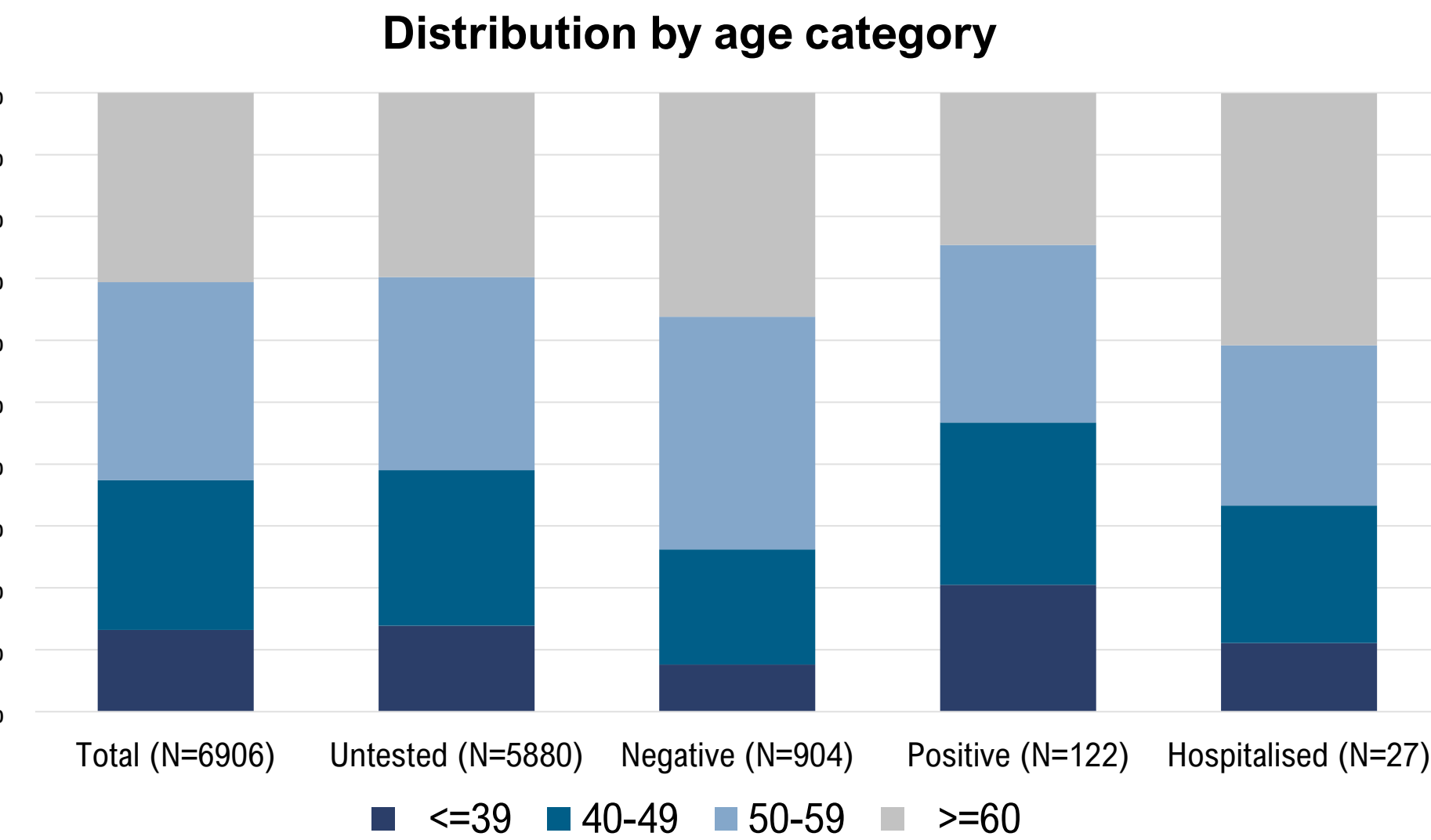
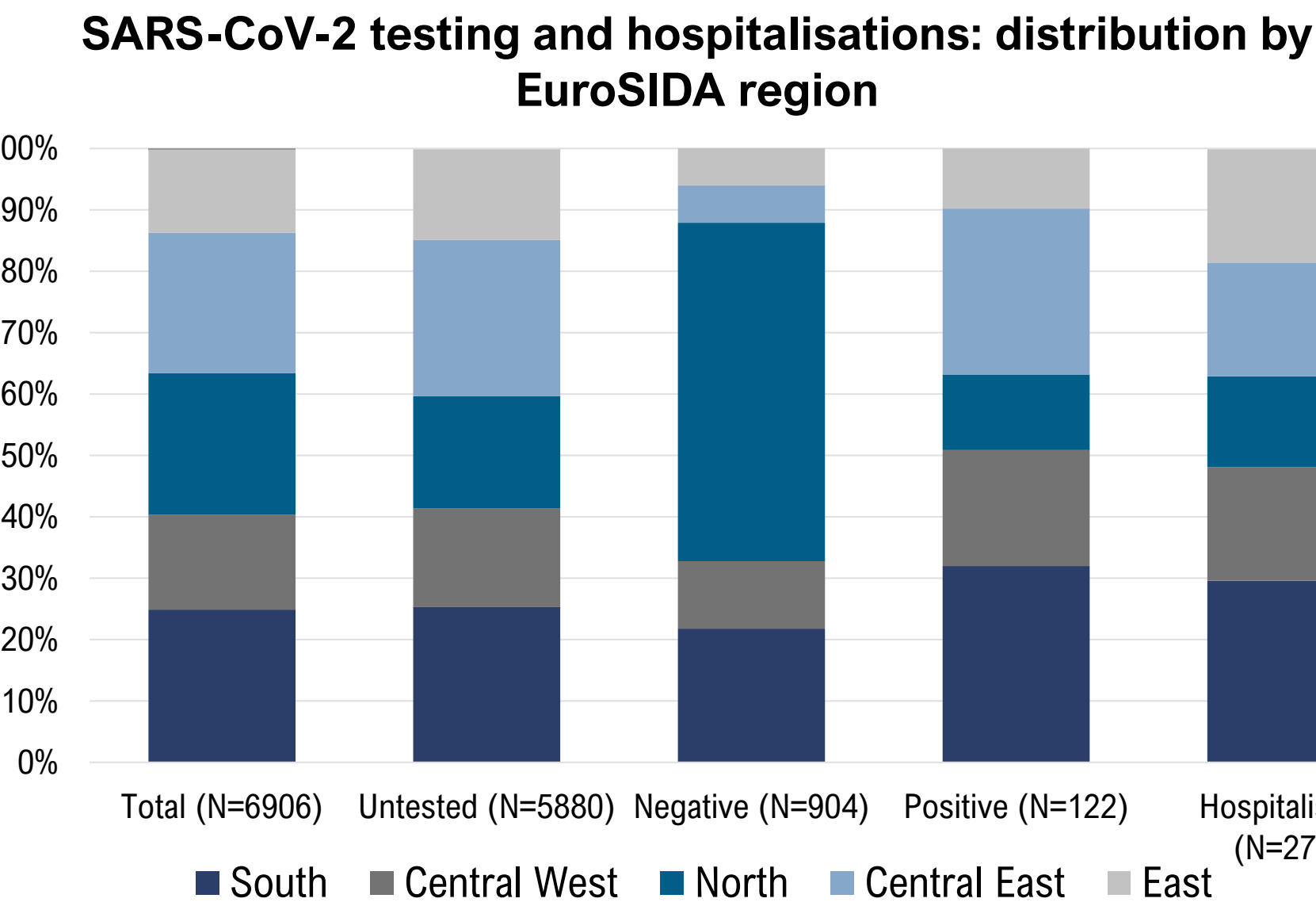
METHODS

PLWH from the EuroSIDA cohort under prospective follow-up on 1 January 2020 were included from the 55 sites in 26 countries that provided any testing data. Proportions of PCR testing, positive test results, and hospitalisations reported up to 1 January 2021 were compared across five European regions. Multivariable logistic regression was used to determine factors from a pre-specified set of potential predictors* associated ($p < 0.05$) with being tested for SARS-CoV-2 (vs untested) and with at least one positive test result (vs negative).

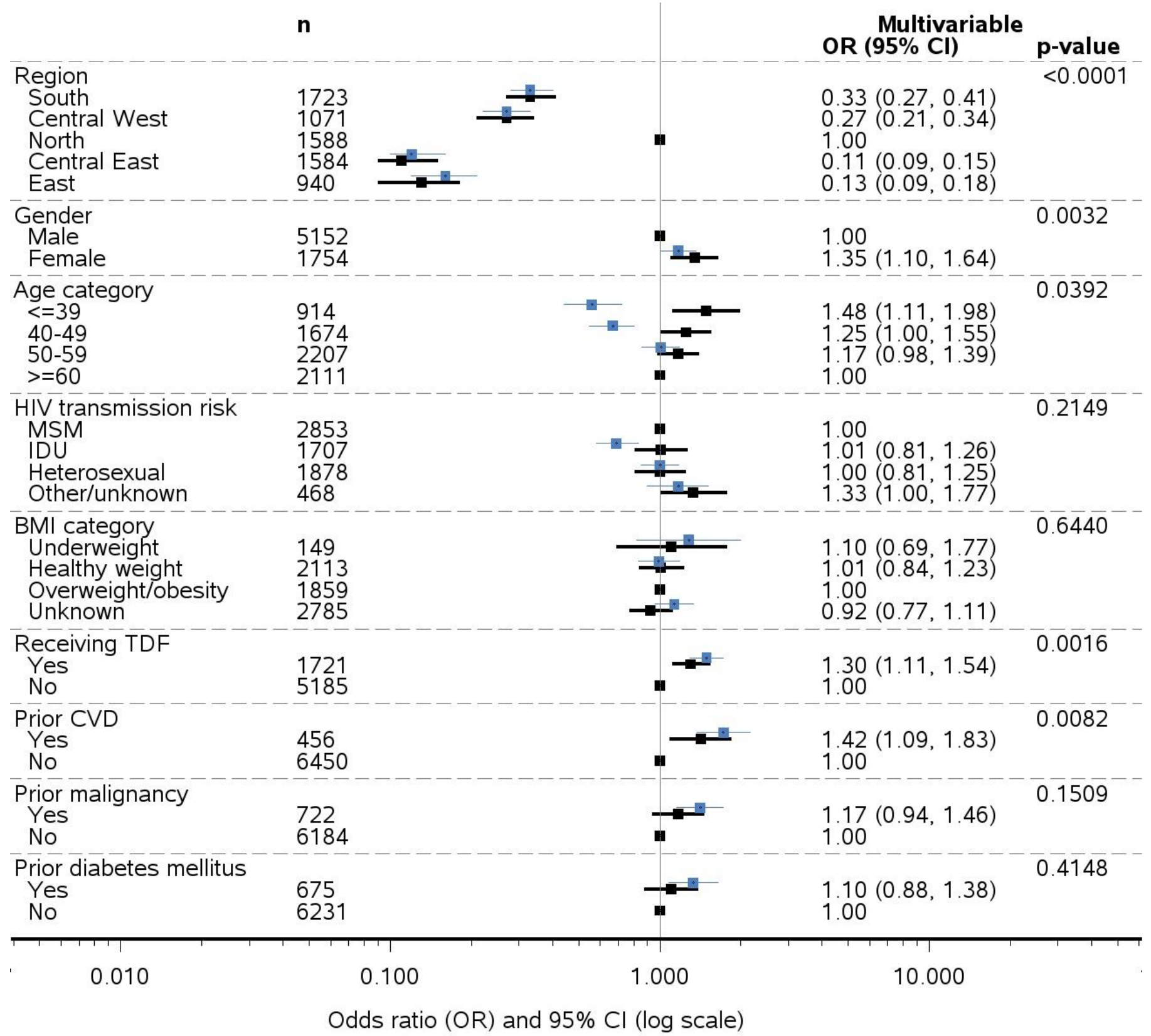
* region, gender, age group, HIV transmission risk group, BMI category, currently receiving a TDF-containing regimen, prior cardiovascular disease (CVD), prior malignancy, prior diabetes mellitus

RESULTS

Of 6,906 participants, **1026** (14.9%, 95%CI 14.0–15.7) had at least one SARS-CoV-2 PCR test performed during 2020. Overall, **122 PLWH** (1.8%, 95%CI 1.5–2.1) tested positive, and **27** were hospitalised due to COVID-19 (0.4% of the study population, 95%CI 0.3–0.6). Of them, five received life support, and six died.



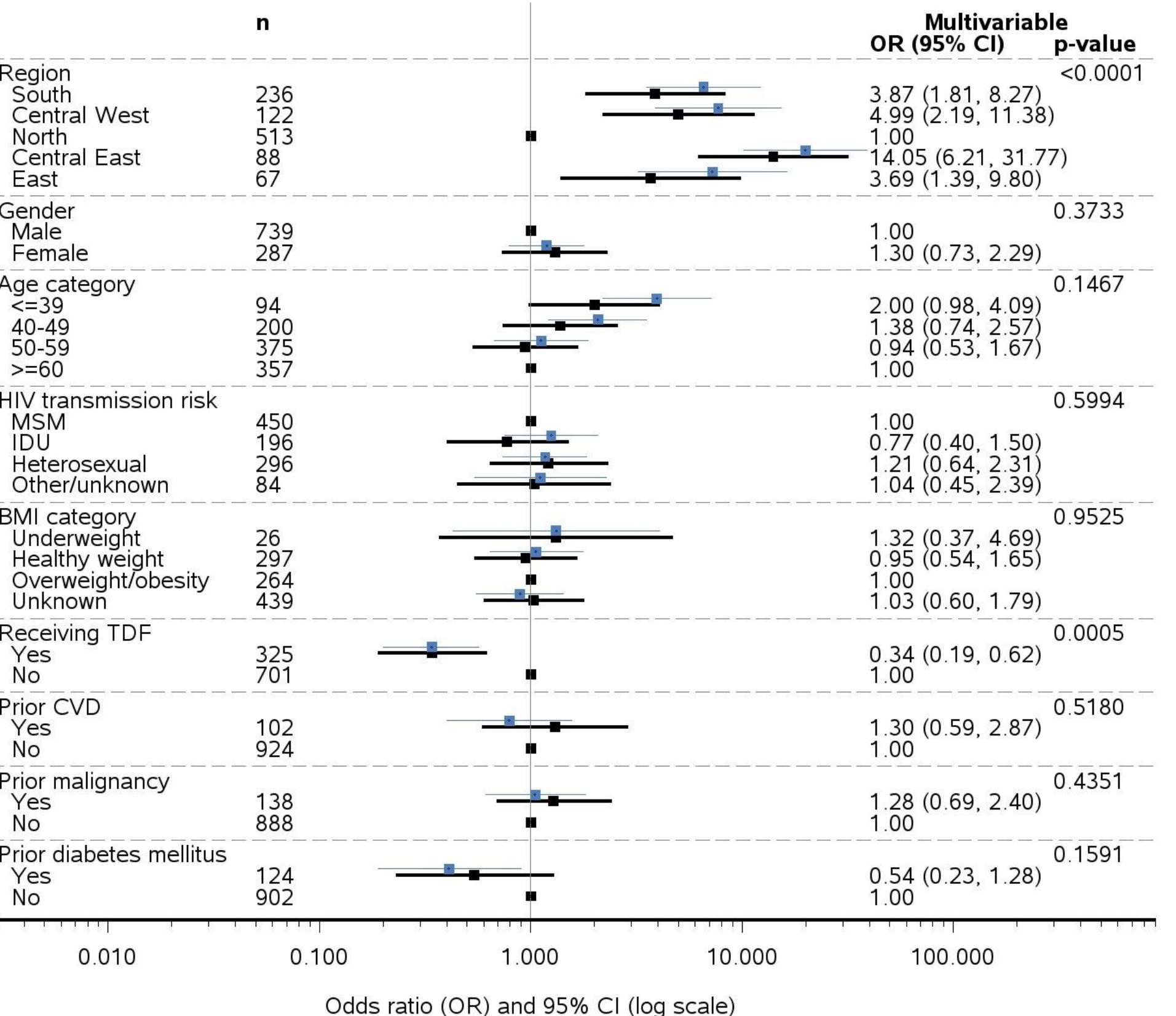
FACTORS ASSOCIATED WITH BEING TESTED FOR SARS-COV-2



univariable analysis multivariable analysis*

Age category, test for trend (adjusted): $p=0.0047$

FACTORS ASSOCIATED WITH A POSITIVE TEST RESULT



univariable analysis multivariable analysis*

Age category, test for trend (adjusted): $p=0.0451$

CONCLUSIONS

- Large heterogeneity in SARS-CoV-2 testing in PLWH across EuroSIDA regions.
- The proportion of hospitalisations was consistent across regions, and the proportion of COVID-related deaths was low and consistent with the levels in general population.
- Northern region of Europe, female gender, younger age, and prior CVD were associated with the higher likelihood of being tested for SARS-CoV-2.
- Northern region (due to the highest testing coverage) and older age were associated with lower likelihood of a positive test.
- TDF was associated both with testing and a negative test result, requiring further investigation.