

Mapping PrEP use cascades in the Netherlands under the internalised homonegativity “storm” and sexual self-efficacy “sunshine”: Where do MSM need an umbrella and where do they need sunglasses?

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Optimal PrEP use cascades are identified in urban areas of the Netherlands, characterized by lower local Internalised Homonegativity and higher local Sexual Self-Efficacy.

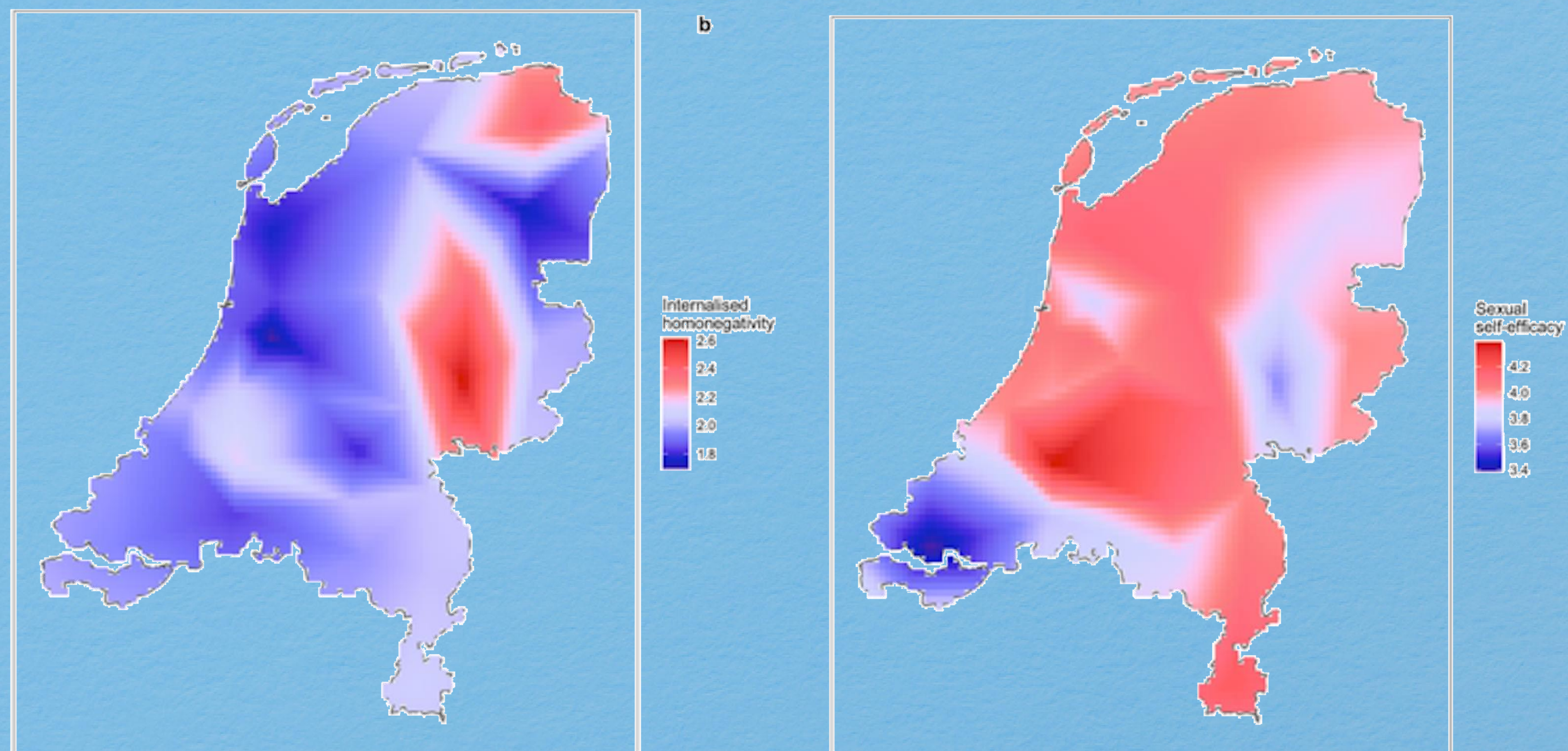
INTERNALISED HOMONEGATIVITY VS. SEXUAL SELF-EFFICACY

BACKGROUND

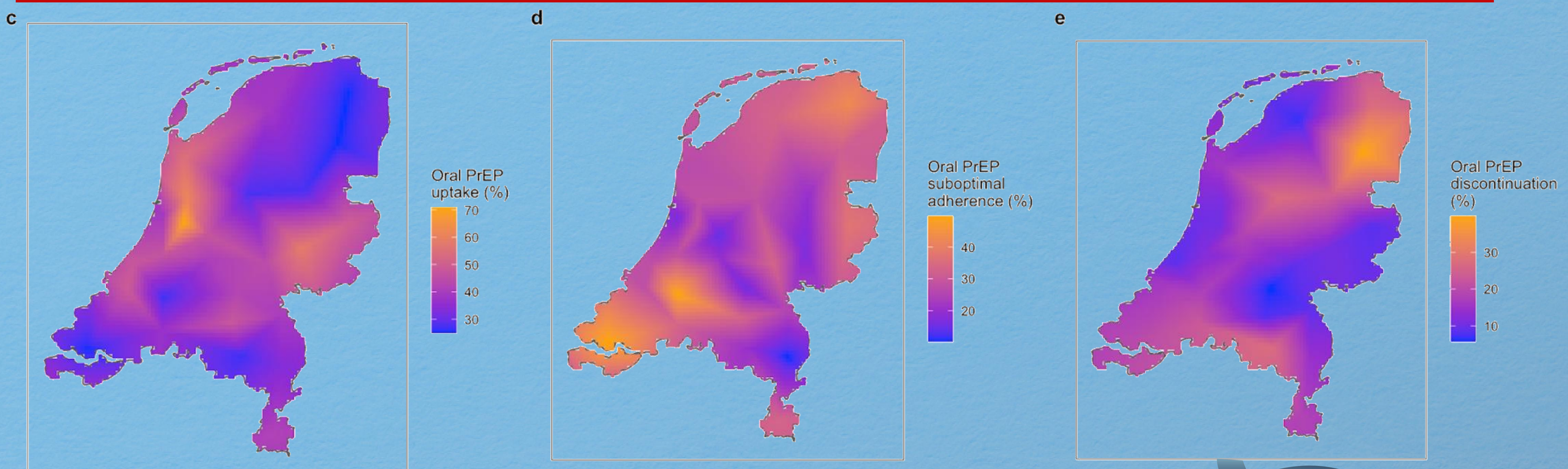
Oral PrEP is pivotal in curbing new HIV infections and linking individuals to PrEP-related care/services. However, PrEP use can be influenced by psycho-social factors like internalised homonegativity (IH) and sexual self-efficacy (SSE, e.g. confidence to say no to sex). This study mapped the nationwide PrEP use cascade (uptake, suboptimal adherence, discontinuation) among MSM and explored their ecological associations with IH and SSE in the Netherlands.

METHODS

Data from a Dutch subsample (n=1,102) of PROTECT, an online cross-sectional survey among MSM obtained from October-December 2023 were included. PrEP use cascades, IH, and SSE (measured on a 1-5 Likert scale) were aggregated at the regional level using postcode data. Using a stochastic partial differential equation approach based on Gaussian random field, we mapped the prevalence of each PrEP use cascade, IH “storm” and SSE “sunshine”. Ecological regression was then employed to explore the potential spatial associations of IH/SSE on each PrEP use cascade.



PrEP CASCADE: % UPTAKE → % SUBOPTIMAL ADHERENCE → % DISCONTINUATION



KEY FINDINGS

1. The highest (lowest) concentrated internalised homonegativity “storm” (sexual self-efficacy) were found around more rural regions.
2. Nationally, PrEP use cascades vary consistently and heterogeneously: uptake (25.0%-70.9%), suboptimal adherence (10.4%-49.7%), and discontinuation (5.7%-39.8%).
3. Higher PrEP uptake lower PrEP suboptimal adherence and lower PrEP discontinuation concentrate around more urban areas, while the opposite cascades concentrate around more rural areas.
4. Ecologically, higher geostatistical IH was found to be associated with lower uptake, higher suboptimal adherence, and higher discontinuation of PrEP.
5. Conversely, higher geostatistical SSE was found to be associated with higher uptake, lower suboptimal adherence, and lower discontinuation of PrEP.

