High HIV incidence follows high testing rates in the Rotterdam area, the Netherlands: a cross-sectional population-based study

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Denise Twisk Researcher, Municipal Public Health Service Rotterdam-Rijnmond



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Background

- HIV testing first step in HIV care continuum, but many barriers to test
- In the Netherlands:

Primary providers HIV test



HIV diagnosis (2021)

- 6% undiagnosed
- 57% late-stage diagnosis
- Most in Amsterdam

and Rotterdam



Limited insight into people who undergo HIV testing

Aim





Assess and compare

HIV testing at GP and SHC

in the general population

Assess population- and provider-

specific HIV incidence

Focus on greater Rotterdam area, the Netherlands

Rotterdam-Rijamon

Background | Aim | Methods | Results | Conclusion

Methods – data sources

• Individual HIV testing data of GP and SHC linked to population register data



• HIV diagnoses from Dutch HIV Monitoring Foundation to calculate HIV incidence

Methods – analysis

- Study years: **2015-2019**
- **Descriptives** to assess:
 - HIV testing (numerator and denominator sum of years)
 - HIV incidence (numerator and denominator sum of years)
- Negative binomial generalised additive models to compare:
 - Mean HIV testing rates between GP and SHC



For each available sociodemographic/area characteristic





Results – test rate (per 1000 residents) by area

- Large differences in HIV testing rate (1,36 to 39,47 per 1000 residents)
- Darkest spots = highest testing rate



Results – test rate GP vs. SHC by area

- Large differences in GP-SHC ratio (RR = 0,23 to 7,24)
- Darker = larger role of GP

Rate Ratio (ref SHC) 0.00 to 0.50 0.50 to 1.00 1.00 to 1.50 1.50 to 2.00 2.00 to 2.50 2.50 to 3.00 3.00 to 3.50 3.50 to 4.00 4.00 or more N<10 Excluded municipality Harbour Location SHC •

Results – HIV incidence (per 100 000 residents) by demographics

• Varied by demographic and area characteristic (overall incidence: 3,09 to 24,04)



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Results – HIV incidence (per 100,000 residents)

• Varied by demographic and area characteristic (overall incidence: 3,09 to 24,04)



Conclusion – Summary of the findings

1) Large differences in testing and incidence by population and area

2 GP HIV testing exceeds SHC, except for 15-24yr olds and near SHC

3 HIV incidence highest among MSM, younger groups, non-westerners and urban residents in proximity of healthcare providers

High testing rates often lead to high diagnoses (GP and SHC)

Conclusion

• More HIV testing likely related to access

- Priority in guidelines
- Convenience of proximity

• Missed opportunities at GP

- 0 1.1% of population HIV tested, but 2.8% for Chlamydia/Gonorrhoea (Twisk et al, 2023)
- 99% of Dutch population registered at GP; 75% contacts GP once per year
- → Educational meetings about guideline adherence + HIV indicator guided testing
- Increase access, e.g. outreach/branch locations SHC

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Co-authors

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