

Epidemiology poster session 4: Methodological aspects

P1-S4.01 HIV/STD COINFECTION IN ARIZONA, 2000–2008: IDENTIFYING OPPORTUNITIES FOR INTEGRATED SURVEILLANCE AND PARTNER SERVICES

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Background Persons with HIV who acquire STDs such as chlamydia, gonorrhoea, and syphilis likely represent high-risk sources of HIV and STD transmission. Some state and local STD and HIV programs do not allow data sharing that would identify these individuals due to concerns with data security and confidentiality.

Objective To identify the number of STD cases that were known to have HIV prior to the time of the STD diagnosis.

Methods A probabilistic matching method was used to merge the HIV and STD surveillance databases at the Arizona Department of Health Services (ADHS). Partial matches were reviewed by hand to avoid misclassification. The person and diagnosis events from the HIV-STD merge were limited to gonorrhoea (GC), chlamydia (CT), primary and secondary syphilis (PS) and early latent syphilis (EL) diagnosed during 2000–2008. Persons diagnosed with GC, CT, PS or EL diagnosis were considered to be co-infected with HIV if the HIV diagnosis date was more than 60 days before the STD diagnosis date.

Results During 2000–2008, 1494 reported STD cases occurred among persons with previously diagnosed HIV. These cases included 14% (271/1960) of the PS, 9% (173/2043) of the EL, 2% (725/39 779) of the gonorrhoea, and 0.2% (325/171 010) of the CT cases reported to ADHS. HIV coinfection among syphilis cases was highest among males ages 35–39 (PS 25%, EL 19%), 40–44 (PS 27%, EL 24%) and 45–49 (PS 22%, EL 34%). Among male GC cases the age group with the greatest percentage of HIV coinfection was 40–44 at 9%. HIV coinfection among females reported with syphilis was highest in the age group 25–29 for PS (4%, 3 cases) and 40–44 for EL (2.4%, 2 cases). Among syphilis cases, white males had the greatest percentage of HIV co-infection (PS 31%, EL 32%). Similarly among GC and CT cases, white males had the highest percentages of HIV coinfection at 7% and 1% respectively. HIV coinfection was less than 1% among women in all age groups with CT and GC. A dramatic increase in the overall percent of HIV coinfection for syphilis was seen during the study period ranging from 0.5% in 2000 to 24% in 2008 for PS and 2% to 21% during the same time interval for EL. A similar but smaller increase in the overall percent of HIV

co-infection for gonorrhoea was seen during the study period ranging from 0.7% in 2000 to 2.6% in 2008.

Conclusion Retrospective data integration identified many coinfected HIV/STD cases. Timely integrated HIV and STD surveillance would allow rapid identification of these persons who could be reached for more intensive counselling and partner services. Public STD and HIV programs should address comorbidity using methods that facilitate public health intervention.

P1-S4.02 ETHNICITY BASED ON THE COUNTRY OF BIRTH IS BETTER TO IDENTIFY THE YOUNG POPULATION AT HIGH RISK FOR CHLAMYDIA INFECTION THAN SELF-DEFINED ETHNICITY

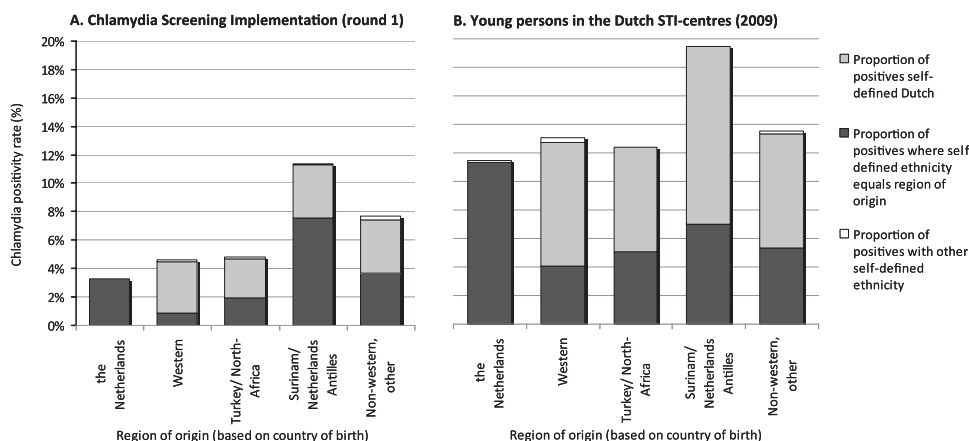
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Background Chlamydia infections are frequently found in young persons and ethnic minorities. Ethnicity can be defined in different ways. In this study, ethnic disparities in *Chlamydia trachomatis* positivity in the Netherlands were assessed comparing two definitions of ethnicity. The study objective was to determine which definition is most useful to discriminate persons at risk for Chlamydia infection.

Methods Chlamydia positivity rates in persons aged 16–29 years, were investigated using data from the first round of the Chlamydia Screening Implementation (CSI, 2008–2009) and surveillance data from specialised at STI centres in the Netherlands (2009), comparing self-defined ethnicity and ethnicity based on the country of birth of a person and his parents (first and second generation immigrants). The relation between ethnicity and Chlamydia positivity rates were evaluated using logistic regression, adjusting for age, sex and SES, in both data sets.

Results Overall, the Chlamydia positivity rate was 13 % in the STI centres, and 5% in CSI. Being a young (first or second generation) immigrant was associated with Chlamydia positivity in both CSI (adjusted OR 2.3 [95% CI 2.0 to 2.6]) and the STI centres (adjusted OR 1.4 [95% CI 1.3 to 1.5]). Classifying the population by self-defined ethnicity resulted in a considerable group labelling themselves as Dutch (57% of the immigrants in CSI and 60% of those in the STI centres), especially second generation immigrants (72% in CSI and 80% in the STI centres). Self-defined non-Dutch ethnicity



Abstract P1-S4.02 Figure 1 Chlamydia positivity rate by region of origin, by self-defined ethnicity, in young persons in the Chlamydia Screening Implementation (CSI) and the Dutch STI centres.