

Co-infection with HIV and early syphilis, by stage of syphilitic infection, 31 areas — U.S., 2012

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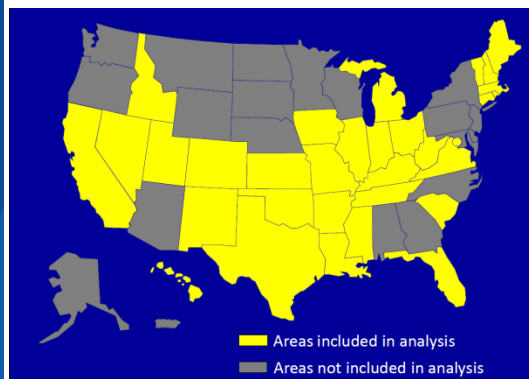
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Background/Objective

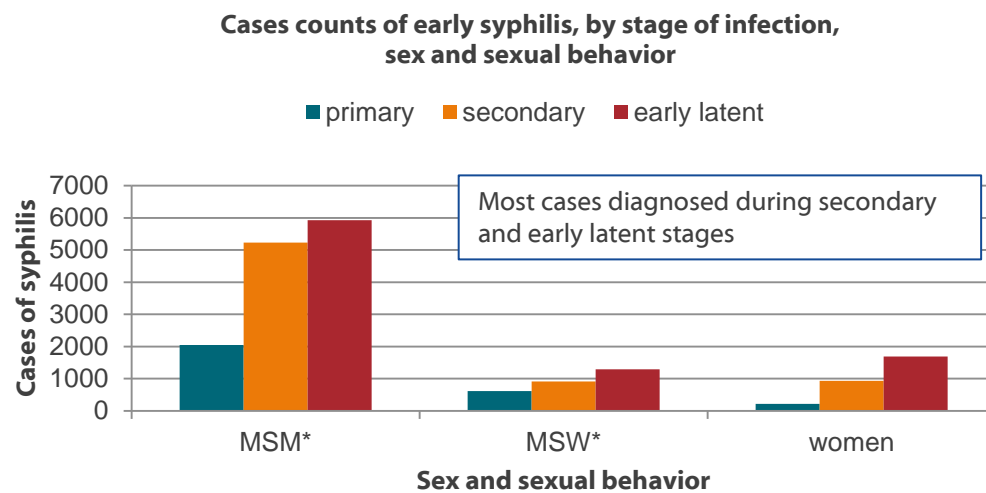
- **Early diagnosis and treatment of syphilis is desirable**
 - Syphilis can increase risk of transmitting or acquiring HIV; infected mothers can transmit syphilis to their unborn children
- **OBJECTIVE**
 - Describe frequency of co-infection with early syphilis and HIV among men having sex with men (MSM), men having sex with women only (MSW), and women, by stage of infection

Methods

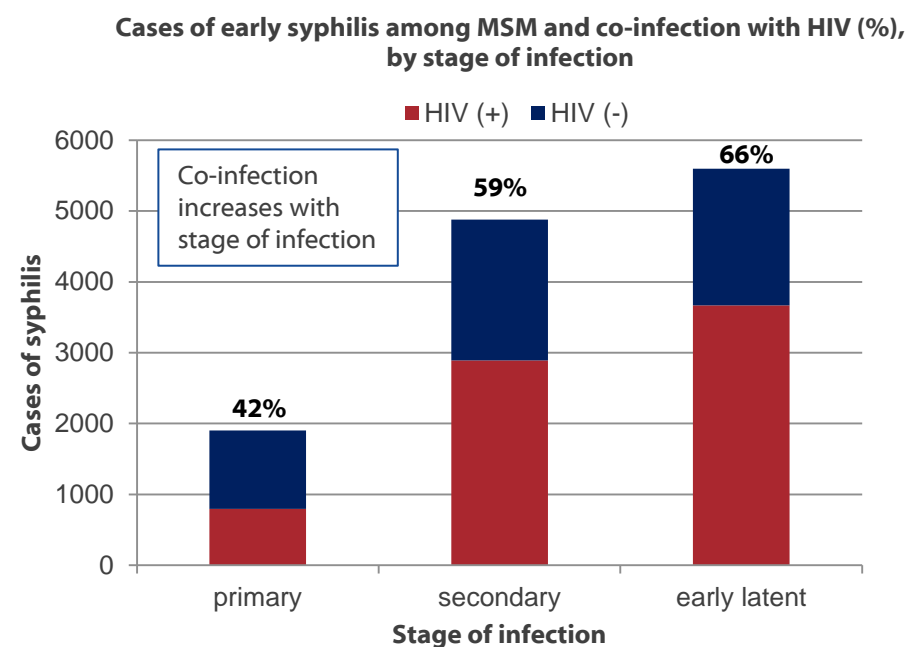
- **Reviewed data for cases of early syphilis reported to CDC during 2012**
 - Limited to states and Washington, DC reporting sex of partner (male, female, or both) and HIV status (positive or negative) for ≥70% of reported cases of early (primary, secondary, and early latent) syphilis during 2012 (n=31 areas)
 - Reviewed stage of infection (primary, secondary, early latent), sex, sex of sex partner, age, race/ethnicity, and self-reported HIV infection status
 - Calculated proportion of HIV co-infection
 - numerator = HIV-positive case patients; denominator = HIV-positive and HIV-negative case patients
 - By sex and sexual behavior (MSM, MSW, women) and stage of infection



RESULTS



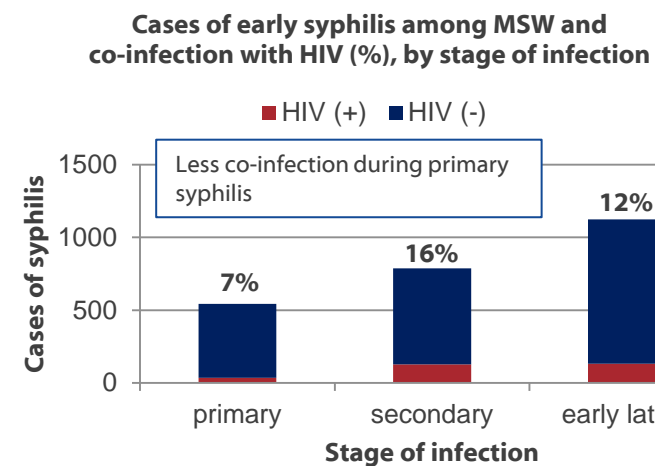
* MSM = men having sex with men, MSW = men having sex with women only



Cases of early syphilis among MSM and co-infection with HIV, by race/ethnicity and stage of infection

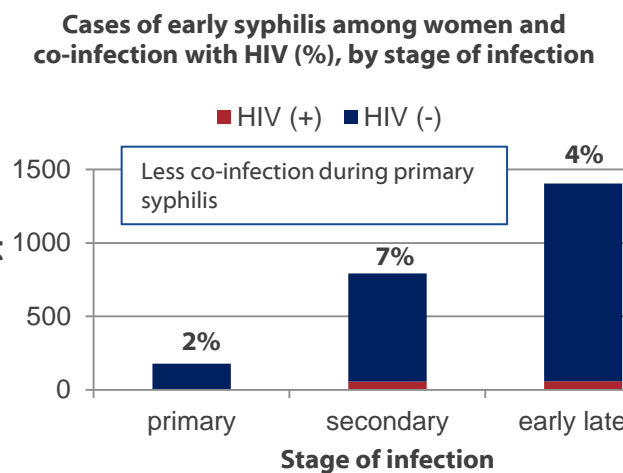
Race/ethnicity	Stage	HIV (+) (%)
White	Primary	341 (42%)
	Secondary	1104 (59%)
	Early latent	1340 (66%)
Black	Primary	229 (53%)
	Secondary	1065 (65%)
	Early latent	1236 (70%)
Hispanic	Primary	196 (36%)
	Secondary	581 (54%)
	Early latent	959 (62%)
Other	Primary	22 (25%)
	Secondary	104 (48%)
	Early latent	96 (54%)

Less co-infection among MSM with early syphilis during primary stage, regardless of age group or race/ethnicity



age group	stage	HIV (+) (%)
15–19 years	Primary	9 (10%)
	Secondary	60 (29%)
	Early latent	50 (26%)
20–24 years	Primary	95 (25%)
	Secondary	447 (44%)
	Early latent	440 (43%)
25–29 years	Primary	132 (35%)
	Secondary	510 (57%)
	Early latent	569 (59%)
30–34 years	Primary	118 (46%)
	Secondary	419 (63%)
	Early latent	502 (65%)
35–39 years	Primary	83 (46%)
	Secondary	346 (67%)
	Early latent	481 (76%)
40–44 years	Primary	127 (60%)
	Secondary	370 (69%)
	Early latent	567 (82%)
45–49 years	Primary	122 (63%)
	Secondary	359 (72%)
	Early latent	559 (82%)
50+ years	Primary	111 (55%)
	Secondary	377 (70%)
	Early latent	501 (79%)

Cases of early syphilis among MSM and co-infection with HIV, by age group and stage of infection



Discussion

- **Possible explanations for lower co-infection among individuals with primary (vs secondary or early latent) syphilis**
 - More health-conscious individuals who seek care earlier, and reduce risk before infection with HIV
 - Individuals with better access to care who get diagnosed earlier, and reduce risk before infection with HIV
 - Individuals who have not engaged in risk behaviors for long, and have had less opportunity to acquire HIV

Limitations

- **These data might underestimate actual co-infection among MSM**
 - Some MSM might be unwilling to disclose MSM behavior, and report being MSW (misclassification)
 - HIV status was self-reported, with no test date available. If negative reports were from old test results (e.g., months or years old), these cases might actually be HIV-positive.
- **Local epidemiology might vary from data presented here**
 - State-level data were analyzed. Prevalence of co-infection at the county level might differ from the presented data.

CONCLUSIONS

- **High prevalence of co-infection among MSM**
 - True for all race/ethnicities and age groups; as high as 82% for MSM 40–49 years with early latent syphilis
- **Efforts to reduce transmission of syphilis (and co-infection with HIV) should promote earlier detection**

Contact Information

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