

Epidemiology poster session 2: Population: Adolescent

P1-S2.66 RISK ASSESSMENT IN A LARGE COHORT OF URBAN PUBLIC HIGH SCHOOL STUDENTS INFECTED WITH CT OR GC: PHILADELPHIA, 2009–2010

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Background Since 2003, the Philadelphia Department of Public Health (PDPH) has run an in-school education, testing, and treatment program for gonorrhoea (GC) and Chlamydia (CT) at all public high schools; however, GC/CT positivity rates have not declined over time, and risk factors for infection in this population are unknown. To explore the issue, we standardised data collection and partner services interviews in an attempt to identify students at high risk for GC/CT.

Methods For the 2009–2010 school year, all students were asked if they ever had sex, and students who tested positive for GC/CT were asked a few additional questions about their risk at time of in-school treatment by PDPH. Student specimens were confidentially obtained and processed. Answers from interviewed students were compared with reportable disease records.

Abstract P1-S2.66 Table 1 Risky Behaviour, Time to Infection in CT/GC-infected students

	Females	Males	Total
N	392%	172 %	564 %
≥2 partners			
No	304 (77.6%)	91 (52.9%)	395 (70.0%)
Yes	88 (22.4%)	81 (47.1%)	169 (30.0%)
Arrested			
No	325 (82.9%)	113 (65.7%)	438 (77.7%)
Yes	63 (16.1%)	58 (33.7%)	121 (21.5%)
Unknown	4 (1.0%)	1 (0.6%)	5 (0.9%)
Pregnant			
No	312 (79.6%)	—	—
Yes	70 (17.9%)	—	—
Unknown	10 (2.6%)	—	—
If pregnant			
1 pregnancy	46 (65.7%)	—	—
≥2 pregnancies	10 (14.3%)	—	—
Previous STD (self-report)			
No	327 (83.4%)	150 (87.2%)	477 (84.6%)
Yes	54 (13.8%)	18 (10.5%)	72 (12.8%)
Unknown	11 (2.8%)	4 (2.3%)	15 (2.7%)
Previous STD (PDPH)			
No	—	—	434 (77.0%)
Yes	—	—	130 (23.0%)
Age at first sex (years)			
≤11	0 (0.0%)	15 (8.7%)	15 (2.7%)
12	11 (2.8%)	15 (8.7%)	26 (4.6%)
13	57 (14.5%)	31 (18.0%)	88 (15.6%)
14	117 (29.8%)	50 (29.1%)	167 (29.6%)
15	103 (26.3%)	27 (15.7%)	130 (23.0%)
16	59 (15.1%)	20 (11.6%)	79 (14.0%)
≥17	29 (7.4%)	3 (1.7%)	32 (5.7%)
Mean	14.6	13.8	14.4
Median	15.0	14.0	14.0
Time btwn. first STD and first sex (years)			
Mean	1.3	2.6	1.7
Median	1 (range –3 to 6)	2 (range 0 to 7)	1 (range –3 to 7)

Results Of ~31800 students attending a presentation, 14031 (~44.1%) tested; of these, 8674 (61.8%) reported ever having sex, 2316 (16.5%) reported no sex, and 2950 (21.0%) did not answer. GC/CT positivity was higher for students who did not answer (8.5%) and those who reported having sex (7.5%) than for students who reported no sex (0.8%). Infected students were significantly more likely to be black: 8.9% of blacks were infected compared with 2.2% of whites ($p<0.0001$). 926 students tested positive and 564 (60.9%) were interviewed (Abstract P1-S2.66 table 1); of these, 169 (30%) had ≥2 sex partners in the past 60 days, 121 (21.5%) had been arrested, and 70 (17.9% of females) had been pregnant. Though only 72 (12.8%) interviewed students reported a previous STD, 130 (23.0%) had a documented history of GC/CT in the PDPH database. Compared to females, males reported earlier sexual initiation, had a greater percentage report first sex before age 13, and took twice as long from sexual initiation to first STD (Abstract P1-S2.66 table 1). Interviewed black (compared with white) students were more likely to report a history of pregnancy, STD, and arrest, though these differences were not statistically significant.

Conclusions A striking proportion of students who test positive in the PHSSSP are black, have high partner number, young age at first sex, and past STD, pregnancy, and/or arrest. Some of these factors probably predispose students to future STD. PDPH is working to develop behavioural interventions for this population to address ongoing risk; as many students report young age at sexual initiation, interventions that begin before high school should also be investigated.

P1-S2.67 PREVALENCE OF CHLAMYDIA TRACHOMATIS AND NEISSERIA GONORRHOEAE AMONG COLLEGE STUDENTS WHO ATTENDED THE JOHNS HOPKINS UNIVERSITY HEALTH AND WELLNESS CENTER FROM 2009 TO 2010

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Background The Centers for Disease Control and Prevention (CDC) recommends that sexually active women 25 years or younger be tested yearly for *Chlamydia trachomatis*. An ongoing screening program among college students attending a university gave students the opportunity to be screened for *C trachomatis* (CT) and *Neisseria gonorrhoeae* (GC).

Methods Male and female college students attending Johns Hopkins University were offered screening for chlamydia and gonorrhoea by the Health and Wellness Center. From February 2009 to December 2010, 1114 male urines and female vaginal specimens were submitted to the STD Research Laboratory for CT and GC screening using the Gen-Probe Aptima Combo2 assay. Results were returned to the Johns Hopkins University Student Health and Wellness Center which treated the infected students. 10 students were also tested for *Trichomonas vaginalis* (TV) with Gen-Probe ATV Analyte Specific Reagent assay (ASR).

Results As of 31 December 2010, there were 284 (25.5%) males and 830 (75%) females tested, between the ages 17–48 yr. 810 (72.7%) were White, 76 (6.8%), Black, 146 (13.1%). Asian/Pacific Islander, 5 (0.44%) were American Indian, and Other/unknown 78 (7.0%). 71 (6.4%) students were Hispanic and 120 (10.8%) indicated they were symptomatic. The overall prevalence of CT and GC was 1.6% (18/1114) and 0.2% (2/1114), respectively. All TV results were negative. 8/284 (2.8%) males and 10/830 (1.2%) females were CT positive. 5/18 (27.8%) were symptomatic (3 females, 2 males) and 7/8 were between 18 and 29 yrs of age (there was one 34 yr. old Black male). Among the 18 CT positive students, 13 were White, 1 Black, 2