Chlamydia Positivity in New Orleans Public High Schools, 1996–2005: Implications for Clinical and Public Health Practices

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ABSTRACT

OBJECTIVE: To describe the trends in chlamydia positivity among New Orleans high school students tested in a schoolwide screening between 1996 and 2005, and to determine factors associated with chlamydia positivity among students during the 10-year period.

METHODS: Between school years 1995–1996 and 2004–2005, students in New Orleans public high schools were tested for chlamydia using nucleic acid amplification tests (NAAT) in urine specimens (LCx assay until 1999–2000; BD assay from 2000–2001 to 2004–2005). For each year, we calculated chlamydia positivity by dividing the number of students testing positive by the total number of students tested. Data were analyzed separately by gender. Logistic regressions were performed to determine independent predictors of chlamydia positivity during the 10-year period.

RESULTS: Between 1996 and 2005, the average chlamydia positivity was 7.0% (95% confidence interval 6.6–7.4) in boys and 13.1% (95% confidence interval 12.6–13.7) in girls ($P < .001$). Chlamydia detection increased with the switch from LCx to BD assay. In multivariate analyses, chlamydia positivity among boys and girls was significantly associated with age, black race, and gonorrhea coinfection. Additionally, positivity was significantly different by school year among boys ($P = .03$) and by NAAT used among girls ($P = .008$).

CONCLUSIONS: The trends in chlamydia positivity observed between 1996 and 2005 more likely reflected a high and stable prevalence of chlamydia in the New Orleans school-age adolescent population. Any benefit of screening on individuals tested was likely to be mitigated by participants' uninterrupted social interactions with the dynamic forces that sustain the sexual transmission of chlamydia in the population.

KEYWORDS: adolescents; infectious disease epidemiology; prevalence; screening; sexually transmitted infection

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WHAT'S NEW

From 10 years of data, we provide argumentation that repeated annual chlamydia screenings in schools are not designed to decrease the prevalence of chlamydia in the school-age adolescent population.

GENITAL INFECTION WITH *Chlamydia trachomatis* is associated with cervicitis in women and urethritis in men, but in women it may lead to more serious clinical syndromes such as pelvic inflammatory disease, chronic pelvic pain, ectopic pregnancy, and tubal infertility.[1–5] Transmitted from a pregnant woman to an unborn child, *C trachomatis* infection can result in conjunctivitis and pneumonia in the newborn and may increase perinatal mortality.[6–8] Despite the severity of these natural history developments, up to approximately 90% of genital infections with *C trachomatis* in men and women may remain asymptomatic.[9,10]

In the United States, infection with *C trachomatis* is the most common disease reported annually to the Centers for Disease Control and Prevention. In 2010, over 1.3 million cases were reported from all 50 states and the District of Columbia.[11] At least 930,000 of these cases (~70%) were among men and women aged 15 to 24.[11] Epidemiologic research has linked genital *C trachomatis* infection to an increased risk of acquiring human immunodeficiency virus (HIV),[12] which, when transmitted perinatally from HIV-infected pregnant women to their offspring, can result in pediatric HIV/AIDS.[13]

In the early 1990s, nucleic acid amplification tests (NAATs) were developed for detecting sexually transmitted infections (STIs) in laboratory specimens that could be obtained without the discomfort of pelvic examination

for women and urethral swabbing for men,[14] and single-dose therapy for the treatment of chlamydia became available.[15] These 2 technological advances made screening and treatment the essential component of national efforts to control infections with *C trachomatis*.[16–19] The rationale behind controlling chlamydia through screening and treatment programs is the concept that detection and treatment of infections would remove treated individuals from the pool of transmitters of *C trachomatis* in the population. When at a point in time sufficient numbers of existing infections in a population are treated,[20] the average number of infectious hosts that are the source of transmission to susceptible individuals decreases. This would reduce the average number of uninfected individuals becoming infected through infectious sexual contacts. In infectious disease epidemiology, a reduction in the average number of individuals becoming newly infected within a population (incidence) would result in a reduction in the average number of existing infections in that population (prevalence) if the average duration of infectiousness of those affected is held constant.[21,22]

As part of efforts to control STIs, screening and treatment for chlamydia was implemented in New Orleans public high schools during the school year 1995–1996, using NAATs in urine specimens and single dose therapy.[23] After this initial implementation demonstrated the feasibility, acceptability, and high yield of such a screening in schools, it was repeated each year until the school year 2004–2005. The outcome of the first 3 years of the program, which suggested that school-based screenings were associated with a decline in the prevalence of chlamydia among boys, was published in 1999.[24] Whether in the long run school-based screenings are associated with reductions in the prevalence of chlamydia has not been determined.

In the present report, we describe the trends in chlamydia positivity among students tested over the 10 consecutive years of the New Orleans schoolwide chlamydia screening, from implementation in 1995–1996 to school year 2004–2005, and we determine factors that were associated with chlamydia positivity in this high school student population during the 10-year period. We discuss the implications of the program for clinical and public health practices.

METHODS

SETTING AND DESIGN

Between the school years 1995–1996 and 2004–2005, high school students in a New Orleans public school district were offered a screening for chlamydia, using NAATs in urine specimens. Testing was offered twice a year at each participating school in 1995–1996 and 1996–1997, and once a year from 1997–1998 to 2004–2005.[24] All students in participating schools were eligible for testing if they had consent. Consent was obtained in writing or verbally by telephone from parents/guardians of students younger than 18. Students aged 18 or older provided their own consent in writing. For the first 5 years of the program, if the school had a school health clinic on site, all students who had parental consent to receive clinical services at the school clinic were also considered to have parental consent and eligible for testing. This consent process, including verification of student enrollment in school health clinics, was repeated each year regardless of whether a student had consent and had participated in screening in previous years.

Urine specimens were self-obtained. During a 5- to 6-week period at each participating school, entire classes of students were escorted to the testing area throughout the day. Students younger than 18 for whom parental consent had not been obtained and students 18 years or older who had not signed a written consent were not permitted to provide specimens. Students who had consent and who were willing to participate were asked to use restrooms located in the vicinities of the testing area to collect a first void urine specimen of approximately 30 mL. All specimens were refrigerated and delivered to the laboratory on the same day for testing.

LABORATORY TESTING

Testing was performed using commercially available NAATs following the instructions in the manufacturers' package inserts. During the kickoff round of screening in 1995–1996, the first 444 specimens were tested for chlamydia using polymerase chain reaction (PCR) assay (Amplicor Chlamydia Test, Roche Molecular Systems, Branchburg, NJ); then the ligase chain reaction assay (LCx *Chlamydia trachomatis* assay, Abbott Laboratories, Abbott Park, Ill) was used to increase the efficiency of testing at the laboratory.[23] From 1996–1997 to 1999–2000, the LCx was used in all specimens that were also tested for gonorrhea (LCx *Neisseria gonorrhoeae* assay; Abbott Laboratories). From 2000–2001 to 2004–2005, all specimens were tested for both chlamydia and gonorrhea using strand displacement amplification assay with the Becton Dickinson (BD) ProbeTec ET system (BDProbeTec ET *Chlamydia trachomatis* and *Neisseria gonorrhoeae* amplified DNA assays; BD Diagnostics, Sparks, Md).

INFECTION, TREATMENT AND COUNSELING, AND PARTNER NOTIFICATION

Infection was determined by a positive laboratory test result. Infections were treated at school by a nurse or a physician with a single dose of 1-g oral azithromycin for chlamydia and 400 mg of oral cefixime for gonorrhea, administered under direct observation.[25] After the commercialization of cefixime was discontinued in 2002, a single dose of 500-mg oral ciprofloxacin was used to treat gonorrhea.[25] During treatment, infected students were counseled and asked to seek complete STI evaluation at the city STI clinic and to refer their sexual partners to the city STI clinic for treatment. If a named partner attended a local school, the nurse at that school was contacted so the exposed partner could be treated. Students who could not be located at school for treatment, those who refused treatment, and partners elicited during counseling who were not treated had their information forwarded to a public health disease intervention specialist for follow-up.[25] No

patient-delivered partner therapy was provided. Also, the program did not offer retesting 3 months after a positive test, but all students were encouraged to be tested at each screening opportunity, regardless of previous participation and test result.

Confidentiality and Protection of Human Subjects

Testing was offered to all students regardless of sexual activity, symptoms, or history of STI. All specimens were labeled using preprinted barcodes. From 1995–1996 to 1998–1999, test results were provided to students individually in sealed envelopes identified only by a code number; from 1999–2000 onward, students accessed their test results through an automated telephone system using their personally selected access code. Parents could not obtain students' test results from the program. Students were encouraged, however, at their discretion, to inform parents of their test results. The program protocol was annually reviewed and approved by the institutional review board of the Louisiana State University Health Sciences Center in New Orleans.

Data Analysis

For each school year, we calculated chlamydia positivity by dividing the number of students who tested positive for chlamydia by the total number of students tested. In 1995–1996 and 1996–1997, when testing was offered twice a year at each participating school,[24] only the results of the first participation are used in this analysis for students tested 2 times during the same school year. Because in the school district chlamydia infection rates are significantly higher in girls than in boys,[23–26] data were analyzed separately for boys and girls. For each gender, chlamydia positivity was calculated by school year, by students' age at the time of testing, by race, grade, laboratory test results for gonorrhea, and by whether the student was being tested the first, second, third, or fourth time since first enrolling in a participating school. Because infection rates tended to be higher when testing was by BD assay (9.6% of boys and 16.7% of girls tested positive in 2004–2005[27]) than when testing was by LCx (6.2% of boys and 11.5% of girls tested positive between 1996 and 1998[24]), chlamydia positivity was also determined by NAAT performed.

Factors associated with chlamydia positivity in these bivariate analyses at $P < .25$ were entered into a logistic regression equation to determine independent predictors of chlamydia positivity ($P < .05$ in multivariate logistic regression analysis) during the 10-year period. Because of the intercorrelation between age and grade ($r = .737$; $P < .001$), grade was not considered a candidate variable in multivariate analysis. All analyses were performed by SPSS software (SPSS, Chicago, Ill).

Results

For each of the 10 years of screening, the number of participating schools, the number of students enrolled in grades 9 through 12 in those schools, their gender distributions, the proportions of enrolled students who were African Americans, the number of students tested, and chlamydia tests positivity are shown in Table 1. The average 10-year chlamydia positivity was 10.0% (3,064 of 30,626; 95% confidence interval [CI] 9.7–10.3), 7.0% (1,101 of 15,667; 95% CI 6.6–7.4) in boys and 13.1% (1,963 of 14,959; 95% CI 12.6–13.7) in girls ($P < .001$).

In both boys and girls, chlamydia positivity differed significantly by school year (Fig. 1), by age (Fig. 2), and by grade (Table 2), and was significantly higher among African Americans, among students infected with gonorrhea, and when testing was by BD assay (Table 2). Among boys but not among girls, retesting during a subsequent school year was associated with increased chlamydia test positivity (Table 2). Between 1999–2000 and 2000–2001 when testing switched from LCx to BD assay, chlamydia positivity increased significantly in boys (6.5% [202 of 3,084] to 9.4% [138 of 1,468], respectively; $P = .001$) and girls (12.5% [375 of 2,994] to 15.8% [221 of 1,399], respectively; $P = .003$) (Fig. 1).

In multivariate logistic regression analyses (Table 3), chlamydia positivity in boys remained independently significantly associated with age, African American race, school year, and coinfection with gonorrhea. Testing by BD assay (adjusted odds ratio [OR] 1.11; 95% CI 0.87–1.41; $P = .42$) was not significantly associated with

Table 1. School Participation, School Enrollment, Student Participation in Screening, and Chlamydia Positivity

	School Participation and Student Enrollment				Student Participation in Screening	
School Year	Schools, n (%)	School Enrollment, n	Gender (Boy/Girl)	African American, n (%)*	Students Tested, n (%)*	Chlamydia Positive, n (%)†
1995–1996	3	2,263	1,106/1,149‡	2,195 (97.0)	1,257 (55.5)	110 (8.8)
1996–1997	3	2,380	1,172/1,208	2,319 (97.4)	1,545 (64.9)	99 (6.4)
1997–1998	8	7,271	3,562/3,706‡	7,135 (98.1)	3,800 (52.3)	324 (8.5)
1998–1999	12	11,305	5,592/5,711‡	10,682 (94.5)	5,437 (48.1)	440 (8.1)
1999–2000	13	13,033	6,527/6,437‡	12,172 (93.4)	6,078 (46.6)	577 (9.5)
2000–2001	8	8,640	4,408/4,232	8,349 (96.6)	2,867 (33.2)	359 (12.5)
2001–2002	8	7,510	3,888/3,612‡	7,359 (98.0)	3,029 (40.3)	341 (11.3)
2002–2003	7	6,586	3,446/3,138‡	6,399 (97.2)	2,216 (33.6)	271 (12.2)
2003–2004	8	7,111	3,770/3,341	6,979 (98.1)	2,228 (31.3)	285 (12.8)
2004–2005	9	6,613	3,498/3,115	6,413 (97.0)	2,169 (32.8)	258 (11.9)

*Percentage enrolled in school.

†Percentage of those tested.

‡Totals of boys and girls do not add to the total enrolled in schools as a result of missing data on gender.

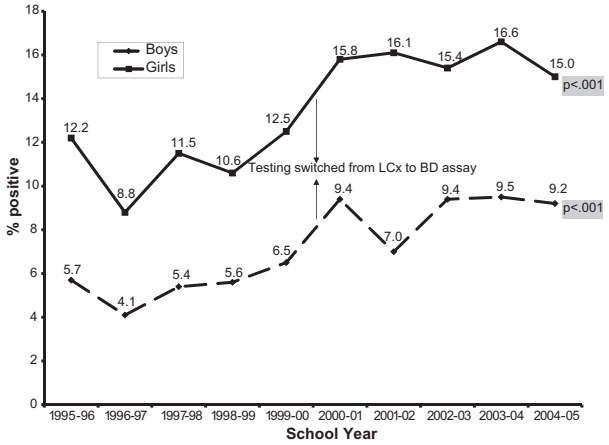

Figure 1. *Chlamydia positivity by school year.*

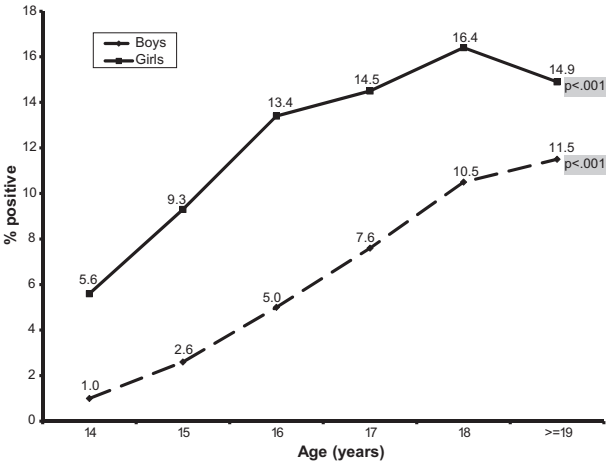

Figure 2. *Chlamydia positivity by age.*

chlamydia positivity, adjusting for age, race, school year, gonorrhea test result, and frequency of testing uptake. In girls, chlamydia positivity remained independently significantly associated with age, African American race, testing by BD assay, and coinfection with gonorrhea. School year (adjusted OR 1.02; 95% CI 0.98–1.07; $P = .28$) was not significantly associated with chlamydia positivity, adjusting for age, race, NAAT, gonorrhea test result, and frequency of testing uptake. Compared to the first testing, retesting subsequently was not independently significantly associated with chlamydia positivity in boys and girls.

DISCUSSION

We had previously stated that chlamydia positivity in the New Orleans high school student population increased over time.[26] Indeed, chlamydia positivity did increase sharply between the fifth and the sixth years of screening, and positivity in the last 5 years of the program remained consistently above that observed in the first 5 years in both genders (Fig. 1).[26] However, underlying these observations were the laboratory use of LCx assay in the first 5 and BD assay in the last 5 years for detecting chlamydia, and the switch in these NAATs between the fifth and the sixth years of the program. In boys, chlamydia positivity markedly dropped twice over time: in 1996–1997, when positivity using LCx dropped 28% from 5.7% to 4.1%, and in 2001–2002, when positivity using BD assay dropped 25% from 9.4% to 7.0% (Fig. 1). Multivariate analyses showed that relative to LCx, the switch to BD assay independently increased chlamydia positivity by 11% in boys ($P > .40$) and by 29% in girls ($P = .008$), and that positivity in boys was significantly different by school year regardless of which NAAT was used, but positivity in girls was not significantly different by school year (Table 3). These findings indicate that between 1996 and 2005, there was no evidence of increased chlamydia positivity in this high school student population.[26] Instead, chlamydia positivity among New Orleans public high school students during the 10-year period remained consistently high, the laboratory capability of the screening program to detect chlamydia among those screened improved over time by switching testing from LCx assay to BD assay,[28] and positivity was significantly different per school year in boys, possibly as a result of sampling variation, but not in girls.

Testing positive for chlamydia during the 10-year period was significantly associated with aging and being African American in boys and girls (Table 3), and in this study age was positively correlated with and used in multivariate analyses as a proxy for grade. Grade and black race are associated with behaviors that increase the risk of STI among US high school students.[29,30] A major limitation of the New Orleans school-based STI screening was the state legal restriction to ask students sexual behavior questions.[23] We therefore do not have sexual behavior data from screened participants that could directly relate to the chlamydia tests positivity observed in the 10 years of this screening program. But the sexual behaviors reported by New Orleans and by nationally representative US high school students in Youth Risk Behavior Surveys (YRBS) and the distributions of these behaviors corroborate our findings. The proportions of students in YRBS who report having ever had sex, being currently sexually active, and having 4 or more lifetime sexual partners increase by grade, and non-Hispanic blacks report these behaviors significantly more frequently than non-Hispanic whites and Hispanics.[29–31] The grade and race/ethnicity distributions of these behaviors are consistent with our findings of increased odds of testing positive for chlamydia with older age, a proxy for being a high school upperclassman in our analysis, and with African American race.

Coinfection with more than 1 sexually transmitted pathogen is highly prevalent among carriers of an STI.[32,33] The New Orleans school-based screening was conceived and thought of as a chlamydia screening program,[23] but from the second year of screening, all specimens were tested for both *C trachomatis* and *N gonorrhoeae*. Our analysis showed that the positivity of a specimen for gonorrhea was its strongest predictor for chlamydia positivity. Compared to the odds of chlamydia positivity for a specimen that tested negative for gonorrhea, the odds of a specimen that tested positive for gonorrhea to test positive for chlamydia was conservatively greater than 11 times in

Table 2. Average Chlamydia Positivity

Characteristic	Boys		Girls	
	Positivity	*P*	Positivity	*P*
Grade*		<.001		<.001
9	188/4,148 (4.5%)		427/3,874 (11.0%)	
10	231/3,847 (6.0%)		510/3,812 (13.4%)	
11	302/3,812 (7.9%)		513/3,641 (14.1%)	
12	376/3,775 (10.0%)		501/3,529 (14.2%)	
Race†		.003		<.001
African American	1,093/15,362 (7.1%)		1,955/14,697 (13.3%)	
Other	8/298 (2.7%)		8/256 (3.1%)	
Gonorrhea test result‡		<.001		<.001
Positive	101/184 (54.9%)		268/478 (56.1%)	
Negative	961/14,804 (6.5%)		1,621/13,865 (11.7%)	
Nucleic acid amplification test		<.001		<.001
PCR/LCx assay	520/9,060 (5.7%)		1,030/9,057 (11.4%)	
BD assay	581/6,607 (8.8%)		933/5,902 (15.8%)	
Frequency of testing uptake		<.001		.105
First testing	635/10,090 (6.3%)		1,245/9,828 (12.7%)	
Second testing	299/3,826 (7.8%)		498/3,635 (13.7%)	
Third testing	123/1,379 (8.9%)		176/1,198 (14.7%)	
Fourth testing or higher	44/372 (11.8%)		44/298 (14.8%)	

PCR = polymerase chain reaction; LCx = LCx *Chlamydia trachomatis* (Abbott Laboratories, Abbott Park, Ill); BD = Becton Dickinson (BD Diagnostics, Sparks, Md).

*A total of 85 boys and 103 girls had missing grade.

†Seven boys and 6 girls had missing race.

‡Gonorrhea tests were not performed for 679 boys and 616 girls, almost all of whom were tested in 1995–1996 when students were tested only for chlamydia.

boys and greater than 7 times in girls, independent of the NAAT used (Table 3). As high school students engage in more behaviors that increase their risk of STI,[29–31] their chances of becoming infected with chlamydia, gonorrhea, or both increase.

Students testing positive for chlamydia at retest (Table 2) were a combination of the ones who previously tested negative and the others who previously tested positive for chlamydia. They represented respectively incident infections and repeat positives, most of which were reinfections. The chlamydia positivity of at least 7.8% in boys and 13.7% in girls at retest therefore reflected high incidence and reinfection rates in the school district. In areas of high prevalence of STIs, high school boys and girls should be offered annual testing for chlamydia, and those who test positive should receive risk reduction counseling during treatment and retested at reasonable interval as they are at high risk of reinfection.

Participation of students in screening as proportions of those tested over the total school populations was as low as 31% (2003–2004) and as high as 65% (1996–1997) (Table 1). Because only fractions of school populations could be tested each year, we were only able to estimate the prevalence of chlamydia in participating schools by calculating the percentages of students testing positive for chlamydia among those tested. In addition to the

Table 3. Multivariate Logistic Regression Analyses of Chlamydia Positivity, 1996–2005

Covariate	Boys		Girls	
	Adjusted OR (95% CI)	*P*	Adjusted OR (95% CI)	*P*
Age	1.44 (1.36–1.52)	<.001	1.19 (1.15–1.24)	<.001
Race				
African American	2.75 (1.35–5.59)	.005	4.33 (2.13–8.81)	<.001
Other	Reference		Reference	
Nucleic acid amplification test				
PCR/LCx assay	Reference		Reference	
BD assay	1.11 (0.87–1.41)	.42	1.29 (1.07–1.56)	.008
School year	1.06 (1.01–1.12)	.03	1.02 (0.98–1.07)	.28
Gonorrhea test result				
Positive	15.64 (11.52–21.23)	<.001	9.31 (7.70–11.26)	<.001
Negative	Reference		Reference	
Frequency of testing uptake				
First testing	Reference	…	Reference	…
Second testing	0.94 (0.81–1.09)	.40	0.92 (0.82–1.04)	.20
Third testing	0.85 (0.68–1.06)	.15	0.88 (0.74–1.06)	.19
Fourth testing or higher	1.01 (0.72–1.43)	.96	0.74 (0.52–1.04)	.09

OR = odds ratio; CI = confidence interval; PCR = polymerase chain reaction; LCx = LCx *Chlamydia trachomatis* (Abbott Laboratories, Abbott Park, Ill); BD = Becton Dickinson (BD Diagnostics, Sparks, Md).

limitations of our assessment of factors associated with chlamydia positivity by the lack of sexual behavior data during the 10-year period, the 35 to 69% nonparticipation rates also limited the accuracy of our estimates of the annual prevalence of chlamydia in participating schools, because students not tested during any given school year may have had different risk characteristics than students tested. However, the varying participation rates (46.6% to 64.9% during the first 5 and 31.3% to 40.3% during the last 5 years of screening) were associated with nonsignificant fluctuations in chlamydia positivity (6.4% to 9.5% and 11.3% to 12.8%, respectively, Table 1). These and the adjustments performed in multivariate analyses (Table 3) indicate that the trends in positivity over time were likely to have remained unaffected by nonparticipation of students in testing. These trends more likely reflected a high and stable prevalence of chlamydia in the population that fed participating schools during the 10-year period.

The New Orleans program is the first and to date the longest continuously run schoolwide annual screening for chlamydia ever conducted in schools. To date, the program to our knowledge provides the only available data on chlamydia positivity assessed annually among entire high school student populations during 10 consecutive years. Although testing ended after the 2004–2005 screening for lack of funding to sustain the program longer, the results of this study and the lessons learned from the program after 10 years of screening still have implications for clinical and public health practices as we move forward.

IMPLICATIONS FOR CLINICAL PRACTICE

Depending on the local and regional STI epidemiology, clinicians who care for high school students, especially pediatricians, school nurses, and operators of school clinics, must be aware of the high prevalence of chlamydial infection in the population they serve. Though prevalence may be higher in girls than in boys, it may be sufficiently high in boys to deserve attention. The racial disparity in the distribution of chlamydial infection in a high school student population should be recognized: compared with non–African Americans of same age and gender, prevalence is particularly higher in African American students. Up to approximately 90% of chlamydial infections are likely to be asymptomatic at the time students are seen by a clinician,[9,10,23,24] and many may be carrying more than 1 sexually transmitted pathogen.[34] Infections are likely to escape detection during these clinical encounters unless students are proactively offered STI testing regardless of their reason for visiting the clinic.[35,36] Students testing positive for chlamydia and treated should be counseled about how to reduce their risk of STI and scheduled for retesting at a reasonable interval to monitor for reinfection.

IMPLICATIONS FOR PUBLIC HEALTH PRACTICE

An issue of public health importance regarding school-based chlamydia screening is the question of whether repeated screenings could result in declines in the prevalence of chlamydia in school-age adolescents.[24,37] To address this issue, one must first consider that students tested for chlamydia in schools are a dynamic cross section of a larger segment of an open population.[21] In addition to the natural immigration and emigration of the population, each year a class enrolls in and another class graduates from high school; new members of the population are constantly initiating sexual activity, joining networks of individuals practicing various and ever changing sexual risk behaviors, including their own; and as all age with time, many are retiring from risky sexual activity. Within this dynamic and open population are established the social contacts that sustain the interacting forces that determine the sexual transmission of *C trachomatis*.[38] Participating in our screening did not alter the patterns of population contacts of students tested and did not affect the rates at which *C trachomatis* was being transmitted (incidence) in the source population. From these considerations, it can be argued that repeated school-based screenings are unlikely to decrease the population prevalence of chlamydia, even if all students in the school district could be tested each year and all sexual partners of those testing positive traced and treated. The scale of testing coverage[20,39] in school would simply be too small relative to the population and sexual mixing of students tested for their participation to markedly impact the transmission dynamics that operate and determine prevalence in the larger population. We submit that only data obtained from a screening conducted at the community level, ie, targeting an entire community at all possible screening venues[40–47] at the same time,[39] can adequately address the issue of whether repeated screenings, in schools or at any other screening venue, could result in decreases in the population prevalence of chlamydia. Conducting such a community-level chlamydia screening to obtain such data would require a strong will on the part of community leaders, resource allocation, coordination, and leadership.

CONCLUSIONS

After 10 years of school-based screenings, the trends in chlamydia positivity observed between 1996 and 2005 more likely reflected a high and stable prevalence of chlamydia in the New Orleans school-age adolescent population. The steadily higher chlamydia positivity among students tested repeatedly indicates that any benefit of screening on individuals tested was likely to be mitigated by participants' uninterrupted social interactions with the dynamic forces that sustain the sexual transmission of chlamydia in the population.

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