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Sexually Transmitted Infection Clinics as Safety Net Providers: Exploring the Role of Categorical Sexually Transmitted Infection Clinics in an Era of Health Care Reform

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Abstract

Background: For many individuals, the implementation of the US Affordable Care Act will involve a transition from public to private health care venues for sexually transmitted infection (STI) care and prevention. To anticipate challenges primary care providers may face and to inform the future role of publicly funded STI clinics, it is useful to consider their current functions.

Methods: Data collected by 40 STI clinics that are a part of the Sexually Transmitted Disease Surveillance Network were used to describe patient demographic and behavioral characteristics, STI diagnoses, and laboratory testing data in 2010 and 2011.

Results: A total of 608,536 clinic visits were made by 363,607 unique patients. Most patients (61.9%) were male; 21.9% of men reported sex with men (MSM). Roughly half of patients were

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20 to 29 years old (47.1%) and non-Hispanic black (56.2%). There were 212,765 STI diagnoses (mostly nonreportable) that required clinical examinations. A high volume of chlamydia, gonorrhea, and HIV testing was performed (>350,000 tests); the prevalence was 11.5% for chlamydia, 5.8% for gonorrhea, 0.9% for HIV, and varied greatly by sex and MSM status. Among MSM with chlamydia or gonorrhea, 40.1% (1811/4448) of chlamydial and 46.2% (3370/7300) of gonococcal infections were detected at extragenital sites.

Conclusions: Sexually Transmitted Disease Surveillance Network clinics served populations with high STI rates. Given experience with diagnoses of both nonreportable and reportable STIs and extragenital chlamydia and gonorrhea testing, STI clinics comprise a critical specialty network in STI diagnosis, treatment, and prevention.

The economic recession of the past decade has had a dramatic effect on public spending, forcing health departments to curtail publicly funded sexually transmitted infection (STI) services.[1] Implementation of the Affordable Care Act (ACA) is expanding health care access for Americans who have been uninsured or underinsured. Taken together, these developments could lead to different scenarios regarding the future of STI care and prevention. One such scenario is that more public STD clinics join provider networks, establish contracts with insurers, and implement billing and reimbursement protocols, and that previously uninsured and underinsured patients continue to seek services in these settings. Whether publicly funded STI clinics should even continue to exist is now a topic of debate,[2] and another scenario entails STI care increasingly shifting from public clinics (e.g., categorical STI, family planning, and adolescent health clinics) into primary care settings.

The possible situation in which STI care and prevention moves more into the realm of primary care raises a number of questions. Will primary care providers be equipped to handle the diagnostic and therapeutic demands of patients presenting with STI in the context of an influx of patients with a myriad of other and perhaps more serious medical conditions? Will these providers be sufficiently supported to deliver basic components of STI prevention found in STI clinics, such as comprehensive sexual risk assessments, risk reduction counseling, and partner services? Perhaps most importantly, will patients who have historically used STI clinics sign up with primary care providers and use them if they suspect they have an STI? Although these questions will ultimately be answered after the ACA has been fully implemented, it is useful to consider the current role of STI clinics in the United States—to examine the populations they serve and the services they provide, to anticipate challenges that a transition from public to private STI care and prevention specifically will entail, and to shape the future of publicly funded STI clinics in this evolving environment. To this end, we set out to answer the questions: who is currently seen in public STI clinics, what conditions do they have, and what services do the clinics provide?

The Sexually Transmitted Disease Surveillance Network (SSuN), a geographically diverse collaborative supported by the Centers for Disease Control and Prevention (CDC), collects de-identified information on patients visiting any of the STI clinics that are a part of the network. These clinics serve a large clientele, and employ professional staff trained to address sexual health issues and correctly diagnose and treat a wide range of STI. Thus, SSuN is uniquely positioned to answer some of the questions raised earlier. Here, we report

on 363,607 unique patients making more than half a million visits to SSuN STI clinics in 2010 and 2011.

METHODS

From 2010 through 2011, there were 40 SSuN clinics located in 12 areas: Birmingham, Alabama (n = 1 clinic); Baltimore, Maryland (n = 2); Los Angeles, California (n = 12); Denver, Colorado (n = 1); New Haven and Hartford, Connecticut (n = 2); Chicago, Illinois (n = 5); New Orleans, Louisiana (n = 1); New York, New York (n = 9); Philadelphia, Pennsylvania (n = 2); San Francisco, California (n = 1); Richmond, Virginia (n = 3); and Seattle, Washington (n = 1). A core set of data elements for all STI clinic patient visits (patient demographics, medical history, laboratory test results, and diagnoses) was collected using electronic medical record systems and routinely transmitted to CDC.

Number of Visits and Patient Characteristics

We analyzed selected demographic, behavioral, diagnosis, and laboratory testing data from patients seen in SSuN clinics from January 1, 2010, through December 31, 2011. Some patients had more than 1 visit to the clinics; therefore, numbers of clinic visits exceeded the numbers of unique patients seen. Clinic visits per SSuN site ranged from 1% to 37% of the total records for analysis. Because of the wide range across sites in visit number, race/ethnicity distribution, and proportion of men who reported same-sex behavior (MSM), we presented weighted data on patient characteristics in addition to unweighted data. Applied weights achieved results regarding patient characteristics that were representative of the entire population of the 40 clinics. Weights were constructed as the multiplying factors required for each SSuN site to provide the same number of patients (set as the average across sites), resulting in each site contributing equal weight for the patient-based analysis. Demographic descriptors of SSuN clinic patients included sex, age, race/ethnicity, and male sexual behavior (i.e., MSM or men who have sex with women [MSW]). We defined MSM as men with nonmissing sex of partners who reported sex with a man in the referent period (2–3 months before clinic visit, depending on SSuN site) or who self-identified as gay/homosexual or bisexual. The unit of analysis for the weighted analysis was the unique patient, and categorization of age, race/ethnicity, and male sexual behavior was based on information from the first clinic visit in the 2 years. We evaluated repeat visits made by SSuN patients during the 2 years. We also quantified the number of sex partners reported by SSuN patients, using numbers of partners reported at clinician visits for referent periods of interest.

Visits Types

To characterize distinct visit types, visits were assigned to the following mutually exclusive categories: clinician examinations, express visits, HIV-testing-only visits, and other visits. Clinician examinations were defined as visits at which a physical examination was performed in addition to point-of-care testing and routine laboratory testing. Express visits, available at 7 of 12 SSuN sites, were defined as visits at which the patient did not receive a clinical examination but provided specimens for chlamydia, gonorrhea, syphilis, and/or HIV screening. Some visits could have included receipt of STI-related vaccines, such as hepatitis

A, hepatitis B, and human papillomavirus vaccine. Other visits included visits at which test results or treatment was provided, as well as visits labeled as “other” in medical records. A single patient with multiple visits could have had more than 1 visit type.

Examination-Based STI Diagnoses

Many STI cannot be diagnosed by laboratory testing alone and may require a physical examination for an appropriate diagnosis; we termed these “examination-based diagnoses” and they included all STIs, except for chlamydia, gonorrhea, and HIV, all of which require laboratory confirmation. The proportions of visits at which examination-based diagnoses were made were calculated using the denominator of clinician examination visits. However, not all 40 SSuN clinics reported on every non-chlamydia/gonorrhea/HIV diagnosis. Therefore, to assess the proportion of visits at which each specific examination-based diagnosis was made, the denominator of clinician visits included only those clinics that reported on the condition of interest. We also calculated the proportion of visits at which no STI was diagnosed as the proportion of express visits and clinician examination visits where no infection/condition was diagnosed by either laboratory testing or examination.

Measures of Chlamydia, Gonorrhea, and HIV Infection

Prevalence was defined as the proportion of “testing events” at which there was at least 1 positive test. We counted distinct pathogen-specific testing events as the numbers of patients tested for chlamydia (by nucleic acid amplification tests, or NAATs), or gonorrhea (by NAATs), or HIV. For example, if a patient was tested for chlamydia at more than 1 anatomical site during a single visit, he/she was counted once in the denominator of testing events. If that patient tested positive for chlamydia at more than 1 anatomical site, he/she was counted once as infected. We calculated chlamydia, gonorrhea, and HIV prevalence, overall and by sex and MSM status. We also assessed chlamydia and gonorrhea testing volume and positivity by anatomical site among MSM. For positivity, MSM could contribute more than one test (e.g., urethral and rectal) and positive results for each anatomical site tested. Eleven of 12 SSuN sites conducted extragenital testing; results on tests conducted and infections detected at extragenital sites, as well as the proportion of cases that would be missed among MSM with urogenital, rectal, and pharyngeal screening in the absence of extragenital testing used data from only those 11 SSuN sites.

Analyses were descriptive and conducted using SAS version 9.2 (Cary, NC). The project underwent review at CDC and was determined not to be research involving human subjects. Sexually Transmitted Disease Surveillance Network activities were additionally considered surveillance at all SSuN sites and did not require institutional review board approval.[3,4]

RESULTS

Number of Visits and Patient Characteristics

In 2010 to 2011, 363,607 unique patients had 608,536 clinic visits at the 40 STI clinics across the 12 SSuN sites. The number of clinic visits by SSuN site ranged from 7087 to 223,971. Table 1 shows characteristics across the sites, with the percent of visits that were clinician visits (entailing physical examination) ranging between 44.1% and 100.0%; made

by men, between 45.6% and 75.0%; non-Hispanic black, between 18.1% and 89.6%; Hispanic, between 2.4% and 36.1%; MSM, between 2.9% and 40.0%; and age less than 25 years, between 20.2% and 43.9%. Table 2 shows the weighted distribution of SSuN clinic patients by sex, sex of partner(s), age, and race and ethnicity. There was a significant difference by sex, with the majority (61.9%) being male. Of men who reported on the sex of sex partner(s), 21.9% were MSM. Roughly half of SSuN clinic patients were 20 to 29 years old (47.1%) and non-Hispanic black (56.2%). Table 3 shows the weighted distribution of patient age and race/ethnicity by sex and sex of partner. Substantial differences were seen for MSM compared with women and MSW, in that MSM tended to be older(55.3% were older than 30 years) and of non-Hispanic white race/ethnicity (49.4%).

Approximately one-third (35%) of patients made more than 1 clinic visit during the 2-year period. Of sexual behavior groups, MSM accounted for the largest proportion with multiple visits; 20.2% of MSM had at least 2 visits, compared with15.8% of women and 12.7% of MSW. Report of multiple sex partners in the 2 to 3 months before visit was fairly common, with patients reporting at least 2 recent sex partners at 37.8% of clinician visits. Reporting at least 2 partners occurred at 46.6% of visits made by MSW (median, 2; range, 0–612), 26.0% of visits made by women (median, 1; range, 0–900), and 63.0% of visits made by MSM (median, 2; range, 0–502). Men who have sex with men reported at least 6 partners at 13.3% of their visits.

Visit Types

Of 582,344 clinic visits with a documented visit type, 371,744 (63.8%) were clinician examinations, 80,730 (13.9%) were express, 39,227 (6.7%) were HIV-testing-only, and the remaining 90,643 (15.6%) were “other” visits. Among clinics conducting express visits, 19.7% of visits (80,730/409,256) were express visits.

Examination-Based Diagnoses

Sexually Transmitted Disease Surveillance Network sites diagnosed a large number (n = 212,765) and a wide spectrum of STI that require examinations for diagnosis, most of which were bacterial vaginosis (BV) and nongonococcal urethritis (NGU)(29.0% and 23.1%, respectively; Table 4). Among the next most common examination-based diagnoses were cervicitis (6.9%), candidiasis (6.3%), genital warts (4.1%), trichomoniasis (2.7%), and genital herpes (2.4%). Pelvic inflammatory disease and early syphilis (primary, secondary, and early latent) were less commonly diagnosed at 1.1% and 0.8%, respectively. Over the 2 years, 128 cases of hepatitis A, 584 cases of hepatitis B, and 292 cases of hepatitis C were diagnosed at 3 SSuN sites. A total of 188,541 pregnancy tests were conducted at 8 SSuN sites that reported on pregnancy testing, yielding 1394 positive results.

Chlamydia, Gonorrhea, and HIV Testing

Laboratory data indicated a high volume of chlamydia, gonorrhea, and HIV testing with substantial morbidity. Across all clinics, there were 394,307 chlamydia, 409,018 gonorrhea, and 338,196 HIV testing events. The overall prevalence was 11.5% for chlamydia, 5.8% for gonorrhea, and 0.9% for HIV, and varied greatly by sex and MSM status (Fig. 1). Extragenital (rectal and pharyngeal) testing accounted for 10.1% (41,278/409,189) of

chlamydia and 20.3% (101,392/499,804) of gonorrhea tests performed; of 65,741 infections, 6930 (10.5%) were detected at rectal and pharyngeal sites. A substantial amount of extragenital testing was performed on MSM (54.9%), for whom rectal gonorrhea positivity (7.5%) and urogenital gonorrhea positivity (8.6%) were similar, and rectal chlamydia positivity (11.3%) was higher than urogenital chlamydia positivity (6.2%; Fig. 2). Among MSM with chlamydia or gonorrhea, 40.7% (1811/4448) of chlamydial and 46.2% (3370/7300) of gonococcal infections were detected at extragenital sites. Among 6788 testing events that included urogenital, pharyngeal, and rectal testing, 42.1% of these infections would have been missed by screening only at the urethra.

A total of 33.6% of clinician examination visits (124,758/371,744) and 81.4% of express visits (65,684/80,730) resulted in no STI diagnosis (i.e., no examination-based diagnosis and no positive chlamydia, gonorrhea, or HIV result).

DISCUSSION

With more than 600,000 clinic visits by more than 360,000 patients from 40 STI clinics across 12 regions in the United States, this report describes results from the largest single STI clinic database in the United States, giving us the best estimates of who is currently being served by public STI clinics and what diseases affect them.

Although there is considerable diversity among the clinics participating in SSuN, we believe that the data reported in this article allow for a number of robust conclusions. First, public STI clinics are predominantly accessed by individuals who are historically underserved in the traditional health care system.[5,6] The overall SSuN clinic population was disproportionately made up of men, racial/ethnic minorities, and young persons. Sexually transmitted infection clinics may be particularly important for men, who are less likely to seek preventive care and have a usual source of care compared with women.[7] A recent analysis from Los Angeles, Seattle, and Denver (all with STI clinics represented in SSuN) showed that 25% to 50% of primary and secondary syphilis cases, 15% to 35% of gonorrhea cases, and 10% to 15% of chlamydia cases in those cities were diagnosed at STI clinics.[8] The proportions may be considerably higher for men than for women[9] because of greater overall access to health care for women and stronger female screening guidelines, resulting in more women being diagnosed as having STI in other settings, such as family planning clinics and obstetrics/gynecology practices. Our findings suggest that some men frequently use STI clinics for care; for instance, one-fifth of MSM sought care at the clinics on multiple occasions. A substantial portion of STI clinic patients were non-Hispanic black and young, subpopulations for whom barriers to accessing routine care have been documented[10] or who, in the case of adolescents and young adults, wish to obtain confidential services they may not want reported to insurance providers for their parents or legal guardians. An explanation of benefit or medical bill for STI care might disclose services provided and laboratory tests performed. This type of mandated notification can breech confidentiality, as it might prompt parents/guardians to question the costs and reasons for service provision.[11]

Second, and a strength of this analysis, we demonstrated that a substantial number of patients have nonreportable STI (e.g., BV and NGU), for which clinical examinations are

necessary for diagnosis. For patients who are diagnosed as having no STI, the clinics serve as venues where patients perceiving themselves to be at risk for STI can get tested, as well as receive appropriate education and counseling.

Third, and probably least surprising, the prevalence of reportable STI such as gonorrhea, chlamydia, and HIV was high among MSM: 13% were diagnosed as having gonorrhea; 9%, chlamydia; and 5%, HIV. Of importance, in the SSuN clinics, rectal and pharyngeal NAATs identified close to 7000 gonococcal and chlamydial infections. Extragenital disease accounted for 10% of the gonorrhea and chlamydia among all participants and almost half of these infections among MSM.

There are limitations to our analysis. Variability in clinic-related factors across SSuN sites which relate to local epidemiology and resources, such as types of visits and screening protocols, could affect the interpretability of data. However, our objective was to describe the volume and array of services that a selection of typical STI clinics provide, and presenting details of myriad clinic protocols was beyond the scope of this article. Data to measure the future impact of health care reform, such as patient income level and insurance status, were not among the data elements collected by SSuN. The only behavioral risk data we analyzed were on sex of sex partners and number of partners. The Sexually Transmitted Disease Surveillance Network collects information on condom use differently across SSuN sites. Some risk factors such as drug use and commercial sex were rarely reported, and others such as incarceration history, anonymous partners, and the use of the internet to meet sex partners were not collected at all SSuN sites. Our clinics do not represent a random sample of all STI clinics in the United States; however, the large number of clinics and patients do support the generalizability of our results to STI clinic settings outside our sample with similar patient profiles. Finally, express and HIV-testing-only visits (20% of all visit types) may have resulted in fewer diagnoses, specifically examination-requiring diagnoses, and an overestimation in the number of patients with no STI diagnosis.

Public STI clinics have been particularly important for individuals without the resources to seek testing and treatment from private sector providers,[12,13] and a reduced level of accessing services by STI clinics populations has been documented when modest fees have been charged.[14] Under the ACA, many patients currently seeking services at STI clinics have access to health care based on income, with subsidies available up to 400% of the poverty level. However, persons not covered by the ACA, such as undocumented immigrants and individuals who fall into the “coverage gap” of earning too much to qualify for Medicaid but not enough to qualify for premium tax credits, will continue to need STI care.[15] There will continue to be those with insurance coverage who still choose to use STI clinics,[16] including, for example, adolescents and HIV-infected individuals who do not wish to disclose ongoing risky sexual behaviors to their HIV primary care providers. There is a substantial burden of acute unscheduled care in the United States,[17] and STI clinics have relieved some of it through provision of services that are predominantly on a walk-in basis. Although the effect of the ACA on the use of STI clinics is presently unknown, insight can be gained from experiences in countries where universal access to care has been in place for many decades. Sexually transmitted infection clinics in cities like Sydney, Dublin, and Amsterdam see as many or more patients compared to US jurisdictions of similar size, and

the populations they serve show remarkable demographic similarities to the patients described in our report, with overrepresentation by racial/ethnic minorities, men, and MSM.[18,19] Importantly, many patients have a primary care provider and access to modern STI diagnostics.[20] However, some still prefer a visit to the STI clinic for a variety of reasons, including confidentiality, expertise, and convenience (C. A. Rietmeijer, unpublished data). Thus, it is important that we not only look at these countries as models for health care provision but also look carefully at what can and cannot be achieved by relying on primary care alone for STI control.

Implementation of the ACA raises a number of considerations about the future of STI prevention and control in the United States. First, if newly insured patients access their primary care clinicians for STI care, it will be important for providers to be able to render the array of services a typical STI clinic provides, such as comprehensive sexual risk assessments and client-centered risk reduction counseling. Sexually transmitted infection clinics often provide testing services that are not routinely available in primary care clinics. The high volume of rectal and pharyngeal chlamydia and gonorrhea testing across SSuN sites is one example. Nongenital testing is critical for the identification of these STI among MSM,[21] although not always conducted in non-STI clinic settings. Ascertaining anatomical sites of sexual exposure informs the offer of extragenital testing, yet many non-STI clinic providers may not ascertain sexual orientation,[22] and/or conduct optimal sexual history taking and extragenital screening.[23] Other specialty tests not commonly available outside STI clinics are rapid tests for gonorrhea and syphilis, dark-field microscopy for primary or secondary syphilis diagnosis, and HIV RNA testing to diagnose acute HIV infection. Injectable medications to effectively treat syphilis and gonorrhea are also often not available.

Second, many patients signing up for the ACA will have preexisting conditions, such as uncontrolled hypertension, diabetes, and chronic obstructive pulmonary disease,[24] so primary care providers may be confronted with considerable morbidity among their new patients. Sexually transmitted infection care should be considered a preventive health care training priority. Without the time, expertise, and tools to differentiate STI syndromes, there is a concern that many STIs will be treated syndromically with the possibility of unnecessary or overtreatment (e.g., using antibiotics to treat presumed gonorrhea in a patient with NGU or BV) or undertreatment (e.g., not testing asymptomatic high-risk patients due to failure to perform adequate sexual risk assessment).

Finally, in contrast to primary care with its focus on individual patient well-being, STI clinic staff serve a public health function through a dual disease control approach: diagnosis of and treatment for index patients, and the proactive notification and treatment for exposed partners. Some STI programs have demonstrated the high effectiveness of community-embedded disease intervention specialists in providing partner notification.[25] The provision of these partner services and also the more recently introduced practice of expedited partner therapy (providing index patients infected with gonorrhea or chlamydia with medication or prescriptions for their partners without examination by a medical provider) are standard of care in many STI clinics, but occur less frequently in primary care settings.[26,27] It will be necessary for non-STI clinic providers to conduct partner services, in order to avert increases in rates of disease transmission, repeat infections, and associated sequelae.

These arguments do not preclude the fact that STI programs will need to adapt to a new paradigm; public programs will have to develop meaningful partnerships with nonprofit, managed care, and private providers that serve (or have the potential to serve) at-risk populations. These arguments also do not negate the overall importance of primary care in STI control. The inclusion of appropriate sexual health questions in the overall clinical assessment, delivery of STI care in culturally sensitive environments (potentially leading to enhanced disclosures of patients' risks), and provision of chlamydia, gonorrhea, syphilis, and HIV screening to at-risk populations will go a long way in STI detection, control, and prevention in the general population. However, as the ACA is put into effect and we better understand the role of primary care in STI control, we should strengthen the roles of STI clinics, not necessarily as a safety net but rather as a critically important network of centers of excellence in the diagnosis, treatment, and prevention of STI.

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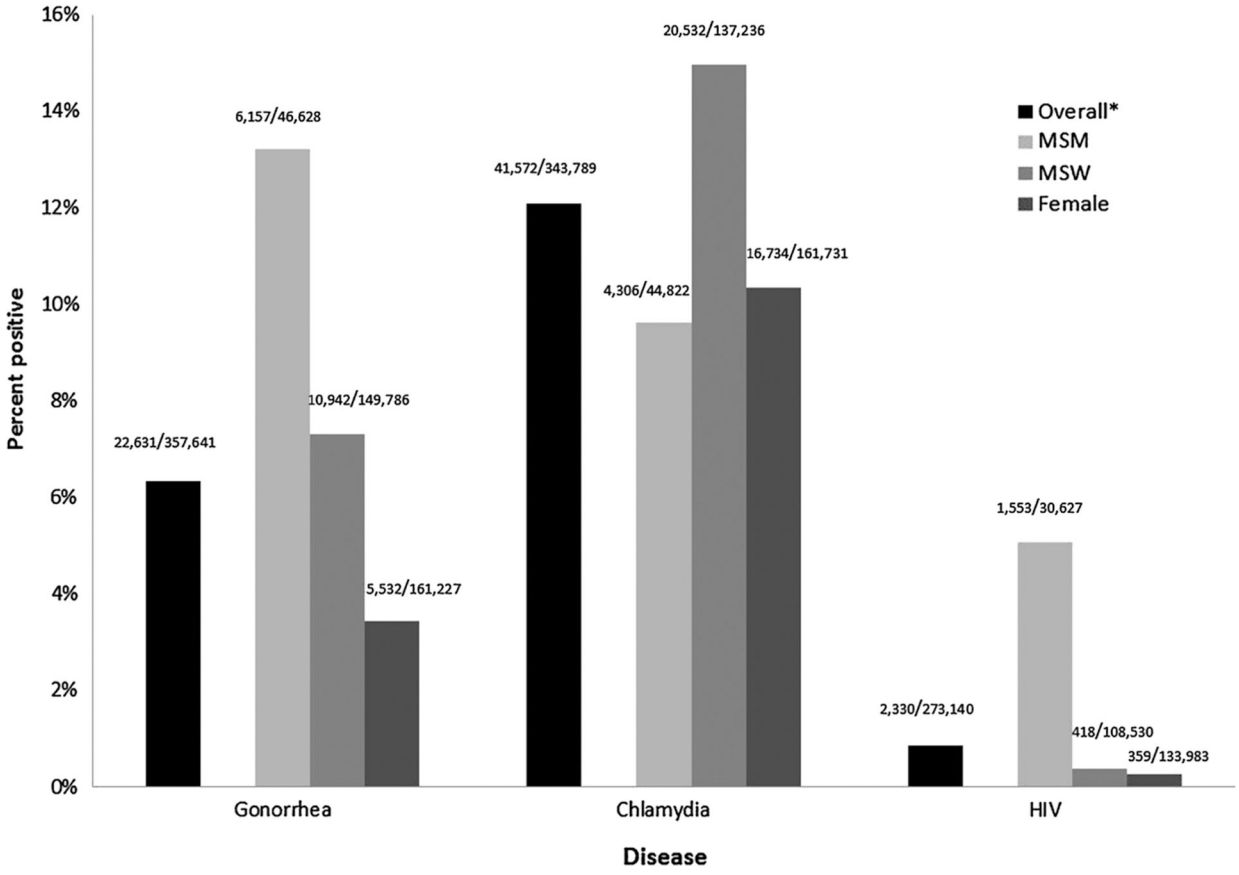

FIGURE 1.

Prevalence of gonorrhea, chlamydia, and HIV infection among testing events, SSuN patients —overall*, women, MSM, and MSW, 2010–2011. *Total among women and men with known sex of partner. n/N = number positive out of number of testing events.

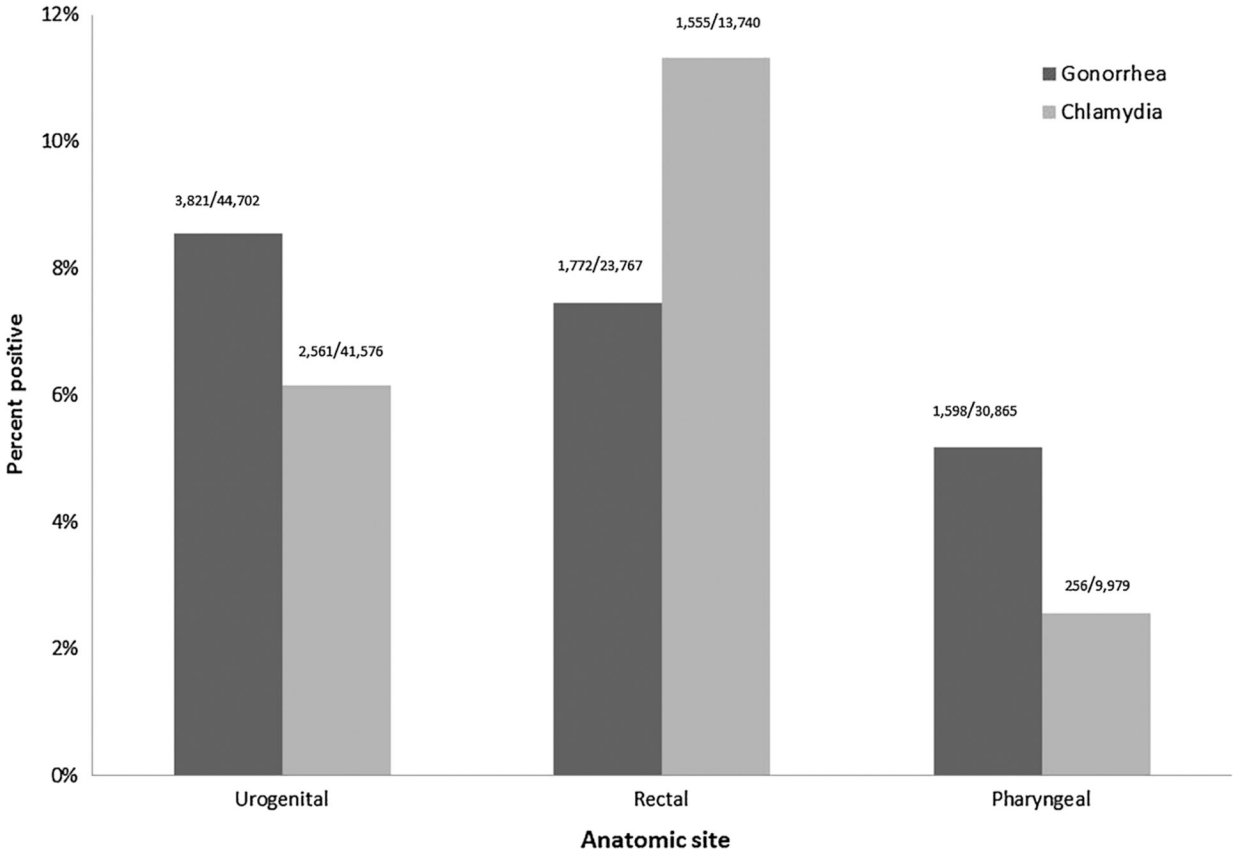

FIGURE 2.

Gonorrhea and chlamydia positivity among MSM, by anatomical site, SSuN clinics 2010–2011. n/N = number positive out of number of tests.

TABLE 1.

Overall Clinic Visits and Selected Demographics by SSuN Site, 2010–2011 (Unweighted Data)

SSuN Site	No. Patients	No. Visits	% Clinician Visits	% Male	% Non-Hispanic Black	% Hispanic	% MSM	% <25 y
Birmingham, AL	17,446	29,755	71.5	45.6	86	2.4	2.9	40.9
Baltimore, MD	23,830	5,2448	68.5	57.8	89.6	3.9	6.8	39.6
Los Angeles, CA	41,056	53,697	100.0	63.5	41.3	31.1	9.6	31.6
Chicago, IL	40,125	60,194	58.4	64.7	66.7	9.1	17.1	38.6
Denver, CO	17,822	28,239	44.1	57.7	23.5	36.1	9.0	40.3
New Haven/Hartford, CT	4459	7087	91.2	64.8	67.1	22.1	5.5	28.1
New Orleans, LA	10,100	18,188	68.9	57.1	88.2	2.8	5.6	39.9
New York, NY	137,516	223,971	53.7	57.9	55.3	25.4	5.8	41.4
Philadelphia, PA	25,868	54,107	47.3	63.9	79.5	4.9	4.6	43.9
San Francisco, CA	19,826	37,188	59.0	72.8	18.1	21.4	40.0	20.2
Richmond, VA	10,937	17,683	49.3	49.2	67.3	7.1	4.0	36.1
Seattle, WA	14,662	25,979	68.0	75.0	22.3	8.6	30.9	22.5
All	363,647	608,536	61.1	60.4	58.1	17.8	10.3	37.8

TABLE 2.

Unique Patients at SSuN Clinics, 2010–2011 (Weighted Estimates)

Characteristic	No. Patients	Weighted % (of Those With Characteristic Known)	95% CI Around Weighted %
Total	363,607	100.00	
Sex/gender			
Male	223,208	61.92	61.70–62.15
Female	139,951	37.94	37.71–38.16
Transgender (male to female)	165	0.04	0.03–0.05
Transgender (female to male)	209	0.07	0.06–0.08
Transgender (unspecified)	41	0.02	0.01–0.02
No answer	33	0.01	0.01–0.02
Sex of partner reported by male patients			
Male (MSM)	35,459	21.92	21.67–22.18
Female (MSW)	125,704	78.08	77.82–78.33
Age (overall), y			
≤15	936	0.25	0.23–0.27
15–19	37,613	9.11	8.99–9.23
20–24	93,834	25.58	25.38–25.78
25–29	76,378	21.48	21.29–21.67
30–34	47,635	13.64	13.48–13.80
35–39	30,573	8.91	8.78–9.04
40–44	24,084	7.13	7.01–7.25
>45	45,278	13.90	13.74–14.06
Missing	690		
Race/ethnicity (overall)			
Non-Hispanic white	74,581	22.56	22.38–22.73
Non-Hispanic black	190,232	56.25	56.06–56.45
Hispanic	68,211	15.06	14.90–15.21
Asian	11,716	2.97	2.91–3.04
Other (Native American/Alaskan Native, Hawaiian/Pacific Islander, other race, multiple races)	14,061	3.16	3.08–3.24
Missing	1969		

CI indicates confidence interval.

TABLE 3.

Unique Patients at SSuN Clinics, 2010–2011 (Weighted Estimates)

Patient Sex/Sexual Behavior Group	Women			MSW			MSM		
Characteristic	No. Patients	Weighted % (of Those With Characteristic Known)	95% CI Around Weighted %	No. Patients	Weighted % (of Those With Characteristic Known)	95% CI Around Weighted %	No. Patients	Weighted % (of Those With Characteristic Known)	95% CI Around Weighted %
Age, y									
≤15	690	0.46	0.42–0.50	150	0.12	0.10–0.14	13	0.04	0.01–0.06
15–19	22,530	13.73	13.51–13.96	9047	6.80	6.63–6.97	1506	4.15	3.89–4.40
20–24	41,778	30.14	29.79–30.48	29,169	23.38	23.08–23.69	7367	19.95	19.44–20.46
25–29	27,440	20.72	20.41–21.03	26,910	22.35	22.04–22.66	7332	20.56	20.03–21.08
30–34	15,280	11.85	11.61–12.10	18,155	15.02	14.75–15.29	4994	14.16	13.71–14.62
35–39	9586	7.39	7.19–7.58	11,815	9.95	9.72–10.17	3591	10.30	9.92–10.69
40–44	7442	5.75	5.57–5.93	8883	7.33	7.13–7.52	3642	10.85	10.45–11.25
>45	12,594	9.96	9.74–10.19	18,039	15.05	14.79–15.31	6324	19.99	19.47–20.51
Race/Ethnicity									
Non-Hispanic white	20,778	17.13	16.87–17.40	22,635	20.23	19.97–20.49	15,974	49.44	48.83–50.05
Non-Hispanic black	80,977	62.26	61.94–62.57	72,978	60.41	60.10–60.73	8424	23.39	22.91–23.86
Hispanic	25,826	14.11	13.86–14.35	21,420	14.52	14.26–14.77	7368	17.90	17.43–18.38
Asian	4614	3.03	2.91–3.14	2959	2.27	2.17–2.36	1829	5.58	5.30–5.85
Other *	5787	3.48	3.35–3.61	3908	2.57	2.46–2.68	1434	3.69	3.45–3.93

CI indicates confidence interval.

* Includes Native American/Alaskan Native, Hawaiian/Pacific Islander, other race, and multiple races.

TABLE 4.

Diagnoses of Examination-Based STIs* Among Patients at SSuN Clinics, 2010–2011

	No. SSuN Sites Reporting Diagnosis	No. Clinician Visits at Those Sites	No. Diagnoses at Clinician Visit	Percent of Clinician Visits With the Diagnosis
BV	12	153,627†	44,339	28.99
Chancroid	4	175,885	42	0.02
Candidiasis	10	328,523	20,712	6.31
Epididymitis	11	207,817‡	873	0.42
Genital herpes	11	318,047	7728	2.43
Genital warts	12	371,744	15,066	4.05
Lymphogranuloma venereum	3	154,736	260	0.17
Muco-purulent cervicitis	12	153,627†	10,603	6.90
NGU	11	183,561‡	42,348	23.07
Pediculosis	6	243,618	115	0.05
Pelvic inflammatory disease	12	153,627†	1757	1.14
Scabies	8	272,017	989	0.36
Syphilis, early	12	371,744	2876	0.77
Syphilis, unknown latent	8	295,523	1918	0.65
Syphilis, late	10	282,098	1258	0.45
Syphilis, neurosyphils	3	74,779	8	0.01
Syphilis, unspecified/other	6	147,588	1378	0.93
Trichomoniasis	12	371,744	9886	2.66

*Excludes diagnoses of chlamydia, gonorrhea, and HIV.

†Comprises only visits by women.

‡Comprises only visits by men.