# Willingness to Use Health Insurance at a Sexually Transmitted Disease Clinic: A Survey of Patients at 21 US Clinics

William S. Pearson, PhD, MHA, Ryan Cramer, JD, MPH, Guoyu Tao, PhD, Jami S. Leichliter, PhD, Thomas L. Gift, PhD, and Karen W. Hoover, MD, MPH

*Objectives.* To survey patients of publicly funded sexually transmitted disease (STD) clinics across the United States about their willingness to use health insurance for their visit.

*Methods.* In 2013, we identified STD clinics in 21 US metropolitan statistical areas with the highest rates of chlamydia, gonorrhea, and syphilis according to Centers for Disease Control and Prevention surveillance reports. Patients attending the identified STD clinics completed a total of 4364 surveys (response rate = 86.6%).

Results. Nearly half of the insured patients were willing to use their health insurance. Patients covered by government insurance were more likely to be willing to use their health insurance compared with those covered by private insurance (odds ratio [OR] = 3.60; 95% confidence interval [CI] = 2.79, 4.65), and patients covered by their parents' insurance were less likely to be willing to use their insurance compared with those covered by private insurance (OR = 0.72; 95% CI = 0.52, 1.00). Reasons for unwillingness to use insurance were privacy and out-of-pocket cost.

*Conclusions.* Before full implementation of the Affordable Care Act, privacy and cost were barriers to using health insurance for STD services.

*Public Health Implications.* Barriers to using health insurance for STD services could be reduced through addressing issues of stigma associated with STD care and considering alternative payment sources for STD services. (*Am J Public Health.* 2016;106:1511–1513. doi:10.2105/AJPH.2016.303263)

Sexually transmitted diseases (STDs) are the most frequently reported of all reportable diseases in the United States, <sup>1</sup> resulting in large health care expenditures with direct medical costs estimated to be nearly \$16 billion annually. <sup>2</sup> Access to timely, high-quality diagnostic and treatment services is essential to ensure the sexual and reproductive health of at-risk persons and prevent STD transmission throughout communities <sup>3</sup>

Barriers to receiving care for STDs remain. On the supply side, budgetary issues are causing many STD clinics to close, thereby reducing access to care. On the demand side, issues of stigma and privacy associated with receiving STD care have been noted consistently as impediments to seeking care. Combined, these issues can contribute to an

increase in the number of cases of STDs and their serious sequelae.

The use of health insurance for STD services could help subsidize the provision of care but may be difficult to implement because of patient hesitancy resulting from STD stigma. To better understand the potential use of health insurance for STD health care services, we examined the willingness of STD clinic patients to use health insurance for their STD care along with reasons for not wanting to use health insurance for this care.

# **METHODS**

In 2013, we identified STD clinics that were located in 21 US metropolitan statistical areas (MSAs) with the highest rates of chlamydia, gonorrhea, and syphilis according to Centers for Disease Control and Prevention (CDC) surveillance reports. Patients attending the identified STD clinics completed a total of 4364 surveys. A more detailed explanation of the design and conduct of this survey can be found in our previous work.<sup>8</sup>

In this survey, 1722 patients indicated that they had some form of health insurance, 2174 indicated that they had no health insurance, 185 indicated that they did not know, and 219 did not respond to this question. We removed from analyses 64 patients who were older than 26 years and indicated that they were covered by their parents' insurance.

Overall demographic and health services characteristics were provided for the 1722 patients with health insurance. We then provided a tabulation of their willingness to use their health insurance at the time of the STD clinic visit. All responses were stratified by type of insurance. We used  $\chi^2$  analysis and logistic regression modeling, controlling for age and gender, to test differences in willingness to use insurance at the visit among the 3 insurance types (private, government, parents'). Among persons who indicated that they were not willing to use their insurance, we tabulated their reasons for not wanting to use insurance. Each person

## **ABOUT THE AUTHORS**

All of the authors are with the Centers for Disease Control and Prevention, Atlanta, GA.

Correspondence should be sent to William S. Pearson, PhD, MHA, Division of STD Prevention, Centers for Disease Control and Prevention, 1600 Clifton Rd, Mailstop E-80, Atlanta, GA 30333 (e-mail: wpearson@cdc.gov). Reprints can be ordered at http://www.ajph.org by clicking the "Reprints" link.

This brief was accepted May 4, 2016. doi: 10.2105/AJPH.2016.303263

could choose more than 1 reason, and these responses were stratified by each insurance type. The major categories for these responses were privacy, cost, or "other." We conducted all analyses with SAS version 9.3 (SAS Institute, Cary, NC).

# **RESULTS**

Among the total sample size of 4300 patients, 1722 (40.0%) indicated that they had some form of health insurance. Among those who were insured, 30.7% were covered by private insurance, 47.8% were covered by government insurance such as Medicaid, and 21.5% were covered by their parents' insurance. More than half (52.6%) were between the ages of 14 and 26 years. The majority (53.4%) were female. More than half (51.0%) of the population was non-Hispanic Black. Nearly a third (31.9%) of the population had completed a general equivalency diploma or high school only. More than half (55.3%) of the population had completed some college or were college graduates. More than a third (34.0%) of the patients were employed full time. Nearly three quarters (73.9%) of the population identified as heterosexual or straight. More than three quarters of the population said that they had a place for usual or well care (78.7%) and a usual place for sick care (78.5%).

Among the 1722 patients who were insured, 837 (48.6%) indicated that they would be willing to use their health insurance at the visit, 680 (39.5%) indicated that they would not be willing to use their insurance at the

visit, and 205 (11.9%) did not respond to this question. Fewer than two fifths (38.1%) of the patients who indicated that they were covered by private insurance and approximately one third (32.6%) of those who indicated that they were covered by their parents' insurance stated that they were willing to use their insurance at the visit. Nearly two thirds (62.6%) of those with government insurance indicated that they would be willing to use their insurance at the visit. These differences were statistically significant by  $\chi^2$  testing (P<.001).

We used logistic regression analysis, controlling for age and gender, and found that patients covered by government insurance were more likely to be willing to use their health insurance compared with those covered by private insurance (odd ratio [OR] = 3.60; 95% confidence interval [CI] = 2.79, 4.65). Patients covered by their parents' insurance were less likely to be willing to use their insurance compared with those covered by private insurance (OR = 0.72; 95% CI = 0.52, 1.00).

Among those who said that they were not willing to use their health insurance, we received a total of 778 responses to the question about why they were not willing to do so. More than two thirds of these responses were related to privacy concerns, and approximately one third were related to cost concerns (Table 1).

clinic for care said that they had some form of health insurance, and almost half of these people said that they were willing to use their health insurance at the STD clinic. Second, patients who were covered by government insurance such as Medicaid were more likely to be willing to use their insurance at an STD clinic compared with those who were covered by private insurance, likely because of reduced out-of-pocket costs or because Medicaid programs provide an explanation of benefits less often than do private insurance plans. Finally, among those who said that they were not willing to use their insurance, privacy was the main reason for not wanting to do so, and this was an especially important concern of youths who were covered by their parents' health insurance. Our findings were consistent with those of recent studies examining similar issues of privacy<sup>9,10</sup> and costs<sup>11,12</sup> related to STD care.

The findings in this study should be considered in light of several limitations. First, we did not assess the clinic's ability to accept insurance for their services. Second, our study included only 21 clinics and was not designed to be nationally representative. Finally, as with all survey questionnaires, there may have been issues with respondent bias.

# **DISCUSSION**

This study had several notable findings. First, 40% of the persons attending an STD

# PUBLIC HEALTH IMPLICATIONS

This study found that people are willing to use health insurance for STD care, but

	Total No. Responses, No. (%)	Private Insurance, No. (%)	Government Insurance, <sup>a</sup> No. (%)	Parents' Insurance, No. (%)
Privacy concerns				
Do not want insurance company to know	179 (23.0)	102 (31.9)	40 (20.9)	37 (13.9)
Insurance might send records home	86 (11.1)	27 (8.4)	19 (9.9)	40 (15.0)
Do not want parents, spouse, or significant other to know	129 (16.6)	30 (9.4)	18 (9.4)	81 (30.3)
Usual doctor might send records home	32 (4.1)	16 (5.0)	7 (3.7)	9 (3.4)
Cost concerns				
Cannot afford the copayment/deductible	138 (17.7)	57 (17.8)	41 (21.5)	40 (15.0)
Insurance will not cover this visit	104 (13.4)	48 (15.0)	27 (14.1)	29 (7.9)
Other	110 (14.1)	40 (12.5)	39 (20.4)	31 (11.6)

*Note.* Patients were those insured who said that they were not willing to use their insurance at the visit (n = 680). Respondents could choose > 1 response. all Includes Medicaid, Medicare, and similar government programs.

concerns about privacy and costs associated with health insurance use remain. These issues could be addressed through interventions targeting negative social norms associated with STD care and health system change that would allow for the subsidization of STD care through insurance copayments and reimbursement for services, especially among those covered by private insurance. Further assessment of the interactions between cost structures and confidentiality of care in the STD setting is warranted. AJPH

### **CONTRIBUTORS**

W. S. Pearson conceptualized and designed the study, designed and conducted analyses, and prepared the article. R. Cramer conceptualized and designed the study, prepared the article, and approved the final article. G. Tao, J. S. Leichliter, T. L. Gift, and K. W. Hoover conceptualized and designed the study and approved the final article.

### **ACKNOWLEDGMENTS**

This work was funded by the Centers for Disease Control and Prevention.

**Note.** The findings and conclusions in this article are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

### **HUMAN PARTICIPANT PROTECTION**

The study protocol, survey instrument, waiver of written consent, and waiver of parental permission for adolescents aged 13 to 17 years were approved by an institutional review board of the Centers for Disease Control and Prevention and the institutional review board of the National Opinion Research Center of the University of Chicago.

### REFERENCES

- 1. Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance 2014. Atlanta, GA: US Department of Health and Human Services; 2015.
- 2. Owusu-Edusei K, Chesson HW, Gift TL, et al. The estimated direct medical cost of selected sexually transmitted infections in the United States, 2008. *Sex Transm Dis.* 2013;40:197–201.
- 3. Workowski KA, Bolan GA. Sexually transmitted diseases treatment guidelines, 2015. MMWR Recomm Rep. 2015;64(RR-03):1–137.
- 4. Golden MR, Kerndt PR. Improving clinical operations: can we and should we save our STD clinics? *Sex Transm Dis.* 2010;37:264–265.
- 5. Celum CL, Bolan G, Krone M, et al. Patients attending STD clinics in an evolving healthcare environment. Sex Transm Dis. 1997;24:599–605.
- Semaan S, Leinhos M. The ethics of public health practice for the prevention and control of STDs. In: Aral SO, Douglas JM, eds. *Behavioral Interventions for Prevention* and Control of Sexually Transmitted Diseases. New York, NY: Springer; 2007:517–548.
- 7. Hood JE, Friedman AL. Unveiling the hidden epidemic: a review of stigma associated with sexually transmissible infections. Sex Health. 2011;8(2):159–170.
- 8. Hoover KW, Parsell BW, Leichliter JS, et al. Continuing need for sexually transmitted disease clinics after

- the Affordable Care Act. Am J Public Health. 2015;105–(suppl 5):S690–S695.
- 9. Washburn K, Goodwin C, Pathela P, Blank S. Insurance and billing concerns among patients seeking free and confidential sexually transmitted disease care: New York City sexually transmitted disease clinics 2012. *Sex Transm Dis.* 2014;41:463–466.
- 10. Stephens SC, Cohen SE, Philip SS, Bernstein KT. Insurance among patients seeking care at a municipal sexually transmitted disease clinic: implications for health care reform in the United States. *Sex Transm Dis.* 2014;41: 227–232.
- 11. Drainoni ML, Sullivan M, Sequeira S, Bacic J, Hsu K. Health reform and shifts in funding for sexually transmitted infection services. *Sex Transm Dis.* 2014;41: 455–460.
- 12. Shi L, Xie Y, Liu J, Kissinger P, Khan M. Is out of pocket cost a barrier to receiving repeat tests for chlamydia and gonorrhea? *Int J STD AIDS*. 2013;24:301–306.