

Perceived vs. Accuracy: A Comparison of Patient  
Perceived STI testing vs. Actual Tests performed in a  
Community Health Center

Andrea Lewis  
MS-Physician Assistant/MPH Candidate 2015, Rutgers,  
The State University of New Jersey  
GE-National Medical Fellowship Primary Care  
Leadership Program Scholar, Summer 2014

## **INTRODUCTION**

I was fortunate to be placed at [REDACTED] in [REDACTED] provides services to approximately 61,000 patients at 21 clinics located throughout [REDACTED] and surrounding areas and is a nationally known Federally Qualified Health Center (FQHCs). Of the 21 clinics, [REDACTED] is among one of the three largest clinics in regards to revenue, population served, and building size. [REDACTED] is home to three medical subspecialties that include: family/internal medicine, pediatrics, and OBGYN. Additionally, it offers dental services, behavioral health, and an onsite pharmacy and LabCorp.

Prior to arriving in [REDACTED], my assigned faculty advisor suggested waiting until I arrived to determine what type of project I wanted to accomplish. My externship involved shadowing four doctors (three family/internal medicine and one OBGYN). During my first week of observation of the providers, I witnessed a high amount of patient referral for STI screening/testing to the onsite LabCorp. Additionally, I saw that some providers were not necessarily clear on telling their patients what specific STI(s) they were being tested for during their visit. Due to these occurrences, I decided to center my project on patient knowledge of STI testing. I also decided to research further into STI rates Texas to see if there is a significant prevalence of STIs in Texas. Texas is the 2<sup>nd</sup> highest state with the most cases of Syphilis. Specifically, [REDACTED], which includes [REDACTED], has seen an increasing amount of cases of Chlamydia, Gonorrhea, and Syphilis. I believe one way to combat the rise in the amount of individuals infected with an STI is make sure patients have the knowledge of what specific STIs they have been tested for during their visit.

## **BACKGROUND**

Sexually transmitted infections (STIs) are considered to be any infection that is spread via human sexual behavior: including oral, vaginal, and/or anal sex. Additionally, transmission can occur non-sexually, such as blood transfusions, shared needles, and from mother to infant during pregnancy or childbirth.<sup>1</sup> With as many as 1 in 4 individuals infected, STIs, also frequently referred to as sexually transmitted diseases (STDs), are among the United States most commonly transmittable diseases.<sup>2,3</sup> Recent data from the Center for Disease Control and Prevention (CDC) estimates there are currently 110 million infections, and about 20 million new infections in the United States each year, which consequently results in approximately 16 billion dollars spent by the American health care system.<sup>4</sup>

The CDC includes the following eight STIs in their analyses: Chlamydia, Gonorrhea, Hepatitis B virus (HBV), Herpes Simplex Virus Type 2 (HSV-2), Human Immunodeficiency Virus (HIV), Human Papillomavirus (HPV), Syphilis, and Trichomoniasis. Most of these STIs are treatable, however many have the potential to cause serious health complications, especially if untreated, that include but are not limited to: infertility, pelvic inflammatory disease, epididymitis, and enhanced transmission of HIV.<sup>4,5</sup>

In order to manage the increasing number of individuals with STIs, the CDC has developed five major strategies to address this issue: advise and educate high risk patients on methods to prevent STIs through changes in sexual behaviors and use of prevention services; identify asymptomatic and symptomatic infected people unlikely to seek diagnostic and treatment services; effective diagnosis, treatment, and counseling of infected persons; evaluate, treat, and counsel sex partners of persons who are infected with an STI; and pre-exposure vaccination of high-risk people for vaccine-preventable STIs.<sup>6</sup>

Despite current recommendations from the CDC that encourages providers to inform patients receiving STI testing of “all the STD’s for which they are being tested” and the common ones they are not, current research indicates that patients presenting to physician offices for STI testing have a general misunderstanding of STD screening procedures. In fact, a 2010 study completed by Heather Royer stated that 40% of young women (18-24), mistakenly believed that routine STI testing includes screening for: Gonorrhea, Chlamydia, Trichomoniasis, Syphilis, HPV, HSV-2, HBV, and HIV. Additionally, this study found that 25% inaccurately thought a Pap smear could detect Chlamydia and Gonorrhea, 17% thought it could detect trichomoniasis, about 15% thought it could detect syphilis and herpes, and 6% thought it could detect “all STIs.”<sup>7</sup> This lack of knowledge presents a major public health problem as patients attempt to take responsibility for their sexual health through obtaining STI screening.

STIs are not only prevalent in the United States, but also specifically for [REDACTED]. STD rates of [REDACTED] from 2001 to 2010, which includes all of [REDACTED], has shown increasing rates of STIs, specifically Chlamydia and Gonorrhea, with rates increasing for 6,000 to 12,000 and 2,000 to 4,000, respectively.<sup>8</sup> Additionally, in general, Texas is responsible for being the 2<sup>nd</sup> highest state with the most amount of cases of all stages of syphilis in 2012.<sup>9</sup>

The purpose of this study was to determine whether patients referred to the onsite LabCorp at the [REDACTED]. Community Health Center in [REDACTED], could accurately identify which STIs they had been tested for during their visit. This study was reviewed and approved by [REDACTED] RN, Director of Women’s Health Care Services at [REDACTED].

## **METHODS**

### *Subjects/Recruitment Procedures*

All patients attending the LabCorp at [REDACTED], receive STI testing that included at least one blood test, either STI-related or not, during the three-week study period were eligible for participation in the study. Patients were recruited by the principal investigator at the end of each visit and provided with a consent form (Appendix A/B) and an eight-item survey (Appendix C/D).

Consent forms and surveys were provided in either English or Spanish and participants were encouraged to complete the survey in the language of their choice. Consent forms summarized the purpose of the study, the information to be collected from the survey and during chart review, their rights as a participant, the method of implied consent, measures that would be taken to ensure their privacy, and the risks and benefits of participation. Consent was implied by participation in the survey.

### *Measures*

An eight-item questionnaire was developed that elicited a series of demographic questions (age, gender, race, and highest level of education attained), the reason(s) for the participant's visit to the clinic, which STIs (Gonorrhea, Chlamydia, Syphilis, HIV/AIDS, Herpes, HPV, Hepatitis B, Trichomoniasis, or other) the participant had been tested for during their visit, the referring provider, and whether the participant's concerns had been addressed by the clinic staff. STIs included on the questionnaire were those used by the CDC in their annual analyses.<sup>4</sup> Based on previous research that suggest beliefs about the meaning of STD and STI vary among patients and providers, both the term STD and STI were used for the purpose of this study.<sup>10</sup> Patients were excluded if they had previously participated in the questionnaire.

To ensure privacy, participants were instructed to place completed surveys in a box to which only the principal investigator and patients had access. All clinic staff (providers, nurses,

and/or medical assistants) directly involved with the treatment of patients was blinded to the purpose of the study, survey content, and responses of participants.

### *Analysis Plan*

Surveys were linked to patient charts through a number provided to patients during check-in and listed on completed surveys in order to assess which STD tests each patient received. Descriptive statistics, frequencies, and other data were analyzed using 2011 Microsoft Excel.

## **RESULTS**

### *Demographics*

During the three-week study period, one hundred and one patients were asked to complete a survey. Only one person declined to participate, resulting in one hundred completed surveys during the study period. The majority of surveys were completed in English (70%), the remaining were completed in Spanish (30%). The demographics of the patient not surveyed are unknown.

Respondents' demographics are shown in Table 1. The distribution of respondents by gender was mostly female with 87% and 13% were male. Respondents ranged in age from 17-66 years old with a mean age of 32.12 years and a median age of 29 years. The largest number of responses was from participants aged 25-34 years (38%). This age group was followed by those aged between 18-24 years (31%), 45 years and older (17%), 35-44 years (13%), and 17 and under (1%). The majority of patients who completed surveys identified themselves as Hispanic (55%), followed by African-American (26%), white (11%), and multiracial (8%). No participant responded with "Other." The majority of respondents reported having a high school

diploma/GED (30%), followed by less than a high school diploma/GED (29%), some college (25%), Technical/Associate’s degree (10%), and a Bachelor’s degree or higher (6%).

Table 1. Characteristics of Participants Attending [REDACTED] onsite LabCorp

Participant Characteristics	Percentage of Responses
<b>Gender</b>	
Male	13
Female	87
<b>Age (years)</b>	
17 and under	1
18-24	31
25-34	38
35-44	13
45 and above	17
<b>Race</b>	
Caucasian	11
African-American	26
Hispanic	55
Multiracial	8
Other	0
<b>Education</b>	
Less than HS diploma	29
HS diploma	30
Some college	25
Technical school/Associate’s degree	10
Bachelor’s degree or higher	6
<b>Language survey completed in</b>	
English	70
Spanish	30

*Reason for Visit*

Participants’ reason(s) for attending LabCorp for blood testing are shown in Table 2. The most commonly stated reason for obtaining STI testing was the provider wanted the participant to be screened for STIs (60), followed by other (19), wanting to be screened (13), experiencing symptoms of an infection (7), exposure to a STI (4), a partner requesting that the participant was screened (1). Five respondents did not indicate a reason for visiting LabCorp. Participants were

surveyed only once during the study period, therefore those visits in which a patient needing or wanting to receive additional testing either STI-related or not were not recorded.

Table 2. Participant Reported Reason(s) for Visit

Reason for Visit	Frequency of Response
Experiencing symptoms	7
Exposed to an STD	4
I wanted to be screened	13
Partner wanted me to be screened	1
Provider wanted me to be screened	60
Other	19

*Frequency of Tests Performed*

Frequencies of STD tests performed during the study period are shown in Table 3.

During the study period, HIV was most frequently (94%) tested for, followed by Chlamydia (65%), Gonorrhea (62%), Syphilis (28%), HPV (16%), and HSV (1%). No participant was tested for Trichomoniasis.

Table 3. Frequency of Tests Performed

STI	Number/Percentage of Patients Tested
Gonorrhea	62
Chlamydia	65
Syphilis	28
HSV	1
HIV/AIDS	94
HPV	16
Hepatitis B	6
Trichomoniasis	0

*Identification of Testing Status*

The percentage of patients who accurately identified they had been tested for an STI is shown in Table 4. Only 34% of participants were able to correctly answer that they had been tested for at least one STI during their visit. The remaining percentages 36% and 30%, responded they had not been tested for an STI or they did not know, respectively. All participants that completed a survey were tested for at least one STI during their visit.

Table 4. Were you tested for an STI/STD today?

	Percentage of respondents
Yes	34
No	36
Don't Know	30

*Identification of Test Performed*

The percentage of patients who correctly identified their testing status by STI is shown in Table 5. Only 10% of participants were able to accurately identify all of the STIs for which they had been tested. Participants most accurately identified their testing status for Hepatitis B (33%), followed by HIV/AIDS (23.4%), Syphilis (14.3%), Gonorrhea (12.9%), Chlamydia (12.3%), and HPV (6.2%). The only participant surveyed that was tested for Herpes was unable to accurately identify having being tested for this particular STI. Besides Herpes, HPV (93.8%) was the most common STI for which participants did not know they had been tested, followed by Chlamydia (87.7%), Gonorrhea (87.1%), Syphilis (85.7%), Hepatitis B (77%), and HIV/AIDS (76.6%). HPV (6%) was the most commonly misidentified STI for which patients were not tested but believed that they had been, followed equally by Herpes (5%) and Trichomoniasis (5%), then

Hepatitis B (4%), Syphilis (2%), and Chlamydia (1%). No participant mistakenly thought they were tested for Gonorrhea or HIV/AIDS.

Table 5. Participant Identification of Tests Performed

STD	Number of participants tested	Percentage of participants who correctly identified whether they were tested	Percentage of participants who were tested but did NOT know that they were	Number of participants NOT tested but who thought that they were
Gonorrhea	62	12.9	87.1	0
Chlamydia	65	12.3	87.7	1
Syphilis	28	14.3	85.7	2
Herpes	1	0	100	5
HIV/AIDS	94	23.4	76.6	0
HPV	16	6.2	93.8	6
Hepatitis B	6	33	77	4
Trichomoniasis	0	0	0	5

Of the 10 participants who were able to correctly identify all STI(s) they were being tested for during their visit, 7 of them have an education level of higher than a high school diploma (some college, technical school graduate, associate's degree or higher).

#### *Referring Provider*

Frequencies of the practice of the referring provider for STI testing are shown in Table 6. Majority of respondents were referred to STI testing by the two onsite OBGYN providers (68%), followed by Family/Internal Medicine (31). One respondent did not indicate a response to the question.

Table 6. Referring Provider

Practice of Referring Provider	Number of Participants
Family/Internal Medicine	31

OBGYN	68
No Answer	1

*Patient Satisfaction*

Ninety percent of participants stated that their concerns had been addressed during their visit. Of those who responded “no (7),” none chose to explain why there concerns were not addressed. Three participants did not indicate an answer to this question.

**DISCUSSION**

*Demographics*

The division of participants by gender (87% female) was overrepresented and inconsistent with the population demographics for the city of [REDACTED].<sup>11</sup> Majority of respondents were Hispanic and African-Americans which is consistent with the national demographics of those living in poverty and of those that are more likely to use a FQHC as their usual place of care.<sup>12</sup> Additionally, the language in which surveys were completed were consistent with population demographics for the city of San Antonio, with majority completed in English.<sup>13</sup>

The median age of participants (29 years) was younger than the median age of the city of San Antonio (32.7 years). Participants aged 25-34 years (38%) were overrepresented in the study compared to the population of San Antonio (14.8%), which may be correlated with the high amount of OBGYN referrals, which will be discussed later. The amount of participants with a High school diploma or higher (71%) was less than the average for San Antonio (80.0%).<sup>11</sup>

*Reason for Visit*

In contrast to Royer’s study which found that STI-related symptoms were the most commonly stated reason (99%) why a young woman would request STI testing, only 7% of participants surveyed at ██████ sought STI screening due to presence of symptoms.<sup>7</sup> The most common reason provided for attending the clinic was that the provider wanted the respondent to be screened (60%). This finding may illustrate how patients trust their providers to know and recommend what testing is needed for their health.

*Frequency of Tests Performed*

A comparison of the frequency of STI tests performed at the clinic during the study period and the prevalence of STIs in the United States is shown in Table 7. While HIV, Gonorrhea, and Chlamydia were the STIs that participants were most commonly tested for at the clinic, these STIs are actually some of the least common STIs in the United States.

Of the most prevalent STIs in the United States (HPV, Herpes, Trichomoniasis), testing for these STIs were among the lowest of all STIs tested at the clinic.<sup>4</sup> While Trichomoniasis is the most common curable STI, no patients were specifically tested for this STI during their visit at the clinic.

Table 7. Comparison of Prevalence of STDs vs. Rate of Testing Performed Among Participants

STD	Ranking of STI tests based on rates of tests performed	U.S population <sup>4</sup>	
	Rank 1–most common 8–least common	Estimated Prevalence	Rank 1–most common 8–least common
Gonorrhea	3	270,000	7
Chlamydia	2	1.57 million	4
Syphilis	4	117,000	8
Herpes	7	24 million	2

HIV/AIDS	1	908,000	5
HPV	5	79 million	1
Hepatitis B	6	422,000	6
Trichomoniasis	8	3.7 million	3

Currently, the CDC states that people presenting for STI testing, should have HSV serologic testing included in their evaluation especially if they have had multiple sex partners, are infected with HIV, men who sleep with men, and symptomatic partners of persons with genital herpes.<sup>6,14</sup> Additionally, the CDC states patients between the ages of 13-64 that are seeking evaluation and treatment of STIs should have HIV screening included in their evaluation.<sup>6</sup> In this aspect, the high amount of HIV screening at [REDACTED] is complementary to this recommendation.

*Identification of Testing Status*

Only 10% of participants were able to correctly identify all STIs they had been tested for during their visit. Over 80% of participants who were tested for HPV, Gonorrhea, Chlamydia, and Syphilis were unaware that they had been tested.

6 participants who received STI testing believed that they had been tested for HPV when they had not, which was then followed by 5 participants believing they had been tested for both Herpes and Trichomoniasis, when in fact they were not. Since patients are often only contacted if a positive test result is discovered in their lab work, these misperceptions of STI testing depict a peril for FQHCs. The aforementioned results highlight the significance of patient education regarding testing status and that healthcare providers should not assume their patients understand STI screening procedures.<sup>7</sup>

While providers were blinded to the study and there was no contact/interaction between the LabCorp staff and the providers, surveys were separated by the week in which they were

obtained to possibly identify any trend or shift in patient knowledge of STI testing. After reviewing the data from each week there was no significant change in the amount of patients who knew what STIs they were being tested for during their visit.

### *Referring Provider*

Despite having only two OBGYN providers and four family/internal medicine providers, majority of respondents were referred from OBGYN providers, who tested mostly for Gonorrhea and Chlamydia along with HIV testing. Fortunately at the LabCorp at CentroMed, the lab is able to check for STIs in the Pap smear specimen performed personally by OBGYN in addition to swabs requested, unlike some other labs. Therefore any women visiting an OBGYN provider for their annual pap exam and included at least one blood work were eligible to participate in the study.

### *Patient Satisfaction*

While the large majority (90%) of patients felt that their concerns had been addressed, only 10% of these patients were accurately able to identify all of the tests that had been performed during their visit and 30% of participants did not know if they were tested for STIs during their visit. This discovery may reveal a falsely elevated sense of patient satisfaction based on the belief that the patient was adequately informed all tests being performed during their visit. However, it is theorized that had these patients known that their beliefs regarding which tests were and were not performed were incorrect, many of them would have identified that their concerns, in fact, had not been addressed.

## **RECOMMENDATIONS**

This study supplements previous research that patients are generally unaware of which STIs they are being tested for during their visit to healthcare providers.<sup>7</sup> Despite substantial improvements in diagnostic and therapeutic means to cure or decrease the infectivity of STIs, the high frequency of STIs remain. Whereas access to healthcare certainly plays a large role in this, the lack of patient knowledge of which tests were performed during routine or requested STI screening may significantly contribute to this trend as well.

While this study involved only one recruitment site, an abundance of female participants, and a very low refusal rate, further research should include patients at multiple testing sites including private practice, to determine whether rates of identification differ by location and type of practice.

Current CDC recommendations should be followed by all healthcare providers in order to make sure their patients receiving STI testing know which tests were performed and which ones were not. One way to combat this issue is by providing educational efforts to providers that include a copy of the CDC's current recommendations and the importance of patient education regarding STI testing. Additional studies should be performed after training of healthcare providers to determine whether educational efforts targeted at providers performing testing result in increased patient education and knowledge of testing status.

Prevention of STIs and identification of patients infected is critical in order to make strides to decrease the prevalence, incidence, and potential negative outcomes of STIs. Clear and detailed communication between health care providers performing STI testing and patients obtaining STI screening is essential to meeting this goal.

## **REFERENCES**

1. Mayo Clinic Staff <http://www.mayoclinic.org/diseases-conditions/sexually-transmitted-diseases-stds/basics/definition/con-20034128>
2. X-Plain: Sexually Transmitted Diseases. In: National Institutes of Health; 2008.
3. Nationally Representative CDC Study Finds 1 in 4 Teenage Girls Has a Sexually Transmitted Disease. In: Center for Disease Control and Prevention; 2008.
4. Incidence, Prevalence, and Cost of Sexually Transmitted Infections in the United States. Center for Disease Control and Prevention; February 2013. Accessed July 14, 2014: <http://www.cdc.gov/std/stats/STI-Estimates-Fact-Sheet-Feb-2013.pdf>
5. Chard, D. Signs, Symptoms, and Complications of STIs. Options for Sexual Health. 2012. Accessed July 14, 2014: <https://www.optionsforsexualhealth.org/sexual-health/sexually-transmitted-infections/signs%20symptoms>
6. Morbidity and Mortality Weekly Report. Sexually Transmitted Diseases Treatment Guidelines: Center for Disease Control and Prevention; 2010. Accessed July 14, 2014: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5912a1.htm>
7. Tanzola, M. Many Young Women Uncomfortable, Uneducated about STD Testing Process. Clinical Psychiatry News. March 24, 2010. Accessed July 14, 2014: <http://www.clinicalpsychiatrynews.com/shared/shared-articles/many-young-women-uncomfortable-uneducated-about-std-testing-process/74f14a0d39a2352b6436079d77ba0c51.html>
8. Schlenker, T. Healthy Profiles 2010. Accessed August 12, 2014: <http://www.sanantonio.gov/Portals/0/Files/health/News/HealthProfiles-2010.pdf>

9. Sexually Transmitted Disease Surveillance 2012. In: Table 24. All Stages of Syphilis\*-  
Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States  
and Outlying Areas, 2008-2012
10. Royer HR, Cerf C. Young Women's Beliefs About the Terms Sexually Transmitted  
Disease and Sexually Transmitted Infection. Journal of Obstetric, Gynecologic, &  
Neonatal Nursing 2009;38(6):686-692.
11. U.S. Census Bureau, 2010 Census Profile of General Population and Housing  
Characteristics: 2010 Demographic Profile Data of San Antonio, TX. Accessed August 1,  
2014:  
<http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk>
12. Mead, H., Smith, L., Jones, K., Ramos, C., Siegel, B., and Woods, K. Racial and Ethnic  
Disparities in U.S. Health Care: A Chartbook In: Chart 2-3 and 4-2. The Commonwealth  
Fund. March 2008. Accessed August 20, 2014:  
[http://www.commonwealthfund.org/usr\\_doc/mead\\_raceethnicdisparities\\_chartbook\\_11  
11.pdf](http://www.commonwealthfund.org/usr_doc/mead_raceethnicdisparities_chartbook_1111.pdf)
13. San Antonio, TX Demographics. Accessed August 12, 2014:  
<http://www.areavibes.com/san+antonio-tx/demographics/>
14. Workowski KA, Berman SM. CDC Sexually Transmitted Diseases Treatment  
Guidelines. Clinical Infectious Diseases 2002;35(Supplement 2):S135-S137.

## **APPENDIX A-CONSENT FORM (ENGLISH)**

### **PLEASE READ THE FOLLOWING BEFORE COMPLETING THE SURVEY.**

The following survey is intended to assess your beliefs and understanding of information provided by the clinician(s) that you saw during your visit today. This survey is intended to identify the reason for your office visit today, any tests that you may have had done today, and whether your concerns have been addressed during your visit today. The following survey consists of eight questions and will take about five minutes to complete. This survey is available in English and Spanish.

#### **Consent**

Participation in this survey is completely voluntary. All information provided in this survey will be kept confidential and participation will have no impact on current or future services provided to you. By participating in this survey, you are consenting that the data from this survey may be used for research purposes and the researcher may obtain a list of the tests that were performed during your visit today and which provider(s) may have participated in your care today. No information regarding your name, birthdate, contact information, testing outcomes, diagnosis, or treatment will be recorded. All information provided in the survey will be kept confidential. In order to ensure your privacy as a subject, only the principal investigator will have access to your survey. This survey will not become a part of your medical record. All survey data will remain anonymous. The only connection between this survey and your medical record will be through the letter or number provided to you during your visit today.

#### **Rights as a Participant**

You have the right to refuse to participate in this survey. You have the right to skip any questions that make you feel uncomfortable. Refusing to participate will have no impact on current or future services provided to you and will not affect your relationship with any of the providers at the office.

#### **Perceived Benefits/Risks**

*Potential Benefit:* The information collected from this survey may be used to improve patient services in the future.

*Risk/Benefit Ratio:* There is no cost or reward for participating in this survey. Your privacy will be adequately protected. The benefits of this study outnumber any risks.

If you would prefer to speak with someone in Spanish, please ask the individual who provided you with this cover letter.

Andrea Lewis is the principal investigator conducting this survey and is a student at Rutgers University-School of Health Related Professions. If you have any further questions about your participation in this survey today or the results of this research study, she can be contacted at 225-\*\*\*-\*\*\*\*. This survey is being conducted as part of

an Independent Service Learning Project associated with [REDACTED] with the permission of [REDACTED]-RN, Director of Women's Health Care Services.

**If you consent to participating in this research study, please continue to the survey provided.**

## **APPENDIX B-CONSENT FORM (SPANISH)**

### **POR FAVOR LEA LO SIGUIENTE ANTES DE COMPLETAR LA ENCUESTA.**

El proposito de la siguiente encuesta es para evaluar su creencia y entendimiento de la informacion que el personaje medico le dio hoy durante su visita. La intencion de la encuesta es para identificar la razon de su visita hoy, cualquiera prueba que se hizo hoy, y si su preocupaciones fueron tratadas durante su visita hoy. La siguiente encuesta consiste de ocho preguntas y es disponible en Ingles y Español.

#### **Consentimiento**

Participacion en esta encuesta es totalmente voluntaria. **Toda informacion proveido en la encuesta sera confidencial y su participacion no tendra un impacto en los servicios actuales o futuros disponible a usted.** Al participar en la encuesta usted esta dando consentimiento que la informacion de la encuesta puede ser utilizada para propósitos de investigacion cientifica y el investigador pueda obtener una lista de las pruebas que se hizo durante su visita hoy y cual medicos participaron en su cuidado hoy. **Ninguna informacion con respecto a identificadores personales, resultados de pruebas, diagnosticos, o tratamientos sera documentado.** Toda la informacion de la encuesta se mantendra confidencial. Para mantener su privacidad como participante, solo el investigador principal tendra acceso a su encuesta. Esta encuesta no sera parte de su archivo medico. **Todos los datos de la encuesta permanecera anonimo y en ningun momento habra conexion con su nombre.**

#### **Derechos Como Participante**

Usted tiene el derecho a negarse a participar en esta encuesta. Usted tiene el derecho a no responder las preguntas en cual le hacen sentir incomodo. Negarse a participar no tendra impacto en los servicios actuales o en el futuro dirigido a usted y no afectara su relacion con ninguno de los proveedores medicos en la oficina

#### **Beneficio/Riesgo Percibido**

*Beneficio Potencial:* La informacion que se colecta de esta encuesta puede ser usada para mejorar los servicios a los pacientes en el futuro.

*La Proporción de Riesgo a Beneficio:* No hay costo o recompensa para participar en esta encuesta. Su privacidad sera protegida adecuadamente. Los beneficios de este estudio es superior a cualquier riesgo.

Si prefiere hablar con alguien en Ingles, por favor pregunte le a la persona que le entrego esta carta

Andrea Lewis es la investigadora principal conduciendo esta encuesta y es una estudiante en la Rutgers University-School of Health Related Professions. Si usted tiene preguntas adicionales sobre su participacion en esta encuesta hoy o de los resultados de este estudio ella puede ser contactada a 225-\*\*\*-\*\*\*\*. Esta encuesta es

parte de un proyecto de aprendizaje servicio independiente asociada a [REDACTED] con el permiso de la [REDACTED]-RN, Directora de Salud a Mujeres

**Si usted da consentimiento para participar en este estudio por favor continúe a la encuesta que le entregaron.**

**APPENDIX C-SURVEY (ENGLISH)**

# \_\_\_\_\_

**Please complete the following questions.**

1. What is your gender?

\_\_\_\_\_ Male

\_\_\_\_\_ Female

2. What is your current age?

\_\_\_\_\_ years old

3. What is your race/ethnicity? (**CHECK ALL THAT APPLY**)

\_\_\_\_\_ White/Caucasian (non-Hispanic)

\_\_\_\_\_ Black/African-American (non-Hispanic)

\_\_\_\_\_ Hispanic/Latino

\_\_\_\_\_ Asian/Pacific Islander

\_\_\_\_\_ Alaska Native/American Indian

\_\_\_\_\_ Other: \_\_\_\_\_

4. What is the highest level of education that you have completed?

\_\_\_\_\_ Less than high school (8<sup>th</sup> grade or below)

\_\_\_\_\_ Some high school (9<sup>th</sup>- 12<sup>th</sup> grade)

\_\_\_\_\_ High school graduate

\_\_\_\_\_ Technical/trade school

\_\_\_\_\_ Some college

\_\_\_\_\_ Associate degree

\_\_\_\_\_ Bachelor degree

\_\_\_\_\_ Graduate or professional school (Masters, Ph.D., MD, etc.)



**PLEASE CONTINUE ONTO THE NEXT PAGE.**

7. Which provider referred you for STI/STD testing?

- [REDACTED] OBGYN
- [REDACTED], Internal Medicine
- [REDACTED], Family Medicine
- [REDACTED], Pediatric
- [REDACTED], Pediatrics
- [REDACTED], OBGYN
- [REDACTED], Family Medicine
- [REDACTED]-FNP, Family Medicine
- Other: \_\_\_\_\_

8. Were your concerns addressed during your visit today?

- Yes
- No

8A. If no, what could have been done differently to address your concerns?

---

---

---

---

---

---

---

**Thank you for your time. Please place this survey in the drop box on your way out.**

1. Mayo Clinic Staff <http://www.mayoclinic.org/diseases-conditions/sexually-transmitted-diseases-stds/basics/definition/con-20034128>
2. X-Plain: Sexually Transmitted Diseases. In: National Institutes of Health; 2008.
3. Nationally Representative CDC Study Finds 1 in 4 Teenage Girls Has a Sexually Transmitted Disease. In: Center for Disease Control and Prevention; 2008.
4. Incidence, Prevalence, and Cost of Sexually Transmitted Infections in the United States. Center for Disease Control and Prevention; February 2013. Accessed July 14, 2014: <http://www.cdc.gov/std/stats/STI-Estimates-Fact-Sheet-Feb-2013.pdf>
5. Chard, D. Signs, Symptoms, and Complications of STIs. Options for Sexual Health. 2012. Accessed July 14, 2014: <https://www.optionsforsexualhealth.org/sexual-health/sexually-transmitted-infections/signs%20symptoms>
6. Morbidity and Mortality Weekly Report. Sexually Transmitted Diseases Treatment Guidelines: Center for Disease Control and Prevention; 2010. Accessed July 14, 2014: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5912a1.htm>
7. Tanzola, M. Many Young Women Uncomfortable, Uneducated about STD Testing Process. Clinical Psychiatry News. March 24, 2010. Accessed July 14, 2014: <http://www.clinicalpsychiatrynews.com/shared/shared-articles/many-young-women-uncomfortable-uneducated-about-std-testing-process/74f14a0d39a2352b6436079d77ba0c51.html>
8. Schlenker, T. Healthy Profiles 2010. Accessed August 12, 2014: <http://www.sanantonio.gov/Portals/0/Files/health/News/HealthProfiles-2010.pdf>

9. Sexually Transmitted Disease Surveillance 2012. In: Table 24. All Stages of Syphilis\*-  
Reported Cases and Rates by State/Area and Region in Alphabetical Order, United States  
and Outlying Areas, 2008-2012
10. Royer HR, Cerf C. Young Women's Beliefs About the Terms Sexually Transmitted  
Disease and Sexually Transmitted Infection. Journal of Obstetric, Gynecologic, &  
Neonatal Nursing 2009;38(6):686-692.
11. U.S. Census Bureau, 2010 Census Profile of General Population and Housing  
Characteristics: 2010 Demographic Profile Data of San Antonio, TX. Accessed August 1,  
2014:  
<http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk>
12. Mead, H., Smith, L., Jones, K., Ramos, C., Siegel, B., and Woods, K. Racial and Ethnic  
Disparities in U.S. Health Care: A Chartbook In: Chart 2-3 and 4-2. The Commonwealth  
Fund. March 2008. Accessed August 20, 2014:  
[http://www.commonwealthfund.org/usr\\_doc/mead\\_raceethnicdisparities\\_chartbook\\_11  
11.pdf](http://www.commonwealthfund.org/usr_doc/mead_raceethnicdisparities_chartbook_1111.pdf)
13. San Antonio, TX Demographics. Accessed August 12, 2014:  
<http://www.areavibes.com/san+antonio-tx/demographics/>
14. Workowski KA, Berman SM. CDC Sexually Transmitted Diseases Treatment  
Guidelines. Clinical Infectious Diseases 2002;35(Supplement 2):S135-S137.

## APPENDIX A-CONSENT FORM (ENGLISH)

### PLEASE READ THE FOLLOWING BEFORE COMPLETING THE SURVEY.

The following survey is intended to assess your beliefs and understanding of information provided by the clinician(s) that you saw during your visit today. This survey is intended to identify the reason for your office visit today, any tests that you may have had done today, and whether your concerns have been addressed during your visit today. The following survey consists of eight questions and will take about five minutes to complete. This survey is available in English and Spanish.

#### **Consent**

Participation in this survey is completely voluntary. All information provided in this survey will be kept confidential and participation will have no impact on current or future services provided to you. By participating in this survey, you are consenting that the data from this survey may be used for research purposes and the researcher may obtain a list of the tests that were performed during your visit today and which provider(s) may have participated in your care today. No information regarding your name, birthdate, contact information, testing outcomes, diagnosis, or treatment will be recorded. All information provided in the survey will be kept confidential. In order to ensure your privacy as a subject, only the principal investigator will have access to your survey. This survey will not become a part of your medical record. All survey data will remain anonymous. The only connection between this survey and your medical record will be through the letter or number provided to you during your visit today.

#### **Rights as a Participant**

You have the right to refuse to participate in this survey. You have the right to skip any questions that make you feel uncomfortable. Refusing to participate will have no impact on current or future services provided to you and will not affect your relationship with any of the providers at the office.

#### **Perceived Benefits/Risks**

*Potential Benefit:* The information collected from this survey may be used to improve patient services in the future.

*Risk/Benefit Ratio:* There is no cost or reward for participating in this survey. Your privacy will be adequately protected. The benefits of this study outnumber any risks.

If you would prefer to speak with someone in Spanish, please ask the individual who provided you with this cover letter.

Andrea Lewis is the principal investigator conducting this survey and is a student at Rutgers University-School of Health Related Professions. If you have any further questions about your participation in this survey today or the results of this research study, she can be contacted at 225-\*\*\*-\*\*\*\*. This survey is being conducted as part of an Independent Service Learning Project associated with [REDACTED] with the

permission of Ms. [REDACTED]-RN, Director of Women's Health Care Services.

**If you consent to participating in this research study, please continue to the survey provided.**

## **APPENDIX B-CONSENT FORM (SPANISH)**

### **POR FAVOR LEA LO SIGUIENTE ANTES DE COMPLETAR LA ENCUESTA.**

El proposito de la siguiente encuesta es para evaluar su creencia y entendimiento de la informacion que el personaje medico le dio hoy durante su visita. La intencion de la encuesta es para identificar la razon de su visita hoy, cualquiera prueba que se hizo hoy, y si sus preocupaciones fueron tratadas durante su visita hoy. La siguiente encuesta consiste de ocho preguntas y es disponible en Ingles y Español.

#### **Consentimiento**

Participacion en esta encuesta es totalmente voluntaria. **Toda informacion proveido en la encuesta sera confidencial y su participacion no tendra un impacto en los servicios actuales o futuros disponible a usted.** Al participar en la encuesta usted esta dando consentimiento que la informacion de la encuesta puede ser utilizada para propósitos de investigacion científica y el investigador pueda obtener una lista de las pruebas que se hizo durante su visita hoy y cual medicos participaron en su cuidado hoy. **Ninguna informacion con respecto a identificadores personales, resultados de pruebas, diagnosticos, o tratamientos sera documentado.** Toda la informacion de la encuesta se mantendra confidencial. Para mantener su privacidad como participante, solo el investigador principal tendra acceso a su encuesta. Esta encuesta no sera parte de su archivo medico. **Todos los datos de la encuesta permanecera anonimo y en ningun momento habra conexion con su nombre.**

#### **Derechos Como Participante**

Usted tiene el derecho a negarse a participar en esta encuesta. Usted tiene el derecho a no responder las preguntas en cual le hacen sentir incomodo. Negarse a participar no tendra impacto en los servicios actuales o en el futuro dirigido a usted y no afectara su relacion con ninguno de los proveedores medicos en la oficina

#### **Beneficio/Riesgo Percibido**

*Beneficio Potencial:* La informacion que se colecta de esta encuesta puede ser usada para mejorar los servicios a los pacientes en el futuro.

*La Proporción de Riesgo a Beneficio:* No hay costo o recompensa para participar en esta encuesta. Su privacidad sera protegida adecuadamente. Los beneficios de este estudio es superior a cualquier riesgo.

Si prefiere hablar con alguien en Ingles, por favor pregunte le a la persona que le entrego esta carta

Andrea Lewis es la investigadora principal conduciendo esta encuesta y es una estudiante en la Rutgers University-School of Health Related Professions. Si usted tiene preguntas adicionales sobre su participacion en esta encuesta hoy o de los resultados de este estudio ella puede ser contactada a 225-\*\*\*-\*\*\*\*. Esta encuesta es

parte de un proyecto de aprendizaje servicio independiente asociada a [REDACTED] con el permiso de la Sra. [REDACTED]-RN, Directora de Salud a Mujeres

**Si usted da consentimiento para participar en este estudio por favor continúe a la encuesta que le entregaron.**

**APPENDIX C-SURVEY (ENGLISH)**

# \_\_\_\_\_

**Please complete the following questions.**

1. What is your gender?

\_\_\_\_\_ Male

\_\_\_\_\_ Female

2. What is your current age?

\_\_\_\_\_ years old

3. What is your race/ethnicity? (**CHECK ALL THAT APPLY**)

\_\_\_\_\_ White/Caucasian (non-Hispanic)

\_\_\_\_\_ Black/African-American (non-Hispanic)

\_\_\_\_\_ Hispanic/Latino

\_\_\_\_\_ Asian/Pacific Islander

\_\_\_\_\_ Alaska Native/American Indian

\_\_\_\_\_ Other: \_\_\_\_\_

4. What is the highest level of education that you have completed?

\_\_\_\_\_ Less than high school (8<sup>th</sup> grade or below)

\_\_\_\_\_ Some high school (9<sup>th</sup>- 12<sup>th</sup> grade)

\_\_\_\_\_ High school graduate

\_\_\_\_\_ Technical/trade school

\_\_\_\_\_ Some college

\_\_\_\_\_ Associate degree

\_\_\_\_\_ Bachelor degree

\_\_\_\_\_ Graduate or professional school (Masters, Ph.D., MD, etc.)



**PLEASE CONTINUE ONTO THE NEXT PAGE.**

7. Which provider referred you for STI/STD testing?

- \_\_\_\_\_, OBGYN
- \_\_\_\_\_, Internal Medicine
- \_\_\_\_\_, Family Medicine
- \_\_\_\_\_, Pediatric
- \_\_\_\_\_, Pediatrics
- \_\_\_\_\_, OBGYN
- \_\_\_\_\_, Family Medicine
- \_\_\_\_\_-FNP, Family Medicine
- Other: \_\_\_\_\_

8. Were your concerns addressed during your visit today?

- Yes
- No

8A. If no, what could have been done differently to address your concerns?

---

---

---

---

---

---

---

**Thank you for your time. Please place this survey in the drop box on your way out**

**APPENDIX D-SURVEY (SPANISH)**

# \_\_\_\_\_

**Por favor conteste las siguientes preguntas.**

1. Cual es su sexo?

\_\_\_\_\_ Hombre

\_\_\_\_\_ Mujer

2. Cual es su edad?

\_\_\_\_\_ años

3. Cual es su raza o origen etnico? **(MARQUE TODAS LAS QUE SE APLICAN)**

\_\_\_\_\_  Blanco (no Hispano)

\_\_\_\_\_ Negro/Afro-Americano (no Hispano)

\_\_\_\_\_ Hispano/Latino

\_\_\_\_\_ Asiatico/Islas del Pacifico

\_\_\_\_\_ Indio Nativoamericano/Natural de Alaska

\_\_\_\_\_ Otro: \_\_\_\_\_

4. Cual es el nivel mas alto de educacion que ha completado?

\_\_\_\_\_ Menos de la escuela secundaria (octavo grado o menos)

\_\_\_\_\_ Algunos años de escuela secundaria (grado 9-12)

\_\_\_\_\_ Graduado de escuela secundaria

\_\_\_\_\_ Escuela tecnica

\_\_\_\_\_ Alguna educacion universitaria

\_\_\_\_\_ Titulo asociado (2 años)

\_\_\_\_\_ Licenciatura (Titulo de 4 años)

\_\_\_\_\_ Escuela profesional (Maestria, Doctorado, etc.)

\_\_\_\_\_ Otro: \_\_\_\_\_



**POR FAVOR CONTINÚE LA PÁGINA SIGUIENTE**

7. Proveedor que le refirió para la detección de infección/enfermedad de transmisión sexual?

- \_\_\_\_\_ [REDACTED], OBGYN
- \_\_\_\_\_ [REDACTED], Internal Medicine
- \_\_\_\_\_ [REDACTED], Family Medicine
- \_\_\_\_\_ [REDACTED], Pediatric
- \_\_\_\_\_ [REDACTED], Pediatrics
- \_\_\_\_\_ [REDACTED], OBGYN
- \_\_\_\_\_ [REDACTED], Family Medicine
- \_\_\_\_\_ [REDACTED]-FNP, Family Medicine
- \_\_\_\_\_ Otro: \_\_\_\_\_

8. Todas sus preocupaciones fueron tratadas hoy?

- \_\_\_ Si
- \_\_\_ No

8A. Si no, que se podría haber hecho diferente hoy?

---

---

---

---

---

---

---

---

**Gracias por su tiempo. Por favor poner la encuesta en la caja antes de salir.**