



# Improving Sexually Transmitted Infection (STI) Screening, Testing, and Treatment: A Mixed Methods Needs Assessment to Inform a Multi-Site Intervention and Evaluation Plan

The Launch of a Ryan White HIV/AIDS Program (RWHAP)  
Special Project of National Significance (SPNS)

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- The presenters have no conflicts of interest to disclose.

# Disclaimer



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# Introduction & Background



- While the rates of HIV diagnosis have decreased from 2012 to 2016, bacterial STI rates have seen consistent growth.<sup>1,4</sup>
  - Compared to 2017, 2018 CDC nationwide reporting shows a 2.9% increase in the rate of CT infection, a 5.0% increase in the rate of GC infection, and a 14.9% increase in the rate of syphilis infection.<sup>1</sup>
- In addition to increasing the risk of HIV transmission from a non-virally suppressed person, STIs are a continuing public health concern because of other associated morbidities and mortalities.

# Introduction & Background Continued



- Another concern has been the increasing rates of antimicrobial resistant strains of gonorrhea.<sup>3</sup>
- Despite national recommendations on screening and treating STIs in people with HIV or at risk for HIV, gaps exist in the regular screening, treatment, and prevention of STIs among people with HIV.<sup>2</sup>
  - According to the CDC Medical Monitoring Project, only 37% of people with HIV reported being tested for GC, CT, and syphilis in 2017.<sup>8</sup>
- Although evidence-based interventions are known to improve STI care, these interventions have not been evaluated in RWHAP clinics.

# Barriers to ongoing STI screening, testing, and treatment



- Improving efforts to address barriers associated with providing STI care in HIV care clinics is an integral step towards reducing STI rates nationwide.
- The barriers to ongoing STI screening, testing, and treatment are multiple, and exist across **institutional, community, provider, and patient levels.**
- Despite interventions such as “Ask, Screen, Intervene,” an HIV/STI transmission prevention intervention for providers to use with people with HIV,<sup>5</sup> gaps exist in the clinical integration of CDC recommendations for STI testing and treatment for at risk populations in and outside of HIV care.<sup>6,7</sup>

# Project Purpose



- To conduct a baseline needs assessment (BNA) at Ryan White HIV/AIDS Program (RWHAP) funded clinical sites and 2 co-funded Health Center Program clinics with higher than national average incidences of GC, CT, syphilis, and HIV that informs the selection and subsequent evaluation of clinically appropriate interventions to increase and/or improve STI screening and treatment among people with HIV and people at risk for HIV.



# Presentation Objectives



- 1) Describe the epidemiology of bacterial STIs among people with HIV or those at risk and the purpose of this HRSA SPNS project.
- 2) Explain the mixed methods used in the baseline needs assessment of the clinical demonstration sites.
- 3) Summarize the rationale for the selection of the training, clinical, non-clinical, and systems level interventions and the multi-site evaluation plan design.

- These assessments took place in 9 clinical demonstration sites across 3 jurisdictions with higher than average incidence of HIV and bacterial STIs.

## 3 Jurisdictions: Washington DC, Florida, and Louisiana

- Quantitative data were collected via 6 surveys completed by designated change champions and clinic staff at each clinical demonstration site.
- Qualitative data were collected via interviews with clinic staff at each clinical demonstration site.
- Interview transcripts were thematically analyzed, and resultant themes were investigated with quantitative survey data to provide evidence for intervention selection and evaluation plan methods.



# BASELINE Needs Assessment Findings

# Baseline Needs Assessment Overview



Assessment Tool	Purpose
<b>Pre-Intervention Data Survey (2016 - 2017)</b>	Gather aggregate clinical data from 2016, & 2017 related to STI screening & diagnosis.
<b>Pre-Intervention Costs (2017)</b>	Estimate the total annual and average cost per client for the following pre-SPNS STI project annual aggregate sexually transmitted infection (gonorrhea, chlamydia, and syphilis only) prevention, screening, and treatment cost(s) for your Ryan White HIV/AIDS Program-funded primary care HIV clinic for Calendar Year 2017.
<b>Clinical Team Member Process, Attitudes &amp; Beliefs Survey</b>	Assess clinical processes, and provider attitudes & beliefs related to screening, diagnosis, treatment & follow-up.
<b>STI Screening Readiness Checklist</b>	Assess clinical capacity to implement interventions to improve STI screening & treatment.
<b>Clinical Team Member Interview</b>	Qualitatively assess provider feedback on clinical experiences (barriers, challenges, training, policies & procedures) related to STI screening & treatment.
<b>Clinic Workflow Operations Checklist</b>	Observe routine clinical functions & flow.

# Methods



Assessment Tool	Administration
<b>Pre-Intervention Data Survey (2016-2017)</b>	Administered online via Qualtrics and disseminated to the designated Change Champion at each of the 9 clinical demonstration sites. (Analysis: SPSS V25.0)
<b>Pre-intervention Costs (2017)</b>	Excel template of the Pre-intervention costs: 2017 was emailed to the Change Champion at each of the 9 clinical demonstration sites along with a sample template to guide the clinics. A Subject Matter Expert provided technical assistance as needed.
<b>Clinical Team Member Process, Attitudes &amp; Beliefs Survey</b>	Administered online via REDCap (Research Electronic Data Capture) to the 3 clinical team members consisting of the designated Change Champion, a clinical prescriber (eg, MD, DO, NP, or PA) and a clinical non-prescriber (eg, RN, SW, MA) at each of the 9 clinical demonstration sites. (Analysis: SPSS V25.0)

# Methods (2)



Assessment Tool	Administration
<b>STI Screening Readiness Checklist</b>	Administered onsite to the 3 clinical team consisting of the designated Change Champion, a clinical prescriber and a clinical non-prescriber. (Analysis: SPSS V25.0)
<b>Clinical Team Member Interview</b>	Administered onsite and audiotaped without personal identifiers to the designated Change Champion, a clinical prescriber and a clinical non-prescriber in a private room provided by the clinical demonstration site. Estimated completion time up to 60 minutes per clinical team member. (Analysis: NVivo V12.0)
<b>Clinic Workflow Operations Checklist</b>	Administered onsite to the 3 clinical team members consisting of the designated Change Champion, a clinical prescriber and a clinical non-prescriber. (Analysis: SPSS V25.0)

# Pre-Intervention Data Survey (2017)



Jurisdiction	People with HIV	Individuals at-risk of HIV	MSM with HIV	Adolescents/ Young Adults	Pregnant individuals with HIV	Transgender Women with HIV
Florida	2600	0	757	128	58	31
Louisiana	2007	1500	277	287	71	6
DC	731	90	85	70	2	4
<b>Overall Total</b>	<b>5338</b>	<b>1679</b>	<b>1119</b>	<b>485</b>	<b>131</b>	<b>41</b>

# Clinical Team Member Process, Attitudes & Beliefs Survey – **Process**



**Sample Size (n) = 27:** Change Champions, Clinical Prescribers, and Clinical non-Prescribers

## Sexual History Taking

- 44% conduct a consistent, comprehensive sexual history on intake
- 74% conduct follow-up sexual histories at acute care visits when symptomatic for an STI

## STI Testing

- Among sexually active adolescents and adults living with HIV
  - 67% test for STIs on at least an annual basis
  - 18% test for STIs every 3-4 months
  - 78% test for STIs if symptomatic for an STI
  - 59% of patients self-collect NAAT or culture specimens for GC and CT



# Clinical Team Member Process, Attitudes & Beliefs Survey – **Process** (2)



## STI Treatment

- 52% and 48% of patients are brought back into clinic for a positive STI test result after being tested within 1-3 days and 4-10 days, respectively.

## Clinical Barriers to STI Testing and Treatment

- The top four intervenable barriers include the following:
  - Patient refuses to have provider do NAAT swabbing (oral, anal, and/or genital)
  - Patient refuses to provide urine for NAAT
  - Provider discomfort with sexual history taking and specimen collection process
  - Supplies for STI testing are not easily accessible in exam rooms

# Clinical Team Member Process, Attitudes & Beliefs Survey – Attitudes



- 29% of respondents reported:
  - if a patient has gonorrhea or chlamydia in their throat or rectum, they most likely will also have it in their urine
  - routine STI testing should be done in STD clinics or by the primary care provider, and not HIV specialists
  
- 26% of respondents reported that people with an STI could have avoided getting infected if they had wanted to

# Clinical Team Member Process, Attitudes & Beliefs Survey – **Beliefs**



- 25% and 26% of respondents rated their clinics as less than friendly to LGBTQ individuals and adolescent/young adults, respectively
- 37% of respondents rated their clinics as less than culturally competent for both LGBTQ individuals and adolescent/young adults

# Clinical Team Member Process, Attitudes & Beliefs Survey – Training



Training Topic	Percentage Reporting No Training or Training Not Applicable Over the Past Year
Adolescent/Young Adult Care	56%
Sexual History	48%
LGB or MSM Health	41%
Transgender Care	41%
Caring for Pregnant people with HIV	41%
Sexual Health	30%
STI Testing and Treatment	26%

\*Clinical Team Members include MDs, NPs, RNs, PAs, and DOs

There was a 100% response rate from 27 Change Champions, Clinical Prescribers, and/or Clinical non-Prescribers



# STI Screening Readiness Checklist

# STI Screening Readiness Checklist



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Percentage	Question
100%	Your clinic has the capacity to increase CT, GC, and syphilis testing. Your clinic has the supplies needed for CT, GC, and syphilis testing. Your clinic is working to reduce identified barriers related to STI testing, diagnosis, treatment, and follow-up.
78%	Your clinic has a way to systematically monitor STI testing, diagnosis, treatment, and follow-up data for clinic population(s).
44%	Your clinic has a process in use to evaluate patient care satisfaction and/or experiences regarding STI testing and treatment.
33%	Your clinic has policies and procedures in place regarding staff member(s) responsibility for prevention of HIV (for HIV-uninfected patients), CT, GC, and syphilis.



# Clinical Team Member Interview

# Clinical Team Member Interview – Barriers



- Provider comfort/stigma
- Transportation
- Housing
- Labs and medications on site
- Patient care/coordination/communication



# Clinical Team Member Interviews – Recommendations



- Increase screening frequency
- Patient transportation aid/assistance with needs
- Stock exam rooms with necessary supplies
- Improve clinical team communication regarding patient care



# Clinic Workflow Operations Checklist

Sample Size ( $n$ ) = 9: Clinical Team and Clinical non-Prescriber at each of the 9 clinical demonstration sites

### STI Prevention, Screening, Testing, Diagnosis, and Treatment

- 100% of providers conduct a sexual history
- 100% of patients are asked to provide urine for CT/GC NAAT
- 67% of patients self-collect swab(s) for CT/GC NAAT
- 89% of providers
  - collect or request an oropharyngeal swab CT/GC NAAT; and
  - collect or request a rectal swab CT/GC NAAT
- 56% of providers collect a genital swab CT/GC NAAT
- 78% of providers discuss HIV testing, if needed

# Clinic Workflow Operations Checklist – Aggregate (2)

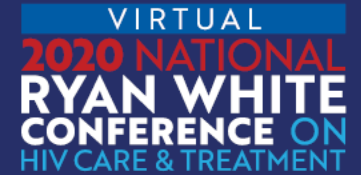


- 78% of Nurses/MAs conduct rapid point-of-care tests (pregnancy, HIV, syphilis, GC/CT)
- 89% of clinics have a policy for patient satisfaction assessment (electronic survey after visit, annual assessment done, quarterly assessment done)

## Non-Clinical Barriers to and Support for STI Testing and Treatment

- 44% of clinic waiting rooms have visible indications of LGBTQ support (rainbow flag, designated safe space sticker, images of same-sex couples on educational materials, images of transgender affirming information)
- 56% of clinic waiting rooms have visible indicators of adolescent/young adult support and friendliness (images of adolescent/young adults on pictures, pamphlets)

# BNA and Intervention Crosswalk: Rationale for Recommendations



Intervention Type:

**TRAINING**  
**CLINICAL**  
**NON-CLINICAL**  
**SYSTEMS LEVEL**

INTERVENTION	CLINIC								
	FL1	FL2	FL3	LA1	LA2	LA3	DC1	DC2	DC3
<b>Provider Training</b>	X	X	X	X	X	X	X	X	X
<b>Self-Collected Testing in Clinic</b>	X	O	X	O	X	X	X	X	X
<b>Increased Testing Frequency</b>	X	X	X	O	X	X	X	X	X
<b>Audio-Computer Assisted Self-Interview (Sexual History)</b>	X	X	X	X	X	X	X	X	X
<b>Accessible Specimen Collection Materials</b>	O	O	O	O	X	X	X	O	O
<b>LGBTQ Welcoming Clinic Space</b>	X	X	X	X	X	X	X	X	X
<b>Provider Detailing Program</b>	X	X	X	X	X	X	X	X	X

X = BNA SUPPORTS

O = BNA DOES NOT SUPPORT (JURISDICTION OR CLINIC CURRENTLY REPORTING 100% COMPLIANCE)



# Assessment-Based INTERVENTIONS

# Interventions

Five evidence-based interventions will be implemented and evaluated in this project to include the following:

	Interventions
<b>Intervention Type:</b>	<b>Provider Training</b>
<b>TRAINING</b>	<b>Patient Self-Collected Nucleic Acid Amplification Test (NAAT) Specimens</b>
<b>CLINICAL</b>	<b>Audio Computer-Assisted Self-interview (ACASI) Sexual History</b>
<b>NON-CLINICAL</b>	<b>LGBTQ Welcoming Clinic Space</b>
<b>SYSTEMS LEVEL</b>	<b>Provider Detailing</b>

\*Interventions identified through this project will be promoted in a STI screening, testing, and treatment toolkit for national use to assist in dissemination of successful practices and intervention implementation for long-term sustainability across the U.S.

# Conclusions



## A Baseline Needs Assessment..

- is an effective method to identify barriers to and facilitators of routine STI screening among people with HIV or those at risk;
- may inform the selection of implementable, multi-level interventions; and
- may be used to develop a multi-site evaluation plan.



# Limitations



- 1) Only 3 clinical team members representing the comprehensive feedback of all clinical team members at each clinic were asked to complete 3 assessment tools (3, 4, and 6). Therefore, not all clinical team members were individually surveyed.
- 2) The needs assessment did not include patient level data.
- 3) The cost analysis for most clinics was incomplete due to infrequently recorded cost and patient visit data as STI related care was provided within the context of HIV care.
- 4) EMR systems varied among clinics which limited the ability to record comparable clinical and demographic EMR data across all clinics.

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# For more information....



- Visit our TA page on TargetHIV

<https://www.targethiv.org/ta-org/sti-screening-treatment>

- Contact Veronica Jones, [jonesve@sn.rutgers.edu](mailto:jonesve@sn.rutgers.edu)



Thank You!