



BACKGROUND

*Literature describes how mental health issues can influence sexual behavior and we constantly witness that our clients engage repeatedly in risky behavior and some of them have frequent visits to our clinics with recurrent diagnosis of STI and HIV. However, little research has been conducted on the mental health needs of the clients attending our services.

*The DC Health and Wellness Center is the only publicly-funded specialty clinic in Washington, DC. In 2012 the former SE STD Clinic conducted a pilot mental health and substance Abuse screening and majority of the clients (80.2%) admitted untreated mental health symptoms and problems with access to services.

*In January 2018 the center began a new phase of this project, screening our clients more often for this issues and providing mental health counseling services on a need basis. This study describes DC's embedded Mental Health Clinic experience through counseling internship.

OBJECTIVES

1. Understand how mental health issues influence sexual behavior
2. Evaluate screening tools and procedures that can be suitable to incorporate in the STI clinic flow
3. Discuss preliminary results of mental health screening and services at DC health and Wellness center

METHODS

1. Patients are screened with:
 - _Global Appraisal of Individual Needs – Short Screener (GAIN-SS).
 - _ACE Questionnaire
 - _PCL-5
2. When counselor is available positive screenings are discussed face to face
3. When counselor is not available follow up is done over the phone or by email
4. Options of referral are discussed if client has insurance
5. Counseling on site is offered by Counselors in internship for the last year of the Master program by Agreement with Chicago School of Professional Psychology
6. Supervision is offered to Interns by a LPC (Individual and group)

RESULTS

FROM PREVIOUS SCREENING *

- 935 (80.2%) reported experiencing MHSA signs within the year prior to their visit
- 298 (25.5%) clients had recent signs but didn't see staff
- 194 clients (16.6%) were offered a referral to MHSA after initial counseling
- 78 (73.6%) for mental health, 20 (18.9%) for substance abuse, and 8 (7.5%) for both service
- 39 clients (20.1%) who accepted a referral, but we had difficulty finding the appropriate services for them for issues with area of residency or lack of insurance
- this group of clients vocalized other issues that required ongoing counseling including history of trauma/abuse, relationship issues, emotional issues, and concerns about their STI/HIV status

*Special thanks to Brice W. Furness, MD, MPH, FACPM, CAPT, IRMC Division of STD Prevention, CDC, Atlanta, GA

CURRENT SCREENING

Symptoms/Issues	No	Frequency
Depression	103	51.50%
Sleep Issues	106	53.00%
Anxiety	92	46.00%
Past triggered	82	41.00%
Suicidal Ideation	23	11.50%
Psychotic	11	5.50%
Used Alcohol or Drugs	115	57.50%
Spent Time Getting Alcohol or Drugs	39	19.50%
Used Alcohol/ Drugs despite negative conseq,	16	8.00%
Use Affected activ. involvement	18	9.00%
Withdrawal symptoms	10	5.00%
More than 4 ACE	60	30.00%
At least 1 ACE	155	77.60%
Traumatic Events Self Lifetime	155	77.60%
Witnessed TE Lifetime	104	52.20%
PTSD Score	32	16.00%
PTSD Symptoms	176	88.00%
Face to Face assessment	31	15.50%
Interested in services	89	44.50%
In services	29	14.50%



CONCLUSIONS

- ❖ The majority of the clients admitted untreated mental health symptoms and problems with access to services.
- ❖ Trauma history is admitted by the majority of clients with a high presence of ACE, which is a predictor of negative health outcomes.
- ❖ There is a high prevalence of post traumatic stress in our clients, with a considerable presence of clinic PTSD that aim for trauma informed care interventions.
- ❖ By incorporating MHSA screening and linkage to care, STD clinics may be able to improve the overall health of clients.
- ❖ Integrating a MHSA screening program, while feasible, require additional infrastructure to fully facilitate identifying and connecting clients to the services they would need.

FUTURE DIRECTIONS

- Implement universal MH/SA screening to all clinic patients
- Utilize electronic GAIN program in regular bases to generate client's reports
- Monitoring Sexual Health Outcomes in Medical record
- Create electronic system to enter and report other screening tools
- Monitoring Sexual Health Outcomes in Medical record
- Explore other variables of sexual health
- Increase networking with behavioral health services in the community
- Continue providing services through internship of Counseling field students
- Evaluate feasibility of a staff mental health counselor on site

Key words: Mental Health, Substance Abuse, STI, Sexual Behavior, Sexual Health, Trauma informed

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COOPERATIVE RE-ENGAGEMENT CONTROLLED TRIAL (Co-RECT) THE PHILADELPHIA STD CONTROL PROGRAM / AIDS ACTIVITIES COORDINATING OFFICE

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Background:

The Cooperative Re-Engagement Controlled Trial (Co-RECT) is a study sponsored by the Centers for Disease Control and Prevention. During the course of the study, the DIS in Philadelphia have demonstrated the vital importance of connecting with HIV positive patients who have been lost to care within the past six months. The presentation will demonstrate the process DIS used to re-link HIV positive patients to care. This topic is important as it discusses the vital skills, tools and strategies in addressing patient's barriers in order to facilitate re-linkage to HIV care.

Objective:

Develop strategies to assist patients with barriers, help patients build trust and engage in care.

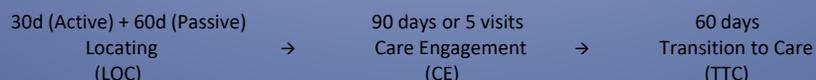
Methods:

- Connected and collaborated with providers and medical case managers
- Identified actionable steps in addressing patient barriers
- Met patients on their own terms and provided alternate providers
- Identified resources such as: rehab facilities, food and clothing bank, etc..

Total time spent for all encounters per patient (hours)

Total Time for all Encounters per patient	Frequency	Percent	Cum.Freq	Cum. %
0-1 hours	232	39.3	232	39.3
1-2 hours	215	36.4	447	75.6
2-3 hours	68	11.5	515	87.1
3-4 hours	47	8.0	562	95.1
>4 hours	29	4.9	591	100.0

Patient Movement Through Intervention



DIS Analysis Days

Phase	Average	Minimum	Maximum
Time (LOC → CE)	10.5	1	68
Time (CE → TTC)	22.1	1	83
Time (LOC → TTC)	32.5	4	118

Preliminary Barrier to Care Results:

- 450 patients randomized to the intervention from (08/01/16 to 01/17/2018)
- 333/450 reported barriers
- 689 unique barriers reported (Patients reported multiple barriers)
- 63 barriers categorized in 23 domains
- Barriers collected during qualitative interviews over the course of the intervention
- Patients reported barriers voluntarily

Conclusions:

- Patients are experiencing many different types of challenges to engaging in care
- Patients are often experiencing multiple barriers to care at the same time
- Preliminary data shows that the DIS spent 487hrs per month of investigative activities

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AN INTERPROFESSIONAL APPROACH TO HPV PREVENTION IN AMERICAN INDIAN/ALASKA NATIVE COMMUNITIES

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BACKGROUND

- Human papillomavirus (HPV) is the most common sexually transmitted disease in the U.S; Most people with HPV infections don't know they are infected.
- Some strains of HPV can cause cancer including cancers of the cervix, vulva, vagina, penis, anus, and oropharynx.
- The most common HPV-linked cancer is cervical cancer in women and oropharyngeal cancer in men.
- About 8,000 people in the U.S. were diagnosed with HPV-associated oropharyngeal cancers in 2009.¹
- Large disparities in relative survival among patients with HPV-associated cancers exist.
- The HPV vaccine is recommended for both males and females between 9-26 years of age.
- Because HPV is implicated in oropharyngeal cancers, the dental community is a pathway for increased HPV vaccine uptake.
- Some studies have assessed the viability of this inter-professional approach to HPV prevention,^{2,3,4} but none have assessed it in relation to disparity populations.
- This study was conducted through the Indian Health Service (IHS), an agency within the Department of Health and Human Service. The IHS is responsible for providing federal health services to 2.2 million American Indians and Alaska Natives (AI/AN) living mostly in rural and frontier areas.

OBJECTIVE

- To assess the knowledge, attitudes, and practices of HPV and HPV vaccination of oral health professionals at IHS facilities.



Map of the 12 IHS Areas. Accessed from www.ihs.gov/foodhandler/index.cfm?module=contactfoodhandlerstaff

METHODS

- A web-based survey was developed using SurveyMonkey®.
- An expert panel of IHS Dental Officers reviewed and provided input to the survey prior to distribution.
- Survey was distributed through the IHS Division of Oral Health listserv.
- Respondents were limited to oral health professionals who are federal employees or U.S. Public Health Service Commissioned Corps officers working in IHS/Tribal/Urban (I/T/U) facilities.

RESULTS

Table 1. Demographics of survey respondents. A total of 117 responses were collected, representing 12 IHS Regions.

Characteristics	n	%
Provider Type		
Dentist	86	52.5
Dental Hygienist	29	9.7
Dental Assistant	27	8.4
Other	5	3.4
Facility Type		
IHS federal site	107	72.8
Tribal site	39	26.5
Urban site	1	0.7
% of patients that are adolescents (13-19 y.o.)		
0%	4	2.7
1-24%	84	57.1
25-49%	39	26.5
50-74%	8	2.2
75-100%	2	1.4
Hours worked per week		
Less than 20 hours	3	2.0
20-39 hours	5	3.4
40 hours	122	83.0
More than 40 hours	7	1.6
Years at dental program		
Less than 3 years	51	34.7
3-5 years	26	17
More than 5 years	70	47.6
Years in practice		
Less than 6 years	25	19
6-10 years	8	8.8
11-20 years	39	26.5
More than 20 years	70	47.6
IHS Area		
Alaska	8	5.4
Albuquerque	9	6.1
Bentley	8	5.4
Billings	36	23.8
California	1	0.7
Great Plains	20	16.6
IHS Headquarters	2	1.4
Nashville	24	13.3
Navajo	8	8.8
Oklahoma City	8	5.4
Phoenix	8	5.4
Portland	9	6.1
Tucson	2	1.4

RESULTS continued

KNOWLEDGE

- General HPV knowledge among dentists was slightly higher than that among dental hygienists and dental assistants combined (Fig. 1 and Fig. 2).
- Most respondents knew of the link between HPV and cervical cancer (92%) (Fig. 2).
- Knowledge of links to other types of cancer, including oropharyngeal cancer (64%) was less prevalent (Fig. 2).
- Knowledge around vaccination recommendations was limited (Fig. 3 and Fig. 4).
- Not many respondents correctly identified the recommended number of doses for males (6%) and females (5%) (Fig. 3).
- Not many respondents correctly identified the recommended age for vaccination for males (44%) and females (49%) respectively (Fig. 4).
- Some responses indicated a misconception that the HPV vaccine was recommended for females but not for males (Fig. 4).

Figure 2. Knowledge of HPV-linked cancers. An asterisk indicates an HPV-linked cancer. (n=142, skipped=5)

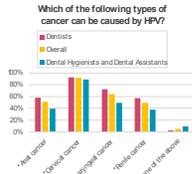


Figure 3. Knowledge of dosage recommendations for the HPV vaccine. An asterisk indicates the correct answer. (n=112, skipped=5)

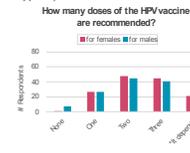
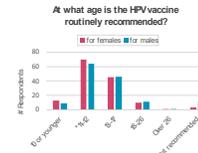


Figure 4. Knowledge of age recommendations for the HPV vaccine. An asterisk indicates the correct answer. (n=112, skipped=5)



PRACTICES

- Most respondents have not received HPV education or training (85%).
- Few respondents (4%) currently discuss HPV and oral cancer with all their patients.
- 26% of respondents discuss HPV with at least some of their patients.
- A majority (51%) of respondents have considered discussing HPV with their patients.
- Of the respondents who do not currently discuss HPV, the most common reasons cited were lack of information (67%) and lack of privacy at the clinical setting (46%).

Table 2. Current practices of HPV prevention and perspectives on future training options. (n=87, skipped=0)

	n	%
At your facility have you received education/trainings about HPV?		
Yes	8	5.84%
No	17	85.40%
I do not know	12	8.76%
If training could be provided, what format of training would be beneficial to your facility? (select all that apply)		
In person	73	53.28%
Webinar	80	58.39%
Online self-study	57	41.61%
Offline self-study	8	5.94%
Other (please specify)	2	1.46%
Which of the following tools for increasing education and acceptance of HPV vaccination are most useful to you? Select all that apply.		
Informational flyers or brochures tailored to specific parental concerns	104	75.91%
Education for oral health professionals regarding HPV	96	70.07%
Discussion guide or health script for oral health professionals	73	53.28%
Information catered to cultural or ethical preferences	66	48.81%
Information for parents provided before clinic visit	52	37.96%
None	8	4.38%

ATTITUDES

- Attitudes were generally consistent between dentists, dental hygienists and dental assistants, and overall.
- Most respondents (70%) agreed or strongly agreed that the HPV vaccine was effective.
- Most respondents agreed or strongly agreed that discussing HPV infection (63%) and HPV vaccination (60%) with their patients and/or their parents was important.
- A majority (56%) of respondents agreed or strongly agreed that they did not have enough information to discuss HPV with their patients and/or their parents.

Figure 5. Attitudes regarding HPV vaccination and the role of dental professionals in HPV prevention among respondents. (n=80, skipped=7)



DISCUSSION

- There are some deficits in knowledge of HPV infection and HPV vaccination recommendations among the I/T/U oral health professionals who were surveyed.
- Most oral health professionals at I/T/U facilities are not currently receiving HPV training.
- Oral health professionals are largely receptive to increasing their role in HPV prevention.
- Potential areas for intervention include education for oral health professionals and producing informational materials for patients and their parents.
- Further study is needed to understanding the cultural factors involved with serving AI/AN communities in order to facilitate the creation of culturally competent resources.

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LIMITATIONS

- Data may not be generalizable across all IHS dental providers and oral health professionals.
- Findings may not be generalizable across different oral health professionals.
- Because the survey was voluntary, response bias may impact results.

RESOURCES

- HPV Vaccination Roundtable Action Guide for Dental Health Care Providers: <http://hpvroundtable.org/wp-content/uploads/2010/04/DENTAL-Action-Guide-WEB.pdf>
- Team Maureen Oral Health Provider Education: <https://teamaureen.org/about/programs/c/543>
- The Oral Cancer Foundation "The HPV Connection": <https://oralcancerfoundation.org/understanding/hpv/>

Prioritizing Gonorrhea Cases Coinfected with HIV for Partner Services



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Introduction

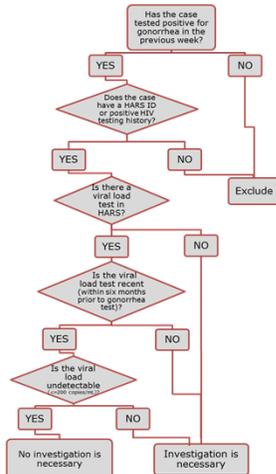
HIV-positive individuals with new bacterial STIs are at increased risk for onward HIV transmission. As such, individuals coinfecting with gonorrhea (GC) without evidence of recent HIV viral suppression should be prioritized for partner services follow-up. However, many health departments store STI surveillance information separately from HIV surveillance data, complicating the identification of cases in greatest need of follow-up. Developing strategies to detect novel STI infections among individuals living with HIV and assess care status will assist Disease Intervention Specialists (DIS) with prioritizing their caseload while also serving to reduce workloads by eliminating the need for investigation on patients with evidence of recent viral suppression.

Methods and Materials

Using an automated SAS program, the Center for STI Prevention (CSTIP) performed a weekly match between HIV viral load testing data extracted from Maryland's electronic HIV/AIDS Reporting System (eHARS) and STI case data from Maryland's STI surveillance system (PRISM) to identify incident GC cases potentially in need of HIV care re-engagement. Because a routine database match between PRISM and eHARS had been previously established, the cases only needed to be matched based on name and HARS ID. Any GC record added to PRISM within the previous week was assessed for a history of HIV (positive HIV test result or Maryland HARS ID, see Fig 1). Identified cases were matched to the most recent eHARS extract to determine care status. For this project, "in care" was defined as having a viral load test result of ≤ 200 copies/mL documented in eHARS within 6 months prior to the date of the GC test. Any new GC case with an indication of HIV infection and no recent suppressed viral load test was initiated for field follow-up. Furthermore, any new GC case infected with HIV and recently suppressed was de-prioritized from field follow-up.

For this analysis, all cases of GC added to PRISM between January and July 2018 identified by the coinfection matching protocol were included. Individuals with multiple GC infections during the study period were excluded from the analysis to avoid duplication of patient outcomes. Coinfected cases identified by the matching protocol as needing follow-up were assessed for updated testing information and partner services outcomes. An additional analysis was conducted on cases detected between January and July 2017 to compare patient outcomes and estimate the impact of the matching protocol.

Fig 1. Procedures for Initiating GC Cases Coinfected with HIV Identified through PRISM/HARS Match



Results

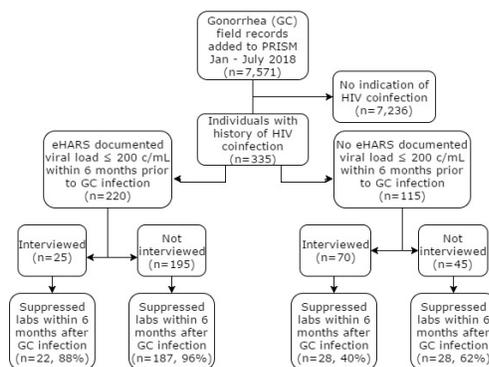
Between January and July 2018, 7,571 GC field records were created in PRISM, of which 335 were associated with individuals identified as having an indication of prior HIV infection by the matching protocol (Fig 2). 115 coinfecting cases (34%) had no viral load test result of ≤ 200 copies/mL in eHARS within 6 months prior to GC infection. Of these cases, 56 (48.7%) had a recent viral load test that was unsuppressed and 59 (51.3%) had no viral load test within 6 months prior to GC infection. 61% of cases (70) with no indication of recent viral suppression were successfully interviewed for partner services and 12 contacts were elicited, compared to 31% of similar cases in 2017 interviewed and 32 contacts elicited. Of the 12 contacts elicited, 4 were previously HIV positive and 4 more were successfully tested for HIV (all were negative). 49% of unsuppressed cases and 95% of previously suppressed cases had suppressed viral load tests entered into either eHARS or PRISM within 6 months after GC infection. 25 cases with a history of recent viral suppression received an interview (11.4%), a 59% decrease from 2017. No contacts were notified as a result of these interviews. As of October 2018, 47 (14%) cases remain open for investigation.

Discussion

As this analysis shows, patient care retention is a multifaceted issue. Although the proportion of unsuppressed, coinfecting individuals who received an interview nearly doubled from 2017 to 2018, fewer partners were elicited and individuals who received a partner services interview were less likely than those who were not interviewed to have new suppressed lab results within 6 months after GC infection. The percentage of suppressed cases who received interviews fell by more than half, which may provide DIS with additional time to conduct more thorough interviews of prioritized cases in the future. Additionally, changes to PRISM in August 2018 now allow for authorized staff to view the most recent viral load available in eHARS, which will help DIS to determine the need for follow-up on re-infected individuals faster and may also improve partner services outcomes. Due to a limited sample size, the study period chosen for this analysis included many cases created within the past 6 months, which limited the amount of time for records to be closed and new labs to be entered and may have negatively impacted estimates of patient care outcomes.

After conducting this analysis, CSTIP has developed several modifications to the matching protocol and we continue to refine our procedures. Future improvements include: modifying the match algorithm to automatically mark individuals identified with multiple concurrent STI infections as needing follow-up regardless of their HIV testing history; and inclusion of cases with HARS IDs in PRISM that do not match to the MD eHARS database as these IDs may indicate HIV positive history in another jurisdiction.

Fig 2. Patient Selection and Outcome Distribution



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Pre-Exposure Prophylaxis (PrEP) in Local Health Department Sexually Transmitted Disease Clinics in Illinois (Excluding Chicago), Site Selection, 2017-2018

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Background

Pre-Exposure Prophylaxis (PrEP) is a method for HIV negative individuals, having substantial risk, to prevent HIV infection by taking one pill every day. When taken consistently, PrEP will reduce the risk of infection by more than 90%. Sexually Transmitted Diseases (STD) have been proven indicators of HIV acquisition, and STD Clinics routinely offer services to individuals at risk of acquiring HIV. IDPH collaborated with select Local Health Department (LHD) STD Clinics to increase PrEP uptake.

Conclusion

STD clinics offer excellent opportunities to initiate PrEP. The audience is appropriate and responsive to PrEP education and utilization plus the staff members are competent at risk reduction and case management strategies. Linking STD and PrEP services creates comprehensive sexual health care for clients. PrEP uptake among those at risk, coupled with high adherence, will maximize the effectiveness and public health impact of PrEP.

Table 1. Screening and Positivity Data by Disease by Site (January 1, 2016 – December 31, 2016)

IL County (Location of LHD STD Clinic)	% Clinic Clients Self-Identify as MSM ¹ (from RAS) ²	Clinical Site Offers Extra-Genital Testing	Chlamydia			Gonorrhea			Syphilis ³			HIV ⁴		
			Total Tested	Tested Pos ⁵	Percent Positivity (95% CI) ⁶	Total Tested	Tested Pos ⁵	Percent Positivity (95% CI) ⁶	Total Tested	Tested Pos ⁵	Percent Positivity (95% CI) ⁶	Total Tested	Tested Pos ⁵	Percent Positivity (95% CI) ⁶
Champaign-Urbana	6.3%	Y	1,178	160	13.6 (11.6 - 15.5)	1,178	63	5.3 (4.1 - 6.6)	1,013	30	3 (1.9 - 4)	905	5	0.6 (0.1 - 1)
Coles	*	N	72	11	15.3 (7 - 23.6)	72	1	1.4 (0.3 - 7.5)**	*	*	*	*	*	*
DuPage	9.8%	Y	770	54	7 (5.2 - 8.8)	770	5	0.6 (0.1 - 1.2)	781	54	6.9 (5.1 - 8.7)	31	2	6.5 (1.8 - 20.7)**
St Clair (ESH ⁷)	2.2%	N	1,543	208	13.5 (11.8 - 15.2)	1,543	160	10.4 (8.8 - 11.9)	1,579	91	5.8 (4.6 - 6.9)	1,347	9	0.7 (0.2 - 1.1)
Jackson	10.7%	Y	293	32	10.9 (7.4 - 14.5)	293	7	2.4 (0.6 - 4.1)	110	3	2.7 (0.9 - 7.7)**	13	0	0
Knox	5.4%	N	195	18	9.2 (5.2 - 13.3)	195	8	4.1 (1.3 - 6.9)	162	4	2.5 (1.0 - 6.2)**	163	1	0.6 (0.1 - 3.4)**
Lake	15.9%	Y	859	124	14.4 (12.1 - 16.8)	859	50	5.8 (4.3 - 7.4)	880	37	4.2 (2.9 - 5.5)	800	6	0.8 (0.2 - 1.3)
Lee	3.0%	N	61	7	11.5 (3.5 - 19.5)	61	1	1.6 (0.3 - 8.7)**	57	2	3.5 (1.0 - 11.9)**	9	0	0
Macon	2.7%	Y	660	92	13.9 (11.3 - 16.6)	660	46	7 (5 - 8.9)	591	27	4.6 (2.9 - 6.3)	567	4	0.7 (0.2 - 1.8)**
Macoupin	*	N	54	2	3.7 (1.0 - 12.5)**	54	0	0	*	*	*	4	0	0
Madison	8.6%	Y	650	55	8.5 (6.3 - 10.6)	650	23	3.5 (2.1 - 5)	560	13	2.3 (1.1 - 3.6)	536	1	0.2 (0.0 - 1.1)**
McLean	16.3%	Y	853	96	11.3 (9.1 - 13.4)	853	44	5.2 (3.7 - 6.6)	347	18	5.2 (2.9 - 7.5)	350	5	1.4 (0.2 - 2.7)
Peoria	8.8%	N	677	148	21.9 (18.7 - 25)	677	77	11.4 (9 - 13.8)	187	16	8.6 (4.5 - 12.6)	2	0	0
Sangamon	6.3%	Y	904	120	13.3 (11.1 - 15.5)	904	45	5 (3.6 - 6.4)	30	21	70 (53.6 - 86.4)	11	1	9.1 (1.6 - 37.7)**
Stephenson	4.4%	N	267	33	12.4 (8.4 - 16.3)	267	9	3.4 (1.2 - 5.5)	200	3	1.5 (0.5 - 4.3)**	205	0	0
Whiteside	*	Y	9	3	33.3 (12.1 - 64.6)**	9	0	0	*	*	*	10	0	0
Will	31.0%	N	34	8	23.5 (9.3 - 37.8)	34	0	0	20	6	30 (9.9 - 50.1)	15	0	0
Winnebago	3.5%	Y	1,451	169	11.6 (10 - 13.3)	1,451	68	4.7 (3.6 - 5.8)	1,309	36	2.8 (1.9 - 3.6)	11	2	18.2 (5.1 - 47.7)**

¹MSM: Men who have sex with men; ²RAS: Behavior Risk Assessment Survey; ³Based upon treponemal Enzyme Immunoassay (EIA) tests; ⁴Based upon HIV 4th Gen Chemiluminescence Immunoassay (CMIA) tests; ⁵Pos: Positive/reactive; ⁶CI: Confidence interval; ⁷St Clair consists of two local governments and East Side Health District (ESH), one of the local governments, participated in this collaboration; *Data were unavailable; **Wilson's method of calculating CI used for cells <5.

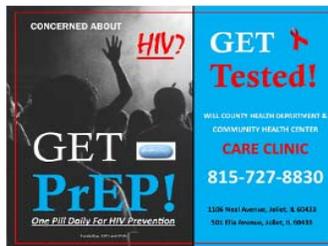
Figure 2. Locations of LHD STD Clinics Participating in PrEP Project



Best Practices

1. Provider educational events to increase prescriber base
2. Local media advertisement /billboard ads (see examples Figure 1)
3. PrEP education for 100% clinic clients
4. PrEP services offered at site or on referral basis
5. Outreach education
6. PrEP awareness using videos in lobby/client rooms

Figure 1. Sample Advertisements Created by LHD



Jackson County Health Dept.
618-684-3143 ext. 155
www.jchdonline.org



Using Risk Factors to Predict Participation in Partner Services Interviews

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Significance & Applicability

- Syphilis has been on the rise nationally, with Louisiana seeing a 37% increase in early syphilis (P&S syphilis and early non-primary non-secondary syphilis) from 2014 to 2017.
- DIS are on the front line of STD prevention and are tasked with interrupting disease transmission on the ground level.
- It is important to identify groups who are less likely to complete an interview to create alternative approaches that can reach these sub-populations and to assist with development of Partner Services evaluation and process improvement plans.

Background

- In Louisiana, DIS provide Partner Services to all persons diagnosed with early syphilis.
- Recent data have shown a decline in the number of individuals receiving Partner Services interviews in Louisiana. Between 2014 and 2017, the percentage of early syphilis cases without a DIS Partner Services interview in Louisiana doubled, from 8.3% to 16.6%.
- Between 2014 and 2017, early syphilis diagnoses increased among gay, bisexual, and other men who have sex with men (MSM) and individuals with HIV co-infections in Louisiana.
- Louisiana consists of nine public health regions.

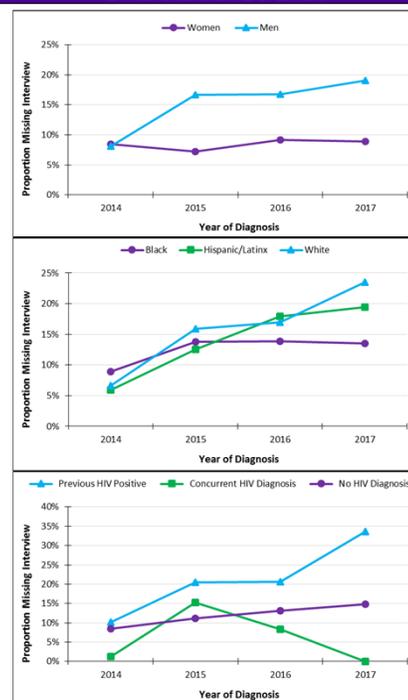
Methods

- A risk factor analysis was conducted to determine if patient attributes could identify individuals less likely to receive a DIS Partner Services interview.
- Attributes of persons with early syphilis with and without DIS Partner Services interviews from 2014 to 2017 were tabulated.
- Variables of interest included: patient gender, race/ethnicity, age group, public health region, urban or rural residence, patient treatment status, HIV status at diagnosis, and sex of sex partner.
 - In Louisiana, when an individual is not interviewed, sex of sex partner is collected from other sources such as prior interviews, linked partners, HIV records, and electronic health records, allowing the assessment of this variable despite the lack of an interview method.

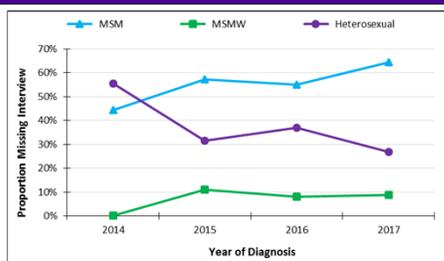
Results

- Analyses revealed that from 2014 to 2017, the proportion of men without an interview rose from 8% to 19%. At the same time, the proportion of un-interviewed women remained steady at approximately 8%.
- The proportion of non-Hispanic Whites missing an interview increased from 6% to 24%. Among Hispanics/Latinx the proportion of un-interviewed increased from 6% to 19%. Among non-Hispanic Blacks, the proportion without an interview increased from 9% to 13%.
- Several regions within Louisiana saw an increase in the proportion of persons not interviewed and the proportion of persons not interviewed in urban areas rose from 8% to 17%.
- In 2014, 10% of persons with a previous HIV diagnosis were not interviewed, rising to 34% in 2017.
- In 2017, the proportion of persons without an interview increased with each age group from age 15-19 to age 50-54 then decreased in each age group thereafter.
- Of persons without an interview that had sex of sex partner ascertained from another source, the proportion known to be MSM increased from 44% to 73%.
- No consistent trends were observed by patient treatment status.

Trends in Early Syphilis Diagnoses Without an Interview by Gender, Race/Ethnicity, and HIV Status Louisiana 2014-2017



Sex of Sex Partner in Diagnoses Without an Interview Louisiana 2014-2017



MSM = Gay and bisexual men and other men who have sex with men
MSMW = Men who have sex with men and women
Heterosexual = Persons reporting sex with the opposite sex only

Conclusions

- Risk factor and demographic analyses were valuable resources to the Field Operations team when evaluating Partner Services outcomes.
- It is important to remember that some decreases in the number of Partner Services interviews and/or data completeness could be affected by changes in data management practices and increased DIS case loads.
- More efforts are needed to reach MSM and/or persons with a previous HIV diagnosis because these were some of the largest predictors of an individual not receiving a DIS Partner Services interview.
- Confounding and/or interactions may exist between some of these attributes. Next steps should include examining that potential.
- A greater proportion of non-Hispanic Blacks and women were likely to participate in Partner Services interviews.
- Future plans include reviewing Partner Services protocols to ensure that follow-up is in the patient's spoken language, is culturally sensitive to clients of all race/ethnicities, genders, and sexual orientations to improve interview outcomes.
- Plans also include the creation and distribution of patient surveys to obtain client feedback and recommendations for improvement.

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Rapid Hepatitis C Testing in Local Health Department (LHD) Sexually Transmitted Disease (STD) Clinics in Illinois (Excluding Chicago), 2015-2017

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Background

Hepatitis C Virus (HCV) is a growing public health concern with infection rates predicted by the Centers for Disease Control and Prevention (CDC) to peak in the year 2033. It is estimated 75% of persons with HCV infection remain unaware of their status.¹ Effective screening programs are urgently needed to provide undiagnosed HCV infected individuals with therapy. With the introduction of direct-acting antiviral (DAA) therapy, there are now even greater opportunities for widespread treatment and cure for patients with chronic HCV infection. On January 1, 2015 IDPH began supporting rapid HCV testing in select STD clinic sites.

Methods

- Data were analyzed from 2015-2017.
- There were 12 LHD STD clinics participating in HCV screening in 2015, 13 in 2016, and 16 in 2017. Participating clinics are distributed across all regions of the state and offer HCV screening to clients seeking STD services. Clients are offered the opportunity to be screened for HCV.
- Any clients testing positive for HCV antibody (HCV rapid test) are offered educational information (CDC Know More Hepatitis) and referred to a clinician to receive follow-up testing and treatment as needed. Hepatitis A and B vaccinations are offered to any unvaccinated clients.
- Descriptive statistics of clients consenting for HCV screening and positivity rates of those screened were performed.

Results

In 2015, 12.0% (808) of STD clients at participating sites were screened for HCV with a 4.5% (36) positivity rate and with an average age of 44; 14.1% (690) screened for HCV with a 6.2% (43) positivity rate and average age of 35 in 2016; and 18.4% (722) screened for HCV with a 9.8% (71) positivity rate and average age of 35 in 2017.

Conclusions

LHD STD clinic sites offer extremely effective HCV screening opportunities. Over the project period, both the number of clinics participating and the overall positivity rate increased, demonstrating HCV screening offered in STD clinics can provide for otherwise missed opportunities among clients seeking STD services. This resulted in Illinois residents previously unaware of their HCV antibody positive status referred for clinical follow-up testing and treatment if appropriate.



Table 1. Descriptive Statistics of HCV Screened STD Clinic Clients

Description	2015 N (%)	2016 N (%)	2017 N (%)
Total	808	690	722
Sex			
Male	395 (48.9)	444 (64.3)	473 (65.5)
Female	413 (51.1)	244 (35.4)	248 (34.3)
Other	0 (0.0)	0 (0.0)	1 (0.1)
Unknown	0 (0.0)	2 (0.3)	0 (0.0)
Age Group			
Under 20	24 (3.0)	38 (5.5)	42 (5.8)
20-29	169 (20.9)	253 (36.7)	280 (38.8)
30-39	144 (17.8)	181 (26.2)	179 (24.8)
40-49	97 (12.0)	90 (13.0)	88 (12.2)
50-59	213 (26.4)	86 (12.5)	75 (10.4)
60-69	132 (16.3)	35 (5.1)	44 (6.1)
70-79	22 (2.7)	7 (1.0)	12 (1.7)
80-89	7 (0.9)	0 (0.0)	2 (0.3)
Race/Ethnicity²			
White – NH	605 (74.9)	520 (75.4)	547 (75.8)
Black – NH	163 (20.2)	103 (14.9)	110 (15.2)
Hispanic	24 (3.0)	50 (7.2)	42 (5.8)
Asian – NH	6 (0.7)	9 (1.3)	14 (1.9)
AI/AN – NH	1 (0.1)	0 (0.0)	1 (0.1)
Other – NH	5 (0.6)	6 (0.9)	7 (1.0)
Unknown	4 (0.5)	2 (0.3)	1 (0.1)

Table 2. HCV Screened STD Clinic Clients with Positive Rapid Test

Description	2015	2016	2017
HCV+ (% Pos)	36 (4.5)	43 (6.2)	71 (9.8)

Table 3. Self-Reported Risk Among Clients with Positive Rapid Tests Compared to All Screened for HCV

Description	2016		2017	
	Risk Reported Among HCV+ N (%)	Risk Reported Among ALL N (%)	Risk Reported Among HCV+ N (%)	Risk Reported Among ALL N (%)
Total Screened		690	71	722
Self-Reported Risk³				
Born between 1945-1965	9 (20.9)	120 (18.5)	5 (7.0)	119 (18.3)
Injection Drugs (Ever)	27 (62.8)	114 (17.6)	60 (84.5)	211 (32.4)
Sharing Injecting Equipment	24 (55.8)	105 (16.2)	55 (77.5)	162 (24.9)
Sex with Person Who Inject Drugs	19 (44.2)	124 (19.2)	55 (77.5)	273 (41.9)
Incarceration	16 (37.2)	77 (11.9)	39 (54.9)	204 (31.3)
Unregulated Tattoo or Piercing	2 (4.7)	56 (8.7)	35 (49.3)	161 (24.7)
Health Care Worker	0 (0.0)	19 (2.9)	8 (11.3)	58 (8.9)
Blood Exposure	0 (0.0)	16 (2.5)	2 (2.8)	20 (3.1)
Born to HCV Positive Mother	0 (0.0)	5 (0.8)	1 (1.4)	4 (0.6)
No Disclosed Risk	1 (2.3)	197 (30.4)	0 (0.0)	95 (14.6)
Sex with HCV Positive Partner	0 (0.0)	1 (0.2)	0 (0.0)	5 (0.8)
MSM	0 (0.0)	100 (15.5)	0 (0.0)	143 (22.0)
HIV Positive	0 (0.0)	1 (0.2)	0 (0.0)	0 (0.0)



¹Centers for Disease Control and Prevention. Know More Hepatitis; ²NH: Non-Hispanic, AI/AN: American Indian/Alaskan Native; ³Clients screened may report one or more risks, therefore, columns will not total 100; ⁴Risk data were not collected prior to 2016.

Comparison of HIV and STD Partner Services in Michigan

Christine Convery, MPH; James B. Kent, MPH

Michigan Department of Health and Human Services



Background

Partner services (PS) for sexually transmitted diseases (STDs), including human immunodeficiency virus (HIV), increases treatment of STDs [1] and care outcomes for HIV [2] while identifying and treating undiagnosed infections [3]. In Michigan, staff responsible for HIV and STD partner services vary by jurisdiction, and outcomes are recorded in two different data systems. For co-diagnosed individuals, this leads to duplication of effort, including data entry.



Figure 1. HIV Partner Services Jurisdictions



Figure 2. Syphilis Partner Services Jurisdictions

Methods

HIV and STD case records were matched by name, sex, and date of birth for all 2017 diagnoses. Co-diagnosed cases were defined by both HIV and syphilis diagnoses within 30 days. Partner services outcomes, including partners elicited and partner dispositions, were evaluated as recorded in either Partner Services Web (PSW, HIV) or Michigan Disease Surveillance System (MDSS, STD).



Figure 3. Data flow for identifying cases and assigning for partner services

References

- Hogben, Matthew et al., "Partner Services in STD Prevention Programs: A Review", Sex Transm Dis. 2016 Feb; 43(01): S53-S62.
- Bocour, Angelica et al., "HIV partner services are associated with timely linkage to HIV medical care", AIDS - November 28th, 2013 - Volume 27 - Issue 18 - p 2961-2963.
- Hogben, Matthew et al., "The Effectiveness of HIV Partner Counseling and Referral Services in Increasing Identification of HIV-Positive Individuals", American Journal of Preventive Medicine, Volume 33, Issue 2, S89 - S100.

Results

In 2017, there were 43 co-diagnoses of HIV with primary, secondary, or early syphilis out of 784 HIV diagnoses and 823 syphilis diagnoses. Of those, 37 were located and interviewed by HIV PS and 40 by STD PS (86.0% vs. 95.3%, $p = 0.137$). Investigations for 17 indexes were completed by state DIS for both diagnoses, while 26 cases were assigned to local health department for HIV PS and state DIS for syphilis PS. Multiple interview dates were recorded for 24 cases, with STD interview dated first for 66%. Across all investigations, 71 unique partners were named; 23 of these partners were recorded in both investigations, 29 only in syphilis record, and 19 only in HIV record. STD investigations elicited 1.2 partners per index versus 1.0 for HIV investigations ($p=0.353$). Partner outcomes include 31 partners of syphilis cases brought to treatment, 5 tested and not infected, 18 partners of HIV cases tested for HIV, and two partners newly diagnosed with HIV and linked to care.

Age	n	%
13-19	4	9%
20-24	6	14%
25-29	18	42%
30-39	6	14%
40-49	4	9%
50+	5	12%
Gender		
Male	42	98%
Female	1	2%
Race		
Black/African American	23	53%
White	19	44%
Other	1	2%
Stage		
Primary Syphilis	7	16%
Secondary Syphilis	24	56%
Early Latent Syphilis	12	28%
Risk		
MSM	32	74%
MSM/IDU	1	2%
Female heterosexual	1	2%
Unknown or Other	9	21%

Age	n	%
13-19	3	4%
20-24	11	15%
25-29	14	20%
30-39	22	31%
40-49	1	1%
50+	14	20%
Unknown	6	8%
Sex		
Male	63	89%
Female	7	10%
Unknown	1	1%
Race		
Black/African American	17	24%
White	13	18%
Other	2	3%
Unknown	39	55%

REPORTED INTERVIEW RATE

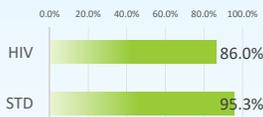


Figure 4. Comparison of interview rate in different systems

UNIQUE PARTNERS NAMED

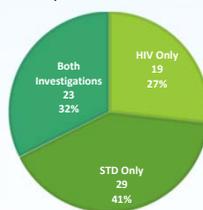


Figure 5. Break down of partner elicitation data by system

PARTNER OUTCOMES

- Negative Dispo (unable to locate/located refused)
- Positive Dispo (treated/tested)

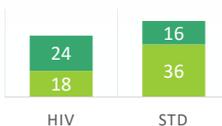


Figure 6. Partner disposition types by system

Conclusion

The separate programs for HIV and STD partner services delivery do not always achieve the same outcomes for investigations of co-diagnoses. The discordance in partners elicited by disease type indicates a need for greater program integration and sharing of best practices between HIV and STD programs.

Discussion

Data and program integration involves more systems in addition to PS Web and MDSS. Currently, reported laboratory data are entered to separate systems, with HIV diagnostic and care labs stored in the HIV Laboratory Management System, and STD diagnostic labs submitted into MDSS. Identifying a co-diagnosed case requires either a manual search across systems or periodic matches looking back at already reported cases.

Molecular HIV Surveillance relates directly to partner services data as investigations involve re-interviews for partner elicitation to establish risk networks, but these results are stored in a separate data system, CareWare. Similarly, other programs record activities in additional systems such as Evaluation Web (HIV testing), Script Guide (ADAP), and eHARS (HIV case information). In order to reduce duplication and ensure accurate data across systems, MDHHS is evaluating use of a master patient index that protects confidential information while linking records by person will be pursued by MDHHS.



Figure 7. Examples of data sources and systems which will be linked by master patient index

Contact

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The changing role of Disease Intervention Specialists in modern public health programs

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1. North Carolina Division of Public Health; 2. Centers for Disease Control and Prevention

Background

Disease Intervention Specialists (DIS) work originated in the 1930s to help control syphilis transmission by:

- Assuring patient treatment
- Notifying sexual partners of potential exposure

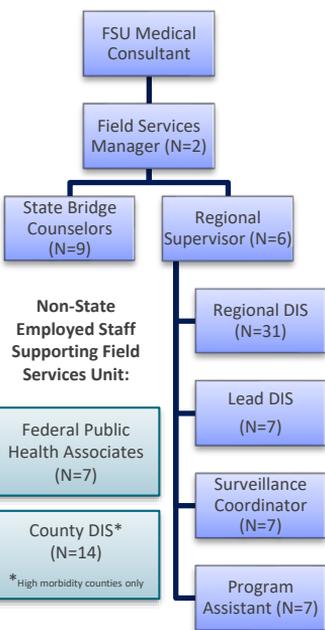
Over time, health departments expanded DIS duties to include additional:

- Diseases (e.g., HIV, gonorrhea)
- Services (e.g., PrEP referrals for high risk HIV negative patients)
- Skills (e.g., data entry)

Objective

Using the NC Field Services Unit (FSU) as an example, we aimed to highlight the successes and challenges of a modern DIS program

NC Field Services Unit



Methods

We reviewed NC surveillance data to calculate the number of syphilis and HIV interviews assigned to DIS between 2013-2016

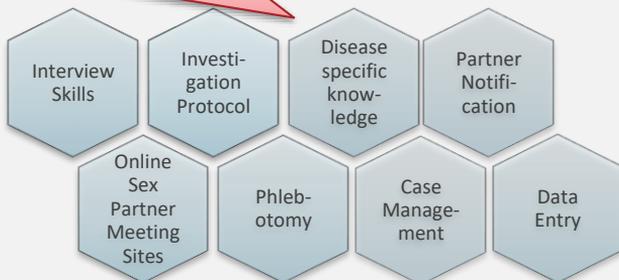
We conducted an open-ended phone interview and a written survey with the NC Field Services Unit Managers (N=2) and Regional Supervisors (N=6) to assess changes between 2006 and 2016 in DIS:

- Job Duties
- Daily activities
- Interactions with patients, providers and community members
- Morale

Summarized emerging themes

Results

MANAGERS & SUPERVISORS LISTED MANY DIS SKILLS THAT ARE VALUABLE TO A VARIETY OF PUBLIC HEALTH RESPONSES

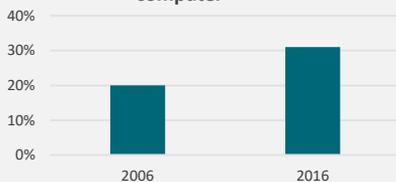


	Total No. of NC DIS staff	SYPHILIS: Median No. (Range) of Assigned Interviews per DIS	HIV: Median No. (Range) of Assigned Interviews per DIS
2013	84	17 (1-91)	19 (1-95)
2014	77	36 (1-115)	26 (1-23)
2015	74	52 (1-207)	22 (1-86)
2016	66	51 (1-213)	32 (1-125)

DIS WORKLOAD IS INCREASING

MANAGERS & SUPERVISORS TRY TO HIRE DIS WITH GOOD INTERPERSONAL & COMPUTER SKILLS

Estimated DIS time spent entering data in a computer



BETWEEN 2006 AND 2016, DIS SALARIES REMAINED LOW AND ONLY INCREASED WITH INFLATION

MAINTAINING A SKILLED DIS WORKFORCE IS BECOMING HARDER

Reasons Managers and Supervisors Think DIS Leave Their Job (Rank Ordered)

1. Money/Salary
2. Burn out from the amount of work
3. Lack of advancement opportunities
4. Lack of recognition from superiors
5. Inter-office conflict
6. Desire to try something new

- Federal DIS are no longer recruited, dropping from a peak of 511 in 1992 to 80 in 2017
- The tenure of state-employed DIS decreased from 6 years in 2006 to 2 years in 2016

Conclusions

The structural issues we identified in NC are likely experienced by DIS across the country

Increasing salaries and prioritizing workload could improve overall DIS retention

Revitalizing and scaling up federal DIS field staff would demonstrate a national commitment to preserving the critical public health contribution of DIS

Contact Info & Partners

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Improving Completeness of Race/Ethnicity Among Gonorrhea and Chlamydia Cases Using External Data Sources in Louisiana

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Objectives

- Understand and describe changes in Louisiana's race/ethnicity data completeness.
- Recognize the importance of race/ethnicity and other demographic variable completeness.
- Identify potential external data sources and partnerships for data quality improvement.

Significance & Applicability

- The number of STD diagnoses continue to rise locally and nationally and the epidemic is evolving, increasing in new demographic groups.
- To track these changes within the state and at the national level, innovative methods to improve data completeness are needed to help target resources and prevention programs.
- Here we share external sources that can be of use to other jurisdictions in improving their own race/ethnicity data completeness and the result of these methods within Louisiana.

Background

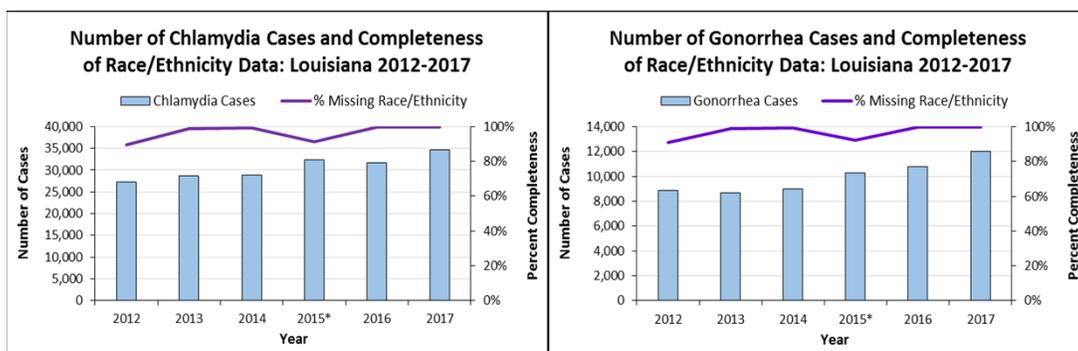
- Louisiana consistently has some of the highest chlamydia (CT) and gonorrhea (GC) diagnosis rates in the nation. To better address the epidemics within the state, an accurate picture of the demographics of persons diagnosed with CT and GC is required.
- Louisiana's Sanitary Code requires reporting of all CT/GC cases by providers and laboratories. Required variables include the race/ethnicity of persons diagnosed with these diseases. Unfortunately, not all reporting sources send the required variables.
- In 2013, Louisiana hired a dedicated STD Data Manager. One of this person's duties was to improve the quality of the information collected and reported to the CDC.

Methods

- Louisiana developed partnerships with external organizations to gain access to demographic data of persons diagnosed with an STD that were reported without this information. These partnerships allow the data manager to look up patient demographics from their desktop.
 - The STD Program is integrated with the HIV Program, providing access to eHARS.
 - Louisiana partnered with Vital Records to access birth reports.
 - A partnership with the Infectious Disease Epidemiology Program provides access to NBS.
 - A direct connection was provided to the Parish Health Unit electronic medical records.
 - Desktop access to medical records was granted by several large reporting facilities.
 - An Accurant LexisNexis account was purchased for individual patient lookup.

Results

- Through developing partnerships and gaining access to outside sources, Louisiana increased race/ethnicity data completeness.
- In 2012, 27,331 CT diagnoses were reported and Louisiana ranked 12th in the nation for CT race/ethnicity data completeness, with 10.6% of cases missing this variable.
- In 2017, 34,749 CT cases were reported. Despite the 27% increase in CT cases, by using outside data sources Louisiana was able to achieve 99.8% race/ethnicity completeness.
- In 2012, 8,861 GC diagnoses were reported and Louisiana ranked 19th in the nation for GC data completeness with 9.0% of cases missing this information.
- In 2017, 12,014 GC cases were reported. Despite the 36% increase in GC cases, by using outside data sources Louisiana was able to achieve 99.9% race/ethnicity completeness.
- In 2017, both Louisiana's CT and GC race/ethnicity completeness rose to 1st in the nation.



*Decreases in percent completeness were observed in 2015 due to changes in the duties of the data management position and a large increase in the number of cases reported.

Conclusions

- Strategic partnerships with a variety of public and private entities, high volume diagnosing facilities, and other disease surveillance systems has allowed Louisiana to improve CT/GC race/ethnicity completeness by 98%.
- Maintaining consistency in this process is vital to achieve high levels of completeness, as illustrated by the drop in completeness in 2015 due to changes in the data management position and associated duties.
- Developing these partnerships have been important to understanding the evolving CT and GC epidemics within the state, where over the past several years the affected population has become older, whiter, and more male.
- Other jurisdictions may be able to develop similar partnerships to access unique data sources.

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Enhanced Partner Services in Response to a Time-Space Cluster of Human Immunodeficiency Virus Diagnoses

DiBenedetto, K., Richardson-Moore, A., Reukauf, H., McPhail, M., Anderson, B.J., Moncur, B.L., Cukrovany, J., Rajulu, D.T., Gerber, J., Gunn, J., & Collura, R.
New York State Department of Health AIDS Institute

Background

- During 2015 - 2016, New York State Department of Health identified a time-space cluster of 208 new HIV diagnoses in Western New York
- HIV Surveillance and Partner Services (PS) retroactively examined and re-initiated HIV PS investigations to identify the risk network and prevent forward HIV transmission

Methods

Persons were prioritized for enhanced PS interviews by:

n = 46

- 1 Course of the Infection:** high viral load, no viral load reported, AIDS diagnoses, acute infection
- 2 Cases not Interviewed:** previously unable to locate, previously refused PS, previously not assigned
- 3 Previous PS Outcomes:** no contacts elicited, focal point(s) of disease network, repeat sexually transmitted infections

Sample Prioritized Patient Messages

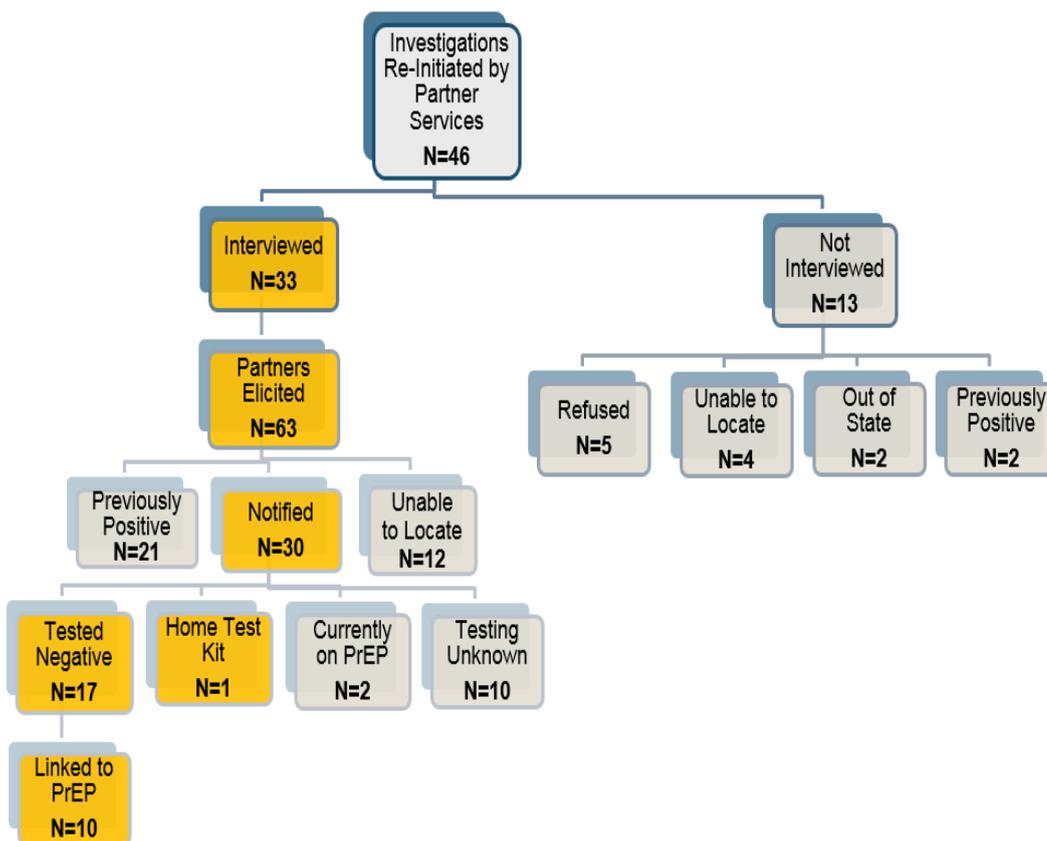
“There’s been an increase in HIV in this area...”

“The last time we reached out - we were unable to get in touch... - partners were not named...”

“Your last viral load was high... (e.g., > 10,000 copies/mL)”

“Who else may benefit from HIV testing or PrEP?”

Results



- 46 (22%) out of 208 persons were prioritized and re-initiated for interview
- 33 enhanced PS interviews were conducted
- 63 contacts were elicited. Of these, 21 (33%) were previously diagnosed with HIV, three were interviewed for enhanced PS
- Of 42 partners eligible for notification, 30 (71%) were notified of exposure, 17 (57%) tested HIV negative and 10 (58%) linked to Pre Exposure Prophylaxis (PrEP)
- Four persons were linked to HIV care
- Four early syphilis cases were brought to treatment
- One person unaware of their HIV diagnosis was post-test counseled

Conclusions

This enhanced follow-up demonstrated the need of re-initiating PS to further interrupt disease transmission and enhance HIV/STI prevention efforts, specifically for investigations previously not interviewed, investigations with no contacts elicited and cases with unsuppressed viral load.

Lessons Learned:

- Collaboration between surveillance and PS is critical in disease intervention
- Patients are receptive to PS contacting them for non-traditional PS work
- Designate one PS worker to champion the majority of the cluster caseload

Background

- During 2014-2015, rapid HIV transmission occurred in rural Indiana (Scott County) among a network of persons who inject drugs (PWID)¹.
- The county previously had low HIV incidence: in the decade from 2004 to 2013, only five new cases of HIV were diagnosed in Scott County. From 11/2014 to 11/2015, 181 new HIV cases were diagnosed.
- The initial cluster of HIV was first identified by a disease intervention specialist (DIS).
- It was concluded that injection drug use and sharing of syringes led to rapid HIV transmission in this community of PWID in Scott County.
- Following this outbreak, CDC identified US counties at risk for an HIV outbreak among PWID based on indicators that predict acute Hepatitis C infection (e.g., drug overdose deaths)².
- Eight of these "vulnerable" counties were in Virginia:



Program Aims and Methods

- Review and evaluate current HIV outbreak detection processes in Virginia.
- Review other jurisdictions' HIV outbreak detection and response protocols.
- Consider the strengths and limitations of different HIV outbreak definitions and select a definition for HIV outbreak detection in Virginia.
- Identify data sources for HIV outbreak monitoring and detection efforts.
- Develop routine surveillance monitoring, data reports, and staff meetings for HIV outbreak detection and response efforts.

Potential HIV Outbreak Definitions

Through evaluating Virginia procedures, other jurisdictions' plans, and the academic literature, we identified three potential HIV outbreak definitions.

Abnormal increase in HIV incidence (without a specified quantitative threshold):

- For example: "Case count during defined period of time is more than expected..."
- For example: "...Many outbreaks are detected by an astute healthcare or lab provider, who may notice an increase in the number of cases seen over a defined period of time"
- Strength:** Flexible definition
- Strength:** A focus on the importance of observations from the field (e.g., DIS observations)
- Limitation:** Does not provide an explicit threshold for indicating increases of possible importance

Fixed percentage increase:

- For example: "An increase in morbidity over XX% (e.g., 19% or 25%) in any geographically defined area for a given time frame when compared to the same geographic area and a corresponding time frame; for example, January-June of 2015 compared to January-June of 2014."

- Strength:** Provides an explicit threshold for indicating increases in HIV incidence of potential significance
- Limitation:** Selected percentage thresholds are arbitrary
- Limitation:** Single percentage threshold may be a problem if localities have varying HIV morbidity within a jurisdiction

Virginia Department of Health's HIV Outbreak Definition

A possible HIV outbreak is considered when the number of new HIV cases in a month is equal or surpasses the mean number of new HIV cases in the past 24 months plus two standard deviations.

- Increase may be identified for a particular geographic region or risk group (i.e., sex at birth, age, race/ethnicity, or HIV transmission risk, such as injection drug use)

Previous mean and standard deviation method:

- For example: "A possible outbreak is considered when the number of new cases in a month is equal to the mean number of new cases of the past eighteen months plus two standard deviations."
- Strength:** Provides an explicit threshold for indicating increases in HIV incidence of potential significance
- Strength:** Can be applied across morbidity levels
- Limitation:** It is a less flexible definition; observations from the field will still need to be accounted for in the overall detection strategy

Data Sources and Data Report Series

REPORT 1

- Data: Enhanced HIV/AIDS Reporting System (eHARS)**
- Monthly count of new HIV diagnoses
- Presents past 24 months, calculates mean and standard deviation
- Flags months with case count that equals or surpasses mean plus two standard deviations
- Report generated by geographic locality, sex at birth, age, race/ethnicity, and transmission risk group (e.g., injection drug use)

REPORT 2

- Data: MAVEN Database**
- Counts field records for any person living with HIV (i.e., 900 FR)
- Presents data since 01/2017 or the past 24 months
- Flags months where number of cut field records equals or surpasses mean plus two standard deviations
- Addresses a limitation of Report 1: field record data is usually available before HIV morbidity data; Report 2 may provide an earlier indication of a possible outbreak

HIV T1 Field Records initiated by health district and month, January 2017 - February 2018. Data current as of March 20, 2018.

	Year												AVG	STDEV	AVG+2SD		
	2017						2018										
	1	2	3	4	5	6	7	8	9	10	11	12					
Alexandria	6	7	6	9	10	4	2	8	7	3	10	6	9	3	6.2	2.9	10.9
Alleghany	1	0	4	2	0	4	0	3	1	1	2	0	3	0	1.6	3.4	4.5
Arlington	1	7	6	5	5	4	0	8	9	4	2	6	8	3	5.0	2.7	10.3
Central Shenandoah	1	3	0	1	2	1	0	0	1	0	1	3	2	1	1.2	1.0	3.2
Central Virginia	4	5	3	1	3	2	4	2	3	6	3	2	2	2	3.2	1.3	5.8
Chesapeake	0	2	3	1	4	2	4	4	5	3	3	2	2	2	2.7	1.3	5.3
Chesterfield	9	7	7	3	6	8	4	4	4	7	5	4	7	6	5.8	1.8	9.4
Chickahominy	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0
Crozier	2	2	2	6	3	1	2	9	0	4	5	4	1	3	3.5	2.5	8.6
Cumberland Plateau	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.1	0.3	0.6
Eastern Shore	0	0	0	0	1	1	3	2	1	1	2	0	0	0	0.8	0.9	2.7
Fairfax	2	5	5	6	1	13	7	15	9	6	15	20	10	11	8.6	5.4	19.8
Hampton	7	1	3	5	3	3	3	6	3	1	8	3	5	6	3.9	2.1	8.0
Henrico	7	6	3	8	9	3	1	15	7	9	9	7	3	11	6.7	3.5	13.7
Henrieville	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0.2	0.4	1.1
Lord Fairfax	0	0	1	0	1	1	2	0	2	4	3	2	3	0	1.5	3.3	4.0

REPORT 3

- Data: Molecular HIV Surveillance (MHS) Data**
- Summarizes characteristics (e.g., sociodemographic, drug resistance, and partner services and PrEP referrals) for HIV cases that are a part of an active molecular cluster investigation

Conclusions and Recommendations

- Diverse data sources should be used to detect possible HIV outbreaks. Our approach incorporates routine HIV surveillance data, HIV/STD-related field record data, and molecular HIV surveillance data.
- A definitive threshold for outbreak detection (e.g., mean plus two standard deviations) aids in creating meaningful reports for discussion, but is an arbitrary cut point. Cautious interpretation of reports and additional sources of information should be used.
- Observations from the field are essential in early identification of HIV outbreaks, as evidenced by the HIV outbreak in Scott County, Indiana.

- Outbreak detection and response efforts should include diverse staff from HIV surveillance, prevention, care, and field operations units, as well as staff at the local-level.
- The current methods may be modified and useful for the detection of outbreaks other than HIV, such as increases in STDs and Hepatitis C.

Implementation

Run the three reports during the beginning of the third week of the month (to balance data completion and report timeliness); e.g., run the April report series during the third week of May

By Friday of the third week of the month, disseminate the three reports for review to a diverse group of staff including HIV and STD epidemiologists, DIS managers, HIV care and prevention coordinators, and unit managers

Convene a "Data Review Committee" comprising key individuals who received the report series to discuss aberrations from the previous month(s), potential explanations, and the possibility of outbreak response action

References and Acknowledgements

¹ Peters PJ, Pontones P, Hoover KW, et al. HIV Infection Linked to Injection Use of Oxycodone in Indiana, 2014-2015. N Engl J Med. 2016;375(3):229-39.
² Van Handel MM, Rose CE, Hallisey EJ, et al. County-Level Vulnerability Assessment for Rapid Dissemination of HIV or HCV Infections Among Persons Who Inject Drugs, United States. J Acquir Immune Defic Syndr. 2016;73(3):323-331.

Project supported through Centers for Disease Control and Prevention (CDC) P518-1802: Integrated HIV Surveillance and Prevention Programs for Health Departments grant.

A Practical, Positive Roadmap: Five Action Steps to Good Sexual Health



Authors:

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Rachel Kachur, MPH, Centers for Disease Control and Prevention

The Context and Need

Americans are eager to improve their sexual health, but they face many challenges. According to message testing with nearly 300 Americans ages 18 to 70, primary barriers include valuing themselves, treating partners well, and building positive relationships. In qualitative discussions, communicating openly with partners was also identified as a key barrier, and many respondents sought practical advice on improving their sexual health.

A New Definition and Framework

In response, the NCSH created and tested a new message framework, including a concise sexual health definition, action steps, and the benefits of good sexual health.

NCSH's new **consumer-friendly definition** is, "being sexually healthy means being able to enjoy a healthier body, a satisfying sexual life, positive relationships, and peace of mind."

About the National Coalition for Sexual Health (NCSH)

The NCSH aims to make sexual health a part of our national discourse and to promote high quality sexual health information and health services. With 115 members, we develop practical tools for the public and health care providers that are free. To learn more: www.nationalcoalitionforsexualhealth.org.

Five Action Steps

Using a rigorous development process, the NCSH created the **Five Action Steps to Good Sexual Health**, a practical roadmap that equips Americans – from teens through older adults – with the information and skills they need.

The Public's Response

Through eight focus groups with 49 diverse women and men ages 15-54 in Los Angeles and Baltimore, the appeal, clarity, and relevance of the Action Steps were assessed in March 2017.

The public strongly identified with the content, and considered it practical, positive, and nonjudgmental. The content of greatest appeal centered on advocating for yourself in both sexual and non-sexual situations, and talking openly with partners about desires and boundaries.

Responses from the Public:

"It almost seems like it understands you. It doesn't judge you and it covers everything."

"...It's good because of the detail it goes into. It's more real life than the standard thing you're taught in school."

Five Action Steps to Good Sexual Health

- 1 Value who you are and decide what's right for you
- 2 Get smart about your body and protect it
- 3 Treat your partners well and expect them to treat you well
- 4 Build positive relationships
- 5 Make sexual health part of your health care routine

fiveactionsteps.org

The Five Action Steps Website

The mobile-friendly website (www.fiveactionsteps.org) features the benefits of taking action, practical tips and advice, conversation starters, and numerous resources for the public to learn more.



A USER-FRIENDLY TOOL FOR HEALTH DEPARTMENTS TO ESTIMATE IMPACTS OF BEHAVIOR CHANGE ON ADOLESCENT STI BURDEN

Steven M. Goodreau^{1,2,3*}, Emily D. Pollock^{1,2}, Li Yan Wang⁴, Richard L. Dunville⁴, Lisa C. Barrios⁴, Maria V. Aslam⁵, Meredith A. Barranco⁶, Elizabeth M. Rosenthal⁶, Eli S. Rosenberg⁶

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For up-to-date information on demonstrations of Teen-SPARC at NCS and beyond, please see: <https://faculty.washington.edu/goodreau/teensparc> or email goodreau@uw.edu

Teen-SPARC will be available at <http://www.emorycamp.org/teensparc> beginning Dec. 2018 [est.]

Background

- Adolescents remain highly impacted by gonorrhea and chlamydia, while HIV rates are rising among adolescent males who have sex with males
- Health departments are faced with the challenging task of predicting future STI burden in adolescents, and in deciding on interventions to pursue to reduce that burden
- Mathematical modeling can help to predict the near future of infectious disease, and the impact of interventions, given appropriate data and assumptions
- Most modeling research uses complex dynamic models, which are ideal for incorporating a wide range of behavioral, biological, clinical and demographic factors together
- However, these models are not well suited for broad use by non-specialists in modeling, given their complexity
- Simpler models using standardized data sets can help health departments gain insight into their local adolescent STI epidemics, compare them with other jurisdictions, and consider the potential impact of behavioral change of different types on the magnitude of STI burden

- Inputs and outputs cover 9 subgroups, defined by crossing 3 age groups (13-15, 16-17, 18) with sexual partnering groups:
 - MSM: Males who have sex with males
 - MSF: Males who have sex with females only
 - FSM: Females who have sex with males
- 3 STIs are modeled: **gonorrhea; chlamydia; HIV** (for MSM only)
- Teen-SPARC is a one-generation Bernoulli model, predicting incident infections and diagnoses in the coming 12 month period
- Behavioral changes to explore include:
 - Increases in **condom use**
 - Reductions in **sexual activity**
- Teen-SPARC also includes:
 - A **manual** and **quick start guide**
 - A set of **default parameters** at the national level

Basic structure

- # of new diagnoses are predicted for the coming year for each of 9 subgroups, as a function of:
 - # of currently uninfected members of the subgroup
 - Mean rate of new partner acquisition for the subgroup
 - Mean # of coital acts with each partner
 - Prevalence of condom use
 - Probability each partner is infected with each STI
 - Per-act probability of transmission for each STI
- Probability each partner is infected is in turn a function of **prevalence**, estimated from the jurisdiction's # of recent diagnoses, information about **diagnosis rates or proportions**, and the **duration of infection** (for gonorrhea and chlamydia) or observed **prevalence/incidence ratio** (for HIV)

Teen-SPARC Overview

- As part of a CDC/academic collaborative agreement, we have developed a user-friendly Excel tool designed for use by health departments, called Teen-SPARC (STI Prevention and Risk Calculator)
- Teen-SPARC uses data from the CDC's YRBS (Youth Risk Behavior Surveillance System) as its main source for behavioral inputs. Most states, and many large counties, cities and tribal governments conduct Youth Risk Behavior Surveys

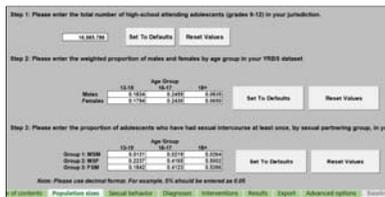
Example using default national data

1. Proceed through the three data input sheets, each of which is already filled with national default values:

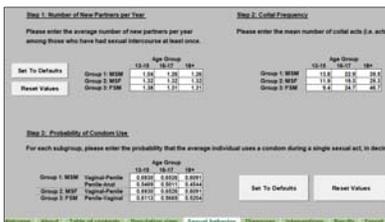
Screenshot from the *Diagnoses* worksheet



Screenshot from the *Population sizes* worksheet



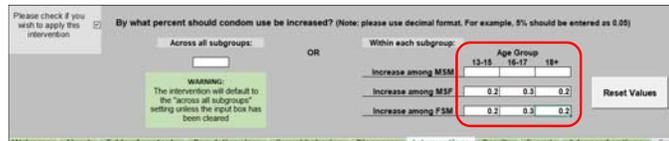
Screenshot from the *Sexual behavior* worksheet



2. Proceed to *Results* worksheet for the baseline model:

Summary		Average gonorrhea											
		Gonorrhea			Chlamydia			HIV					
Calculate Baseline Model	Expected # of in-school incident cases in next year	61,021	401,686	1,288	876	2,332	2,827	1,863	2,789	2,781	2,487	16,820	16,820
Reset Model	Expected # of in-school diagnoses in next year	41,238	238,482	722	228	1,818	1,248	1,742	1,248	8,828	1,881	16,820	17,4

3. Introduce behavioral change on *Intervention* worksheet



4. Return to *Results* worksheet:

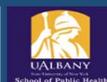
		Gonorrhea			Chlamydia			HIV					
Condom use increase among F&M and MSF	Expected # of in-school incident cases in next year	61,021	401,686	1,288	876	2,332	2,827	1,863	2,789	2,781	2,487	16,820	16,820
Reset Model	Expected # of in-school diagnoses in next year	31,286	193,895	222	208	1,458	1,263	897	4,428	8,813	1,288	8,813	8,813

- The Teen-SPARC manual contains detailed instructions and accompanying SAS code that can be used to process YRBS data for any YRBS jurisdiction
- This code takes the user from raw YRBS data to Excel output formatted for Teen-SPARC. The only edits needed are to point to local file locations and variable names.
- The manual also contains instructions for non-YRBS jurisdictions with local behavioral data
- The manual provides detailed instructions about the model assumptions, the derivation of national data, and methods for users to change additional parameters as they wish
- Products related to Teen-SPARC in development include (1) a case study paper; (2) a lessons learned paper that explains data challenges for adolescents and STI; and (3) a 10-year extension that estimates impacts of observed race-specific behavior change

NCS 2018

Funding CDC U38-PS004646
Contact goodreau@uw.edu

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Integrating free HIV/STI Testing Into University Psychological Health Services



Johnny L. Gossett, Jr., BSW
Counseling and Testing Center, Georgia State University



Background

- Nearly half of the 20 million STI's diagnosed each year are among individuals between the ages of 15 and 24 (CDCa, 2017)
- 22% of new HIV infections occur among those between the ages of 13 and 24 (CDCb, 2017)
- Therefore, college students under 25, are at high risk of HIV/STIs

Purpose

- The purpose of starting this project was to:
- Increase HIV/STI testing at a large urban majority minority university
 - Address students' concerns for free HIV/STI testing on campus
 - Collaborate with the local Health Department and campus clinic to provide testing kits, lab works, low-cost treatment and linkage to care for students

Table 1: Demographics, March 2017

Demographic Characteristics	n (%)
Age	
Under 21	20 (57.14%)
21 – 25	14 (40%)
Over 25	1 (2.86%)
Sexual identity	
Straight	31 (88.57%)
Gay	2 (5.71%)
Bisexual	1 (2.86%)
Queer	1 (2.86%)
Race	
Black	26 (74.26%)
White	0
Asian/Asian-American	2 (5.71%)
Latino/Hispanic	5 (14.29%)
Biracial/Multiracial	2 (5.71%)
Gender	
Male	11 (31.43%)
Female	24 (68.57%)
Self-identified	0
Classification	
Freshman	15 (42.86%)
Sophomore	4 (11.43%)
Junior	8 (22.85%)
Senior	7 (20.00%)
Graduate student	1 (2.86%)
Total number tested	35

References

- CDCa. (2017, December 08). Sexually Transmitted Diseases. Retrieved December 12, 2017, from <https://www.cdc.gov/std/life-stages-populations/adolescents-youngadults.htm>
- CDCb. (2017, October 26). HIV/AIDS. Retrieved December 12, 2017, from <https://www.cdc.gov/hiv/group/age/youth/index.html>

Procedures

Appointment scheduled



HIV/STI pretest counseling



Test administration:
Oral swab, urine collection



HIV test result provided

Preliminary positive HIV tests:
Referred to health department for confirmatory testing/linkage to care

Negative test results:
Follow-up testing recommended if condomless sex occurred within window period

HIV/STI posttest counseling

STI results:
Labs sent to health department. Results provided in 2 – 3 weeks

STI treatment:
- Immediate treatment for those with known exposure to STIs or symptoms
- Positive test results are provided and treatment received at health clinic



Retesting recommended for those with positive STI results

Results

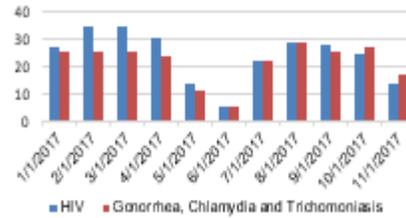
2016
309 HIV tests
285 STI tests

- 1 case of gonorrhea
- 11 cases of chlamydia
- 2 cases of trichomoniasis
- No HIV positive results

2017
287 HIV tests
253 STI tests

- 4 cases of gonorrhea
- 23 cases of chlamydia
- 4 cases of trichomoniasis
- No HIV positive results

2017 HIV/STI Testing



Conclusions

- Free HIV/STI testing program integrated into a university counseling center was successful in addressing barriers to care
 - Increased accessibility to health services for university students
 - Provides a no judgmental zone, rapport building, and addressed HIV/STI stigma
- 1 HIV positive result in program history (Black bisexual man, 2015)
- Program structure resulted in a significant workload for the health educator who was responsible for: 1) scheduling testing; 2) administering tests; 3) transporting urine screens to the health department for testing; 4) acquiring STI tests results from health departments; and 5) follow-up appointments with students.

Future Directions

- Housing this program in the Student Health Clinic will allow for an easy transition from testing to treatment
- Increasing program staff, training students for testing

"FADE OUT HIV"

Beauty and Barber Shop Initiative
City of St. Louis Department of Health



Introduction

CDC's Hairstylist/Barber HIV Prevention Initiative was created to promote HIV/AIDS awareness and prevention among hair care, barber, and beauty professionals. The initiative connects stylists, barbers, salon owners, and other hair care professionals to the City of St Louis Department of Health.

Local Hairstylists and Barbers participating in the initiative, are trained to engage their customers on the risks of infection of HIV and promoting knowing their HIV status through testing.

Local Barbers and Beauty Salons are considered by the community as a safe space where clients often discuss politics, pop culture or their personal lives, giving the opportunity for hair professionals to share facts, debunk myths, and provide resources in the community.

Methods

- Community Engagement of barbershops and salons in areas of need according to Epi data
- Recruitment of Barber and Beauty Salon
- Training consists of the following topics:
 - HIV /STD 101
 - Debunk Myths
 - Community Resources
 - Condom Distribution Program
- Promotion / Community Engagement (Radio, live remotes, Social media, Flyers)
- Community Testing Events- BBI Tour (May-August)
- Evaluation and After Action Reports

Results



"Fade Out HIV" started in 2015 with the goal to recruit 5 Barber / Beauty shops within one year. By the end of 2016, 10 shops were recruited and 25 barbers trained.

As part of the marketing and promotion of "Fade Out HIV", the City of St. Louis Department of Health partners with local radio stations to increase the knowledge of the initiative

As a result 7, shops participated in the 2018 BBI Tour and 5 new sites were identified.

Recruitment & Training 2016-2018



17 Barber & Beauty Salons on BBI



45 Barber & Stylists have been trained



108 Individuals Tested



17 Shops Enrolled on CDP

Conclusion

Barbers and Stylists are often seen as pillars of the community particularly among the African American community. Many have very strong bonds with their clients and are trustworthy sources of information. By educating Barbers and Stylists, they can in return disseminate key health information to clients.

Experience has shown the more heavily entrenched a barbershop/salon is within a community directly correlates with the success of a targeted testing event e.g. more individuals within that community are willing to get not only tested and post-test counseled, but are also willing to acquire more information about safer sex practices and other opportunities for testing.

We will continue to cultivate relationships with new shops in high risk zip codes, while fostering established relationships through condom distribution and partnering events facilitated by shop owners



Presented By:
Darné Guest
Public Health Program
Specialist



Reactor Grid Evaluation: Were Cases of Symptomatic Syphilis Missed? New York City, 2017



Robin R Hennessy^{1,2}, Liat Hotz^{1,2}, Tim Liao², Brian Toro²

1 Centers for Disease Control and Prevention; 2 New York City Department of Health and Mental Hygiene, BSTI

Background

- Many health departments, especially programs with high syphilis morbidity, use automated Syphilis Reactor Grids (SRG) to prioritize investigations, usually based on RPR titer, age, and gender
- SRG should be regularly evaluated to ensure priorities align with changes in local epidemiology
- Cha et al. (2018)* estimated the number of primary syphilis cases, with titers of 1:4 or less, that may have been missed by many SRG used in the US, and found that men 41-54 years old accounted for most potentially missed cases
- This same study suggested that automated Record Search (RS) processes may be more effective tools to prioritize syphilis investigations to maximize case finding
- NYC received 68,250 RPR titers in 2017. The current NYC automated SRG Administratively Closes (AC) men aged 45-54 with titers of 1:4 or less (see below)
- We evaluated whether any cases of symptomatic syphilis may have been missed among this group

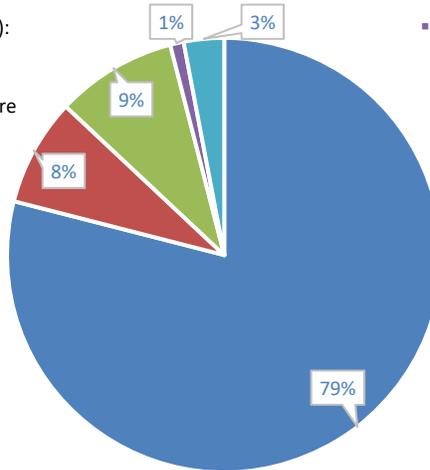
AGE	Reactive Non-Treponemal Test (RPR/VDRL)					
	titer not reported	1:1 1:2 1:4	1:8	1:16	1:32	1:64+
Age unk	RS	RS	RS	RS	RS	RS
0 – 44	RS	RS	RS	RS	RS	RS
45 – 54	AC	AC	Male – RS Female – AC	Male – RS Female – AC	RS	RS
55+	AC	AC	AC	Male – RS Female – AC	Male – RS Female – AC	RS

Methods

- In 2017, NYC received ~690 RPR results per month for men aged 45-54 with titers of 1:4 or less
- Instead of a prospective SRG evaluation, we took a 20% random sample (N=138) of such titers and conducted a retrospective RS, and if appropriate, a real time investigation

Results

- Record Search Close (RSC): 120/138 (87%)
 - 79% (109) of titers were from patients with a history of treated syphilis, and were RSC
 - 8% (11) had negative confirmatory tests



- Investigated (INV): 18/138 (13%)
 - 9% (12) had a history of treated syphilis, and were RSC
 - 2 (1%) new cases of asymptomatic, late syphilis were identified
 - Unable to ascertain information for 3% (4)

■ RSC-History of Tx ■ RSC-Neg Conf ■ INV-History of Tx ■ INV-New Case ■ INV-Unk

Conclusions

- We did not identify any cases of symptomatic syphilis among men aged 45-54 with titers 1:4 or less. The majority of titers would have been RSC had the automated SRG not AC
- This evaluation required minimal resources and indicated that it is still appropriate to AC this group
- Given the high proportion of RSC in this sample, NYC may investigate replacing our SRG with an automated RS process
- Additional evaluations of the SRG and automated RS processes are needed

* Cha et al. (2018), Reactor Grids for Prioritizing Syphilis Investigations: Are Primary Syphilis Cases Being Missed?

Evaluation of Instructor-Led Partner Services Trainings Provided by New York State (NYS) STD/HIV Prevention Training Center (PTC) (April 2014 – March 2017)



Kristev Hildenbrandt, MPH¹; Elham Pourtaher, BA^{1,2}; Kirsten Rowe, MS¹; Travis O'Donnell, BA¹; Sue Anne Payette, MS¹
 (1)New York State Department of Health, AIDS Institute, Albany, NY; (2) University at Albany (SUNY), Albany, NY



Introduction

Passport to Partner Services (PS) is an evidence-based CDC intervention that provides training to Disease Intervention Specialists (DIS) and other PS providers. These staff provide free, voluntary, and confidential partner services to patients diagnosed with STDs, including HIV. Passport to PS is a blended training (consisting of instructor-led and online content). This study is the first to provide a systematic evaluation of the instructor-led PS trainings.

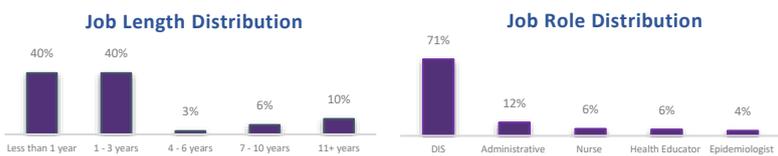


Methods

This evaluation focused on Track D trainings for newly hired Disease Intervention Specialists (DIS) offered by the New York State Prevention Training Center (NYS PTC). Track D provides the most comprehensive training, incorporating all aspects of PS. We analyzed six-month post-course evaluation data from 38 trainings in 25 cities. The standardized CDC survey enquires about participants' self-rated gained confidence, effectiveness of training, and open-ended recommendations. Our mixed method approach consists of R-assisted analysis as well as inductive coding of open-ended content.

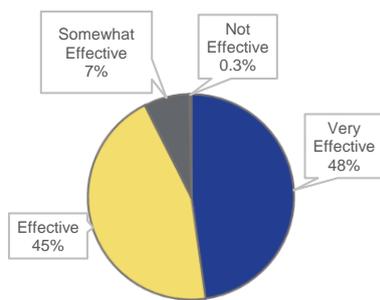


Results

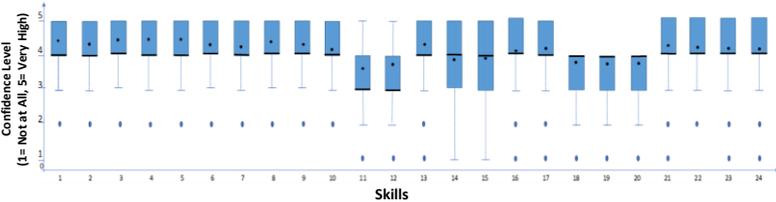


Overall Effectiveness as Rated by Trainees

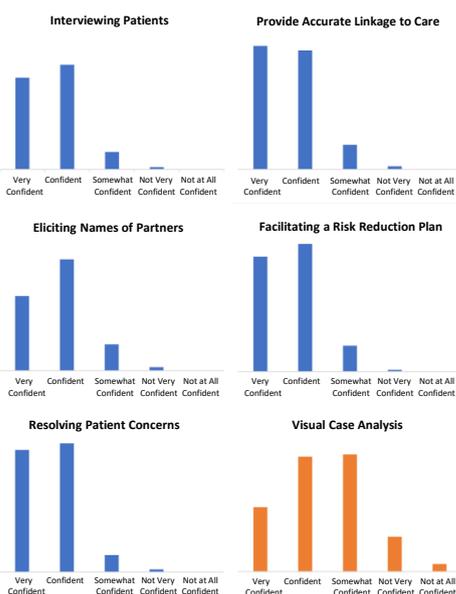
A four-point Likert scale was used as a self-rated measure to assess the level of effectiveness for the instructor-led portion of the Passport to PS training. Ninety three percent of participants rated the training as either effective or highly effective. Only one person out of the 396 participants rated the training as "not effective" (0.3%).



Distribution of Self-Rated Confidence among 24 Relevant Skills



Self-Rated Confidence for Essential Partner Services Skills



Participants' self-assessed confidence (rated as confident or very confident) ranged between 42% and 93% for the 24 listed skills (mean=78%, median=81%). The highest rated skills were *interviewing patients*, *providing accurate linkage to care*, and *resolving patients' concerns*. On the other hand, *visual case analysis (VCA)* for syphilis was rated with lower levels of confidence among trainees.

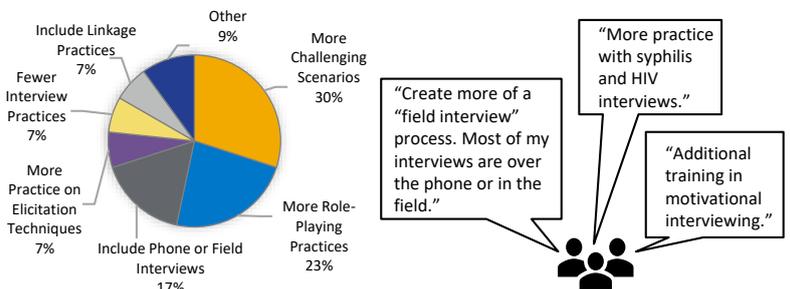
More Attention to HIV Cases More Enhanced Medical Training Social Media Professional Ethics Cultural Diversity MAP Sheets Syphilis/VCA Prism LOT System Interview Practices Ability to Review the Content

We inductively analyzed the trainees' open-ended comments. Among the 184 respondents who provided recommendations for the training, three recurring themes included VCA training (16%), more challenging interview cases (15%), and additional medical training (7%).

Interviews

Interviewing is a central focus of the partner services trainings. Interview practices are facilitated through role-playing and case studies. Many participants indicated that the interview practice role-plays need to be more challenging to better reflect real-world experiences, and many participants feel that additional role-playing practices would be beneficial.

Trainees' Open-Ended Recommendations on Interview Practices

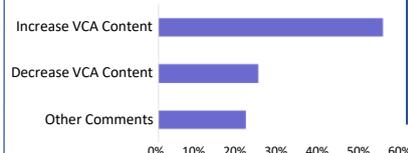


"More practice with syphilis and HIV interviews."
 "Additional training in motivational interviewing."
 "Create more of a 'field interview' process. Most of my interviews are over the phone or in the field."

Syphilis/VCA

Syphilis was the most commonly mentioned STD in the comments, although opinions were highly varied on syphilis and VCA training. 66% of participants conduct syphilis interviews. Participants that use VCA in their work frequently indicated that they would prefer more VCA training as it is one of the most difficult skills for a new DIS to learn. However, some programs do not use VCA, and these participants would have preferred less VCA training since they do not use it in their work.

Recommendations for Syphilis/VCA Training



"Less time focusing on VCA because it is not something DIS here really use."
 "VCA and determining the spread and the source was the most difficult part of the training, I would recommend spending more time on this."

Conclusions

- Ninety three percent of participants rated the training as either "effective" or "highly effective". These very high ratings for training effectiveness can be explained by the fact that self-rated confidence after the training was consistently high (confident or very confident) for most of the 24 listed skills.
- In the open-ended space for recommendations, participants suggested adding more challenging interview practices (more diverse settings, more complex scenarios) in the role-playing examples.
- Participants provided mixed opinions regarding the syphilis/VCA content. Those who use VCA in their work requested more VCA training to develop their skills. Those who do not use VCA in their work did not wish to learn about it. Efforts should be made to understand why so many DIS do not utilize this practice, and whether this has any implications on the rapidly rising syphilis rates across the country.

Acknowledgements

The authors would like to recognize the New York State Department of Health Bureau of Sexual Health & Epidemiology, and the Office of Program Evaluation and Research for their contributions to this project.

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Targeting High Priority Populations for Gonorrhea Treatment Verification, New York City, 2017



Liat Hotz^{1,2}, Kimberly Johnson², Robin R Hennessy^{1,2}

1 Centers for Disease Control and Prevention; 2 New York City Department of Health and Mental Hygiene, BSTD

Background

- ❖ Untreated gonorrhea (GC) can result in adverse and even irreversible complications, such as:
 - Pelvic inflammatory disease (PID), infertility
 - Infant conjunctivitis, blindness
- ❖ GC is resistant to most antibiotics and continues to exhibit reduced antibiotic susceptibility, particularly in the oropharynx
- ❖ GC treatment practices need to be monitored to try and stem the tide of negative consequences
- ❖ The Centers for Disease Control and Prevention (CDC) 2015 STD Treatment Guidelines for GC infections:

Uncomplicated GC infections

- | | |
|--------------------|-------------------------|
| • Ceftriaxone PLUS | • 250mg IM single dose |
| • Azithromycin | • 1g orally single dose |

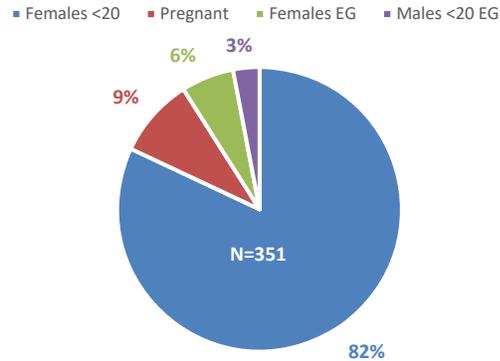
- ❖ In 2016, only one-third of the 19,020 GC cases reported to the New York City (NYC) Department of Health and Mental Hygiene had provider-documented treatment
 - NYC does not have the resources to verify treatment for the remaining two-thirds of cases without reported treatment
 - Instead, we focused on high priority cases for routine treatment verification
- ❖ We defined high priority populations for untreated GC, tested the feasibility of verifying treatment, and developed protocols for routinization

Methods

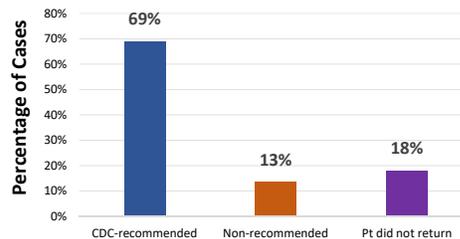
- ❖ We used 2016 surveillance data to assess the volume of GC cases without reported treatment and stratified by risk of adverse outcomes
 - Priority groups were selected based on volume and available resources
- ❖ To test the protocol, we reviewed cases of GC diagnosed from January-March 2017 with no reported treatment that met the priority criteria
 - To account for reporting and data entry lags, we calculated the average time for a report to be received and entered into the surveillance system
 - We established a **60-day** time period after diagnosis to begin contacting providers
 - We documented each phone call and fax made to providers to measure the effort involved to verify treatment

Results: Jan – Mar 2017

- ❖ Treatment was not documented for 351 priority GC cases, 82% were females <20



- ❖ Treatment was verified for 87% (306/351)
 - **69% (211/306)** received a CDC-recommended or alternative regimen
 - **13% (41/306)** received a non-CDC-recommended regimen or incomplete treatment
 - **18% (54/306)** did not return to the diagnosing provider for treatment



Treatment Verification Outcomes

- ❖ Collection efforts: 548 phone calls and 58 faxes

Conclusions

- ❖ We were only able to document that 69% of priority cases of GC received a CDC-recommended regimen
 - Patients may have received treatment from a different provider than the one that diagnosed them
- ❖ NYC successfully implemented a routine GC treatment verification program for priority cases
 - A workflow was created within our surveillance system that automatically queues priority cases with missing treatment 60 days following diagnosis
- ❖ Routine GC treatment verification is resource intensive, but also provides opportunities for provider education on CDC recommendations as well as reporting requirements in NYC

Planning your condom distribution program

Insights from 10 program planners

Megan McCool-Myers, PhD, MPH

BACKGROUND AND METHODS

- **Rates of STIs are increasing** across the US, emphasizing the continued importance of effective condom distribution programs (CDP)
- **CDP planners may encounter barriers** such as stigma, low uptake, limited personnel, and financial limitations when distributing condoms
- **Insights from 10 CDP planners across the US** were gathered, using semi-structured interview techniques, to help inform the implementation of new CDPs and offer new strategies for ongoing CDPs
- **Site-based (n=6) and web-based CDPs (n=4)** were explored in the interviews. Site-based CDPs use traditional/non-traditional sites; web-based CDPs allow individuals to order condoms online and deliver them to their door

SUMMARY OF FINDINGS



All planners emphasized the importance of providing a variety of condoms, lubricants and supplies. Magnum or XL condoms were in greatest demand, but there was growing interest in FC2 (female condoms)



The majority of individuals acquire condoms through purchase rather than for free [1,2]. Distributing name-brand condoms lets individuals explore differences between brands & helps them make informed condom purchases in the future



CDP networks entailed 140 distribution sites (median) with growing numbers each year. Most CDPs had lists or maps of the sites. Google's "My Maps" is a free tool for mapping locations and is easily integrated into other websites



Marketing budgets are primarily geared towards promoting PrEP or testing. CDP planners therefore used a mix of social media to reach different target groups for free. "Clicks" and "likes" can also provide some indication of reach



Web-based CDPs are growing in popularity. This discreet service had great appeal to populations under 24 years old. Additionally, web-based CDPs can gather data via online surveys in order to evaluate programs and measure outcomes

OUTLOOK

- **67% of young adults prefer shopping online** than going in stores [3]. CDPs should consider implementing web-based condom distribution in addition to site-based distribution
- **Unique collaborations for distribution**, i.e. Uber/Lyft, Nurx (PrEP / birth control delivery), should be explored

[1] Reece et al. *AIDS Patient Care*, 2010.

[2] Huber et al., *Journal of Women's Health*, 2009.

[3] Wallace, T. *Big Commerce*, 2018.



New York State Department of Health

Partner Services Video Public Service Announcements for Patients and Providers

Michael L. McNair¹; Thomas T. Sullivan¹, MPH; April Richardson-Moore¹, MPH, RN; Ben Wise², MS, CHES

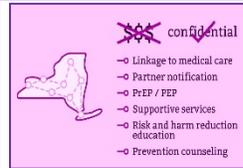
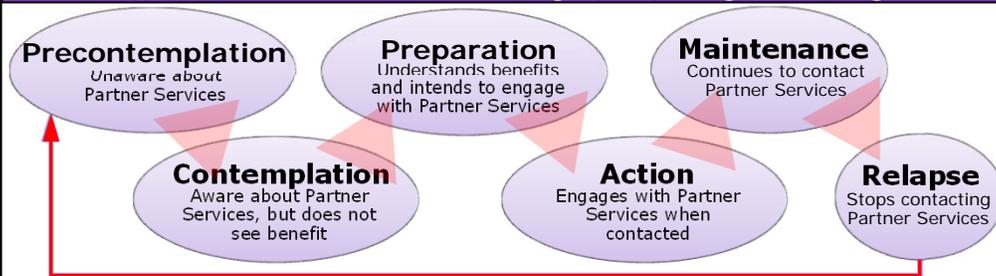
¹NYSDOH Bureau of HIV/STD Field Services, ²NYSDOH Bureau of Women, Infants, and Adolescent Health

Video PSA Background

Partner Services (PS) represents a core public health strategy for preventing the spread of Human Immunodeficiency Virus (HIV) and other Sexually Transmitted Infections (STIs). To be effective and to build community trust, community members and health care providers first need to be aware of what PS are, what they can provide, and how they can be of assistance to them.

The New York State Department of Health (NYSDOH) identified the need for rebranding its PS program image in the community from a historical view as the "Sex Police" to a trusted and helpful service to the community. The NYSDOH collaborated with The University of Rochester Medical Center (URMC) to develop two 1 minute 30 second social media video Public Service Announcements (PSAs), one targeted to health care providers and one targeted to patients/community members/others. Both PSAs promoted HIV/STI testing, PrEP, risk and harm reduction education and PS.

Transtheoretical Model of Behavior Change (TTM)/Stages of Change Model



URMC applied the TTM/Stages of Change Model to the PSAs for Providers and Patients/Consumers to address barriers in participation of the PS process to be referred for testing and treatment and providing contact information for Partner Notification of their partners or others who may have been exposed.

At times, those diagnosed or notified of exposure to STIs including HIV, may experience fear, stigma, and be reluctant to participate in the PS process. The Patient/Consumer PSA was designed to educate individuals and move them to the preparation stage so they understand what PS is, how the services can help them, be aware that they may be contacted by the NYSDOH if they test positive for an infection or are exposed to one, and be ready to accept PS. To better understand what a person may experience during and after an STI test and to inform the PSAs, a URMC staff member was tested for STIs in a local health clinic. In addition, the URMC staff member met with a local PS Disease Intervention Specialist (DIS) to learn more about the PS process. The staff's first-hand experiences were used in the development of the patient/consumer PSA storyboard to address the patients/partners/others fears about PS that were barriers to moving to the preparation/action stages.

Providers may be unaware of PS and not know the services offered. The provider PSA focused on the services offered by PS and how PS can extend the continuum of care to their patients, partners, and others who may have been exposed. Clinical providers and other clinical staff reviewed the initial storyboards and draft PSA versions to provide feedback via surveys for the final provider PSAs.



Provider PSA Video Link



Patient/Consumer PSA Video Link



PSA Distribution and Promotion Methods

The provider PSA was distributed directly to health care providers using provider networks, provider organization distribution listservs, and through local health departments. A social media toolkit with sample hashtags, media posts and blog ideas for YouTube, Facebook, SnapChat, etc., was shared along with the patient/community members PSA to community-based organizations, state and local health departments, and NYS Ending the Epidemic (ETE) community groups. The PSAs are also shown at various provider meetings for public awareness.

Acknowledgements

University of Rochester Department of Obstetrics and Gynecology



The importance of sentinel surveillance projects in the era of multi-drug resistant *Neisseria gonorrhoeae*

Challenges and Opportunities



Johan H. Melendez, Justin Hardick, Mathilda Barnes, Kathleen Page, Charlotte A. Gaydos
Johns Hopkins Medical Institutions, Baltimore, Maryland, USA.

BACKGROUND AND AIM

Neisseria gonorrhoeae (NG), the causative agent of gonorrhea, has progressively developed resistance to all commonly-prescribed antimicrobials and the threat of untreatable gonorrhea is a global health concern. In order to prevent the emergence and spread of untreatable gonorrhea, the World Health Organization and CDC recommend enhanced surveillance practices to monitor levels of antimicrobial resistance at the local, national, and international level. The objective of this project was to determine the prevalence of antimicrobial-resistant NG in Baltimore

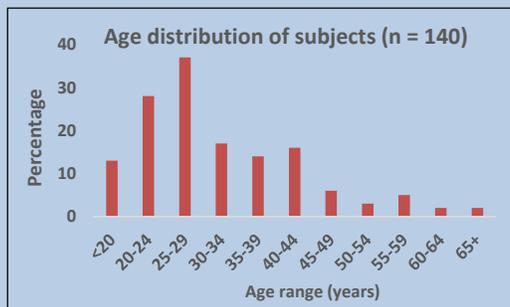
METHODS

NG isolates, collected from men at the Baltimore City Health Department (BCHD) in 2016, were recovered from freezing media, and confirmed as NG by culture and PCR.

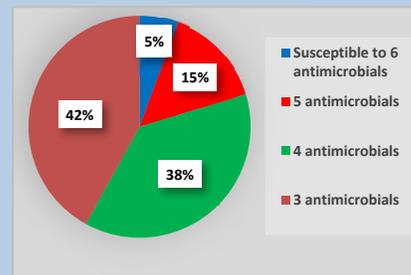
The minimum inhibitory concentration (MIC) of each isolate to ciprofloxacin, azithromycin, penicillin, ceftriaxone, tetracycline, and gentamicin was determined using the E-test strip method and susceptibility reported as susceptible, intermediate, or resistant based on breakpoints from the Clinical Laboratory Standard Institute (CLSI) guidelines.

RESULTS

1. Subjects demographics



3. Susceptibility profile of NG isolates to multiple antimicrobials



2. Antimicrobial susceptibility/resistance phenotypes of NG isolates (n = 143)

	MIC breakpoint (µg/mL)			Number of isolates			Percentage of isolates		
	S	I	R	S	I	R	S	I	R
Ciprofloxacin	≤0.06	0.125-0.5	≥1	79	1	63	55.2	0.7	44.1
Penicillin	≤0.06	0.12-0.5	≥2	19	92	32	13.3	64.3	22.4
Tetracycline	≤0.25	0.5-1	≥2	24	104	15	16.8	72.7	10.5
Azithromycin	≤1 (WT)		≥2 (NWT)	140		3	97.9	0.0	2.1
Ceftriaxone	≤0.25			143			100		
Gentamicin	≤4		≥8	143			100		

CONCLUSIONS

- ❖ Levels of multi-drug resistant gonorrhea are high in Baltimore.
- ❖ NG isolates are susceptible to ceftriaxone, but resistance to azithromycin is beginning to emerge.
- ❖ Gentamicin could be a suitable alternative for the treatment of gonorrhea.
- ❖ Multi-drug resistant gonorrhea is common among all age groups.
- ❖ Enhanced surveillance practices are necessary to monitor the evolution of antimicrobial resistance

Big Changes in Small Packages: Implementation of Expedited Partner Therapy (EPT) in Oklahoma Health Departments



Ivonna Mims RN, BSN, Amber Rose, MS, Terrainia Harris, MPH, Kristen Eberly, MPH
 Oklahoma State Department of Health, Division of Prevention and Intervention and Division of Surveillance and Analysis, HIV/STD Service

Background

EPT has proven to be a successful public health strategy to enhance timely treatment of sexual partners of clients diagnosed with chlamydia and/or gonorrhea.

From 2012 to 2014, state rates of chlamydia increased by 22% and rates of gonorrhea increased by 36%. In 2015, Oklahoma ranked tenth in the nation for highest rates of chlamydia and fifth for highest rates of gonorrhea. At that time, Oklahoma was one of 8 states without established EPT.

Objectives

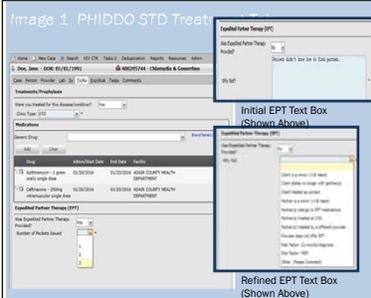
"The Oklahoma Public Health Delivery Act of 2012" allows RNs in county health departments (CHDs) to issue prepackaged medications; as a result, the Oklahoma State Department of Health (OSDH) implemented EPT in the state's 78 rural CHDs and 8 clinic sites at two autonomous city county health departments (Tulsa Health Department and Oklahoma City-County Health Department).

Provisions were made in the Public Health Investigation and Disease Detection of Oklahoma (PHIDDO) system to track EPT uptake among eligible clients per Centers for Disease Control and Prevention (CDC) eligibility criteria.

Goals of EPT implementation in Oklahoma CHDs:

- Facilitate access to treatment for partners of clients with confirmed diagnosis of chlamydia and/or gonorrhea.
- Reduce rates of reinfection and prevention of complications.

Methods (Continued)

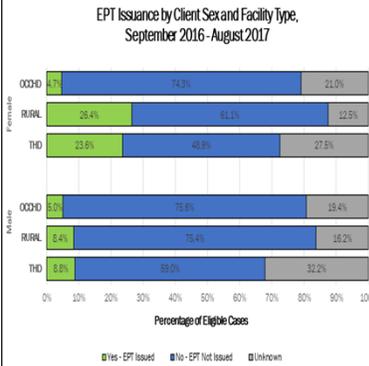


Analysis Methods

- CHD clients diagnosed with chlamydia and/or gonorrhea from September 1, 2016 through August 31, 2017 were assessed for EPT issuance. To be included in the analysis, clients had to be tested and/or treated at CHDs for chlamydia and/or gonorrhea but also meet eligibility criteria.
- Eligibility criteria were established in accordance with CDC recommendations as well as OSDH legal determination:
 - Men who have sex with men are ineligible.
 - Oklahoma state statute does not allow adult clients to issue EPT to their partners under the age of 18 years nor can clients under the age of 18 years issue EPT to their partner(s).
- Clients were assessed for reinfection within 30-90 days post initial exam/treatment.
- Chi-square analysis was used to evaluate differences in EPT issuance among males and females, facility types, and STD diagnosis.

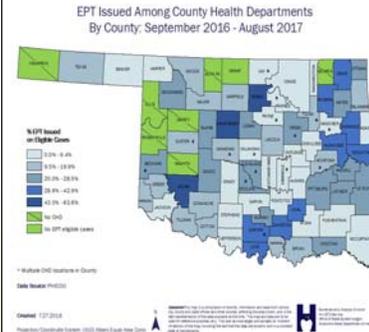
Results (Continued)

Image 2.



- Overall, female clients were issued more EPT for their partners.
- Cases with unknown EPT status were either not reported by provider or the EPT questions were not answered.

Image 3.



- OSDH CHDs had a goal of at least 20% EPT issuance; 33 individual CHDs met this goal for September 2016 through August 2017.
- Clients residing in counties without a CHD are referred to neighboring CHDs.

Conclusions

- EPT issuance varied significantly by STD diagnosis, sex, and facility.
- 99.0% (1,176/1,188) of chlamydia cases and 98.5% (319/324) of gonorrhea cases who received EPT in a CHD had no reported re-infections within 30-90 days post initial exam/treatment (see limitations).
- Tracking EPT documentation in PHIDDO is beneficial for developing strategies to promote EPT use throughout the state.
- EPT PHIDDO data was evaluated and refined by creating a drop down list to replace the free text field to better capture categorical data describing why EPT was not issued to eligible cases (Image 1).
- The reasons why EPT was not issued helped to identify some barriers and disparities in EPT protocols, including:
 - Partner(s) incarcerated, Unknown/anonymous partner(s), Partner(s) live far away from client, Partner(s) pregnant.
 - Providers not issuing due to reported risk factors of oral and anal sex.

Limitations

- Originally, the EPT variable in PHIDDO was free text resulting in inconsistent and unclassifiable responses.
- After creating a drop down list for EPT, the "Other" category still remains a challenge when analyzing reasons EPT was not issued to clients.
- There is still an issue with incomplete data for EPT issuance.
- PHIDDO case reports based solely on CHD laboratory results with no CHD provider report, lacked EPT data and original client treatment information. This likely affected the relationship between EPT issuance and reinfection numbers.
- Due to timing of initial visit and availability of closed data, reinfection analysis was limited to 30-90 days after initial exam/treatment.

Methods

EPT Implementation Methods

- In collaboration with the Denver Prevention Training Center, the OSDH HIV/STD service provided trainings by webinar and in-person presentations at CHD nurse manager meetings.
- STD medication inventory history for treatment of chlamydia and gonorrhea in CHDs for 2015 was reviewed to estimate the amount of EPT medication needed to stock 86 facilities.
 - In August 2016, EPT starter kits were mailed to all CHDs.
- OSDH STD Nurse consistently corresponded with CHD Nurse Managers regarding EPT concerns and changes.
- EPT issuance questions were added to PHIDDO to track EPT uptake among eligible clients (Image 1).

Results

From September 1, 2016 through August 31, 2017, 9,228 cases in CHDs were EPT eligible, of which 16.2% received EPT based on PHIDDO surveillance documentation.

EPT issued for chlamydia Cases: 1,160/6,133 (18.9%)

By sex (p<.0001):

- Female: 892/3,442 (25.9%) received EPT
- Male: 268/2,691 (10.0%) received EPT

EPT issued for gonorrhea Cases: 335/3,095 (10.8%)

By sex (p<.0001):

- Female: 257/1,415 (18.2%) received EPT
- Male: 78/1,680 (4.6%) received EPT

EPT issued by CHD geographical location (p<.0001):

- Rural Counties: 18.6%
- Tulsa Health Department (THD): 15.3%
- Oklahoma City-County Health Department (OCHD): 4.9%

Table 1.

EPT No Reason	Client Sex				Total	
	Female		Male		N	%
DOES NOT MEET CRITERIA	17	5.74	2	6.73	3	6.25
	0	0%	13	8%	83	9%
	5	18.1	3	11.2	8	14.5
CLIENT DECLINED PRESUMPTIVELY TREATED	37	2%	57	8%	94	9%
	2	8.37	5	16.5	7	12.5
	48	%	23	2%	71	8%
REASON UNKNOWN/BLANK	29	0.98	33	1.04	62	1.01
	1.97	66.7	2.0	64.4	4.0	65.5
	9	9%	40	3%	19	7%
OTHER	2,9	100	3,1	100	6,1	100
	63	00%	66	00%	29	00%

Data for eligible cases only. Some free text was able to be categorized; other includes cases that were not able to be classified into one of the other categories.

- Both "Does Not Meet Criteria" and "Other" helped identify variances in EPT protocol that denied EPT to females with risk factors of oral/anal sex.

Future Actions

- Some of the CHDs continue to have apprehension about EPT. OSDH will continue to create and implement educational documents and trainings to address these concerns.
- Educate and train providers and surveillance staff on data entry of EPT surveillance variables.
- Consideration of making the EPT question a required field in the PHIDDO case module for CHDs.
- Evaluate reinfection for at least one year post initial infection.
- Analysis and review of reasons EPT not issued prompted modification requests to the EPT "No" drop down list in PHIDDO; these changes are pending with IT.

Racial Disparities in syphilis partner notification services outcomes for black and white men who have sex with men, North Carolina 2013-2016

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¹North Carolina Department of Health and Human Services, Division of Public Health, ²Centers for Disease Control and Prevention-Division of STD Prevention



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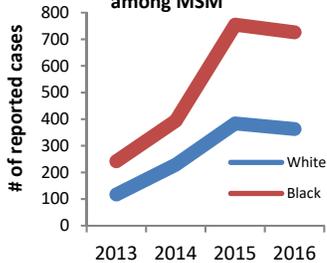
Objectives

- Compare demographic, risk behaviors and partner notification outcomes between black and white MSM diagnosed with early syphilis (ES), defined as the primary, secondary and early latent stages.

Background

- Among men who have sex with men (MSM), black males bear a disproportionate burden of the syphilis morbidity.
- Between 2013-2016, 60% of MSM reported with early syphilis were black.
- Partner notification services (PNS) remain the backbone of syphilis control and prevention in North Carolina.

Early syphilis infections among MSM



Methods

- Demographic and PNS outcomes data were extracted from the NC electronic disease surveillance system for all black and white MSM ES index cases reported between 2013 and 2016.
- Demographic, risk behaviors, partner reporting practices and PNS outcomes were compared between black and white MSM diagnosed with ES

Results

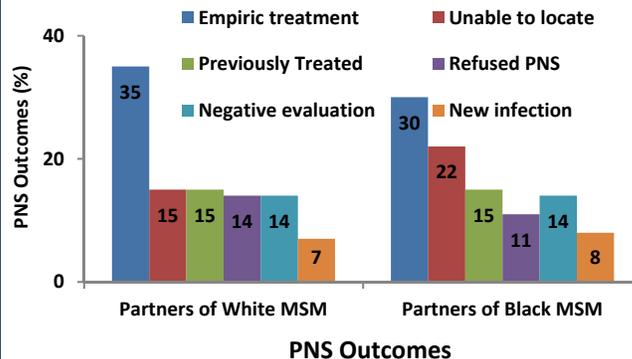
Comparison of demographic characteristics between white and black MSM diagnosed with ES

Characteristics	White MSM	Black MSM	P-value
N (% or IQR)	1093	2117	
Median age (IQR)	37 (27, 48)	27 (23, 34)	0.0001
Syphilis stage			
Primary	217 (19.8)	354 (16.7)	0.07
Secondary	474 (43.4)	926 (43.7)	
Early latent	402 (36.8)	837 (39.5)	
Met sex partners on internet	663 (60.7)	1173 (55.4)	<0.001
Prior STD	602 (55.1)	1482 (70.0)	<0.001
Bisexual	112 (10.3)	324 (15.3)	<0.001
HIV positive	509 (46.6)	1437 (67.9)	<0.001
No condom use	208 (52.0)	192 (48.0)	<0.001
No reported partners	89 (8.1)	145 (6.9)	0.18
No initiated partners	328 (30.0)	554 (26.2)	0.02

Comparison of partner type and PNS outcomes for partners of white and black MSM diagnosed with ES

	Partners of white MSM	Partners of black MSM
Reported partners	4008	6488
Initiated partners	1788 (44.6)	3386 (52.2)
Partners notified	1506 (84.2)	2629 (77.6)
Prior HIV diagnosis ¹	498 (27.9)	1461 (43.2)
HIV tested ²	792 (71.8)	1110 (81.0)
New infection ³	135 (7.6)	287 (8.5)

¹ HIV infection diagnosed more than 30 days prior to syphilis diagnosis; ² Notified partners without known HIV infection; ³ New HIV or syphilis infection diagnosed among partner



Conclusions

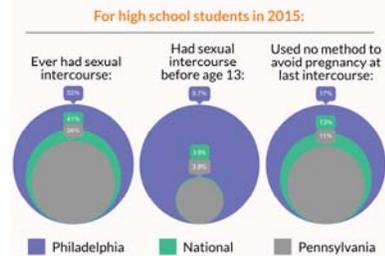
- Rapidly notifying and linking sex partners of ES patients to treatment is critical for disease control.
- In NC, despite having a higher proportion of initiated partners, a smaller proportion of the partners of black MSM were notified of their exposure.
- However, if notified, a similar proportion of partners of black and white MSM were evaluated and/or treated for their syphilis infection.
- Understanding barriers to locating partners of black MSM is necessary to eliminate the disparity in PNS outcomes, and hopefully syphilis morbidity, between black and white MSM with early syphilis infection.

Hilary O'Connell, BA, Research Analyst
 Meghan Rich, BA, Program Manager, State Adolescent Services
 Tamar Klaiman, PhD, MPH, Director of Research, Evaluation, & Data
 AccessMatters

Background

AccessMatters' Health Resource Center Program establishes school and community-based centers that provide youth aged 13-24 with sexual health education, counseling, risk reduction tools, referrals, and related services. These confidential, youth-centered services address disproportionately high rates of risky adolescent sexual and reproductive health behavior in Philadelphia.

AccessMatters has managed the Health Resource Center Program in Philadelphia since 1991, later expanding to Chester Pennsylvania in 2009. In 2016, AccessMatters expanded the program to other high-need counties across Pennsylvania.



Purpose

The purpose of this project was to conduct a preliminary assessment focused on the association between youth access to Health Resource Centers and sexual and reproductive health outcomes.

Methods

In this cross-sectional study, we compared outcomes in zip codes with a Health Resource Center in the local neighborhood high school and zip codes without. We collected this outcomes data for 3-5 years and tested differences in average rates of outcomes between the comparison groups. Specifically, we collected 2010-2015 STD data and 2010-2013 births data from the Philadelphia Department of Public Health and:

- Calculated changes in teen birth rate, youth chlamydia rate, and youth gonorrhea rate.
- Calculated averages for all of Philadelphia, zip codes with Health Resource Centers, zip codes without Health Resource Centers, and zip codes with Title X Family Planning sites.
- Compared Health Resource Center averages to state and national rates.
- Compared averages for Health Resource Centers and non Health Resource Centers using two-sided t-test for difference in means.

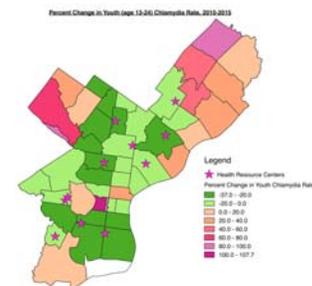
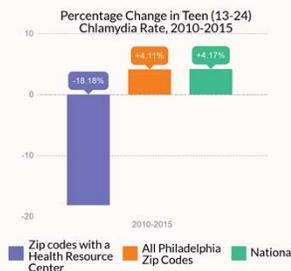
Results

Zip codes in Philadelphia with a Health Resource Center reported recent average improvements in youth sexual and reproductive health outcomes that noticeably outpace the city as a whole, the state of Pennsylvania, and the United States. Moreover, **teens in Philadelphia who live in zip codes with a Health Resource Center have significantly ($\alpha = 0.01$) greater recent declines in STD and birth rates on average than teens in zip codes without a Health Resource Center.**

Zip codes in Philadelphia containing a Health Resource Center report **significantly greater than average improvements** in sexual and reproductive health outcomes than Philadelphia zip codes without a Health Resource Center:

	Zip codes with a Health Resource Center	Zip codes without a Health Resource Center
Teen birth rate change: (2010-13, 15-19, per 1,000)	-28.87	-11.66
Chlamydia rate change: (2010-15, 13-24, per 100,000)	-1,300.84	-344.31
Gonorrhea rate change: (2010-15, 13-24, per 100,000)	-525.36	-206.88

All values significant < .05



Discussion

This analysis provides the first evidence of a potential association between youth access to Health Resource Centers and positive sexual and reproductive health outcomes. It suggests that teens in Philadelphia with access to Health Resource Center services are better equipped than teens without to reduce their risk of pregnancy and/or STD transmission. School-based health programs in other cities should consider the use of zip codes as proxies for catchment zones when unable to access school-level data for impact analysis and program evaluation.

Limitations include: inability to control for confounding variables or establish causality, inability to access school-level outcomes data, and imperfect alignment of school catchment zones to zip codes.

Next Steps:

- Conduct economic analysis to examine the effect of Health Resource Centers on educational engagement
- Conduct longitudinal analysis of impact from program initiation in 1991 through today
- Explore different methods to control for the presence of Title X and other sexual health services

Racial/ethnic trends in gonorrhea and chlamydia among men who have sex with men (MSM) and non-MSM in New York State, excluding New York City

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Introduction

Gonorrhea (GC) and chlamydia (CT) have been increasing in New York State (NYS) excluding New York City (NYC) since 2013. Historically, women were diagnosed more frequently than men, reflecting morbidity, screening recommendations and common clinical practices. However, in recent years the diagnoses rate among males has been increasing, and in the case of GC, exceeded the rate among females. It has been posited that this trend is due in part to an increasing emphasis on testing certain populations, such as gay, bisexual, and other men who have sex with men (MSM), at all anatomic sites. Better understanding subpopulations that have experienced significant changes in morbidity rates may help inform our understanding of the underlying reasons behind epidemiologic trends.

Purpose: To analyze changes in male GC and CT diagnoses from 2012-2016 among MSM and non-MSM, by race/ethnicity in NYS excluding NYC

Methods and Materials

Data on males diagnosed with GC and CT were collected from NYS Communicable Disease Electronic Surveillance System and partner services data for the 57 counties of NYS outside NYC for 2012 – 2016. Increases in the number of male GC and CT diagnoses were assessed as 5-year percentage changes, and stratified by both reported sex of sex partner and race/ethnicity (Note: Males missing information on sex of sex partners were excluded from this part of the analysis):

- males reporting sex with men (MSM) included males reporting sex with men only, and males reporting sex with both men and women;
- males reporting sex with women (MSW) included males reporting sex with women only

Additionally, changes in the proportion that MSM comprised among all males with GC and CT over time were calculated. Racial/ethnic subgroups included in the analysis were white non-Hispanic, black non-Hispanic, and Hispanic individuals. Asian and American Indian/Alaska Native individuals were combined into one category due to low numbers of diagnoses.

Results

During the evaluation period males experienced a 58% and a 25% increase in reported GC and CT diagnoses, respectively. Disparities were noted in diagnoses for MSM vs MSW and by race/ethnicity:

- GC: MSM saw a larger percent increase than MSW overall; and within each racial/ethnic group with the exception of non-Hispanic white and Hispanic males (Figure 1)
- CT: MSM saw a larger percent increase than MSW overall, and within each racial/ethnic group (Figure 3)

Figure 1: 5-year percent change in GC Diagnoses, MSM vs MSW, by race/ethnicity: 2012-2016

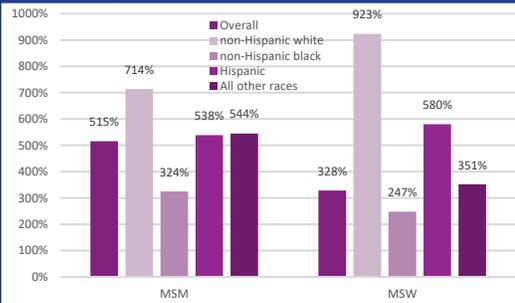
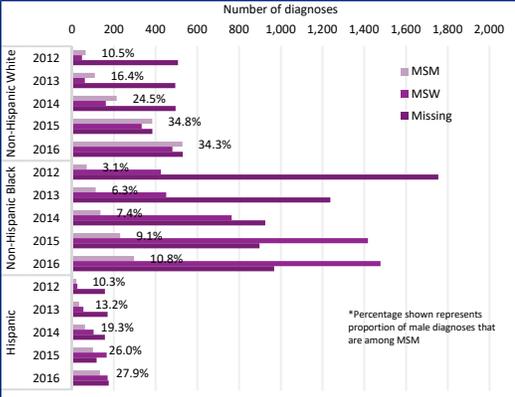


Figure 2: GC Diagnoses by Sex of Sex Partner information by Race/Ethnicity: 2012-2016*



Results Continued

MSM accounted for a significantly higher proportion of male GC and CT diagnoses over time, with 20% and 5% of GC and CT diagnoses in 2016, compared to 5% and 1% in 2012. Racial ethnic disparities were also noted (Figures 2 and 4). While percent increases were most pronounced among non-Hispanic white males regardless of sex partner, non-Hispanic black males still comprised the largest number of new diagnoses among males across all years (Figures 2 and 4).

Figure 3: 5-year percent change in CT Diagnoses, MSM vs non-MSM, by race/ethnicity: 2012-2016

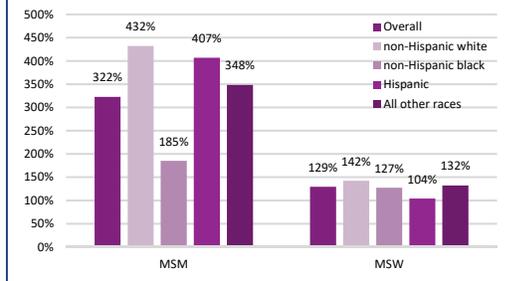
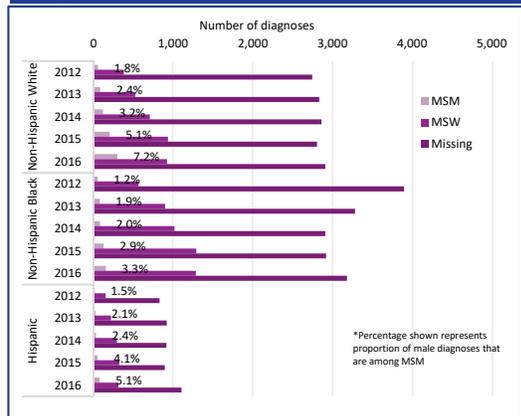


Figure 4: CT Diagnoses by Sex of Sex Partner information by Race/Ethnicity: 2012-2016*



Conclusions

It is vital to assess recent trends in GC and CT to inform screening and treatment practices, and our understanding of sexual health in general. STI morbidity is a function of multiple dynamics including but not limited to changing sexual behavior (frequency, number of partners) and screening practices. The impact of efforts to improve the diagnosis of STIs, asymptomatic and extragenital infections in particular, on overall morbidity will be important for developing sexual health messages.

During the evaluation period males experienced significant increases in reported GC and CT diagnoses. Overall, MSM experienced larger percent increases than MSW. Disparities were noted in diagnoses for MSM vs MSW by race/ethnicity. When looking at percent changes among MSM only, white, non-Hispanic MSM experienced larger percent increases in both GC and CT compared to MSM of color, despite the fact that communities of color continue to experience disproportionately high rates of these STIs. This suggests that, to the extent that changes in the CT/GC distribution by sex are driven by changing screening practices for MSM, white, non-Hispanic MSM are experiencing them at a higher rate.

There are several limitations to this analysis. First, there continues to be a large amount of missing information on sex of sex partners. Future work should account for missing information potentially through extrapolation methods. Second, HIV co-infection was not examined. Future analyses should stratify and/or account for co-infection. Third, MSM were defined as males who had sex with men, regardless of if they had sex with women as well. Men who have sex with both men and women are importantly different and should be evaluated separately; however, due to small numbers, that level of analysis was not possible for this cohort.

Acknowledgements

We would like to acknowledge April Richardson-Moore, and James Tesoriero, New York State Department of Health, for ideas regarding future research needs related to this analysis, and John Helmeset, New York State Department of Health, for his assistance in formatting this poster. This analysis was made possible through the support of the Centers for Disease Control and Prevention Improving Sexually Transmitted Disease Programs through Assessment, Assurance, Policy Development and Prevention Strategies (STD AAPPS) Grant (#H25/PS004347-03).

#ProtegeLoQueAmas: Innovative Outreach Strategies to Reduce Risk of HIV

Pagan-Castaner, Michael & Perez-Renta, J.
Centro Ararat, Inc., San Juan, Puerto Rico

THE CHALLENGE

- In Puerto Rico, there were no precedents in any campaigns related to prevent the acquisition of HIV in non-reactive patients (both MSM and FSM). Access to PrEP was limited to a medium-high class elite of patients, since this treatment is not covered by major health insurance plans. Also, perceptions about prophylaxis were charged with a very specific stigma associated with promiscuity.

THE OBJECTIVE

- This communication strategy was created to engage with our main demographic (adults 18-49, mainly MSM) with appealing images that could help our Outreach Team come through with effective talking points about the need to assess self-love and personal care to reduce the risk of HIV acquisition through casual sex.

THE METHOD

PART I: CORE DESIGN

- Three elements were integrated in the concept of this campaign:

Self-Love/Care:

Pivoted by the slogan/hashtag #ProtegeLoQueAmas (#ProtectWhatYouLove). CA emphasized on empowerment as an effective method to engage in sexual intimacy with a responsible, self-care approach.



Holistic POV:

Biomedical, behavioral and structural interventions were planned to approach target audiences, forecasting an integrative continuum to care.

Consistent, Direct Impact:

CA Staff visited venues with the potential to induce sexual high-risk behavior, particularly those identified with nightlife activities, consumption of alcoholic beverages or other substances.

PART II: Strategies

Outreach Efforts:

CA provided a friendly, caring approach to attract high-risk participants, and offered promotional products to get tested for HIV and STI, reinforcing the message, "Take care of yourself and those who you care for".

In-House Events:

In a relaxed, club-like environment, high-risk participants got the chance to mingle while getting tested and received tips to reinforce the effective use of barriers during sexual intimacy.

Educational Tours:

Educational material was created and distributed in various venues to those participants interested on PrEP treatment. Speaking engagements in schools, colleges and universities were also performed.

PART III: Campaign Implementation

An advertising campaign was launched in April 2017, including a multimedia platform that combined traditional/digital media, bus shelters and billboards. A reinforcement was made during June (Puerto Rico Pride Month, National HIV Testing Day).



THE RESULTS

- The word "overwhelming" is a perfect adjective to describe the response of CA's target audience to this effort.



FACEBOOK FOLLOWERS INCREASED 67 %.



PREP COUNSELING-RELATED APPOINTMENTS RAISED 52 %.



NINE OUT OF TEN CONTACTS WITH PARTICIPANTS COMMITTED TO MAKE APPOINTMENTS TO CLEARANCE AND START TREATMENT.

STI TESTS PERFORMED – APRIL TO AUGUST 2017

As an indirect result, our Sexual Health Clinic performed STI Testings during all outreach interventions. The results were particularly revealing about other STIs that coexist with HIV, which provided another opportunity to reinforce on prevention and education of safe sexual practices through this self-care approach.

MONTH	SYPHILLIS	CLAMYDIA & GONORRHEA
April	101	262
May	140	404
June	180	500
July	168	408
August	158	434

THE FUTURE

- To keep on with our success, the Communication & Education Department of Centro Ararat has determined four pillars for future executions.

Get Social:

Capitalize on all efforts to promote social media engagement.

Reach Out and Touch:

Diversify outreach activities to get participants interested through personal contact with our PrepXpert Team.

Be Up to Date:

Use dating apps to capture participants engaged in high-risk cyber-contact that may induce in high-risk sexual behavior.

#LoveWhatYouProtect:

Maintain constant, varied efforts to keep the pace of a dynamic audience to cope with overstimulation.

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CENTRO ARARAT
protege lo que amas

Background

- CS is a sentinel health event that indicates health care system failures and mothers' not receiving adequate prenatal care
- The majority of CS cases are preventable through timely diagnosis and treatment of the mother

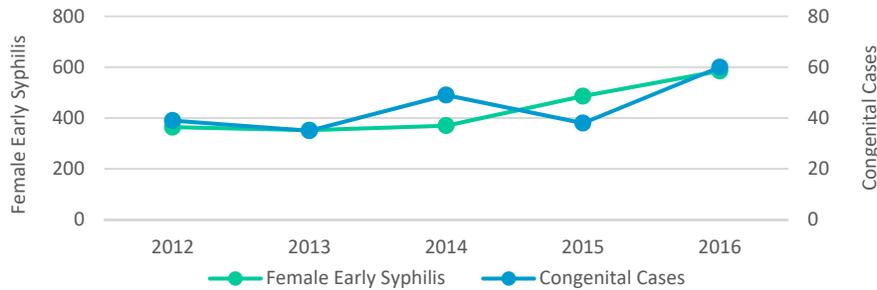
Research Question

Are there any characteristics shared among the CS mothers that could be the emphasis of future CS prevention tactics?

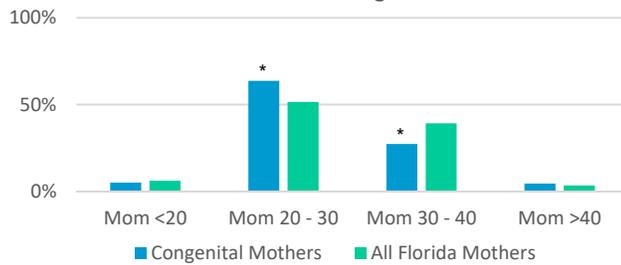
Results

CS cases in Florida have increased 54% over the past five years

Female Early Syphilis and Congenital Syphilis Cases

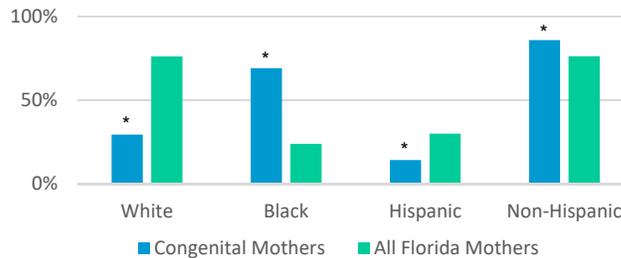


Mother's Age



- Mothers in their twenties had an increased likelihood of giving birth to a CS baby

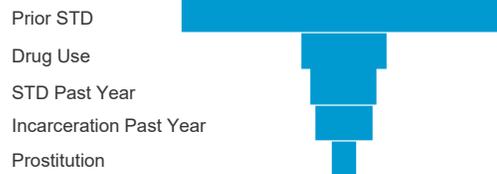
Mother's Race and Ethnicity



- Black/African American mothers made up a disproportionately high number of CS births

* Indicates significance

Self-Reported Risk Factors



- Most mothers (57%) reported no risk factors
- The highest risk factor was an STD history

Methods

- Mothers' data extracted from Florida's sexually transmitted disease (STD) database for years 2012-2016
- Calculated proportion of CS mothers reporting risk
- Compared demographics of CS mothers versus all Florida mothers
- X² test for significance

Conclusions

Educational and other public health efforts targeting women with prior STDs, black non-Hispanic women, and women in their 20s focused on early and sustained prenatal care, syphilis screening, and timely treatment could reduce CS births.

Improving the Delivery of Preventive Sexual Health Services



Authors:
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Rachel Kachur, MPH, Centers for Disease Control and Prevention

Background

A comprehensive sexual history is key to delivering recommended preventive sexual health services and identifying sexual problems. However, lack of time, competing priorities, and discomfort discussing sex keeps many providers from obtaining a sexual history from all of their adolescent and adult patients. This results in low uptake of crucial services that could contribute to extremely high rates of STDs and other sexual health problems.

Practical Provider Tools

Provider's Guide: To encourage health care providers to integrate sexual health into routine patient visits, the NCSH developed "Sexual Health and Your Patients: A Provider's Guide". This evidence-based tool helps providers take a sexual history and deliver recommended services. The guide was pre-tested with primary care providers to assess appeal, relevance, and utility. The core components of the Guide include:

1. How to Discuss Sexual Health
2. Asking Essential Sexual Health Questions
3. Delivering Recommended Preventive Sexual Health Services
4. Responding to Your Patients' Questions
5. Information About Recommended Screening Tests
6. Where to Learn More: Clinical Resources

Responses from Providers

"The Provider's Guide and Cards came out right before I was to give rounds to the Geriatrics Department on sexuality and older adults. One of the main points of the talk was taking a sexual history, so this was a very useful resource to share with physicians."

"Recently, the National Coalition for Sexual Health (NCSH) developed a guide for primary care providers to address the sexual health of their patients. This guide is an excellent tool for undergraduate medical education. It includes the 5 Ps, a list of essential sexual health questions to ask at least once annually, and questions relevant to adults vs. adolescents." (Rubin, 2018)

About the National Coalition for Sexual Health (NCSH)

The NCSH aims to make sexual health a part of our national discourse and to promote high quality sexual health information and health services. With 115 members, we develop practical tools for the public and health care providers that are free. To learn more: www.nationalcoalitionforsexualhealth.org.

Sexual Health and Your Patients: A Provider's Guide



Pocket Cards: As a companion to the Guide, NCSH created pocket cards that allow providers to access essential sexual health questions and recommended services in a concise format. The provider cards include:

- **Adults:** Find the essential sexual health questions to ask adults at least annually, plus recommended preventive services.
- **Adolescents:** One side features essential sexual health questions to ask adolescents, and tips to prepare for a sexual health conversation. The other side describes recommended preventive services and tips on improving care for LGBTQ adolescents.
- **Adult & Adolescent Combo:** One easy-to-read card that includes essential sexual health questions to ask adults and adolescents at least annually.

Essential Sexual Health Questions to Ask Adults
Ask all of your adult patients the sexual health questions on this card. They will help you assess the patient's level of sexual risk and determine whether additional questions and which preventive services may be needed (other side of card).

Ask at Least Annually

Have you been sexually active in the last year?
YES: What are the gender(s) of the people with whom you are engaging in sexual activities? In the past 12 months, how many sexual partners have you had?
NO: Have you ever been sexually active?
YES: What are the gender(s) of the people with whom you had sex?
NO: Continue with medical history

Ask at least once, and update as needed. Gender identity and sexual orientation can be fluid.

1. What do you consider yourself to be?
a. Lesbian, gay, or homosexual
b. Straight or heterosexual
c. Bisexual
d. Other (please specify)
e. Don't know
2. What is your current gender identity?
a. Male
b. Female
c. Female-to-male/transgender, male/trans man
d. Male-to-female/transgender, female/trans woman
e. Neither exclusively male nor female (e.g. genderqueer)
f. Other (please specify)
g. Decline to answer
3. What sex were you assigned at birth?
a. Male
b. Female
c. Decline to answer

Ask Older Adults Has sex changed for you? If so, how?

*If patient answered "both" to previous question, ask this question for each gender.

NATIONAL COALITION FOR SEXUAL HEALTH

Overcoming Hurdles to Implement Adolescent Sexual Health Initiatives in Schools



Authors:

Theresa Skipper, MPH, Florida Department of Health in Pinellas County;
Samantha Ritter, MPH, National Association of County and City Health Officials

Objectives

- Expand on current sexual health services in school-based health centers (SBHCs) through policy revision, evidence-based health education and supportive environments
- Identify and implement adolescent sexual health priorities through a facilitated action planning meeting
- Improve community partnerships through dialogue related to health promotion and intervention

Priorities

The following priority areas were identified through a community-driven and owned action planning meeting facilitated by NACCHO. They were implemented, with technical assistance from NACCHO, over the course of a calendar year, and will continue to be strengthened.



Results

**STI Testing in SBHCs
2016-2017 vs. 2017-2018**



Recommendations



For more information:

<http://bit.ly/nacchoash>

Trichomonas Infection Rates in Males Presenting to the Emergency Department for Sexually Transmitted Infection Evaluation

Territo, H; Verni, C; Wrotnaik, B; Burstein G



Introduction

Trichomonas vaginalis (TV) is one of the most common sexually transmitted infections (STIs) in the world, with an estimated 248 million new cases annually. The overall prevalence is reported to be 3.1% with rates approaching 12.9-14.4% in high risk female populations. While there is a plethora of data on TV in females, the corresponding male data are limited. The new TV nucleic acid amplification test (NAAT) is highly sensitive and specific and can accurately detect TV in males.

Objective

The goal of this study was to determine the TV infection rate in males seeking care for STIs in the emergency department (ED).

Methods

We performed a retrospective analysis of males who present to the ED for an STI evaluation.

Results

A total of 722 males were enrolled in the study. Male age ranged from 13-75 years with a mean age of 30.6 years. Greater than half of all males were African American (Table 1). Most common symptom presenting to the ED was dysuria (51%, n= 264). Most common physical exam finding in enrolled patients was penile discharge (14%, n=88). (Table 2)

Of the 722 males seen, 712 (98.5%) had a Trichomonas NAAT performed. Laboratory confirmed trichomonas was identified in 5.2% (37/711) of eligible male patients.

Overall rate of Chlamydia was 13.1% of patients and Gonorrhea 9.7%.

647 of the 712 (91%) males were seen in an urban ED where 5.6% (36/647) tested positive for trichomonas. 65 of the 712 (9.1%) patients in this study were seen in a suburban ED; 1.5% (1/65) tested positive for trichomonas. (p 0.163)

Table 1: Demographic Characteristics of Enrolled Emergency Department Male Patients

	All Study Participants	+ TV	- TV	p value
Age range (years)	13-75	16-75	13-70	
Age (mean)	30.6	35.7	30.3	<0.05
Race				0.234
African American (%)	60	81	60	
White (%)	23	11	23	
Other (%)	17	7	17	
Ethnicity (% non-hispanic)	83	86	83	0.552
Previous STI (%)	26	30	26	0.871

Those who tested Trichomonas positive were significantly older than males testing negative. There was no statistically significant difference in race, ethnicity or previously documented STI

Table 2: Signs and Symptoms of Sexually Transmitted Infection's (STI's) in Patients presenting to the Emergency Department

	+TV % (n)	-TV % (n)	All Patients % (n)	P Value
Penile Discharge	31.0 (9)	29.6 (151)	29.7 (160)	0.870
Testicular Pain	5(1)	28.7 (118)	27.6 (119)	0.021
Dysuria	44.5 (12)	51.7 (252)	51.4 (264)	0.460
Urinary Frequency	18.2(2)	22.6 (54)	22.4 (56)	0.731
Urethral itch	25.0 (3)	14.1 (22)	14.9 (25)	0.307
Hematuria	15.8 (3)	10.5 (35)	10.8 (38)	0.468
Penile Pain	23.5 (4)	21.7 (58)	21.8 (62)	0.861
Rectal Pain	0 (0)	6.4 (9)	6.1 (9)	0.489
Groin Pain	16.7 (2)	27.7 (64)	27.2 (66)	0.402
Rash	0 (0)	16.6 (50)	15.8 (50)	0.221
Testicular Tenderness on Exam	0 (0)	20.5 (85)	19.6 (85)	0.024
Rectal Discharge on Exam	0 (0)	2.1(4)	2.0 (4)	0.661
Discharge	16.2 (6)	12.1 (82)	12.3 (88)	0.462
Foul Odor on Exam	0 (0)	7.4 (7)	6.9 (7)	0.491

Signs and symptoms of STI's were not associated with male Trichomonas infection. Testicular pain or testicular tenderness on exam was significant for a negative Trichomonas result.

Table 3: Sexually Transmitted Infection (STI) testing results for male's positive and negative for Trichomonas for chlamydia, gonorrhea and urine analysis results

	+ TV % (n)	- TV % (n)	All Patients % (n)	p value
Chlamydia	10.9 (4)	13.3 (90)	13.1 (94)	0.661
Gonorrhea	5.4 (2)	9.9 (67)	9.7 (69)	0.367
Urine Analysis				
Nitrates	22.2 (4)	19.7 (70)	19.8 (74)	0.795
TV on UA	50 (6)	1.4 (4)	3.4 (10)	<0.001

We found no statistical difference rates in gonorrhea, or chlamydia results or presences of nitrates on UA between those that tested Trichomonas positive or negative.

Conclusion

- Trichomonas is a common STI in males presenting to EDs in an academic hospital system.
- Trichomonas rates in males are similar to previously published female rates.
- Similar to previous female data, we found higher Trichomonas rates among older males.
- Similar to previous female data, we found a trend towards higher Trichomonas rates among urban ED visits.
- Similar to previous female data, we found no significant signs or symptoms of STI to be associated with Trichomonas infection.
 - We did find that testicular pain or testicular tenderness on exam is negatively associated with Trichomonas infection
- Trichomonas among males is prevalent and testing should continue when evaluating males for STI's.

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¹Center for Community Practice, Infectious Diseases, University of Rochester Medical Center and ²NYS Department of Health AIDS Institute

Background

- **CEI STD Center of Excellence established in 2014**
- **Provide education and technical assistance to NYS clinicians**
 - Focus on STIs, LGBTQ health
 - Live on-site presentations
 - Live web presentations
 - Web-based learning
 - Conferences
 - Preceptorships
 - CEI Line (clinical consultation phone line)
 - ECHO sessions (virtual case conference)
- **Participate in NYS AIDS Institute activities**
 - HIV Quality Committee
 - HIV Guidelines program
 - DOH Listening Tours/Expert Panels

Target Audience

- **Clinicians**
 - Physicians
 - Nurse Practitioners
 - Nurse Midwives
 - Physician Assistants
 - Pharmacists
 - Nurses
 - Dentists
- **Types of Practices (entire state: rural & urban)**
 - Primary Care
 - Emergency Dept/Urgent Care
 - FQHC
 - Public STD Clinics
 - Family Planning/OB-GYN
 - College Health

CEI STD Center – Broad Reach in NYS

- 4559 clinicians trained in 2017
- 9991 clinicians trained between 2014-17
- Geographically and professionally diverse
- 10% of attendees at CEI STD Center Conferences were state or local Partner Services (PS) staff/Disease Intervention Specialist (DIS)
- 15% of CEI line clinical consultation calls were from PS/DIS relaying treatment concerns/questions from providers (n = 328, 2014-17)

NYS Counties (shaded) with CEI Trainee Workplaces, 2017



Real World Scenarios – Lessons Learned

Community Providers convey issues to CEI to relay to DOH administration

Examples:

- Need laboratories providing extra-genital testing for GC & CT
- Pharmacists refusing to honor EPT prescriptions
- Desire to offer PrEP in adolescent populations
- Need assistance regarding confidential STI care for college students (help with parent insurance issues)

Partner services staff relay concerns & need for community provider training to CEI

Examples:

- Follow up of reportable disease cases treated with non-standard medications
- Lack of provider experience regarding need for partner therapy
- Need to develop expertise regarding syphilis staging in given community
- Trends in Emergency Depts to utilize inappropriate (short) course treatment for Pelvic Inflammatory Disease

Communication between CEI, DOH, DIS, &/or providers led to a specific response such as targeted conferences, new, curricula, FAQ document addressing concerns, provision of resources to address gaps

Conclusions

- Partner Services staff participate in CEI training events and provide valuable insight into local STI related training needs to the CEI STD Center.
- Community providers utilize the CEI STD Center as a conduit to communicate concerns, real time needs with DOH AI administration
- Overall, the NYS CEI STD Center of Excellence has been widely accepted by the intended audience of clinical providers and has served as a bridge between important constituencies critical to STD prevention: Health Department Administration, PS Staff, and a geographically & professionally diverse audience of NYS clinicians