



A Continuum Framework to Assess Partner Services Outcomes among Males with Early Syphilis in Los Angeles County

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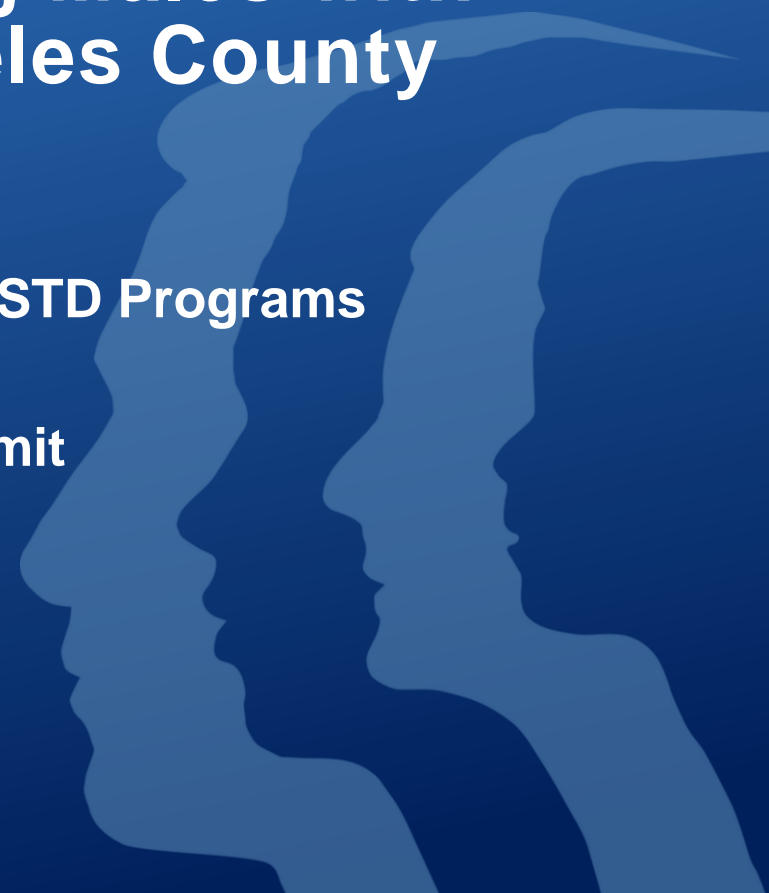
Los Angeles County, Division of HIV and STD Programs

California State Syphilis Prevention Summit

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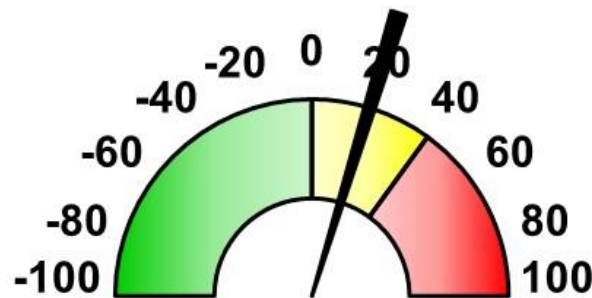
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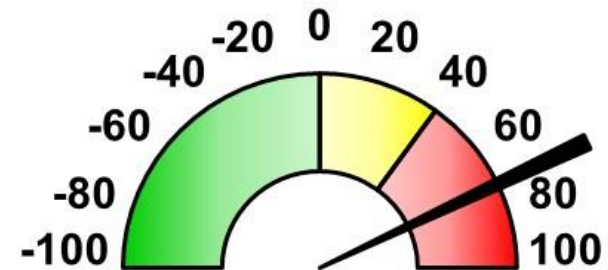


Background:

- In LAC: ~90% of male early syphilis cases are among MSM/MSMW
- ↑ in Case Counts (2015 to 2016)



**Syphilis
(all stages)**



**Congenital
Syphilis**



Background:

- As disease burden ↑, so does the demand on DIS/PHIs
 - If we continue to prioritize everything, then we are prioritizing nothing
- Continuum approach can simplify data dissemination to help guide decision making



Methods: How to Construct a Continuum

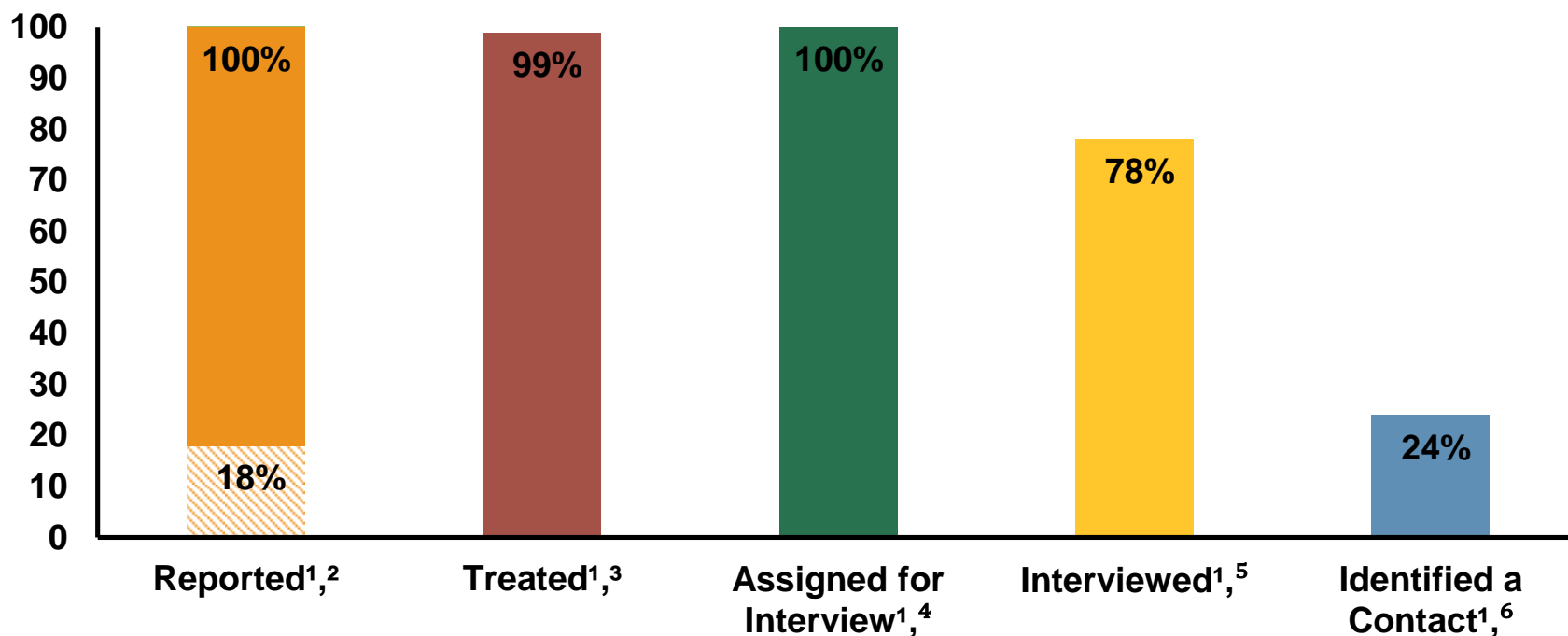
- Easier to demonstrate
 - Calculate a series of percentages that highlight key milestones in an investigation
 - Step 1: Index Case Continuum
 - Step 2: Elicited Contact Continuum
 - Step 3: Calculate summary measures
- No need for additional data collection



Results: 2015 Early Syphilis Continuums among Males, LAC

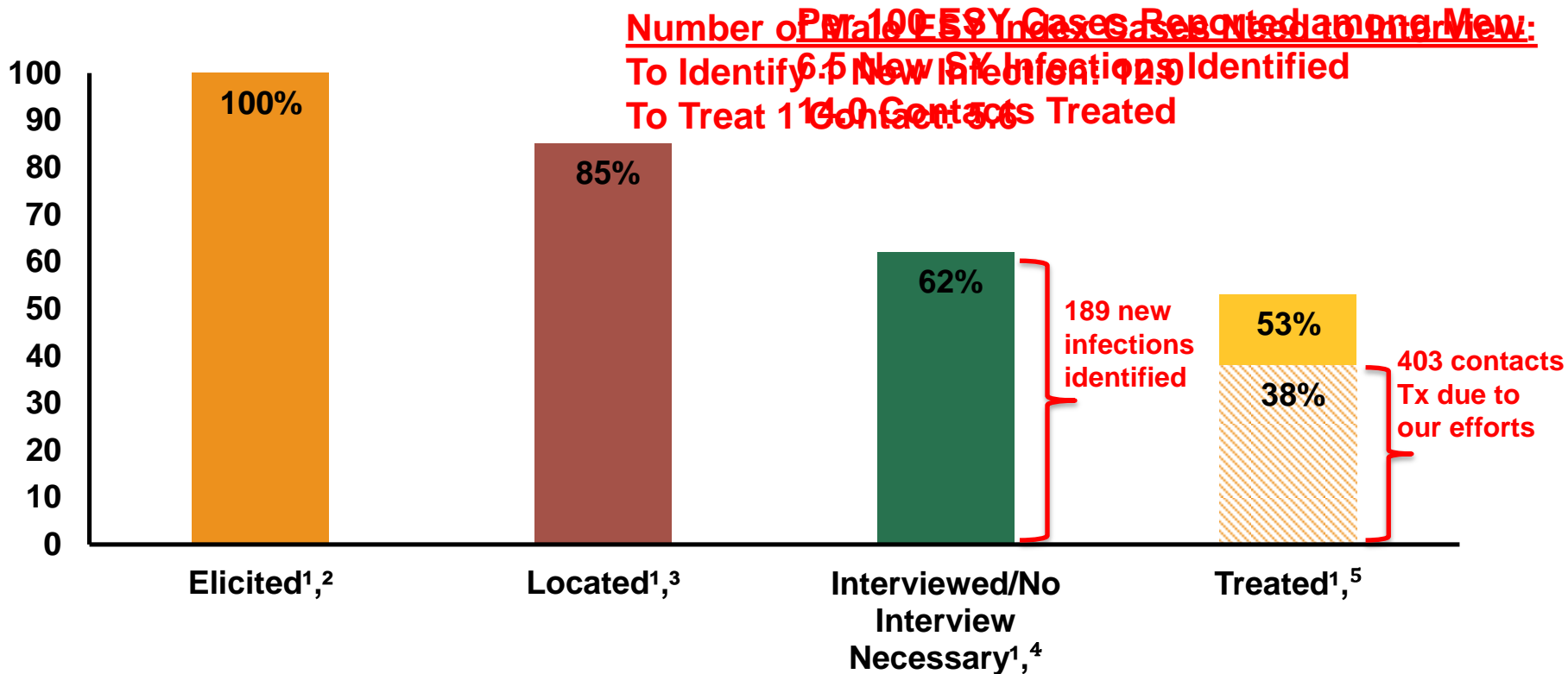


Index Case Continuum: Early Syphilis among Males in 2015, LAC



1. Denominator is 2,886 early syphilis (ESY) cases among males reported in Los Angeles County (LAC) in 2015, after excluding cases that were out of jurisdiction (OOJ). These cases were staged as: primary or secondary (n=1,336) and early latent (n=1,550).
2. Numerator is # ESY cases reported in LAC in 2015 after excluding cases that were OOJ; 13% were reported by county-run STD clinics and 5% were reported by county-run hospitals.
3. Numerator is # SY cases with documented treatment information.
4. Numerator is # SY cases assigned to a field services staff member for investigation.
5. Numerator is # SY cases interviewed by field services.
6. Numerator is # SY cases who identified at least one sexual and/or cluster contact; does not include cases that notified contacts themselves or that received provider-delivered partner services.

Elicited Contact Continuum: Early Syphilis among Males in 2015, LAC



1. Denominator is 1,056 contacts elicited from 690 early syphilis (ESY) index cases among males in 2015. Of these contacts: 946 were sexual partners, 101 were clusters, and 9 were missing information on contact type.
2. Numerator is # of contacts identified by index cases in 2015.
3. Numerator is # of contacts located by field services; excludes contacts with a disposition of “unable to locate,” “insufficient information to begin investigation,” “administrative/system closure,” or that were missing a disposition.
4. Numerator is # of contacts who were either interviewed or had a disposition which indicated that their infection and/or treatment status was confirmed. A total of 189 new cases of syphilis were identified from these interviews. These new cases were staged as: primary (n=34), secondary (n=37), early latent (n=112), and late latent/late (n=6).
5. Numerator is total # of partners with documented treatment information; 38% of contacts had a disposition of “infected – brought to treatment” (n=189) or “preventative treatment – new” (n=214).



Results: Trends Over Time



Summary Measures from 2011-2015 Continuums, LAC

| Year | Per 100 Cases Reported | | Number of Index Cases Needed to Interview: | |
|------|---------------------------|-------------|--|-----------------|
| | New Infections Identified | Contacts Tx | To Identify 1 New Infection | To Tx 1 Contact |
| 2011 | 8.4 | 18.7 | 9.9 | 4.5 |
| 2012 | 8.5 | 20.6 | 9.9 | 4.1 |
| 2013 | 7.8 | 16.0 | 10.3 | 5.0 |
| 2014 | 8.4 | 19.5 | 9.7 | 4.2 |
| 2015 | 6.5 | 14.0 | 12.0 | 5.6 |

- In 2015: ↓ outcomes + ↑ disease burden = PROBLEM
- Programmatic Implication: “Something’s gotta give”

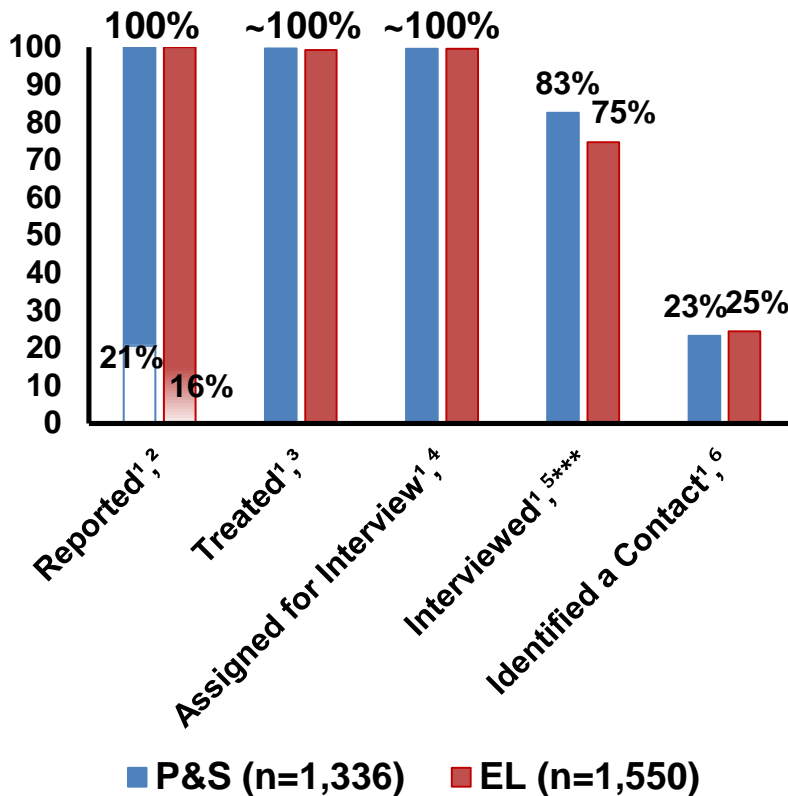


Results: Comparison Between Stages of Infection

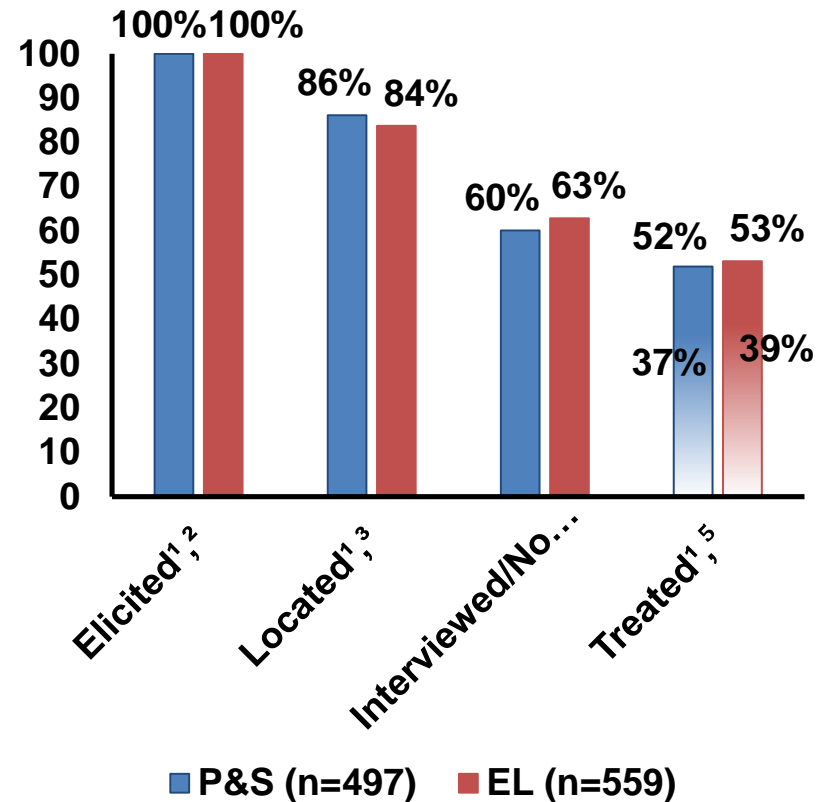


Early Syphilis Continuums among Males by P&S vs. EL Stages, LAC, 2015

Index Continuum



Elicited Contact Continuum



P-value: $\pm < 0.10$, * < 0.05 , ** < 0.01 , *** 0.001

Summary Measures from P&S vs. EL Continuums

| Stage of Infection | Per 100 Cases Reported | | Number Needed to Interview: | |
|--------------------|---------------------------|-------------|-----------------------------|-----------------|
| | New Infections Identified | Contacts Tx | To Identify 1 New Infection | To Tx 1 Contact |
| P&S SY | 6.5 | 13.9 | 12.7 | 5.9 |
| EL SY | 6.6 | 14.0 | 11.4 | 5.3 |

- **Outcomes:** In LAC, P&S and EL investigations yield similar results
- **Programmatic Implication:** Continue working EL cases among men

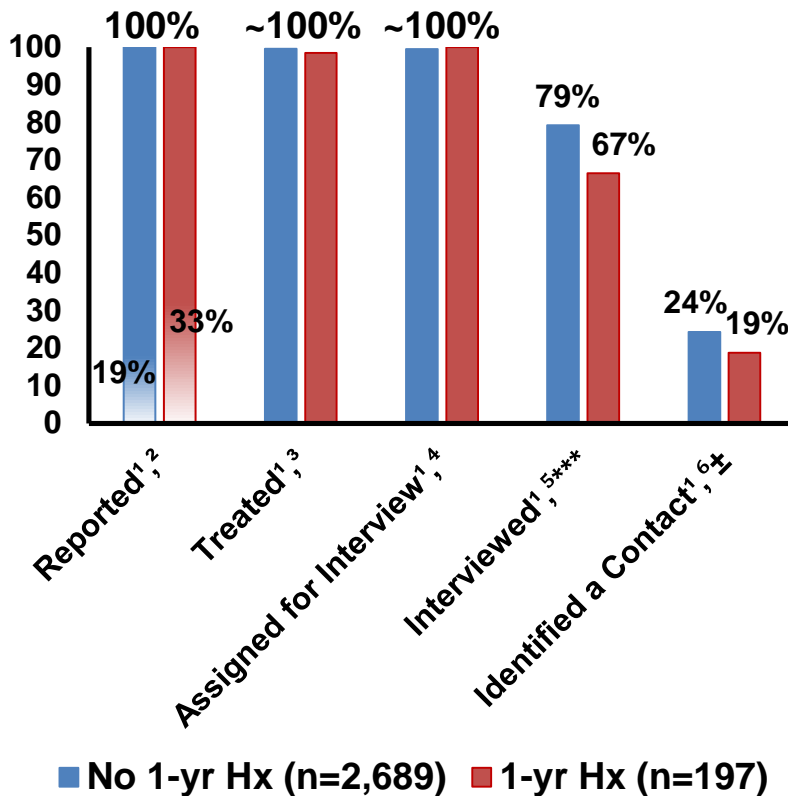


Results: Comparison Between Sub-populations

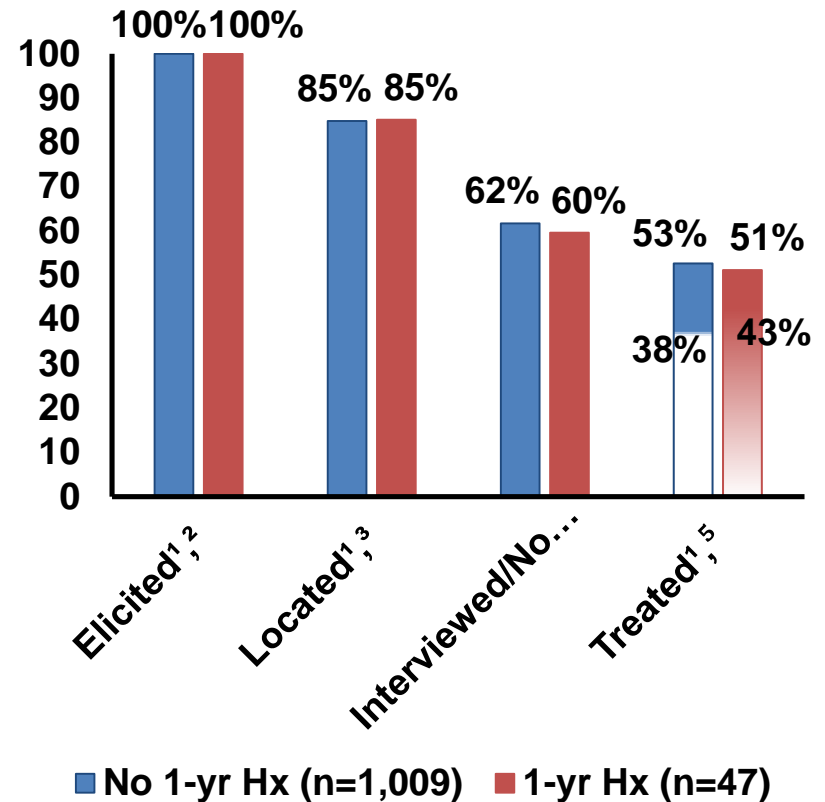


Early Syphilis Continuums among Males by Previous Infection w/in Past Year, LAC, 2015

Index Continuum



Elicited Contact Continuum



P-value: $\pm < 0.10$, * < 0.05 , ** < 0.01 , *** 0.001

Summary Measures from 1yr Hx of SY Continuums

| 1yr Hx of Syphilis | Per 100 Cases Reported | | Number Needed to Interview: | |
|--------------------|---------------------------|-------------|-----------------------------|-----------------|
| | New Infections Identified | Contacts Tx | To Identify 1 New Infection | To Tx 1 Contact |
| No 1yr Hx | 6.8 | 14.2 | 11.6 | 5.6 |
| 1yr Hx | 2.5 | 10.1 | 26.2 | 6.6 |

- **Outcomes: Worse among cases w/ Hx of syphilis in the past year (vs. no Hx of syphilis in the past year)**
- **Programmatic Implication: Additional activities may be needed among males with repeat infections?**



Discussion





Discussion:

- Continuum Framework:
 - Method to evaluate the efficacy of partner services
 - Provides a broader perspective that can be used to help to guide decision making
 - Highly customizable
 - Easy to generate
- Can augment existing metrics when making tough decisions about partner services activities among MSM



Thank You!

Questions?

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