What Gets Measured is What Gets Managed…

Evaluating HIV/STD Partner Services Performance

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DISCLOSURE

My spouse and I have not had any relevant financial relationship with any commercial interests or conflicts of interest in the conduct of this study.

Partner Services

PARTNER SERVICES are a broad array of services that should be offered to persons with HIV or other sexually transmitted diseases (STDs) and their sexual or needle-sharing partners. By identifying infected persons, confidentially notifying their partners of their possible exposure, and providing infected persons and their partners a range of medical, prevention, and psychosocial services, partner services can improve the health not only of individuals, but of communities as well.

Program Operations Guidelines for STD Prevention (2001)

- Syphilis, Gonorrhea, Chlamydia

HIV Partner Counseling and Referral Services Guidance (1998)

- HIV Only

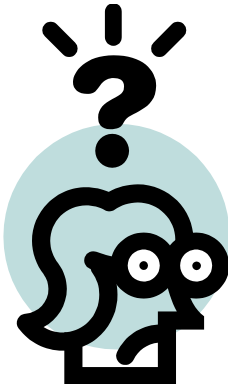
Recommendations for Partner Services Programs for HIV Infection, Syphilis, Gonorrhea, and Chlamydial Infection (2008)

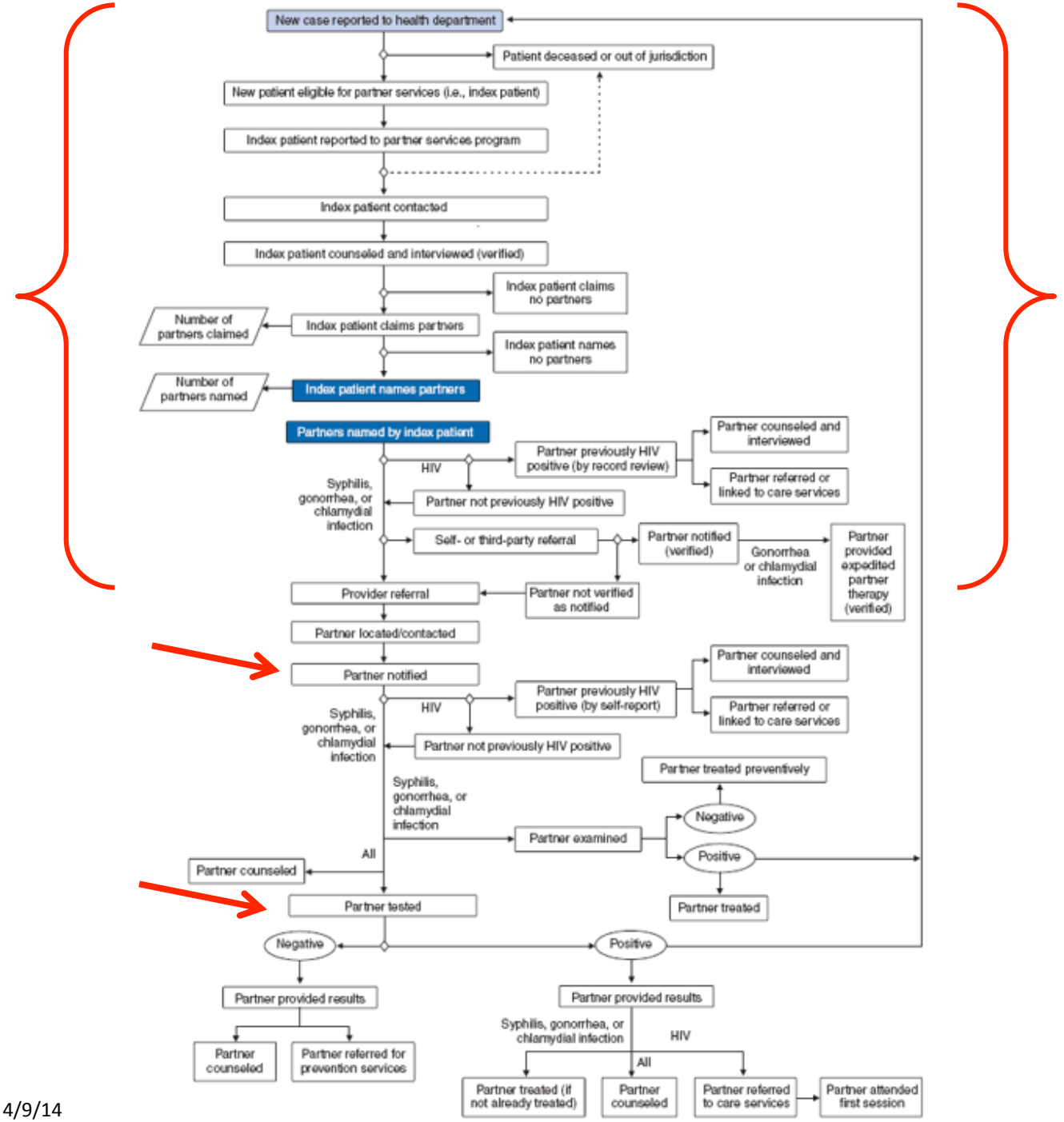
Practice Goals and Gaps

"The overall goal of partner services programs is to prevent HIV/STD disease transmission and progression via partner notification and the provision of screening and referrals for treatment for identified partners."[1]

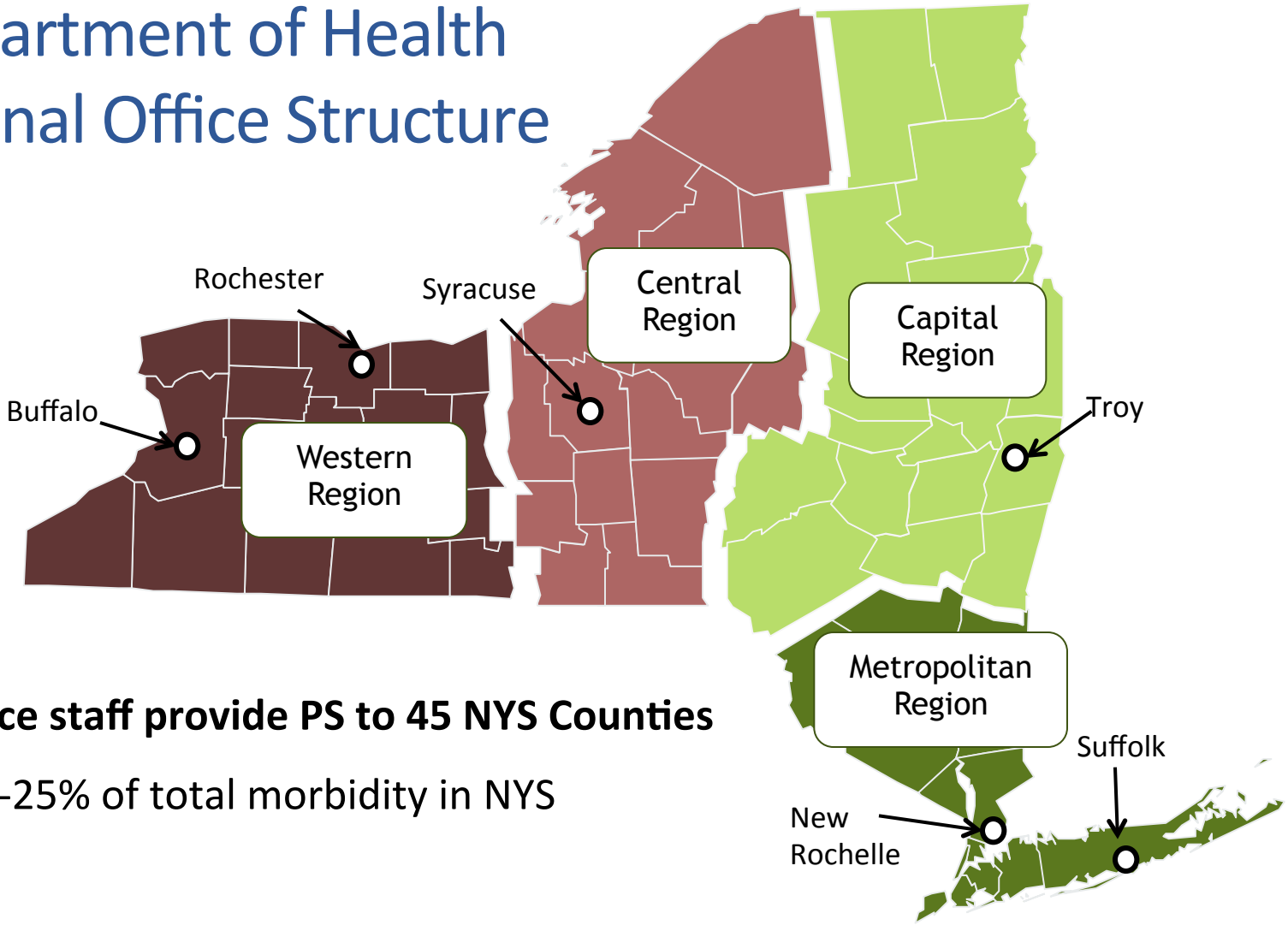
- What goes into HIV/STD partner services investigations?
- How are we measuring this effort?
- Are there ways we can improve our outcomes?

1: Centers for Disease Control and Prevention. Partner Services Evaluation Field Guide. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2010. Available at: http://www.effectiveinterventions.org/Libraries/Partner_Services_Materials/Partner_Services_Evaluation_Field_Guide_041610.sflb.ashx




New case reported to health department
Patient deceased or out of jurisdiction
New patient eligible for partner services (i.e., index patient)
Index patient reported to partner services program
Index patient contacted
Index patient counseled and interviewed (verified)
Index patient claims no partners
Number of partners claimed
Index patient claims partners
Index patient names no partners
Number of partners named
Index patient names partners
Partners named by index patient
HIV
Partner previously HIV positive (by record review)
Partner counseled and interviewed
Partner referred or linked to care services
Syphilis, gonorrhea, or chlamydial infection
Partner not previously HIV positive
Self- or third-party referral
Partner notified (verified)
Gonorrhea or chlamydial infection
Partner provided expedited partner therapy (verified)
Provider referral
Partner not verified as notified
Partner located/contacted
Partner notified
Partner counseled and interviewed
HIV
Partner previously HIV positive (by self-report)
Partner referred or linked to care services
Syphilis, gonorrhea, or chlamydial infection
Partner not previously HIV positive
Partner treated preventively
Syphilis, gonorrhea, or chlamydial infection
Negative
Partner examined
Positive
All
Partner counseled
Partner tested
Partner treated
Negative
Positive
Partner provided results
Partner provided results
Partner counseled
Partner referred for prevention services
Syphilis, gonorrhea, or chlamydial infection
HIV
All
Partner treated (if not already treated)
Partner counseled
Partner referred to care services
Partner attended first session

New York State Department of Health Regional Office Structure



Regional Office staff provide PS to 45 NYS Counties

- Cover 20-25% of total morbidity in NYS

Background of Research

- **RWJF Grant: Measuring and Improving Quality**
  - Paper-based systems limited the ability to measure PS work process
  - Lack of timely, reliable outcomes data to guide programmatic decision-making

- **Response: Development of HIV/STD Program Management Application (PMA)**
  - Identified quality metrics not easily captured by non-integrated surveillance systems
  - Applied Performance Management principles to improve integrated operations

BENEFITS OF THE PMA

- Regional control of case assignment and workload
- Easier to assess case allocation among PS staff
- Helps to track the HIV/STD Integration process
- Manage open, closed, and problem cases more effectively
- Provide real-time access to assigned HIV/STD cases to respond to queries
- Complements surveillance data systems

……But more data leads to more questions!!

HIV/STD PS: New Areas of Inquiry

- **How successful are we at interviewing HIV/STD cases?**
  - In what ways does it vary? (by infection, region?)
- **How do partner elicitation rates vary?**
  - Does interview method matter?
- **How do program outcomes compare to written Tasks and Standards?**
  - Are the standards we're setting reasonable?

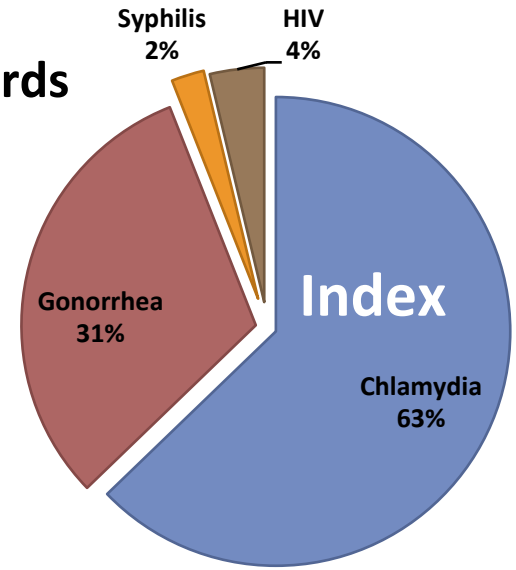
METHODS

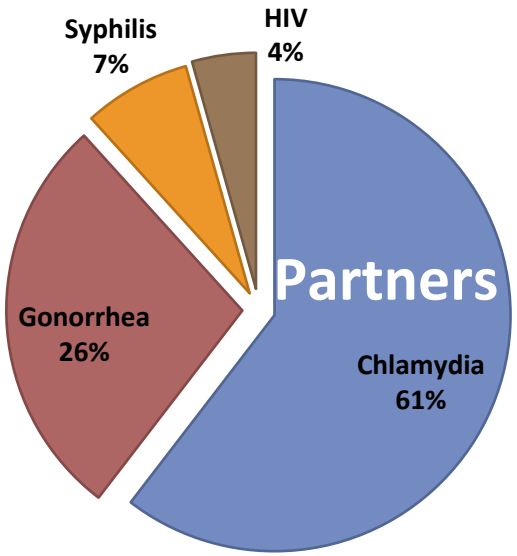
All closed cases between 1/1/13 -12/31/13

- Stratified by disease (HIV, Syphilis, Gonorrhea, Chlamydia), region, interview status, time frame, and method
    - Partners elicited from interviewed cases
- Duplicates, dual diagnoses, non-matched partners excluded
- Imported into SAS 9.2® for data cleaning and analysis

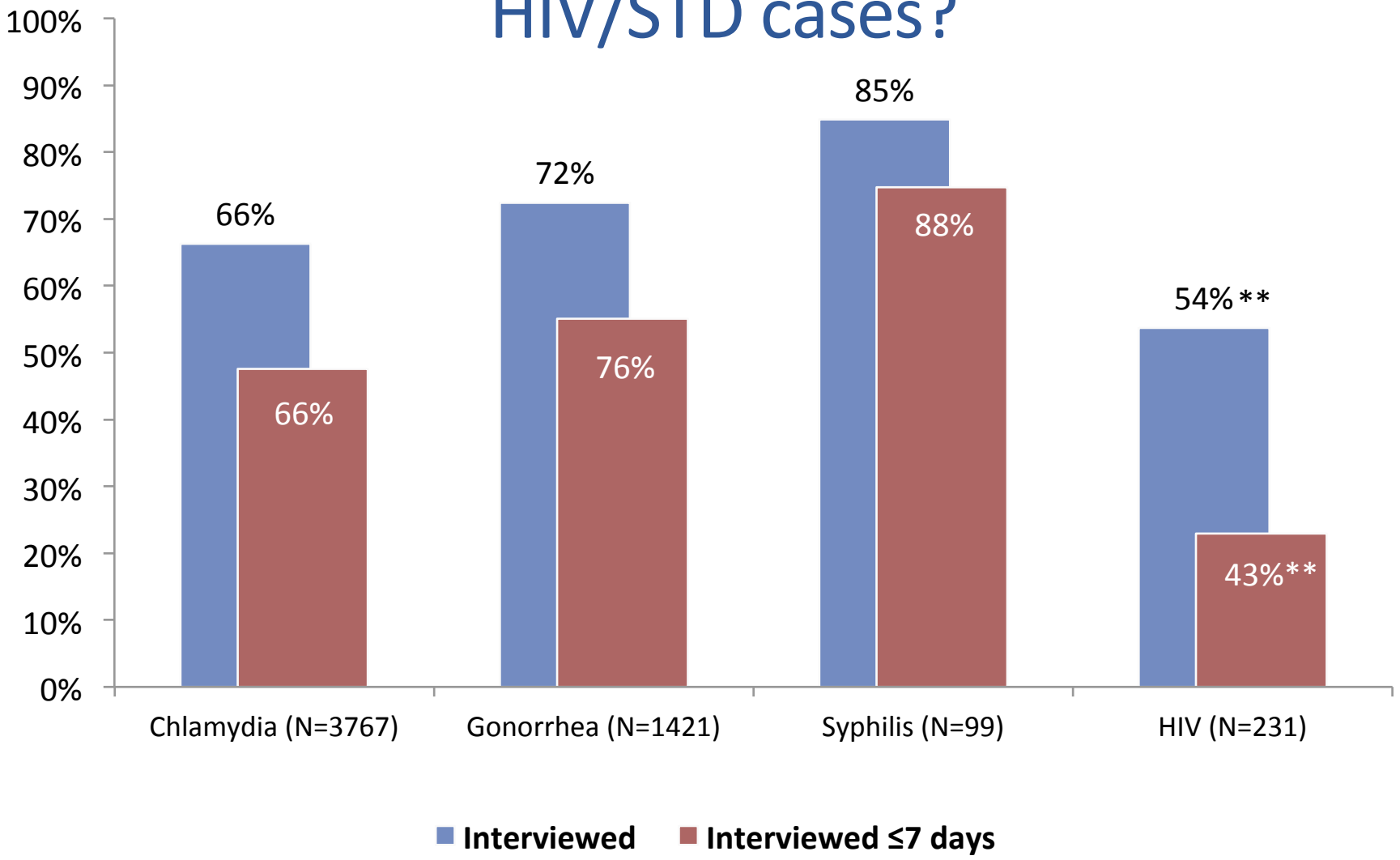
Resulted in 10,830 records

- 5,518 Index Cases
- 5,312 Partners

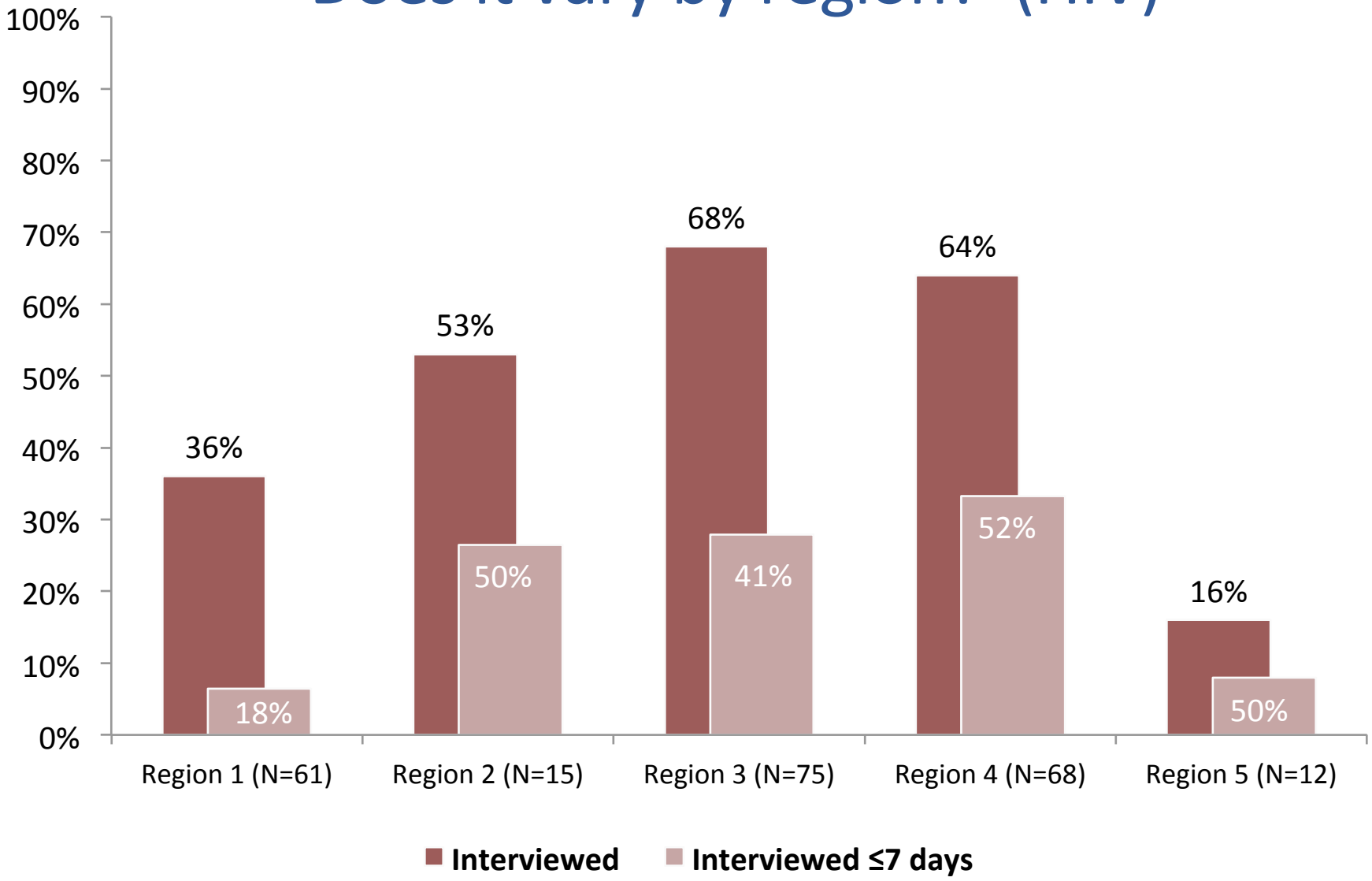




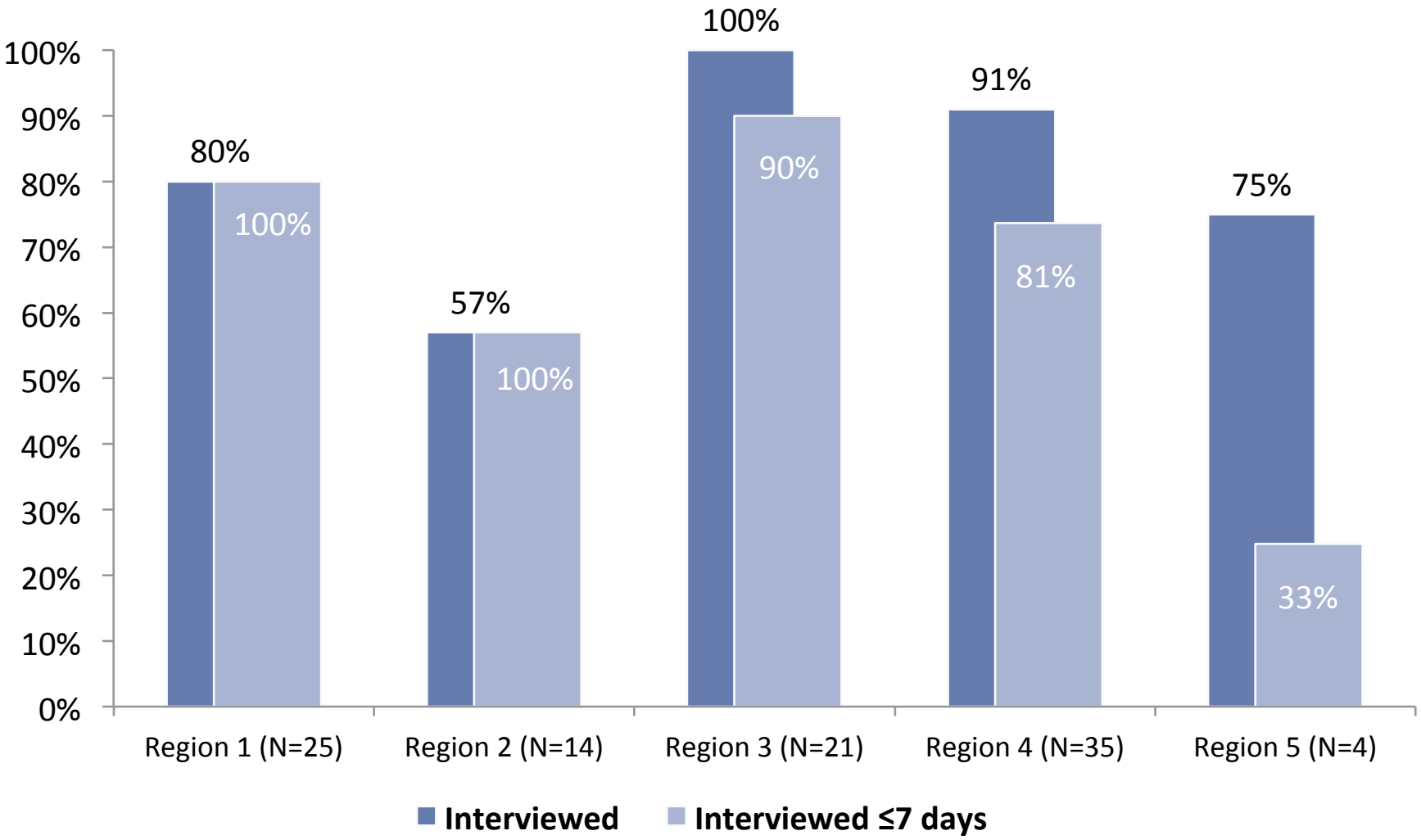
How successful are we at interviewing HIV/STD cases?



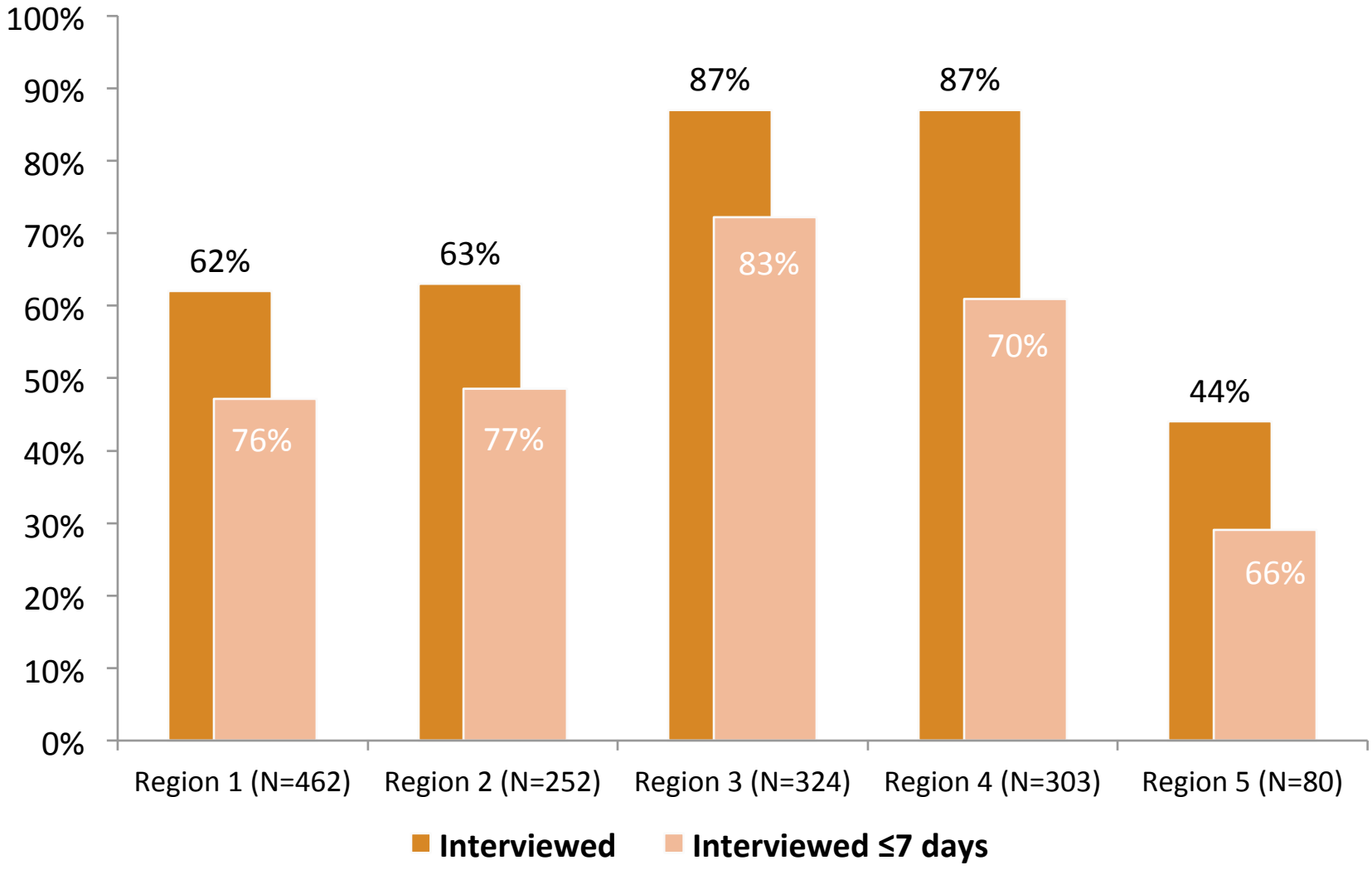
Does it vary by region? (HIV)



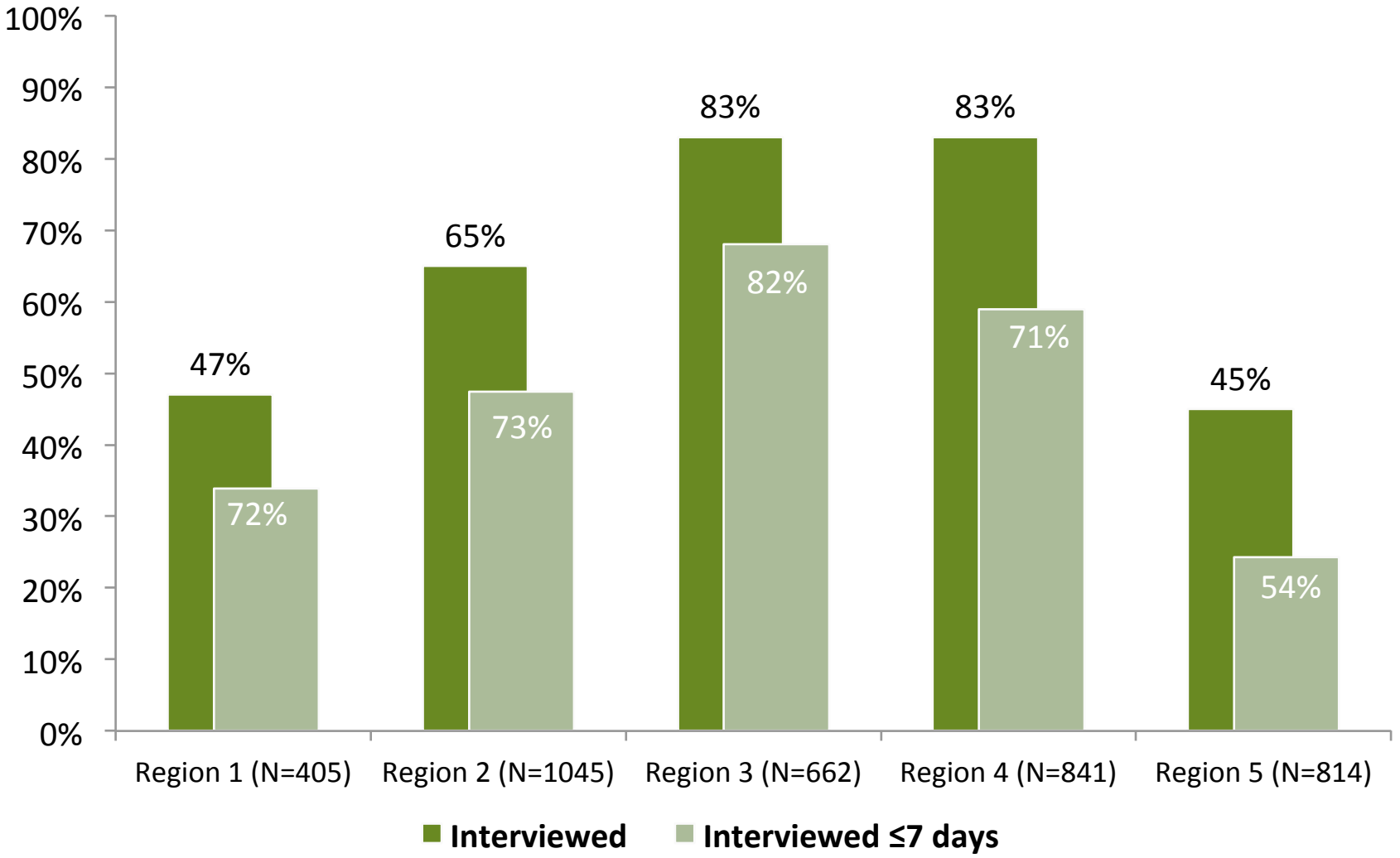
Does it vary by region? (Syphilis)



Does it vary by region? (Gonorrhea)



Does it vary by region? (Chlamydia)



How Do Partner Elicitation Rates Vary?

	Total Partners	Contact Index*	Range	% Cases with NO Partners†
HIV	116	0.91	0-16	56%
Syphilis	195	2.32	0-14	27%
Gonorrhea	740	0.72	0-11	43%
Chlamydia	1605	0.64	0-7	43%

*Contact Index = (interviews conducted / partners elicited)
†P<.0007

Does Interview Method Matter?

	Field (%)		Phone (%)		Clinic (%)		P[a]
HIV							P<.0073
No partners	43	50.0%	25	78.1%	3	33.3%	
1 partner	30	34.9%	4	12.5%	2	22.2%	
2 or more partners	13	15.1%	3	9.4%	4	44.4%	
Syphilis[b]							P<.0005
No partners	5	10.9%	14	50.0%	4	44.4%	
1 partner	19	41.3%	3	10.7%	0	0.0%	
2 or more partners	22	47.8%	11	39.3%	5	55.6%	
Gonorrhea[b]							P<.0010
No partners	49	35.5%	376	45.7%	11	23.4%	
1 partner	68	49.3%	373	45.3%	26	55.3%	
2 or more partners	21	15.2%	74	9.0%	10	21.3%	
Chlamydia[b]							P<.0001
No partners	110	47.6%	925	42.0%	10	30.3%	
1 partner	114	49.4%	1163	52.8%	13	39.4%	
2 or more partners	7	3.0%	116	5.3%	10	30.3%	

a - P-values were calculated using two-sided Pearson χ^2 test statistic for categorical variables

b - Excludes cases interviewed via other methods (e.g., private provider; n=52)

Are We Meeting Stated Tasks and Standards?

	2013 Outcomes	Standard Met?
HIV		
Interview ALL Newly Diagnosed Cases Assigned	127/231 (55%)	NO
Interview a minimum of 80 percent within seven days of assignment	53/127 (42%)	NO
Syphilis		
Interview a minimum of 98 percent of the early stage cases assigned	84/99 (85%)	NO
Interview a minimum of 75 percent within seven days of assignment	74/84 (88%)	YES
Chlamydia		
Interview ≥ 65 per cent of priority cases assigned	2498/3767 (66%)	YES
Interview a minimum of 65 per cent of priority cases within seven days of assignment	1792/2498 (72%)	YES
Gonorrhea		
Interview ≥ 65 per cent of priority cases assigned.	1029/1421 (72%)	YES
Interview a minimum of 65 per cent of priority cases within seven days of assignment.	782/1029 (76%)	YES

Implications

Much remains to be done to successfully integrate HIV into PS work

- QI efforts should focus on identifying causes of HIV PS underperformance
  - Lack of performance data for HIV PS
  - Training of disease investigation staff
  - Updated, integrated manuals and field resources
  - Collaboration and communication with HIV Providers
  - Differences in HIV lab reporting

Large regional variation indicates need for tailored QI approaches

- High-performance regions can serve as best-practice models

Implications

PMA can help identify areas for improvement and monitor QI efforts

- Emphasis on field / clinic interviews for high-priority cases of HIV and Syphilis
- Shortening the assignment –> interview window for HIV
    - Research indicates this has significant influence on successful interviews and partner elicitation rates[1,2]

Putting numbers in context is critical to fostering sustainable improvement efforts

- Data alone cannot tell the whole story – a qualitative understanding of results is critical to design meaningful QI projects

1: Marcus, J. L., Bernstein, K. T., & Klausner, J. D. (2009). Updated outcomes of partner notification for human immunodeficiency virus, San Francisco, 2004-2008. *AIDS*, *23*(8), 1024–1026.

2: Rudy, E. T., Aynalem, G., Cross, J., Ramirez, F., Bolan, R. K., & Kerndt, P. R. (2012). Community-embedded disease intervention specialist program for syphilis partner notification in a clinic serving men who have sex with men. *Sexually Transmitted Diseases*, *39*(9), 701–705.

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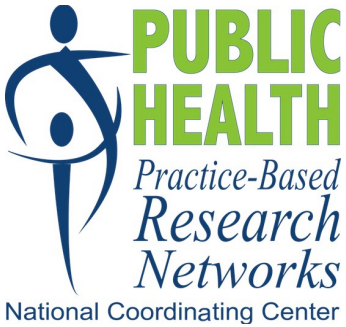

Questions, Comments, Suggestions?

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