HHS Public Access

Author manuscript

AIDS Patient Care STDS. Author manuscript; available in PMC 2024 August 01.

Published in final edited form as:

AIDS Patient Care STDS. 2020 March ; 34(3): 99–101. doi:10.1089/apc.2019.0286.

Partner services among HIV-positive adults receiving medical care in the United States – Medical Monitoring Project, 2013-2014

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People with HIV (PWH) who are unaware of their infection are estimated to account for the majority of HIV transmission due to unsuppressed viral load (VL) and ongoing HIV exposure risk activities with their sex or needle-sharing partners.[1,2] The Centers for Disease Control and Prevention (CDC) guidelines for HIV prevention have long recommended the provision of partner services (PS) for all persons with a new HIV diagnosis[3] to identify and notify exposed persons and offer them HIV testing and prevention services. Prior reports suggest that PS are underutilized and not delivered as prescribed by guidelines, with only approximately half of people in the US with a new HIV diagnosis interviewed to elicit partner names and contact information.[4,5] Although surveys have attempted to examine the scope and effectiveness of PS,[5,6] national estimates are lacking.

We analyzed data collected from the Medical Monitoring Project (MMP), a national HIV surveillance system that produces annual, cross-sectional estimates of behavioral and clinical characteristics of HIV-positive adults in medical care.[7] Informed consent was obtained from all interviewed participants. For the 2013-2014 data collection cycles, MMP used a 3-stage design to sample HIV-positive adults receiving outpatient medical care (states, outpatient HIV care facilities, and patients). Data were collected from June 2013-May 2015 via face-to-face or telephone interviews. All sampled states and territories participated; facility response rates ranged between 85–86%, and patient response rates ranged between 55–56%. Data were weighted based on known probabilities of selection at state or territory, facility, and patient levels and weighted to adjust for patient and facility nonresponse.

Using pooled annual cross-sectional interview data from patients with diagnosed HIV infection in the past 5 years (n=1,653), we calculated weighted percentages and associated 95% confidence intervals (CI) of: 1) persons being offered PS following one's HIV diagnosis, 2) acceptance of PS among those offered, and 3) reasons for not accepting PS among those who reported having partners and declined PS for all of their partners. We used

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Rao-Scott chi-square tests to assess differences in selected characteristics between patients: 1) offered versus not offered PS, and 2) accepting for some or all of their partners versus none of their partners. We assessed differences overall and by selected characteristics, and patients' self-reported main reason for not accepting PS. All analyses accounted for the complex sample design and weights.

Among patients with diagnosed HIV in the past 5 years, 68% (CI 63-72) were offered PS following their diagnosis. Among those offered PS, 44% (CI 38-50) accepted for all partners, 8% (CI 5-10) accepted for some partners, 34% (CI: 28-40) declined PS for all partners, and 15% (CI 12-18) did not report any partners (results not reported in table). Among those who were offered PS and reported having partners, 61% accepted PS for some or all of their partners. Among those declining PS for all of their partners, 71% (CI 65-78) wanted to notify their partners personally, 9% (6-12) did not know their partners' contact information, 7% (3-10) reported only HIV-positive partners, 4% (2-5) were afraid of their partners' reaction to PS, and 7% (CI 3-10) reported other reasons for declining PS (results not reported in table). The remaining persons reported that they either did not trust the health department or provider to notify their partners or that they were afraid their partners would find out who may have infected them as reasons for refusing PS, but these estimates were too small and unstable to report.

Being offered PS was significantly associated with age, with 76% of those aged 18-29 years reporting being offered PS compared with 60% of those ≥50 years (Table 1). Overall, being offered PS was not significantly associated with gender-stratified racial/ethnic group; non-Hispanic black men reported the highest prevalence of being offered PS and Hispanic/Latina women reported the lowest. Gay or bisexual persons were significantly more likely to be offered PS compared with persons who were not gay or bisexual. HIV testing location of the index-case patient was significantly associated with being offered PS; the prevalence was 84% in health departments and 60% in private doctor's offices, and varied substantially across MMP project areas.

Among those who were offered PS and reported having partners, 61% accepted PS for some or all of their partners (Table 1). Accepting PS was associated with gender-stratified racial/ethnic group, with 78% of Hispanic/Latina women accepting PS compared with 44% of non-Hispanic white women (Table 1). PS acceptance was significantly higher among persons who were not gay or bisexual compared with gay or bisexual persons. The prevalence of PS acceptance was highest in other medical settings and lowest in private doctor's offices, and varied substantially across MMP project areas.

Consistent with prior findings,[8] our analysis showed that being diagnosed with HIV at a health department clinic—where DIS are readily available to facilitate PS—was associated with higher likelihood of being offered PS; persons diagnosed at private doctor's offices and hospital inpatient settings were least likely to have been offered PS. PS is a complex task, requiring time and expertise, and is therefore potentially difficult and time-consuming for clinicians to routinely integrate into a patient's clinical visit in addition to providing medical care and treatment. Studies have shown that the integration of DIS in clinical settings

increases the number of persons offered PS, partners elicited and tested, and new HIV cases identified.[9–10]

Despite CDC recommendations that all persons with diagnosed HIV be offered PS,[3] our analysis found vast differences in the proportion of patients offered PS among MMP project areas. Factors such as the volume of HIV diagnoses by medical providers, the burden of new HIV diagnosis within a jurisdiction, completeness and permissible legal use of surveillance data to offer PS, and resources available to a health department may help to explain geographic variation in offering PS.[11,12] For example, during June 2008 to April 2014, partner services for newly diagnosed PWH in Philadelphia were only available by provider referral.

Our analysis shows that declining an offer of PS was most commonly associated with patients' desires to personally inform their own partners of potential exposure. However, people may be unaware that PS includes options for self-notification with support from the DIS. Studies have consistently found that provider- and DIS-facilitated PS yielded significantly higher proportions of partners elicited, notified, or tested for HIV.[9,10] In addition to ensuring that potentially exposed partners are notified, provider- or DIS-facilitated PS can benefit notified partners by allowing them to access the benefits of PS beyond exposure notification, such as access to prevention, medical, and social services.

The limitations of this analysis include: 1) PS experiences were self-reported, and thus may be subject to biases inherent to self-reported information; and 2) we did not assess whether partners were actually notified of their exposure to HIV or received other components of PS.

There is a wide variation in the offering of PS to patients with newly diagnosed HIV. More research is needed to assess the extent of, and barriers to, offering PS by public health jurisdictions. Fostering complementary and collaborative relationships between public health departments and medical providers can enhance each group's ability to offer and facilitate PS for a higher proportion of PWH.

Acknowledgments:

We thank MMP participants, project area staff, and Provider and Community Advisory Board members. We also acknowledge the contributions of the Clinical Outcomes Team and Behavioral and Clinical Surveillance Branch at CDC.

Funding:

Funding for the Medical Monitoring Project is provided by the Centers for Disease Control and Prevention.

Disclaimer:

The findings and conclusions in this report are those of the authors and do not necessarily represent the views of the Centers for Disease Control and Prevention.

REFERENCES

1. Colfax GN, Buchbinder SP, Cornelisse PG, et al. Sexual risk behaviors and implications for secondary HIV transmission during and after HIV seroconversion. AIDS 2002;16:1529–35. [PubMed: 12131191]

2. Cohen MS, Chen YQ, McCauley M, et al. Prevention of HIV-1 infection with early antiretroviral therapy. N Eng J Med 2011;365:493–505.

3. Centers for Disease Control and Prevention (CDC): Recommendations for partner services programs for HIV infection, syphilis, gonorrhea, and chlamydial infection. Morbidity and Mortality Weekly Report. 2008;57(RR-9):1,63.

4. Frieden TR, Foti KE, Mermin J. Applying public health principles to the HIV epidemic--how are we doing? N Eng J Med 2015;373(23):2281–7.

5. Song W, Mulatu MS, Rorie M, et al. HIV testing and positivity patterns of partners of HIV-diagnosed people in partner services programs, United States, 2013-2014. Public Health Rep. 2017;132:455–462. [PubMed: 28614670]

6. Katz DA, Hogben M, Dooley SW Jr et al. Increasing public health partner services for human immunodeficiency virus: results of a second national survey. Sex Transm Dis. 2010;37:469–475. [PubMed: 20661113]

7. Bradley H, Frazier E, Huang P et al. Behavioral and Clinical Characteristics of Persons Receiving Medical Care for HIV Infection Medical Monitoring Project United States, 2010. 2014;Atlanta, GA: CDC Surveillance Special Report 9.

8. Malave MC1, Shah D, Sackoff JE et al. Human immunodeficiency virus partner elicitation and notification in New York City: public health does it better. Sex Transm Dis. 2008;35:869–876. [PubMed: 18641535]

9. Udeagu CC, Shah D, Shepard CW et al. Impact of a New York City Health Department initiative to expand HIV partner services outside STD clinics. Public Health Rep. 2012;127:107–14

10. Tributino A, Montgomery MC, Bertrand T et al. Partner notification outcomes after integration of an on-site disease intervention specialist at a sexually transmitted disease clinic. PLoS One. 2018;27:13:e0194041. doi: 10.1371/journal.pone.0194041.

11. Cason C1, Orrock N, Schmitt K et al. The impact of laws on HIV and STD prevention. J Law Med Ethics. 2002;30:139–45. [PubMed: 12508517]

12. Leichliter JS, Heyer K, Peterman TA et al. US Public Sexually Transmitted Disease Clinical Services in an Era of Declining Public Health Funding: 2013-2014. Sex Transm Dis 2017;44:505–509. [PubMed: 28703733]

Table 1.

Prevalence of being offered and accepting partner services among recently diagnosed persons receiving HIV medical care—United States, 2013-2014

	Offered partner services (N=1653)				Accepted partner services (among those offered who had partners, N=912)			
	N	**Row %**	**95% CI**	***P* value**	**n**	**Row %**	**95% CI**	***P* value**
Total	1110	68	(63-72)		554	61	(53-68)	
Age Group (years)								
18-29	363	76	(71-80)	<.0001	207	66	(57-75)	0.1062
30-39	302	72	(68-77)		143	57	(48-67)	
40-49	245	59	(53-65)		121	62	(50-73)	
>=50	200	60	(52-69)		83	53	(45-61)	
Gender & Race/Ethnicity								
Non-Hispanic White Men	248	69	(63-76)	0.0677	98	47	(40-55)	<.0001
Non-Hispanic White Women	23	65	(49-82)		10	44	(23-64)	
Non-Hispanic Black Men	347	70	(66-75)		200	68	(59-78)	
Non-Hispanic Black Women	159	67	(61-74)		83	63	(54-72)	
Hispanic/Latino Men	227	65	(58-72)		118	67	(59-74)	
Hispanic/Latina Women	35	51	(39-63)		21	78^	(58-97)	
Gay or Bisexual Identity								
Yes	686	70	(65-75)	0.0135	326	58	(50-66)	0.0299
No	407	64	(59-69)		222	65	(57-74)	
HIV Testing Location								
Private doctor's office	176	60	(50-70)	<.0001	74	54	(36-71)	0.7724
Primary care clinic or Community Health Center	224	66	(59-72)		106	62	(55-70)	
Health department	203	84	(78-89)		117	61	(51-72)	
Emergency room	89	72	(63-82)		45	63	(47-79)	
Hospital inpatient setting	126	60	(52-68)		58	60	(49-72)	
HIV counseling & testing site	120	67	(59-74)		57	55	(42-68)	
Other medical setting	94	69	(59-79)		52	66	(56-75)	
Other (e.g., home test kit, blood donation site)	63	72	(62-83)		34	64	(50-78)	
MMP Project Area								
California	115	56	(47-65)	<.0001	27	27	(18-35)	<.0001
Los Angeles County	29	38	(23-53)		6	25*	(8-42)	
San Francisco	24	60	(43-76)		7	38*	(15-62)	
Delaware	40	70	(58-81)		24	69	(54-84)	
Florida	88	61	(52-69)		50	65	(51-79)	
Georgia	55	67	(53-81)		30	64	(49-79)	
Illinois	72	58	(49-68)		32	55	(43-66)	
Chicago	59	59	(48-70)		29	61	(49-73)	
Indiana	51	77	(67-88)		29	67	(52-82)	

	Offered partner services (N=1653)				Accepted partner services (among those offered who had partners, N=912)			
	N	**Row %**	**95% CI**	***P* value**	**n**	**Row %**	**95% CI**	***P* value**
Michigan	54	76	(66-87)		26	59	(43-74)	
Mississippi	74	81	(72-90)		61	89^	(81-96)	
North Carolina	72	87^	(79-95)		27	40	(21-58)	
New Jersey	29	51	(29-74)		10	46	(20-73)	
New York	72	57	(45-68)		35	64	(52-76)	
New York City	52	56	(43-68)		31	73	(60-85)	
Oregon	50	76	(66-87)		15	42	(26-58)	
Pennsylvania	32	44	(32-55)		12	48	(27-70)	
Philadelphia	29	49	(37-61)		10	48	(28-68)	
Puerto Rico	26	47	(34-61)		11	88^	(72-100)	
Texas	170	77	(69-84)		110	84	(77-90)	
Houston	69	72	(63-82)		45	79	(68-90)	
Virginia	65	72	(61-82)		38	66	(53-79)	
Washington	45	79	(68-90)		17	46	(29-64)	

MMP, Medical Monitoring Project; unweighted numbers and weighted percentages are presented;

*Coefficient of variation > 0.30, estimate may be unstable;

^Estimate for negative response (not presented) has a coefficient of variation > 0.30 and may be unstable.