NEW MEXICO
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Special Report: Risk Ascertainment and "No Identified Risk" in New Mexico, December 2010

Introduction

Significance of Risk Factor Ascertainment

Determining the most likely source of HIV infection is an essential function of HIV surveillance programs. Risk factors for HIV infection are used to monitor the emergence of new or unusual transmission routes, monitor trends in transmission, target risk reduction interventions to the most affected groups, evaluate HIV programs, and allocate HIV prevention resources.[1-4] Federal monies target specific transmission categories and interventions based on information collected by state surveillance systems.[2] HIV prevention and care resources are allocated based on disease burden in each transmission group.[5] Without accurate and complete risk factor documentation and reporting, state and federal funding for HIV services and prevention may not reach populations most in need, including racial and ethnic minority groups for which risk is regularly underreported.[1]

An individual can have multiple risk factors for HIV infection; however, he or she will be classified into one hierarchical, mutually exclusive transmission category created by the Centers for Disease Control and Prevention (CDC).[1,6] This category describes the most probable way a person became infected with HIV. These hierarchical categories are:[5,7]

- Men who have sex with men (MSM)
- Injection drug use (IDU)
- MSM and IDU
- High-risk heterosexual contact (HRH)
  - *Contact with a person known to have, or be at high risk for HIV*
- Perinatal exposure
- Other
  - *Includes hemophilia, transfusions or transplants, & occupational exposures*
- No identified risk (NIR)
  - *Includes heterosexuals with no risk information about their partners*

NIR at the National Level

Historically, the ascertainment of HIV risk factors was high; fewer than 5% of cases diagnosed in 1985 were initially reported to CDC without a risk factor.[3] Throughout the 1990's the proportion of cases without a risk factor increased.[2,8] According to CDC, the percent of HIV cases reported without risk factor information has doubled from 20% in 1994 to 40% in 2004.[1,2,7,8]

NIR in New Mexico

Echoing the situation at the national level, the proportion of individuals diagnosed with HIV/AIDS in New Mexico reported to CDC without a risk factor has been increasing (Figure 1). In 1994 only 10% of AIDS cases initially diagnosed in New Mexico were reported to CDC without a risk factor. By 2004 the proportion of HIV cases initially diagnosed in NM without risk information had grown to 23%; in 2009, the proportion was 30%.[§]

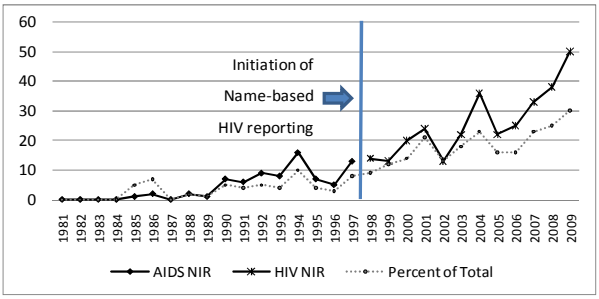

Figure 1. Number and proportion of NIR cases by year of HIV/AIDS diagnosis in New Mexico, 1981-2009[§]

NIR by Selected Characteristics

From 1998 through 2009 19% of new HIV diagnoses in NM were reported with no identified risk. Twenty-nine percent of women diagnosed in NM were classified as NIR, as compared to 17% of men (Figure 2). Nearly half (49%) of both the NIR men and NIR women reported heterosexual contact, but did not specify their partner's risks. This may be because many individuals are not aware of the potential risk behavior(s) of their partner(s). For example, only 4% of HIV positive women in NM reported sexual contact with a bisexual male, while 15% of all positive men reported sex with both men and women.

Approximately one-fifth of the African Americans (AA), Hispanics, and American Indians/Alaska Natives (AI/AN) diagnosed with HIV in NM between 1998 and 2009 were classified as NIR, while only 14% of Whites were reported as NIR. Those ages 13-19 at the time of initial HIV diagnosis had the highest proportion of individuals with no identified risk (33%), followed by those ages 50 years and over (25%). Individuals ages 30-39 at time of initial diagnosis had the lowest proportion of NIR cases (16%), followed by those ages 20-29 years (17%) and those ages 40-49 years (19%).

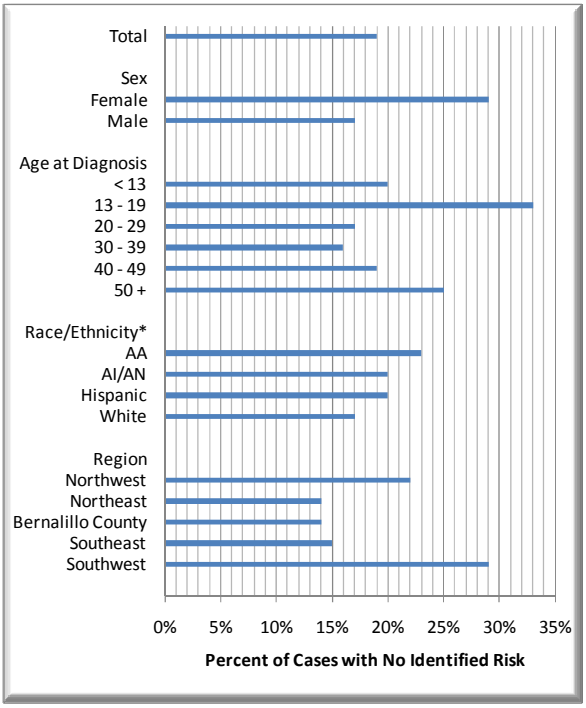

Figure 2. Percent of NM HIV diagnoses reported with no identified risk by selected characteristics, 1998-2009*[*]

The proportion of cases diagnosed in Southwestern NM classified as NIR was greater than any other region of the state (29%), followed by those diagnosed in the Northwest (22%). The Northeast and Bernalillo County had the lowest proportion of cases classified as NIR (14% each), followed by those diagnosed in the Southeast (15%). Further, each of the selected characteristics continued to be significantly associated with a transmission classification of NIR in a multi-variable logistic regression analysis controlling for birth sex, age at diagnosis, race/ethnicity, and region of diagnosis.

Barriers to Risk Ascertainment

Difficulty in ascertaining risk is likely due to a variety of factors; however, the main two are: a decrease in provider elicitation and recording of risk factors, and gaps in the current risk hierarchy.[1,2,3,6,7,8]

As the prevalence of HIV increases among diverse populations, the training of providers to ascertain risk information has not kept pace.[8] Health professionals do not always document an answer to each question in the "Patient History" section of the case report form in the medical record.[6] For instance, 46% of those classified as NIR in NM did not have a 'Yes' or 'No' response recorded to even one risk factor on their case report form. There may also be a lack of comfort in asking about sexual behavior or drug use on the part of the interviewer, and elicitation of risk can be difficult in highly-stigmatized populations.[1,7,8] For example, the most common mode of HIV transmission for men in the United States, regardless of race, is having sex with other men; however, the social stigmatization of male-to-male sex, especially among Hispanic and African American populations, is likely to produce under-reporting of MSM transmission.[8] The same can be assumed for injection drug use.

Other patients are classified as NIR due to gaps in the CDC risk hierarchy. Although heterosexual sex with sex workers, sex for money or drugs, or multiple heterosexual partners may be associated with increased risk of HIV transmission, an individual with these exposures would still be classified as NIR.[3] The risk hierarchy was not designed to describe individuals who do not know the risk of their heterosexual sex partners. CDC uses the phrase "high risk heterosexual contact" (HRH) to describe transmission attributed to "heterosexual contact with a person known to have, or to be at high risk for, HIV infection."[8] This definition is problematic because it requires knowledge of partner risk behaviors or HIV status, which many individuals lack. Since the NIR category does not reflect risk, the result is an inaccurate picture of the epidemic, especially for women and heterosexual men.[4,6]

Increasing Risk Ascertainment

Healthcare providers are "on the frontline of HIV…patient care and are our best opportunity

to get…risk factor information."[1] Providers must discuss behaviors that perpetuate HIV transmission with HIV infected individuals.[6] Transmission "involves the behaviors of both an infected and an uninfected person. Understanding the behaviors of both is essential to best guide prevention efforts." The NMDOH HIV Prevention Program[9] and the NM AIDS Education and Training Center[10] (NMAETC) are excellent resources for guidance in risk ascertainment. The AIDS Education and Training Center's National Resource Center[11] also has guidance for clinicians including: risk assessment pocket guides, a HIV/AIDS Clinician Toolkit, cultural competency manuals, and the Clinical Manual for Management of the HIV Infected Adult, Section 1: Testing and Assessment.

However, the current CDC risk factor hierarchy also under-represents heterosexual transmission and does not serve the prevention needs of heterosexuals (especially women) and those who make prevention policy and allocate resources.[8] The Council of State and Territorial Epidemiologists has endorsed a "Female, Presumed Heterosexual" category to further describe HIV risk in women. These cases are currently classified as NIR but would be moved into the new category when all of the following are true: the case is female and does not have another risk factor or alternative source of HIV infection, has a negative history of Injection drug use (i.e., the "No" option must be checked) and has a positive history of sex with a male prior to diagnosis of HIV (i.e., the "Yes" option must be checked).

In an effort to better understand risk among heterosexuals, the NM HIV Epidemiology Program has begun to collect additional heterosexual risk behaviors on the HIV case reporting form including: sex in exchange for money or drugs, sex with a sex worker, and sex with multiple partners. The program also currently reports heterosexual activity among cases classified as NIR in surveillance reports. Hopefully the number of HIV positive individuals initially reported to the CDC without a risk factor can be decreased through the combined efforts of NM providers eliciting more complete risk information, and the NM HIV Epidemiology Program's increased effort to collect more detailed information on heterosexual risk.

Footnotes

[§]In 1998 HIV became a reportable condition in New Mexico; prior to this time, only AIDS cases were reportable to the NM Department of Health. Comparison of HIV infection before and after this time period is difficult.

*Analysis by race excludes Asian/Pacific Islanders and those indentifying as multiple races due to small numbers.

References

1. HIV/AIDS Risk Factor Reporting Alarmingly Low http://www.cdc.gov/hiv/topics/prev_prog/ahp/resources/other/pdf/Sample_Article.pdf
2. HIV/AIDS Risk Factor Ascertainment: A Critical Challenge, Kathleen McDavid, Matthew T. McKenna. AIDS Patient Care and STDs. April 2006, 20(4): 285-292. doi:10.1089/apc.2006.20.285.
3. The Status of National HIV Case Surveillance, United States 2006, Public Health Reports / 2007 Supplement 1 / Volume 122 http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1804109/pdf/phr122S10063.pdf
4. Killing Her Softly: HIV Testing Strategies that Work for Women. Moving Away From a Behavioral Risk Paradigm, by *Rona Taylor* http://www.womenhiv.org/programs/positivewomen/pwnblogs/testing-day/killing-her-softly
5. Classification of Transmission Risk in the National HIV/AIDS Surveillance System Public Health Reports / September–October 2003 / Volume 118
6. HIV/AIDS Surveillance and Prevention: Improving the Characterization of HIV Transmission, Public Health Reports / May-June 2003 / Volume 118
7. Risk Factor Redistribution of the National HIV/AIDS Surveillance Data: An Alternative Approach http://www.publichealthreports.org/archives/issueopen.cfm?articleID=2098
8. CSTE Position Statement, Title: Heterosexual HIV Transmission Classification http://www.cste.org/PS/2007ps/2007psfinal/ID/07-ID-09.pdf
9. New Mexico Department of Health, HIV Prevention Program http://www.health.state.nm.us/idb/HIV.shtml
10. University of New Mexico, NM AIDS Education and Training Center http://hsc.unm.edu/som/medicine/id/aidscenter.shtml
11. AIDS Education and Training Center, National Resource Center http://www.aids-ed.org/

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TABLE 1. SUMMARY OF HIV DISEASE IN NEW MEXICO

Cases reported through December, 2010

	HIV diagnoses in NM, as of Oct, 2010			HIV diagnoses in NM, 2009			Persons currently living with HIV in New Mexico[§]		
	N	%	Rate[‡]	N	%	Rate[‡]	N	%	Rate[‡]
Sex									
Male	106	86%	10.3	137	82%	13.3	2909	87%	281.8
Female	17	14%	1.6	30	18%	2.8	424	13%	39.8
Race/Ethnicity**									
White	24	20%	2.6	43	26%	4.7	1508	45%	165.7
Hispanic	60	49%	6.9	81	49%	9.4	1302	39%	150.4
AI/AN	25	20%	10.8	26	16%	11.3	247	7%	107.0
African American	12	10%	21.4	13	8%	23.2	228	7%	407.1
Asian	1	1%	2.8	0	0%	0.0	23	1%	64.4
Multi-Race	1	1%	-	4	2%	-	25	1%	-
Age									
< 13	0	0%	0.0	1	1%	0.3	5	<1%	1.4
13-19	5	4%	2.1	5	3%	2.1	13	<1%	5.5
20-29	42	34%	15.0	36	22%	12.9	231	7%	82.5
30-39	32	26%	12.3	46	28%	17.6	562	17%	215.5
40-49	23	19%	7.0	52	31%	15.8	1262	38%	382.8
50+	21	17%	3.3	27	16%	4.2	1260	38%	196.1
Region									
Northwest	21	17%	4.7	38	23%	8.4	486	15%	107.8
Northeast	20	16%	6.5	23	14%	7.5	629	19%	204.3
Bernalillo Co.	49	40%	7.5	64	38%	9.7	1432	43%	218.1
Southeast	7	6%	2.7	7	4%	2.7	200	6%	77.5
Southwest	26	21%	6.1	35	21%	8.2	579	17%	136.3
Unknown	0	0%	-	0	0%	-	7	<1%	-
Exposure Risk									
MSM	68	55%	-	82	49%	-	2006	60%	-
IDU	3	2%	-	14	8%	-	291	9%	-
MSM/IDU	2	2%	-	9	5%	-	328	10%	-
HRH	13	11%	-	12	7%	-	324	10%	-
Pediatric	0	0%	-	1	1%	-	19	1%	-
Other	0	0%	-	0	0%	-	17	1%	-
NIR	37	30%	-	49	29%	-	348	10%	-
Heterosexual NIR males	*12*	*48%*	-	*19*	*59%*	-	*136*	*55%*	-
Heterosexual NIR females	*9*	*75%*	-	*14*	*82%*	-	*65*	*65%*	-
TOTALS	**123**	**100%**	**5.9**	**167**	**100%**	**8.0**	**3333**	**100%**	**158.8**

*Due to reporting delays, 2010 data is not complete until June 30th, 2011

‡Rates per 100,000 based on Bureau of Business and Economic Research population data for 2009.

§Data on current residence not actively obtained and may not be accurate

**Hispanic includes "Hispanic White" only; all other Hispanics categorized according to racial group

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