

**LINKING 'WHITE OPPRESSION' AND HIV/AIDS
IN AMERICAN INDIAN ETIOLOGY: CONSPIRACY BELIEFS
AMONG AI MSMs AND THEIR PEERS**

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Abstract: This article presents the results of a pilot study on the use of conspiracy beliefs by American Indian (AI) men who have sex with men and their peers to explain the origins of HIV/AIDS. We found that one-third (N = 15) of the individuals surveyed believed that HIV/AIDS was intentionally created by "Whites, White Christians, or the Federal government" and purposely spread among minority populations. Conspiracy beliefs, we argue, should be looked at as a potential form of power recognition where AIs draw on their experiences of oppression to explain the presence of HIV/AIDS within their communities, at the same time that they draw on public health knowledge to explain how humans get HIV/AIDS. We advocate further research to better ascertain the effect that conspiracy beliefs have on HIV prevention and the treatment of individuals living with HIV/AIDS.

The circulation of conspiracy etiologies for HIV/AIDS among U.S. minorities and their potential effects have been documented in recent studies primarily focusing on African Americans (Ross, Essien, & Torres, 2006; Bogart & Thorburn, 2005; Bird & Bogart, 2005). For example, research with African American conspiracy beliefs shows that men who had stronger conspiracy beliefs had a more negative attitude toward condom use (Bogart and Thorburn 2005, p. 216). There is anecdotal speculation regarding conspiracy beliefs among American Indians (Vernon, 2000, 2001; Vernon & Burber, 2001; Weaver, 1999), but the possible ways in which conspiracy beliefs influence community-specific

understanding of overwhelming social and health problems have yet to be addressed. An analysis that prioritizes the conspiracy belief as a form of insight into community-specific explanations and understandings of HIV/AIDS among AIs will be helpful in this regard.

To begin the discussion of the role of conspiracy beliefs in AI HIV/AIDS etiology, we draw on recent anthropological work that examines the disease from the perspective of the people deemed at the most risk (Farmer 1992, 1999, Romero-Daza 1994, Schoepf 1998, Setel 1999). Our goal is to move the discussion of AI conspiracy beliefs from anecdotal sidelines in research articles to the forefront of the AI HIV/AIDS discussion. We argue that conspiracy beliefs reflect a particular understanding about HIV/AIDS among AIs and should be one of the focal points for emerging research in the AI HIV/AIDS problem. Recent anthropological research theorizes that individual risk assessment resides at the nexus of cultural ideas about disease causation and political-economic factors (Baer et al., 1997; Farmer, 1992, 1999; Feldman, 1994; Parker, 2001; Romero-Daza, 1994). This position argues that individuals assess their risk for HIV/AIDS from a subordinate socioeconomic-political position and that notions of risk are filtered through socioeconomic inequality or “structural violence.” Thinking about conspiracy beliefs in this way allows us to reflect on AI understandings of HIV/AIDS as more than superstitions that impede effective intervention. Instead we treat conspiracy beliefs as insights having the potential to lead prevention specialists to creative interventions more reflective of community understandings.

The goal of the research was to assess the long-term research potential for examining the ways individuals conflate their cognizance of power relationships into conceptions of HIV origin and susceptibility. We propose that there is a potential link between being AI and perceived disease etiology for HIV infection and that this link parallels AI notions of historical structural inequality and contemporary disparities in socioeconomic status and U.S. government domination. We further advocate for more in-depth studies on the role of conspiracy beliefs in the AI AIDS problem.

Methods

The data presented in this article were collected through open-ended ethnographic interviews and self-administered demographic questionnaires. The author (BG) and three field assistants conducted

one-on-one interviews with AI men who have sex with men (MSMs) and their peers. Two field assistants self-identify as AI and are HIV/AIDS prevention and counseling specialists.

Participants were recruited according to snowball sampling through social networks (Kaplan, Korf, & Sterk, 1987; Griffiths, Gossop, Powis, & Strang, 1993). The two AI HIV/AIDS professionals working as field ethnographers recruited participants from HIV/AIDS support groups, a Two-Spirit retreat, and referrals to friends and family by participants. The nature of the study was explained to all participants, and written informed consent was received from all participants. A department store gift card of U.S.\$25 was given to all 51 participants. The research protocol was approved by the Institutional Review Boards at the University of Oklahoma and the University of Vermont. Fifty-one individuals were recruited, but five chose to withdraw from the study. Data relating to withdrawn participants (demographic surveys and interview recordings and transcripts) were destroyed.

Demographic information gathered through the questionnaire included residence, marital status, income, and education level. General topics investigated through the semi-structured face-to-face interviews included participants' personal experience with HIV/AIDS and its impact on their lives, knowledge of PLWHAs' personal experiences, and opinions about how AI communities should respond to the AIDS crisis. The only specific questions asked of all respondents were: "Where did AIDS come from?" and "What is your HIV/AIDS status?" Persons living with HIV/AIDS (PLWHAs) were referred to one of the counseling specialist field assistants and to HIV/AIDS services in their area.

Characteristics measured in the demographic questionnaire include biological sex, age, self-identified race, primary ethnicity, region of birth, marital status, level of education, current employment, and annual income. Study participants were asked to identify their biological sex by marking either male = 1 or female = 0. Age was calculated by subtracting the respondent's reported year of birth from 2005, and was further collapsed into two categories: 1 = 29 to 44 years of age, 2 = 45 and older. An open-ended question was used to identify study participants' place of birth, with the information provided collapsed into five categories: 1 = Western States (WA, OR, CA, NV, ID, MT, WY, UT, AZ, CO, AK, and NM), 2 = Midwestern States (ND, SD, NE, KS, MN, IA, MO, WI, IL, IN, OH, and MI), 3 = Northeastern States (PA, NY, ME, VT, NH, MA, RI, CT, NJ, Puerto Rico, and the U.S. Virgin Islands), 4 = Southern States (DE, MD, DC, WV, VA, NC, KY, TN, SC, GA, FL, AL, MS, AR, LA, OK, and TX) and 5 = Outside of the U.S. and its territories. This breakdown is consistent

with the regional breakdowns used by the U.S. Department of Labor, Bureau of Labor Statistics. Due to the small sample size, these regions were further collapsed into a four-category variable for Southern States, Western States, Midwestern/Northeastern States, and Outside the U.S. Self-identified subject race was obtained by asking respondents to choose all racial categories listed that applied to them, including White, Black, American Indian/Alaska Native (AI/AN), Native Hawaiian, Hispanic, and Asian/Pacific Islander. Based on response patterns, race was further collapsed into a three-category variable: White/Multiracial, AI/AN and/or First Nations, and all others. Marital status was measured by asking respondents to identify if they were currently single, married, or in a domestic partnership, and was dichotomized as single and all other responses. Current urban or rural residence was obtained by asking respondents to indicate if they currently reside in a rural area, small town, small city, urban area, or major city. These categories were further collapsed into a dichotomous variable of urban (urban area, major city, or small city) and all others (rural area or small town). Throughout the course of the face-to-face interview, most of the subjects voluntarily identified their HIV status. This information was coded into a three-category variable with HIV negative status, HIV positive status, and unknown HIV status.

Measures of socioeconomic status included subjects' level of education and current employment. These data were measured by asking respondents to provide the month and year of the last time they worked, list their primary occupation (either currently or when last employed), and select one of six categories that reflect the highest level of education they had achieved (1 = no diplomas, 2 = high school diploma, 3 = trade or vocational-technical certification, 4 = associates degree, 5 = bachelors degree, and 6 = graduate degree). Education was dichotomized as the completion of a high school diploma or greater and all others. Using the subject's primary occupation, a socioeconomic index (SEI) score was developed based on the standardized occupational prestige scale in the 1989 General Social survey (Davis, Smith, & Marsden, 2003). These scores were then coded as high SEI scores, medium SEI scores, and low SEI scores.

Cultural identification indicators included participants' self-identification of primary ethnicity and use of a tribal language at home or in social situations. We suggest that individuals who identify their ethnicity as being primarily AI, AN, and/or First Nations or who speak a tribal language are more closely linked to their AI heritage than

individuals who do not. Therefore, participants were asked to list their primary ethnicity, with responses coded to AI/AN or First Nations = 1 and all other responses = 0. Language was coded as tribal or not.

Due to the small sample size, Fisher exact tests were more accurate than estimates provided by the more traditional chi square analysis. The results are presented in terms of prevalence proportion ratios (PPR) with 95% exact confidence intervals (CI) for binomial distributions. Given the tendency for the traditional prevalence odds ratio (POR) to over estimate the relative risk under certain conditions, our preference was to use the PPR which produces a more conservative and consistent estimate (Davies, Crombie, & Tavakoli, 1998; Taeger, 1998; Thompson, Meyers, & Kriebel, 1998; Barros & Hirakata, 2003; Sibanda, 2003). The equal proportion of responses across the categories of the dependent variable precluded our ability to conduct multinomial logistic regression in this study. Given the nature of the variables used in this study, problems associated with multicollinearity were possible. However, this was not an issue as only two significant associations between the dependent and predictor variables were found. These variables were not significantly correlated with one another.

Interview transcripts were evaluated for patterns in response to the HIV/AIDS origin question, and indication of HIV status. Responses to the question regarding the origins of HIV/AIDS were categorized into three broad categories which included perceptions that HIV/AIDS was created by the U.S. government, White people, or Christians; beliefs consistent with current public health theories; and having no idea or giving no response. Bivariate analyses were conducted to determine the associations between demographic, socioeconomic and cultural identity factors, and perceptions about the origin of HIV. Fisher exact tests and adjusted standardized residuals (ASR) were examined to identify statistically significant differences using SPSS (Base 14) and StataSE (version 8) statistical software (SPSS Inc, 2005 StataCorp LP, 2004). The results are presented in terms of prevalence proportion ratios (PPR) with 95% exact confidence intervals (CI) for binomial distributions. Some participants revealed their HIV status during the interview, while others provided no indication of status.

Demographic Survey and AIDS Questions Results and Correlations

The majority of the study participants were male (79.5%), were of AI/AN or First Nations (55.6%) descent, identified primarily as being of AI/AN or First Nations ethnicity (79.5%), were single (66.7%), were born in the Southern region of the U.S. (68.2%) and resided in urban areas (73.3%) (see Table 1). Although all study participants had obtained a minimum of a high school or trade school diploma, less than one-third were currently employed, with nearly 32% receiving a score of 29 or lower on the SEI and 42.8% reporting no employment within the last year (see Table 2).

Table 1
Demographic Characteristics of AI/AN
and First Nations PLWHA
Study Participants and their Peers

Characteristics	n	%
Gender of Birth	44	
Male	35	79.5
Female	9	20.5
Age as of 2005	45	
29 – 44 years	22	48.9
45 or older	23	51.1
Race	45	
AI/AN/First Nations	25	55.6
White	2	4.4
Multiracial	18	40.0
Primary Ethnicity	44	
AI/AN/First Nations only	35	79.5
Other	9	20.5
Region of Birth	44	
Southern States	30	68.2
Western States	7	15.9
Midwest/NE States	6	13.7
Outside of U.S.	1	2.3
Marital Status	45	
Single	30	66.7
Married/Domestic Partner	15	33.3
Tribal Language Spoken	45	
Yes	9	20.0
Place of Residence	45	
Urban	33	73.3
Rural	12	26.7

Table 2
Socioeconomic Characteristics of AI/AN
and First Nations PLWHA
Study Participants and their Peers

Characteristics	n	%
Education	43	
High School/GED	9	20.9
Trade School/Vocational-Technical Education	9	20.9
Associates Degree	11	25.6
Bachelors Degree	9	20.9
Graduate Degree	5	11.6
Employment	40	
Currently Employed	12	30.0
Unemployed	28	70.0
Employed CY 2005	(16)	(57.2)
Not employed CY 2005	(12)	(42.8)
Socioeconomic Index	38	
Low (Index score \leq 29)	12	31.6
Mid-range (Index score 30-58)	12	31.6
High (Index score \geq 59)	14	36.8

Approximately one-third (32.6%) of the study participants' beliefs regarding the origins of HIV/AIDS were in line with leading public health theories (e.g., viral transmission through a monkey and/or flight attendant, and originating outside the U.S. or in Africa) (see Table 2). An additional 32.6% of study participants stated that the U.S. government, White people, or Christians had created the disease; the final third (32.6%) indicated that they had no idea how the disease came into existence or provided no answer to the question (see Table 3).

Table 3
Perceived Origins of HIV/AIDS by AI/AN
and First Nations PLWHA
Study Participants and their Peers (n = 46)

Perceived Origins of HIV/AIDS	n	%
Leading public health theories (Africa, monkey bite, sex with monkey, given to flight attendant, outside of U.S.)	15	32.6
Government, White people and/or Christians created it	15	32.6
Something eaten	1	2.2
No idea/No answer	15	32.6

Associations between demographic, socioeconomic and cultural identity indicators, and perceptions regarding the origins of HIV/AIDS are displayed in Table 4. Significant associations between measures of AI/AN cultural identity (i.e., use of tribal languages or primary ethnicity) and perceptions regarding the origins of HIV/AIDS were not found. Further, the belief that HIV/AIDS originated from the actions of the U.S. government, White people, or Christians did not appear to be strongly associated with any of the explanatory variables included in this study. Surprisingly, a larger proportion of participants who reported their race as being Multiracial or White (42.1%; PPR = .7686; 95% CI, 0.414 - 1.425) stated that HIV/AIDS originated from the actions of the U.S. government, White people, or Christians than did racially exclusive AI/AN and First Nations participants (28.0%). However, this relationship changed when we considered cultural identity as opposed to race. Approximately 38% of participants who identified AI/AN or First Nations as their primary ethnicity (38.2%; PPR = 1.170; 95% CI, 0.868 - 1.577) indicated that HIV/AIDS was created by the U.S. government, White people, or Christians compared, to 22.2% of participants who identified their primary ethnicity as being Multiracial or White. The qualitative data seem to support the idea that primary ethnicity is a better indicator than race of the participants' overall cultural orientation. Accordingly, we feel that the correlation between primary ethnicity and conspiracy beliefs is a strong indicator of AI attitudes.

Race was strongly associated with the adoption of beliefs compatible with leading public health theories on the origins of HIV/AIDS (see Table 4). Participants who identified racially as AI/AN or First Nations exclusively (48.0%) were almost twice as likely as participants who identified racially as Multiracial or White (15.8%) to hold beliefs regarding the origins of HIV/AIDS that were compatible with leading public theories ($p=.026$, $.020$; PPR = 1.866, 95% CI, 1.135-3.068). In addition, female participants (66.7%) were more likely to espouse views compatible with leading public health theories than males (26.5%; $p=.049$, $.038$; PPR = .675; 95% CI, 0.437 - 1.042). The association between participants' HIV status and the adoption of public health theories regarding the origins of HIV reached statistical significance at the $p=.05$ level for two-tailed tests and approached significance at the $p=.025$ level for one-tailed tests. More specifically, participants who reported their status as HIV positive (9.1%) were less likely to hold beliefs compatible with leading public health theories than those who reported their status as HIV negative or did not report their status (41.2%, $p=.0498$, $.0700$; PPR 1.400, 95% CI, 1.050-1.865). Additionally, a smaller proportion of

HIV-negative participants and subjects who did not report their status (29.4%) indicated that they had no idea about the origins of HIV or did not respond to the question than HIV-positive participants (45.5%). None of the measures of socioeconomic status or cultural identity were found to be significantly associated with any specific belief regarding the origins of HIV. However, it should be noted that a higher proportion of individuals who identified ethnically as primarily Multiracial or White (55.6%) either indicated they had no idea about the origins of HIV or failed to respond to the question than did participants who identified ethnically as being primarily AI/AN or First Nations (23.5%).

Table 4
Prevalence Proportion Ratios (PPR) with
95% Confidence Intervals (CI) of Association Between
Perceived Origins of HIV/AIDS, Demographic Characteristics,
Socioeconomic Status, and Cultural Identification

Indicators	Government, White People, or Christians Created	Leading Public Health Theories	No Idea About Origins of HIV/AIDS or No Response
	n (%)	n (%)	n (%)
Race			
AI/AN/First Nations only	7 (28.0)	12 (48.0)	5 (20.0)
Multiracial	8 (42.1)	3 (15.8)	8 (42.1)
PPR (CI)	.7686 (.414–1.425)	1.866* (1.135–.068)	
Biological Sex at Birth			
Male	13 (38.2)	9 (26.5)	11 (32.4)
Female	2 (22.2)	6 (66.7)	1 (11.1)
PPR (CI)	1.170 (.867–1.577)	.675* (.437–1.042)	
HIV Status			
HIV Negative/No Response	10 (29.4)	14 (41.2)	10 (29.4)
HIV Positive	5 (45.5)	1 (9.1)	5 (45.5)
PPR (CI)	.833 (.558–1.243)	1.400 (1.050–1.865)	
Socioeconomic Status			
Low SEI	2 (16.7)	3 (25.0)	7 (58.3)
Other	9 (36.0)	11 (44.0)	4 (16.0)
PPR (CI)	.454 (.119–1.740)	.524 (.171–1.608)	
Cultural Identification			
Tribal Language Spoken			
Yes	2 (25.0)	4 (50.0)	1 (12.5)
No	13 (36.1)	11 (30.6)	12 (33.3)
PPR (CI)	.7466 (.164–3.397)	2.488 (.639–9.689)	
Primary Ethnic Identity			
AI/AN/First Nations	13 (38.2)	12 (35.3)	8 (23.5)
Multiracial /White	2 (22.2)	2 (22.2)	5 (55.6)
PPR (CI)	1.170 (.868–1.577)	1.143 (.844–1.546)	

*Indicates statistical significance at $P \leq 0.05$ level for two-tailed tests

Interview Data

The data collected during face-to-face interviews provided insights into the possible ways AIDS origins are constructed among Native peoples. The authors recognize that the interview data will not reflect the beliefs of all tribal groups. However, we believe the data provide a significant starting point for investigating general supratribal attitudes as well as more specific tribal community beliefs. Of the 46 individuals who completed an interview, 15 stated some form of conspiracy belief that implicated dominant society ('Whites', 'White Christians', or 'the government') in the origins of AIDS, while another 15 drew on accepted public health theories, and another 15 did not respond with a theory specifying the origin of the virus or did not answer the question at all. One participant replied to the question by stating that someone "ate something they shouldn't have." Regardless of tribal affiliation, conspiracy beliefs contained several key elements, which were a belief that the U.S. government had created the AIDS virus; that its spread was intentional, i.e., AIDS was created as a way to "get rid of" certain populations; and that its intentional creation and spread was an extension of the values of dominant "White" society. One 35-year-old Muscogee man made the following comment:

Respondent (R): I was always afraid. See, I was very uneducated, like everybody else at first when the government first invented AIDS and HIV and started spreadin' it out throughout the world.

Interviewer (I): Mm-hm. So you feel like it came from the government.

R: It did. It's just another, ploy to get rid of people. Thin out the population.

A 45-year-old Cherokee resounded the above statements:

I: Where do you think HIV came from?

R: You know, I don't have a clue. The one thing that comes to mind, and I feel like I'm probably misspeaking here but what I think I've heard that maybe some of the unethical and horrible things that our government did to some minorities, there was

even a name for it and I can't think of it, that possibly somethin' stemmed from some of their ... it's not genetic testing but something like that, where they were putting different viruses in people.

I: Sure, sure.

R: But I know that it's something possibly that has evolved out of misuse of scientific research.

Two respondents felt that it was created by the government, but also was targeted toward gays and unintentionally infected heterosexuals. A 55-year-old non-tribally identified man stated:

R: But frankly, knowing humankind, I think it was the military, and was some kind of germ warfare that got out of control.

I: Okay. That is—

R: Or-or against gay people and they didn't realize that it was gonna cross over to hets [heterosexuals], too. You know, and that's-that's the most com—I guess, not comical, nothing is comical about it, but.

And a 34-year-old man from a Southeastern tribe echoed the above suspicions:

R: I'm just sure it came from a test tube. Testin' in Africa; brought it to the gay community because they thought they had a little prejudice there with it, it wouldn't get outside the gay community. But that's when they found out so many people are bisexual. And I think somehow some way, it was the right-wing Christians. People who call themselves Christians.

I: Wanting to eliminate the gay population?

R: Uh-huh. Years ago, I think it was in the '70s or something the homosexuals in San Francisco were going to all move to a county in northern California where they could take over; the population was so low that blah blah blah. But one time I was reading a article about it, and they had this right-wing guy say, he said, 'we've got the money and the technology to stop them.' And at that time I thought, technology? That's a weird way to put that. But somehow, some way, I believe that. And I'm not the only one.

Responses that drew on what we have termed “accepted public health theories” reflected ideas about an African origin for AIDS and theories about the cross-species transfer of HIV to the human population through encounters with primate blood. Some responses (such as those in the following excerpt, from a 27-year-old Creek) were in line with popular scientific explanations such as Edward Hooper’s *The River* (1999):

I: Where do you think HIV came from?

R: You know, I’ve thought about that. I’ve heard the monkey bite thing—

I: Uh-huh.

R: From Africa, and a disease that they have has mutated and transferred over to human beings through a bite, and then it’s mutated from there and become what it is today.

I: So how do you believe that it came over to the United States?

R: The airline person. That is a very prominent story in my mind.

I: Okay.

R: He was a very promiscuous individual, that hit the bathhouses and brothels from Africa to—

I: So he had multiple partners and everything.

R: Yeah. And that’s how he spread it.

Other responses took on a more speculative tone while still engaging accepted public health theories. A 54-year-old Creek man explained:

I: Where do you think HIV came from?

R: I have no idea.

I: Yeah, yeah. A lot of people have their diff’rent theories on that, you know; Different theories and stuff.

R: I mean, you believe what you see, ‘cause like I told you, that movie—

I: Mm-hm.

R: Africa, and then over here, just gradually spread it. You know, that’s how the movie shows it.

I: Yeah, yeah.

R: And you believe what you see, but we really don’t know.

A 60-year-old non-tribally identified man gave a more ambivalent answer:

I: Where do you think HIV and AIDS came from?

R: I can only quote what I have heard, first it was like—came from Africa and monkeys, but I don't think—I'm not sure whether that is really it. It could be uh, like, chicken, I mean, not chicken pox but polio. Who knows where that came from? Uh, but, I'm really sure I guess I really felt like that wasn't really that important to me but now that it's becoming present; the importance of it became, uh, real, and I had to just re-act accordingly to prevent from, uh, getting it and try to prevent other people from getting it.

R: In other words, I probably-I really don't know where it's from.

Respondents who stated that they “did not know” were reluctant to speculate, or related its origins to their own personal experience, such as this 53-year-old man (who did not specify his tribe):

I: Let me ask you this; Where do you think HIV came from?

R: Still don't have a clue. I just know that in the '70s, my friend was a nurse practitioner, and she told my partner and I at the time that we needed to start being careful.

I: Yeah.

R: 'Cause there was something coming.

Many individuals who said that they had “no idea” stated that they did not know and did not elaborate further on the topic. Others did not speculate on the origin of AIDS and instead elaborated on its appearance in the gay community; for example, “First it was called the gay plague, and/or the gay disease, later which came to be known as HIV and AIDS.” In addition, there were individuals who simply did not respond to the question about the origin of AIDS; according to field ethnographers, many non-responsive individuals shrugged or threw up their hands in an “I don't know” gesture. Individuals who did not respond with a theory about the origins of AIDS were coded as providing “no answer.” One of the respondents, who cited “something eaten,” stated the following:

I: Where do you think HIV came from?

R: HIV come from? I don't know.

I: Okay.

R: In my personal opinion, I think it's something that shouldn't really happen but it happened. I guess it's like they say in the Bible, it's a sign of the times.

I: Mm-hm.

R: But didn't come from a gay community. It came from people eating something that they're not supposed to be eating.

While participant responses provided many interesting avenues in which to direct research, we felt that conspiracy beliefs have the strongest potential as indicators of AI attitudes about the AIDS virus. When we consider that the U.S. government and government-funded agencies are the primary health providers for AIs—and taking into account the historical relationship between AIs and non-Indians—we feel that conspiracy theories may have the greatest impact on AI decisions about their health as it relates to HIV/AIDS. All participants at least mentioned that the government or their tribes were not doing enough to decrease new infections and were providing inadequate treatment for PLWHAs. A 38-year-old Creek woman noted: “The comment that I get from the tribes is, we have so many other health issues, diabetes, alcoholism, all of that stuff, and it seems like HIV's just kinda like, at bottom of the totem pole. So, you know, if one of the council members, one of the tribal members that's there, they got AIDS, I guarantee you, they will promote it.” Even though only one-third of all participants cited a conspiracy belief, all participants implicated the U.S. government's and their tribal governments' complacency in the spread of HIV among Native peoples and the poor care given to AI PLWHAs.

Discussion

We recognize that the small sample size limits our ability to broadly generalize about AIs and individual tribal communities. The data from this study do, however, agree with the assertion in previous research that some AIs view Whites as inextricably linked to HIV/AIDS origins (Vernon, 2001; Vernon & Bubar, 2001; Weaver, 1999). While the results from quantitative analysis did not produce statistically significant differences, the fact remains that 32.6% of participants (N=15) referenced a Euro-American institutional and racial origin for HIV/AIDS. The number of participants citing a “White” etiology was equal to the number of participants citing accepted public health theories for the origin of AIDS (32.6%; N=15). This finding demonstrates that conspiracy beliefs are not a marginal form of disease etiology. Unfortunately we do not yet have a

data set that would allow us to generalize about the number of AIs who hold conspiracy beliefs versus those who do not. Regardless, we feel that our data indicate the need for further exploration of this relationship.

Our goal was to investigate the potential for a linkage between AI HIV/AIDS etiology and notions of structural inequality and contemporary disparities in socioeconomic status. We feel the results demonstrate that significant number of AIs apply a culturally specific power cognizance in understanding why Native peoples are at high risk for HIV/AIDS. In the interview dialogue most participants showed a complete understanding of how HIV/AIDS is contracted and had a command of standard AIDS knowledge. We feel it would be a mistake to attribute the high number of individuals citing a White institutional and racial origin to lack of education, considering that 20.9% of participants had at least a bachelors degree. Rather, we are proposing that conspiracy beliefs, such as "White people created it" can coexist with standard AIDS knowledge. AIs are using both forms of rationalization to explain two different aspects of HIV/AIDS susceptibility. AIDS knowledge explains biomedical aspects of *how* AIs, as humans, get HIV/AIDS: from viruses. But conspiracy beliefs explain *why* AIs get HIV/AIDS: from a structural positioning in relation to Whites. During interviews, participants felt that the Federal government was doing little to support their health and economic needs. With statements such as, "This is the new smallpox" or "It's just more of the same," participants recognized their adversarial relationship with the Federal government policies, and also invoked the history of unequal power relations with Euro-Americans and the ramifications of those interactions on Native health and society. Therefore, AIs recognize their susceptibility to HIV/AIDS as human beings in biomedical terms, but also invoke an astute social observation on the ways structural issues make their population more susceptible. In order to generalize across AI populations we feel that these preliminary indicators should be confirmed with tests from more representative populations. We hope that results from this investigation will spark the development of new ideas and inform future research in this area, as well as provide a starting point for insight into the relationship between ethnic identification, culture, and the acceptance and ultimate adoption of mainstream public health information and preventive practices.

Our data are insufficient to confidently generalize about the effects of conspiracy beliefs on prevention issues such as the use of condoms or PLWHAs' reluctance to seek treatment. Extensive research with other minority groups, however, has found that conspiracy beliefs may act to discourage the use of condoms and other protective measures

(Ross et al., 2006). Recently Simoni, Walters, Balsam, and Meyers (2006) found that Two-Spirit-identified AI MSMs in New York City had very low condom use rates and were at greater risk for HIV infection. However, they also found that the AI MSMs' heterosexual counterparts had similar rates of condom use. Likewise, in order to understand the role of conspiracy beliefs in the AI AIDS problem, we advocate further research on the following: the link between conspiracy beliefs and protective measures, the association between conspiracy beliefs and effective interventions, and the effects conspiracy beliefs have on the treatment of AI PLWHAs in their communities. Any future research and recommendations should engage the topic beyond "cultural blame" and attempt to fully understand conspiracy beliefs as an aspect of the AI experience.

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References

- Baer, H. A., Singer, M., Susser, I. (1997). AIDS: A disease of the world system. In H. A. Baer, M. Singer, & I. Susser (Eds.), *Medical anthropology and the world system: A critical perspective*. Westport, CT: Bergin and Garvey.
- Barros, A., & Hirakata, V. N. (2003). Alternatives for logistic regression in cross-sectional studies: An empirical comparison of models that directly estimate the prevalence ratio. *BMC Medical Research Methodology*, 3, 21-33.
- Bird, S. T., & Bogart, L. M. (2005). Conspiracy beliefs about HIV/AIDS and birth control among African Americans: Implications for the prevention of HIV, other STIs and unintended pregnancy *Journal of Social Issues* 61(1), 109-126.
- Bogart, L. M., & Thorburn, S. (2005). Are HIV/AIDS conspiracy beliefs a barrier to HIV prevention among African Americans? *Journal of Acquired Immune Deficiency Syndromes*, 38(2), 213-218.

- Davies, H. T. O., Crombie, I. K., & Tavakoli, M. (1998) When can odds ratios mislead? *BMJ*, 316, 989-991.
- Davis, J. A., Smith, T. W., & Marsden, P. V. (2003). *General Social Surveys, 1972–2002* (Cumulative File) (2nd ICPSR version) [Computer file]. Storrs, CT: Roper Center for Public Opinion Research, University of Connecticut/Ann Arbor, MI: Inter-university Consortium for Political and Social Research.
- Farmer, P. (1992). *AIDS and accusation: Haiti and the geography of blame*. Berkley: University of California Press.
- Farmer, P. (1999). Pathologies of power: Rethinking health and human rights. *American Journal of Public Health*, 89(10), 1486-1496.
- Feldman, D. (Ed.). (1994). *Global AIDS policy*. Westport, CT: Bergin and Garvey.
- Griffiths, P., Gossop, M., Powis, B., & Strang, J. (1993). Reaching hidden populations of drug users by privileged access interviewers: methodological and practical issues. *Addiction*, 88, 1617-1626.
- Hooper, E. (1999). *The river: A journey to the source of HIV and AIDS*. New York: Little, Brown and Company.
- Kaplan, C.D., Korf, D., & Sterk, C. (1987). Temporal and social contexts of heroin-using populations: An illustration of the snowball sampling technique. *Journal of Mental and Nervous Disorders*, 175(9), 366-574.
- Parker, R. (2001). Sexuality, culture, and power in HIV/AIDS research. *Annual Reviews of Anthropology*, 30, 163-179.
- Romero-Daza, N. (1994). Multiple sexual partners, migrant labor and the makings of an epidemic: Knowledge and beliefs about AIDS among women in highland Lesotho. *Human Organization*, 5, 192-211.
- Ross, M. W., Essien, E. J., & Torres, I. (2006). Conspiracy beliefs about the origin of HIV/AIDS in four racial/ethnic groups. *Journal of Acquired Immune Deficiency Syndromes*, 41(3), 342-344.
- Schoepf, Brooke G. (1988) Women, AIDS and economic crises in Central Africa. *Canadian Journal of African Studies*, 22(3), 625-644.
- Setel, Philip W. (1999) *A Plague of Paradoxes: AIDS, Culture, and Demography in Northern Tanzania*, Chicago: University of Chicago Press.

- Sibanda, T. (2003, May 1). The trouble with odds ratios (A Rapid Response to Davies, H. T. O., Crombie, I. K., & Tavakoli, M. [1998]. When can odds ratios mislead? *BMJ*, 316, 989-991.) *eBMJ*. Retrieved March 9, 2007 from <http://www.bmj.com/cgi/eletters/316/7136/989>
- Simoni, J. Walters, K., Balsam, K., & Meyers, S. (2006). Victimization, substance use and HIV risk behaviors among gay/bisexual/Two-Spirit and heterosexual American Indian men in New York City. *American Journal of Public Health*, 96(12), 2240-2245.
- SPSS Inc. (2005). *SPSS Base 14 for Windows: User's guide*. Chicago: SPSS Inc.
- StataCorp LP. (2004). *Stata Statistical Software: Release 8*. College Station, TX: StataCorp LP.
- Taeger, D., Sun, Y., & Straif, K. (1998, August 10). On the use, misuse and interpretation of odds ratios (A Rapid Response to Davies, H. T. O., Crombie, I. K., & Tavakoli, M. [1998]. When can odds ratios mislead? *BMJ*, 316, 989-991.) *eBMJ*. Retrieved March 9, 2007 from <http://www.bmj.com/cgi/eletters/316/7136/989>
- Thompson, M. L., Meyers, J. E., & Kriebel, D. (1998). Prevalence odds ratio and prevalence ratio in the analysis of cross sectional data: What is to be done? *Occupational and Environmental Medicine*, 55, 272-277.
- Vernon, Irene (2000). Facts and myths of AIDS and American Indian women *American Indian Culture and Research Journal*, 24(3), 93-110.
- Vernon, I. (2001). *Killing us quietly: American Indians and HIV/AIDS*. Lincoln, NE: University of Nebraska Press.
- Vernon, I., & Bubar, R. (2001). Child sexual abuse and HIV/AIDS in Indian Country. *Wicazo Sa Review*, Spring, 47-63.
- Weaver, H. N. (1999). Through indigenous eyes: American Indians and the HIV epidemic. *Health and Social Work* 24(1), 27-34.

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