



Reproductive Health of Urban American Indian and Alaska Native Women:

**Examining Unintended Pregnancy, Contraception, Sexual
History and Behavior, and Non-Voluntary Sexual Intercourse**

February 2010





The mission of the Urban Indian Health Institute is to support the health and well-being of Urban Indian communities through information, scientific inquiry and technology.



Recommended Citation:

Urban Indian Health Institute, Seattle Indian Health Board. *Reproductive Health of Urban American Indian and Alaska Native Women: Examining Unintended Pregnancy, Contraception, Sexual History and Behavior, and Non-Voluntary Sexual Intercourse*. Seattle: Urban Indian Health Institute, 2010.

TABLE OF CONTENTS

4	LETTER from Sarah Deer, contributing author to Amnesty International's 2007 Report: Maze of Injustice
5	LETTER from the Executive Director
6	EXECUTIVE SUMMARY
10	SECTION I: Background
12	SECTION II: Methods
15	SECTION III: Results
31	SECTION IV: Discussion
38	SECTION V: Limitations
39	SECTION VI: Recommendations
41	SECTION VII: References
45	SECTION VIII: List of Products
47	FEEDBACK FORM
49	APPENDIX A: Brief Outline of the NSFG Cycle 6 Survey Topics
50	APPENDIX B: Region of Residence
50	APPENDIX C: Contraceptive Methods
51	APPENDIX D: List of Tables

**Please contact the Urban Indian
Health Institute with your
comments: info@uihi.org
or 206-812-3030.
You can also fill out the form
on page 45 with comments or
questions.**

ACKNOWLEDGEMENTS



The UIHI would like to gratefully acknowledge:

- The Public Health – Seattle & King County for their assistance in making this report possible. We would like to send a special thank you to Mike Smyser, MPH, from the Epidemiology, Planning, and Evaluation Unit for his critical skills, attention to detail, and thoughtful input.
- The UIHI's Maternal and Child Health Advisory Council members who were critical in the development of the project and in providing support and guidance throughout.
- The staff of the National Survey of Family Growth, especially Drs. Abma and Jones for their support of this project.
- The staff of the NCHS Research Data Center, especially Karen E. Davis, MA.

This project was funded by Health Services Research Administration, Maternal and Child Health Bureau [Grant #R40MC08954].

FROM SARAH DEER CONTRIBUTING AUTHOR TO AMNESTY INTERNATIONAL'S 2007 REPORT: MAZE OF INJUSTICE



WILLIAM MITCHELL
COLLEGE OF LAW

875 SUMMIT AVENUE
ST. PAUL, MINNESOTA
55105-3076

February 2010

TELEPHONE: 651-227-9171
FACSIMILE: 651-290-6414
WWW.WMITCHELL.EDU

To Interested Parties:

As a lawyer and activist, I am always grateful for the work that social scientists do to help us understand the complexities of our world. The work to end violence against Native women requires monumental collaboration and partnerships between and among a variety of disciplines and grassroots activists. As one of many collaborators on Amnesty International's 2007 report entitled *Maze of Injustice: The Failure to Protect Indigenous Women from Sexual Violence in the USA*, I have seen first-hand the impact that statistics can have on policy makers and direct service providers.

Advocates for Native women may not be surprised by many of these findings, but this report confirms what many have been saying for years: Native women continue to be socially, economically, and physically marginalized by a society that doesn't prioritize and sometimes doesn't even acknowledge the realities of their lives. This report also makes crucial connections between violence and health. Violence against Native women is a public health crisis, and the urban experience has not received the same degree of attention as that on reservations and rural tribal communities.

This report will not only improve lives but save lives. Health practitioners need to understand trends to better identify and respond to individual health needs. Activists and politicians need data in order to develop better policies and garner resources to address these concerns. Behind each set of numbers are faces and voices of exceptional Native women. These numbers tell stories that we need to honor.

The trends identified in this report are alarming, but I am hopeful that increased attention to the marginalization of Native women will generate important discussion and dialogue. As you read this report, I urge you to consider the unique needs of Native women residing in urban areas and the critical need to develop interventions and programs that are tailored and customized to individual experiences.

Sincerely,

Sarah Deer (Muscogee Creek)
Assistant Professor

*Equal Opportunity,
Affirmative Action Employer*

FROM THE EXECUTIVE DIRECTOR

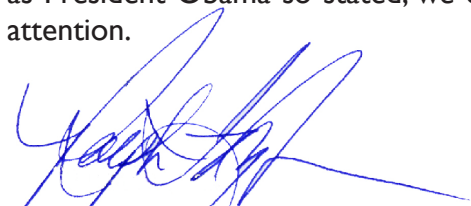
The threat of rape and sexual violence is a social ill that follows the long pattern of dishonor and disrespect for the welfare of Indian people in this nation. At a recent Tribal Nations Conference in Washington D.C. on November 5, 2009, President Barack Obama stated that the high rate of rape among American Indian and Alaska Native (AI/AN) women “is an assault on our national conscience that we can no longer ignore.” His remarks to the mostly tribal leadership audience implied that this problem is one found on Indian reservations, yet the findings on sexual violence presented in this report reinforce the fact that all Indian women are at risk.

In trying to better understand the health challenges faced by urban Indians, we at the Urban Indian Health Institute have sought ways to study problems by examining nationally collected data. The National Survey of Family Growth is a national effort conducted by the CDC to collect data on reproductive health issues, including family planning, pregnancies, births, contraception, non-voluntary sex, and unintended pregnancy among other health topics.

We have known through other analyses that American Indian women experience earlier entry into sexual activity, the birth rate for Indians is greater among most all other groups, that sexual violence, including non-voluntary sex (rape), appears more prevalent among Indian women, and that the consequences of these behaviors factor into the poor health statistics so often reported. We also know that social factors including poverty, the lack of health insurance, inadequate formal education, and being unmarried are also contributors to generally poorer health for Indian women.

Staff at the National Center for Health Statistics has indicated that this report is the first analysis of the National Survey of Family Growth for American Indians and Alaska Natives. The sample size is small, but the findings add to the landscape of a population, both tribal and urban, experiencing health disparities with social, behavioral, historical, and environmental influences. What is most critical from our perspective is that lawmakers and policy advocates must understand that these health challenges exist among both tribal and urban Indian communities and that resources to address these problems need to be distributed for both settings. With more than two-thirds of Indian people now living in American cities, resources targeting Indian people cannot be restricted only to those living in rural/reservation communities if our goal is health improvement for all Indian people.

This report paints a striking portrait of how our ignorance and neglect of the nation’s commitment to America’s aboriginal population has resulted in preventable harm. Now that we know about these harms, as President Obama so stated, we can no longer ignore what must be seen as a growing crisis in need of attention.



Ralph Forquera, MPH
Executive Director

Urban Indian Health Institute, Seattle Indian Health Board

EXECUTIVE SUMMARY



INTRODUCTION

This report presents information on pregnancies, births, sexual history and behavior, contraceptive use, non-voluntary sex, and unintended pregnancy among urban American Indian/Alaska Native (AI/AN) women nationwide. We examined national data which has never been examined for AI/AN, in order to help fill a need for baseline information and to better understand previously identified disparities in health status and risk behaviors in this population.

METHODS

We analyzed data on American Indian and Alaska Native female respondents in Cycle 6 (2002) of the National Survey of Family Growth (NSFG), which represents the U.S. household population age 15-44 years. Non-Hispanic whites (NH-whites) were used as the comparison group. “Urban” was defined as living within a metropolitan statistical area. Percent estimates, 95% confidence intervals (CI’s) and p-values were calculated. Differences in rates between or within groups were deemed statistically significant by non-overlapping CI’s or a significance level of $p \leq 0.05$. Linear and logistic regression analyses were used to further examine the relationship between race and unintended pregnancy, and select sexual history and behavior factors.

RESULTS

A total of 7,643 females completed Cycle 6 of the NSFG in 2002. Three hundred and fifty-seven (5%) AI/AN and 4,039 (53%) NH-whites were included in the sample. Of these, 299 AI/AN and 3,173 NH-whites were defined as urban. Results are presented for urban AI/AN and urban NH-whites.

Demographics

- Urban AI/AN women were younger with a mean age of 28 years compared to 31 years for NH-whites.
- A high proportion of urban AI/AN were from the Western region of the US (57%).
- Urban AI/AN were more likely to report fair or poor health status than NH-whites (14% vs. 5%).

Socio-economic factors

- Urban AI/AN were more likely to be poor, have lower levels of education and lack health insurance than NH-whites.
- Socio-economic disparities among urban AI/AN were associated with high fertility rates, unintended pregnancy, and use of specific contraceptive methods, such as Depo-Provera and female sterilization.
- Urban AI/AN were more likely than NH-whites to be cohabitating (15% vs. 8%) and less likely to be married (37% vs. 51%).

We examined national data which has never been examined for AI/AN.

EXECUTIVE SUMMARY



Pregnancies, births & birth outcomes

- Urban AI/AN were more likely to have had three or more pregnancies and births than NH-whites. High fertility rates were also seen among young urban AI/AN women age 15-24 years.
- Urban AI/AN reports of 2 or more abortions was twice that of NH-whites (10% vs. 5%).

Sexual history & behavior

- A higher percentage of young urban AI/AN women had their period at age 11 years or younger compared to NH-whites.
- Young urban AI/AN women are having more unprotected first sex and first sex with older partners compared to NH-whites.

Contraception use

- A lower proportion of urban AI/AN teens are using contraception overall compared to NH-white teens and fewer urban AI/AN who have sex at a young age are using condoms.
- Rates of current Depo-Provera use among urban AI/AN women age 15-24 years were more than three times that of NH-white women.
- Rates of female sterilization were significantly higher among urban AI/AN compared to NH-whites, especially among women age 35-44 years.

Non-voluntary sexual intercourse

- Urban AI/AN women experienced non-voluntary first sexual intercourse at a rate more than twice that of NH-whites (17% vs. 8%).
- Urban AI/AN women who had ever been forced to have sexual intercourse were more likely than NH-whites to have initiated sex at a young age.

Unintended pregnancies

- Urban AI/AN had higher rates of unintended pregnancies and higher rates of mistimed pregnancies than NH-whites.
- In adjusted analyses, urban AI/AN who had unprotected sex in the past year, had sex before age 15 and who had more than two sex partners in the past three months, are 77% more likely to have had an unintended pregnancy than NH-whites with the same sexual risk status.

DISCUSSION

This is the first study to provide critical information on the reproductive health of urban AI/AN women age 15-44 years nationally. The findings provide baseline data for future surveillance and in-depth analyses, and offer guidance for programming priorities.

EXECUTIVE SUMMARY



Socioeconomic disparities among urban AI/AN seen in other data sources were also seen in this study. There is a clear need to address the upstream causes underlying many factors which are associated with poor health outcomes for AI/AN.

Surveillance of the topic areas addressed in this study, such as fertility, family planning, contraceptive use, and sexual violence, should continue and could be improved upon for urban AI/AN. Specifically, the high rates of Depo-Provera use and the associated increased risk for overweight AI/AN, as well as female sterilization in relation to the documented history of abuse with this method by government agencies, should be studied further. Also, the high rates of abortion seen among urban AI/AN should be further examined to confirm the current findings and to understand the unique context for urban AI/AN women given IHS funding restrictions and other factors.

The high rates of sexual violence experienced by urban AI/AN women is intolerable. The context in which sexual violence occurs for urban AI/AN communities must be examined closely to learn how to promote justice and address the underlying issues.

The development of resources which address the specific healthcare needs of urban AI/AN women could significantly improve health outcomes for this population. In order to provide culturally appropriate reproductive health services to urban AI/AN, recognition, examination and education about the history and impact of reproductive rights abuses should be pursued.

Risk factors associated with contraceptive use and sexual behaviors are seen especially among young urban AI/AN women. Youth should be a focus for programming to address risk for unintended pregnancy and poor birth outcomes as well as STIs.

Successful programs must be tailored to the unique culture and needs of urban AI/AN communities and evaluated for their effectiveness on this basis.

The development of resources which address the specific healthcare needs of urban AI/AN women could significantly improve health outcomes for this population.

RECOMMENDATIONS

Improved access to data on urban AI/AN

- Adequate sampling is essential to allow for more in-depth analysis of urban AI/AN and subgroups.
- Data must be collected and reported for all Office of Management and Budget racial categories.
- Sampling of AI/AN males in the NSFG should be increased to allow for analysis of this subgroup.

EXECUTIVE SUMMARY



Further investigation and continued surveillance of reproductive health topics for AI/AN

- Continued and expanded surveillance is essential on topic areas where greater clarification is needed on the current findings, such as early menarche, abortion, Depo-Provera and female sterilization use, and high fertility rates.
- Additional questions should be added on contextual factors in national surveys such as the NSFG.
- Qualitative studies must be conducted to verify survey data and provide information that cannot be gathered from national survey methods.
- Future studies must be conducted with the involvement of AI/AN at all levels of project development.

Increased funding for urban AI/AN research and programming

- There must be an increase in the allocation of funds for programming and research which is inclusive of urban AI/AN.
- Funds must be made available to community based organizations, Urban Indian health organizations, Tribal Governments, Urban, Tribal and Native Epidemiology Centers, and Tribal Colleges and Universities to collect data and to assure the proper distribution and utilization of findings.
- Resources must be identified and set aside for programs to work with urban AI/AN youth and those affected by sexual violence.

*There is a need for improved
access to data on urban
American Indians and Alaska
Natives.*

SECTION I: BACKGROUND



URBAN AMERICAN INDIANS AND ALASKA NATIVES

American Indians and Alaska Natives (AI/AN) living in urban areas are a diverse and growing population. Over the past three decades, AI/AN have increasingly relocated from rural communities and reservations into urban centers. Often overlooked as a result of lack of understanding or inclusion, this “invisible” population now makes up more than half of all American Indians and Alaska Natives living in the United States.

Urban AI/AN are a very diverse group, and include members, or descendants of members, of many different tribes. Represented tribes may or may not be federally recognized, and individuals may or may not have historical, cultural, or religious ties to their tribal communities. Individuals may travel back and forth between their tribal communities or reservations on a regular basis, and the population as a whole is quite mobile (Lobo, 2003). Urban AI/AN are also generally spread out within the urban center instead of localized within one or two neighborhoods, and thus are often not seen or recognized by the wider population.

PREVIOUS STUDIES ON REPRODUCTIVE HEALTH AMONG URBAN AI/AN

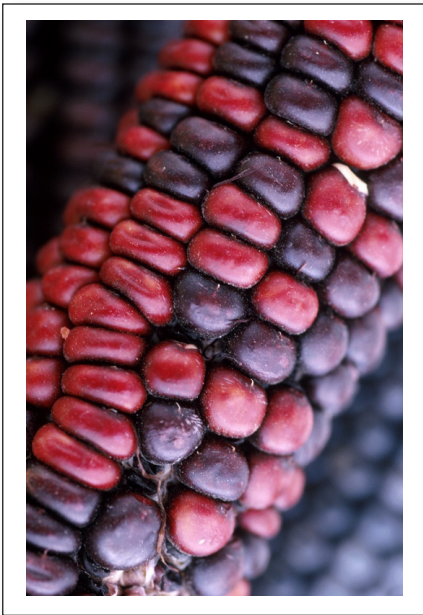
Current literature on reproductive health among AI/AN is lacking and for urban AI/AN, it is even more limited. Most previous studies focused on reproductive health topics among AI/AN included select geographic and reservation populations and many are dated. While these studies most certainly provided important information, it is clear that updated and comprehensive data is needed.

Unintended pregnancy has been examined in the general population, yet little is known about unintended pregnancy among urban AI/AN (Mosher, 1996; Chandra, 2005). The National Survey of Family Growth (NSFG) documents contraceptive trends for whites, blacks and Hispanics, however, factors associated with variations in contraceptive use and risk for unintended pregnancy in the AI/AN population have not been published. Although comprehensive national data is not available, rates of unintended pregnancy among AI/AN women, as reported by some individual counties and states, are higher than for other races (OK PRAMS, 2006; WA Dept. of Health, 2006; NC DHHS, 2005; Seattle-King County, WA Dept. of Public Health, 1999; Warren, 1990). These gaps illustrate the need to establish a baseline for rates of unintended pregnancy and related factors among urban AI/AN women nationwide.

*Current literature on
reproductive health among
AI/AN is lacking and for urban
AI/AN it is even more limited.*

Current data is also limited on the topic of contraceptive use among AI/AN and even fewer studies exist on contraceptive use as related to unintended pregnancy (Espey, 2000 and 2003; Williams, 1994). In a study on attitudes toward pregnancy and contraception use among European American (EA), Mexican American (MA) and American Indian (AI) clients in drug recovery programs, AI were similar to EA in reported use of contraception, but were least likely of the race groups to indicate

SECTION I: BACKGROUND



that abortion is a reasonable alternative for an unwanted pregnancy (Gutierrez, 2003). Authors note the importance of considering the potential for a cultural value of large families among AI when providing information on birth control and abortion, as is cited in previous studies among specific Tribes.

A recent international study reported that overall women's adjusted odds of having had an unintended pregnancy were significantly elevated if they had been physically or sexually abused (Odds ratio 1.4) (Pallitto, 2004). In a study of ethnic differences in the impact of sexual abuse on teen pregnancy rates, racial minority teens, including AI, were more likely than whites to have a teenage pregnancy and to have been coerced into having sex, rather than raped, prior to teenage pregnancy (Kenney, 1997). The National Violence Against Women Survey findings show the highest rates of violence occur among AI/AN women; 34.1% of AIAN women reported rape in their lifetime (U.S. Department of Justice, 1998). In a study of urban AI/AN in New York, 48% reported having been raped (Evans-Campbell, 2006). Previous studies, such as these, highlight the need to examine sexual violence in nationwide urban AI/AN.

Results from a previous UIHI examination of Youth Risk Behavior Survey data (Rutman, 2008) showed urban AI/AN youth were significantly more likely than urban white youth to engage in risky sexual behaviors and have had experiences of sexual violence. The disturbing inequality seen between these populations calls for further investigations in these areas among urban AI/AN women. A higher percent of AI/AN had ever had sexual intercourse compared to white youth and prevalence estimates were also higher among AI/AN compared to white youth for: multiple sex partners and recent sexual intercourse with at least one partner. Reports of early sexual initiation (before age 13), having been pregnant or making someone pregnant were nearly three-fold higher among AI/AN compared to white youth. AI/AN were also more likely to have experienced sexual violence than white youth. Reports of being physically forced to have unwanted sexual intercourse were more than two-fold higher among AI/AN compared to white youth. Additionally, AI/AN were less likely than white youth to have ever been taught about HIV/AIDS in school.

We examined national data on sexual history and behavior, contraceptive use, non-voluntary sexual intercourse, and unintended pregnancies among urban AI/AN in order to help fill a need for baseline information and to better understand previously identified disparities.

*Previous studies highlight
the need to examine sexual
violence in nationwide urban
AI/AN.*

SECTION II: METHODS



DATA SOURCE—NATIONAL SURVEY OF FAMILY GROWTH

The National Survey of Family Growth (NSFG) is a comprehensive source of information available on pregnancy and contraceptive use among reproductive-age women (age 15–44 years) in the U.S. The NSFG is designed and administered by the National Center for Health Statistics (NCHS). Six survey cycles have been conducted in 1973, 1976, 1982, 1988, 1995, and 2002.

The NSFG is based on interviews administered in-person in the participants' homes. Cycle 6 data from 2002 are based on a nationally representative multistage area probability sample drawn from 120 areas across the country. Additional information on how the survey was designed, conducted, and tested may be found on the following website: http://www.cdc.gov/nchs/data/series/sr_02/sr02_142.pdf.

The NSFG is a federally-sponsored survey which supplements and complements the data from Vital Statistics on births, marriage and divorce, fetal death, and infant mortality (Brown, 1995). The NSFG is also a significant part of the Centers for Disease Control and Prevention's public health surveillance for women, infants, and children—particularly on contraception, infertility, unintended pregnancy, childbearing and teenage pregnancy (Brown, 1995). An outline of all of the NSFG survey topics is provided in Appendix A. Codebooks with detailed information on the variables examined is available on the following website: <http://nsfg.icpsr.umich.edu/cocoon/WebDocs/NSFG/public/index.htm>.

STUDY SAMPLE

We examined data on female participants ages 15–44 years old from the most recent cycle of the NSFG (Cycle 6, 2002). Previous NSFG data sets have not included enough respondents to examine AI/AN, or the urban AI/AN subgroup, with statistical reliability. NSFG Cycle 3 (1982) included 83 AI/AN respondents from a total of 7,969; Cycle 4 (1988) included 238 AI/AN respondents from a total of 8,450 and Cycle 5 (1995) included 344 AI/AN respondents from a total of 10,847. Because of sample size, AI/AN are not shown in NSFG public data files or reports (except in totals as “Non-Hispanic other races”), therefore we submitted an application to the NCHS Research Data Center to access these data for our analyses. Our application represents the only request for access to AI/AN in NSFG data (Jo Jones, PhD, [personal communication January 12, 2010]).

*Because of sample size,
AI/AN are not shown in NSFG
public data files or reports.*

SECTION II: METHODS



Race classification

Race designation in the NSFG is based on responses to the following question, “Which of the groups (below) describe your racial background? Please select one or more groups.” The race groups shown were:

- American Indian or Alaska Native,
- Asian,
- Native Hawaiian or Pacific Islander,
- Black or African American and
- White

Multiple race respondents were also allowed to select one group that best describes them. We examined all respondents who only mentioned American Indian/Alaska Native (referred to as “AI/AN”) or listed AI/AN as the race that best describes them, regardless of Hispanic origin. Non-Hispanic whites (referred to as “NH-whites”) were chosen as the comparison group because they historically have had the best health status. We included NH-whites who mentioned white race first or listed white as the race that best describes them and who reported non-Hispanic ethnicity. Non-Hispanic whites who mentioned AI/AN as any part of their race were removed from the analysis (N=100).

Metropolitan status

Using the U.S. Office of Management and Budget (OMB) definition of metropolitan statistical areas (MSA), the participant’s address at the time of the interview was classified as MSA-central city, MSA-other and not MSA. We designated participants within a MSA as “urban”.

DATA ANALYSES

Prevalence estimates, 95% confidence intervals (CI) and p-values were calculated for urban AI/AN participants and urban non-Hispanic white participants. Differences in rates were deemed statistically significant by non-overlapping CI’s or a significance level of $p \leq 0.05$.

We used linear regression (continuous variables) and logistic regression (dichotomous variables) models including individual socio-economic factors to examine whether race was associated with observed differences in sexual history and behaviors. Odds ratios (OR), coefficients (Coeff), and 95% CI were calculated for the relationship between race and these behaviors. Multivariable logistic regression analyses were also used to estimate the effect of AI/AN race on the odds of unintended pregnancy. Multiple factors known to be associated with unintended pregnancy (i.e. education, age, poverty, and marital status) were included in the model. Contraceptive use and sexual behaviors known to influence unintended pregnancy were also included.

SECTION II: METHODS



Odds ratios and 95% CI were calculated for the relationship between race and these behaviors, and unintended pregnancy. Relevant interactions were assessed using a significance level of $p \leq 0.05$ for inclusion in the model.

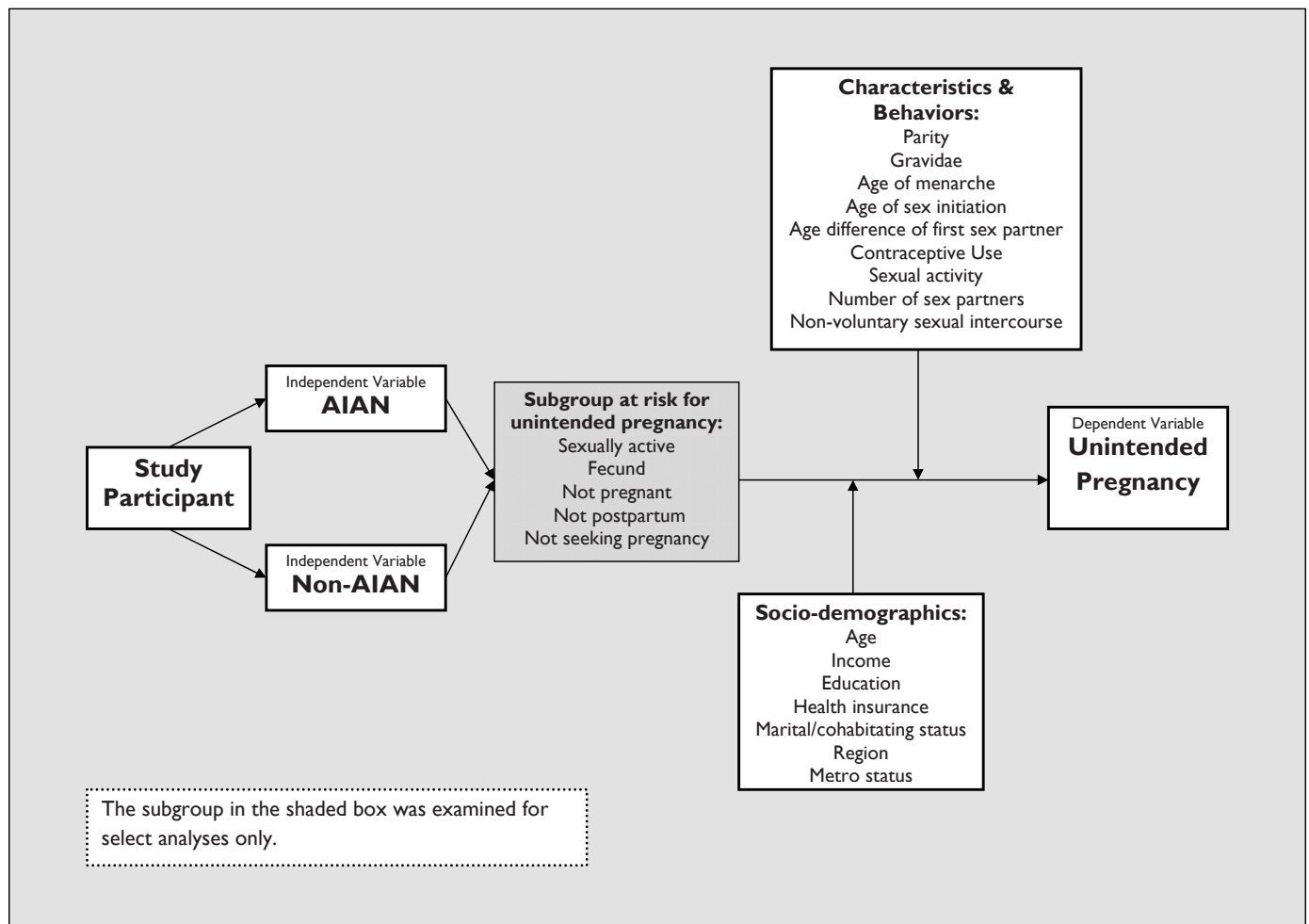
Analyses were performed using STATA version 10.

Sampling weights

Due to the complex sampling design used in the NSFG, available sampling weights were used in all analyses to adjust for non-response and for the varying probabilities of selection. Weighted estimates and percentages are presented.

Study analyses conceptual model

The below conceptual model depicts a broad layout of the relationships held operative among the variables for the study analyses.



The current study was reviewed by the National Indian Health Service Institutional Review Board and was found to be exempt from oversight.

SECTION III: RESULTS

DEMOGRAPHICS

NATIONWIDE

A total of 7,643 females completed the NSFG in 2002. Three hundred and fifty-seven (5%) of these were included in our AI/AN sample and 4,039 (53%) were included in our NH-white sample (see Race Classification page 12 for more information about the racial groups examined). 77% of the AI/AN (N=299) and 78% of the NH-whites (N=3,173) were defined as urban. The topic areas and related variables in the following results sections were analyzed according to the conceptual model described in the previous Data Analysis section.

Table I below shows the socio-demographics of nationwide AI/AN and NH-whites. The results thereafter are presented for AI/AN and NH-whites in urban areas only.

Table I. Selected socio-demographic characteristics, by race: United States, 2002

Characteristic	Race		P-value
	Number of Observations Percent [95% CI]		
	AI/AN (N=357)	NH-Whites (N=4039)	
Age			
15-19 years	59 20.5% [14.5, 28.2]	591 15.4% [13.9, 16.9]	0.01
20-24 years	79 21.5% [16.6, 27.4]	759 15.0% [13.0, 17.3]	
25-29 years	69 16.0% [12.2, 20.6]	608 14.2% [12.7, 15.8]	
30-34 years	62 16.4% [12.0, 22.1]	695 16.3% [14.8, 17.9]	
35-39 years	53 14.0% [10.1, 19.2]	692 18.3% [16.7, 20.1]	
40-44 years	35 11.6% [6.9, 19.0]	694 20.7% [18.7, 22.9]	
Age, mean (se) [95% CI]	27.6 (.63) [26.3, 28.8]	30.1 (.18) [29.7, 30.4]	0.00
General health status			
Excellent/very good/good	315 88.0% [82.7, 91.9]	3807 94.6% [93.6, 95.5]	0.00
Fair/poor	42 12.0% [8.1, 17.3]	225 5.4% [4.5, 6.4]	
Marital or cohabiting status			
Currently married	126 33.4% [28.4, 38.8]	1854 50.8% [48.0, 53.6]	0.00
Cohabiting (opposite sex)	49 16.9% [10.4, 26.3]	338 7.9% [7.0, 8.9]	
Never married, not cohabiting	141 38.7% [31.0, 47.0]	1402 31.7% [29.6, 34.0]	
Formerly married, not cohabiting	41 11.0% [7.7, 15.5]	445 9.6% [8.4, 10.9]	
Education ¹			
No high school diploma/GED	86 33.1% [26.6, 40.2]	211 6.4% [5.4, 7.4]	0.00
High school diploma/GED	80 31.4% [25.2, 38.3]	884 29.3% [27.0, 31.7]	
Some college/no bachelor's degree	75 25.3% [20.4, 30.8]	973 31.3% [29.3, 33.4]	
Bachelor's degree or higher	29 10.3% [6.5, 16.0]	1077 33.0% [30.6, 35.6]	

SECTION III: RESULTS

DEMOGRAPHICS

Table 1. Selected socio-demographic characteristics, by race: United States, 2002

Characteristic	Race		P-value
	Number of Observations	Percent [95% CI]	
	AI/AN (N=357)	NH-Whites (N=4039)	
Poverty level income ²			
Above 150%	145 46.1% [38.3, 54.1]	2738 80.0% [77.5, 82.3]	0.00
At or below 150%	153 53.9% [45.9, 61.7]	710 20.0% [17.7, 22.5]	
Health insurance			
Not currently covered	96 27.4% [21.4, 34.4]	520 12.0% [10.7, 13.5]	0.00
Private plan	130 33.6% [28.7, 38.9]	3010 76.5% [74.7, 78.2]	
Medicaid	75 18.6% [14.1, 24.1]	283 6.1% [5.3, 7.1]	
Public health care ³	56 20.4% [17.2, 24.0]	226 5.4% [4.3, 6.6]	
Metropolitan status ⁴			
MSA	299 77.3% [69.5, 83.6]	3173 77.6% [75.0, 80.0]	0.94
Not MSA	58 22.7% [16.4, 30.5]	866 22.4% [20.0, 25.0]	
Region of residence ⁵			
Northeast	54 10.3% [6.8, 15.5]	599 15.8% [13.8, 18.2]	0.00
Midwest	36 12.1% [7.7, 18.7]	967 28.0% [25.0, 31.1]	
South	80 20.6% [14.9, 27.8]	1527 35.1% [31.0, 39.5]	
West	187 56.9% [48.3, 65.1]	946 21.1% [18.5, 23.9]	

AI/AN= American Indians/Alaska Natives; NH-whites= Non-Hispanic whites; se=standard error; CI= confidence interval

¹ Limited to women 22–44 years of age at time of interview

² Limited to women 20–44 years of age at time of interview; based on the 2001 poverty levels defined by the US Census Bureau

³ If any mention of Medicare, Medi-Gap, Military health care, Indian Health Service, CHIP, State-sponsored health plan, or other government health care

⁴ U.S. Census Bureau defined Metropolitan Statistical Area

⁵ U.S. Census Bureau defined regions (see Appendix B for details)

URBAN AREAS (SEE APPENDIX D: TABLE 1-1)

In looking at urban AI/AN and NH-whites, age, relationship status, and general self-reported health status differed between groups:

- Urban AI/AN women in our sample were younger with a mean age of 28 years compared to 31 years for NH-whites ($p=0.00$).
- Urban AI/AN were more likely than NH-whites to be cohabitating (15% vs. 8%) and less likely to be married (37% vs. 51%), while similar percentages of AI/AN and NH-whites had never been married or were formerly married ($p=0.00$).

SECTION III: RESULTS

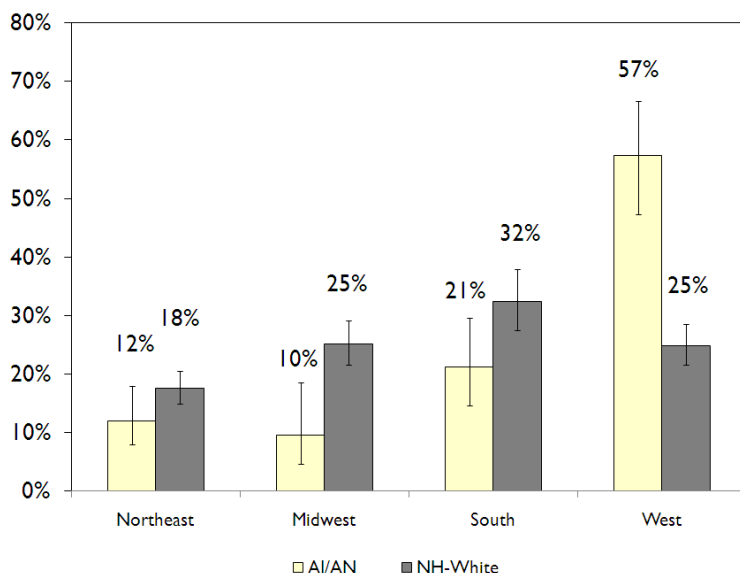
DEMOGRAPHICS

URBAN AREAS (SEE APPENDIX D: TABLE 1-1) - CONTINUED

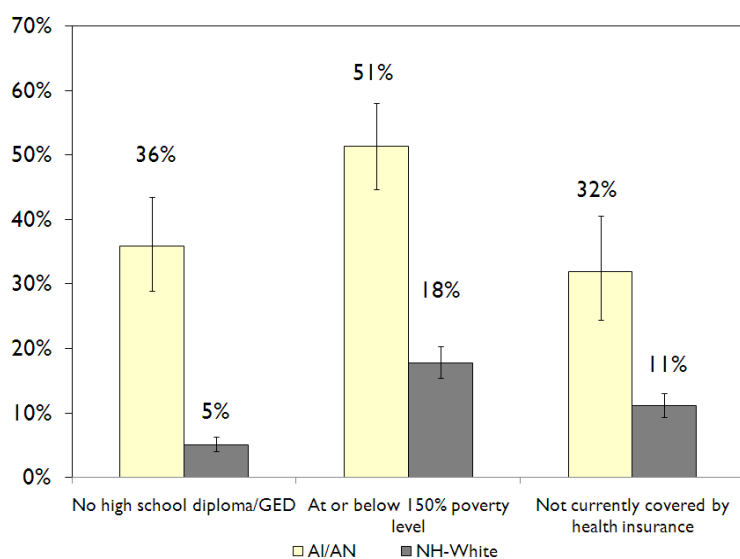
- Compared to urban NH-whites, urban AI/AN were more likely to report fair or poor health status (14% vs. 5%; $p=0.00$).

Graph 1. Regional profiles by race, Urban areas, 2002

Regional profiles for urban AI/AN and NH-whites in our sample differed. Urban NH-whites were more evenly distributed from each of the four regions, while a majority of the AI/AN sample was from the West (57%) and a smaller percentage were from the Midwest (10%) (See Appendix B for details on regions).



Graph 2. Socio-economic indicators by race, Urban areas, 2002



Socio-economic disparities between urban AI/AN and NH-whites in this sample of women reflect a similar profile as in other data sources. Compared to NH-whites, urban AI/AN were more likely to:

- Have less than a high school education (36% vs. 5%; $p=0.00$)
- Have incomes at or below 150% of the poverty level (51% vs. 18%; $p=0.00$)
- Report no health insurance coverage (32% vs. 11%) or Medicaid (19% vs. 6%); ($p=0.00$).

SECTION III: RESULTS

SEXUAL HISTORY AND BEHAVIOR

FECUNDITY STATUS (SEE APPENDIX D: TABLE 2)

In the NSFG, a woman or couple's physical ability to have a child was determined by self-report not by medical examination. Women were classified as either:

- *Surgically sterile*—based on their history or that of their husband/cohabiting partner;
- *Impaired fecundity*—not surgically sterile but have a physical barrier to getting pregnant or carrying a baby to term, or
- *Fecund*—presumed to be physically able to have a child.

Rates of fecundity were not significantly different between urban AI/AN and NH-whites.

- 65% of urban AI/AN were fecund, 23% were surgically sterile and 12% reported impaired fertility ($p=0.74$).

PREGNANCIES (SEE APPENDIX D: TABLE 2)

- The average number of pregnancies was slightly higher among urban AI/AN than NH-whites (2.1 vs. 1.7 pregnancies; $p=0.02$).
- When looking at number of pregnancies by age groups, urban AI/AN age 20-24 and 25-29 years had a significantly higher average number of pregnancies than NH-whites of the same age groups.
- Among women at the same poverty level (Coeff= 0.35; $p=0.04$) and from the same region (Coeff= 0.45; $p=0.01$), urban AI/AN also had higher numbers of pregnancies than NH-whites (data not in table).

Overall urban AI/AN were more likely than NH-whites to have had 3 or more pregnancies. This difference appears regardless of age (OR=2.99; $p=0.00$) and marital status (OR=1.9; $p=0.01$) (data not in table).

- When looking at pregnancies by age groups, a significantly higher percentage of urban AI/AN age 15-24 years had 3 or more pregnancies than NH-whites (13%; CI= [7.0, 21.4] vs. 4%; CI= [2.8, 4.7]) (data not in table).

- Urban AI/AN women who were not married or cohabitating were more likely to have had 3 or more pregnancies than NH-whites (24%; CI= [16.4, 33.4] vs. 13%; CI= [11.3, 15.6]) (data not in table).

The proportion of urban AI/AN women with 3 or more pregnancies was related to lower levels of education, which mirrors the patterns among NH-whites.

- Urban AI/AN women age 22-44 years with no more than high school education were more likely to have had 3 or more pregnancies than those with some college education (57%; CI= [47.8, 65.6] vs. 22%; CI= [13.9, 31.6]) (data not in table).

SECTION III: RESULTS

SEXUAL HISTORY AND BEHAVIOR

PREGNANCY OUTCOMES- BIRTHS, MISCARRIAGE, AND ABORTIONS (SEE APPENDIX D: TABLE 2)

Births

- Urban AI/AN had slightly higher average number of births than NH-whites (1.5 vs. 1.1; $p=0.01$).
- Urban AI/AN were also more likely to have had 3 or more births than NH-whites, regardless of age ($OR=3.7$; $p=0.00$), marital status ($OR=3.0$; $p=0.00$), insurance status ($OR=1.5$; $p=0.05$), poverty ($OR=1.7$; $p=0.04$), or region ($OR=2.2$; $p=0.00$) (data not in table).
- When looking at births by age groups, a significantly higher percentage of urban AI/AN age 15-24 years had 3 or more births than NH-whites (5%; $CI= [2.1, 11.6]$ vs. 1%; $CI= [0.4, 1.3]$) (data not in table).
- Over half of urban AI/AN women age 35-44 years had 3 or more births compared to just over one quarter of NH-whites (51%; $CI= [35.8, 65.0]$ vs. 26%; $CI= [21.0, 31.0]$) (data not in table).
- Urban AI/AN women who were not married or cohabitating were more likely to have had 3 or more births than NH-whites (18%; $CI= [11.3, 27.9]$ vs. 5%; $CI= [3.7, 6.9]$) (data not in table).

Stillbirths, miscarriages, and ectopic pregnancies

- Rates of reported stillbirths, miscarriages, and ectopic pregnancies were not significantly different between urban AI/AN and NH-whites. 75% of urban AI/AN had no stillbirths, miscarriages, or ectopic pregnancies, 15% had one and 10% had 2 or more.

Abortions

- Urban AI/AN reports of 2 or more abortions was twice that of NH-whites (10% vs. 5%; $p= 0.03$).

MENARCHE (SEE APPENDIX D: TABLE 2)

- Overall, the average age of menarche among urban AI/AN was 12.4 years, not significantly different compared to NH-whites, 12.6 years.

- However, among women of the same age group, average age at menarche is lower (by almost 1 year; $p= 0.00$) among urban AI/AN compared to NH-whites (data not in table).

- Among urban AI/AN age 18-24 years, a significantly higher percentage (31%; $CI= [20.4, 42.8]$ vs. 17%; $CI= [13.9, 20.3]$) had their period at age 11 years or younger compared to NH-whites (data not in table).
- Among urban NH-whites, there has been little change over time in the mean age of first menstrual period as evidenced by the stability across 5-year age groups (range: 12.5 to 12.8 years). Younger women have essentially the same mean menarche age as older women. This range is less narrow among urban AI/AN age groups (11.9 to 13 years), which may indicate a decreasing trend in mean menarche over time (data not in table).

SECTION III: RESULTS

SEXUAL HISTORY AND BEHAVIOR

SEXUAL ACTIVITY (SEE APPENDIX D: TABLE 3)

Estimates of sexual activity since menarche and numbers of sex partners are examined among all women, as well as among subgroups that had never been married or were previously married, because of the higher risk associated with an unintended pregnancy for these groups.

Sexual activity

- Overall, 86% of all urban AI/AN women and 61% of never-married urban AI/AN women had sex since menarche at least once.
- Similar to urban NH-whites, 82% of all urban AI/AN women and 65% of unmarried urban AI/AN women were considered sexually active at the time of the interview (i.e. had sex in the past 3 months).

Age at first sex

- The average age at first sex was not significantly different between urban AI/AN and NH-whites (17.5 vs. 17.3 years; $p = 0.64$).
- Three times as many urban AI/AN age 15-24 years initiated sex at age 15 years or younger than at age 20 years or older (33% vs. 10%; $p = 0.02$). A similar pattern was also seen among NH-whites (data not in table).

Age difference with first sex partner

- Overall, a higher percentage of urban AI/AN compared to NH-whites had had a first sex partner who was 4-6 years older than she was (28% vs. 13%; $p = 0.00$).
- When looking at age groups, urban AI/AN age 15-24 years were more likely to have had a first sex partner 4-6 years older than she was compared to NH-whites of this same age group (36%; $CI = [0.25, 0.49]$ vs. 13%; $CI = [0.11, 0.16]$) (data not in table).

Number of sex partners

- The average number of lifetime male sex partners was lower among urban AI/AN who had ever had sex, than NH-whites (4 vs. 6 partners; $p = 0.00$).
- The average number of sex partners in the past year among unmarried women was not significantly different between groups (1.5 partners among urban AI/AN vs. 1.4 partners among NH-whites).

SECTION III: RESULTS

CONTRACEPTIVE USE

All NSFG respondents are categorized as those who are using reversible contraception in the month of the interview and those who are not. Those who are using contraception are classified by the method or methods they are using.

EVER USE OF CONTRACEPTIVE METHODS (SEE APPENDIX D: TABLE 4)

Women in the NSFG were asked whether they had ever used each of about 19 methods, which were available in the United States. Women were classified by the most effective method they used (see Appendix C for the priority list).

Nearly all women age 15-44 years who ever had sex with a male used at least one method of contraception in their lives, 99% among both groups.

Differences exist between urban AI/AN and NH-whites in rates of ever use of contraceptive methods. Adjusted analyses showed some of these differences exist regardless of certain socio-demographic factors, such as age, insurance status, and region.

- A higher percentage of urban AI/AN than NH-white women had ever been sterilized, used Norplant, Lunelle, Depo-Provera and the contraceptive patch.
 - Urban AI/AN were more likely to have ever used female sterilization than NH-whites, regardless of age (OR=2.8; p=0.00), insurance status (OR=1.5; p=0.04), or region (OR=1.9; p=0.00) (data not in table).
 - Urban AI/AN were also more likely to have ever used Depo-Provera than NH-whites, regardless of age (OR=2.3; p=0.00), insurance status (OR=1.9; p=0.00), or region (OR=2.3; p=0.00) (data not in table).
- A lower percentage of urban AI/AN compared to NH-whites had ever used male sterilization (vasectomy), oral contraceptive pills, the Today sponge, a diaphragm or male condoms.
 - Urban AI/AN were less likely to have ever used oral contraceptive pills than NH-whites, regardless of age (OR=0.51; p=0.00), insurance status (OR=0.57; p=0.00), or region (OR=0.51; p=0.00) (data not in table).
 - Urban AI/AN were also less likely to have ever used male condoms than NH-whites, regardless of age (OR=0.47; p=0.00), insurance status (OR=0.55; p=0.02), or region (OR=0.54; p=0.02) (data not in table).
- Urban AI/AN were less likely to have ever used withdrawal than NH-whites regardless of age (OR=0.73; p=0.04) (data not in table).
- Similar to NH-whites, only 4% of urban AI/AN had ever used emergency contraception.

SECTION III: RESULTS

CONTRACEPTIVE USE

In examinations of women who had ever used the most common methods, age, insurance status, and region were associated with differences among subgroups of urban AI/AN and NH-whites (data not in table).

Age

- A significantly higher percentage of urban AI/AN women age 40-44 years ever used female sterilization than NH-whites (67%; CI= [0.41, 0.86] vs. 29%; CI= [0.23, 0.36]).
- A significantly lower percentage of urban AI/AN women age 15-24 years ever used birth control pills than NH-whites (64%; CI= [0.50, 0.76] vs. 80%; CI= [0.77, 0.84]).
- A significantly lower percentage of urban AI/AN women age 25-34 years ever used condoms compared to NH-whites (86%; CI= [0.78, 0.92] vs. 94%; CI= [0.92, 0.96]).

Insurance

- A higher percentage of urban AI/AN with public insurance or Medicaid ever used Depo-Provera compared to NH-whites with the same insurance type (44%; CI= [0.30, 0.59] vs. 21%; CI= [0.17, 0.26]).
- A lower percentage of urban AI/AN with private health insurance had ever used birth control pills (AI/AN 77%; CI= [0.67, 0.85] vs. NH-whites 88%; CI= [0.86, 0.90]) or condoms (AI/AN 82%; CI= [0.72, 0.88] vs. NH-whites 93%; CI= [0.91, 0.94]) compared to NH-whites with the same insurance type.

Region

- A higher percentage of urban AI/AN from the Midwest region ever used female sterilization compared to NH-whites from the same region (42%; CI= [0.27, 0.59] vs. 16%; CI= [0.11, 0.21]).
- A higher percentage of urban AI/AN from the West region ever used Depo-Provera compared to NH-whites from the same region (34%; CI= [0.25, 0.44] vs. 16%; CI= [0.12, 0.20]).

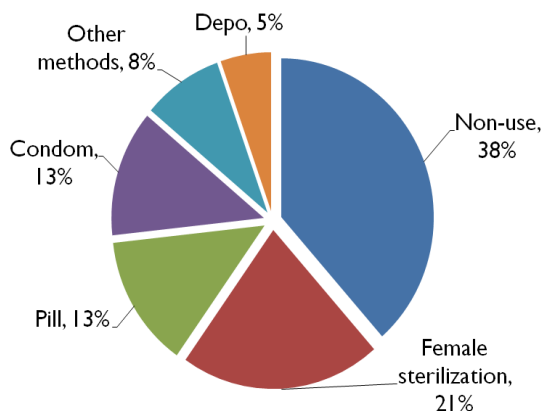
SECTION III: RESULTS

CONTRACEPTIVE USE

CURRENT CONTRACEPTIVE USE (SEE APPENDIX D: TABLE 5 & 6)

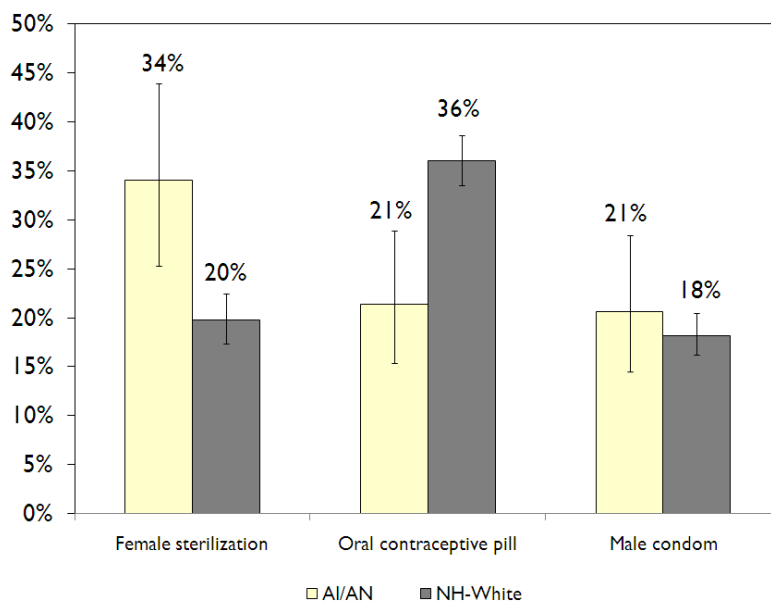
The percent distribution of methods used at the time of interview was examined. For those not using a method, they are classified by the reason for their non-use.

Graph 3. Current contraceptive status, American Indians/Alaska Natives, Urban areas, 2002



Graph 3 shows the contraceptive status of urban AI/AN women during the month of the survey interview.

Graph 4. Most common methods of contraception by race, Urban areas, 2002



Graph 4 shows the three most common methods of contraception use among women who are using contraception.

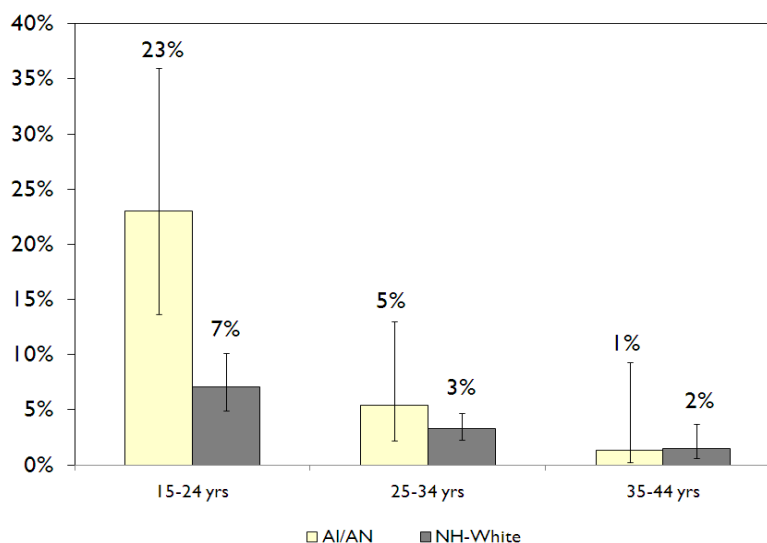
- Among women using contraception, the most common methods used by urban AI/AN women age 15-44 years were female sterilization (34%), oral contraceptive pills (21%), and male condoms (21%). The order of most common methods used varied slightly among urban NH-whites with oral contraceptive pills first (36%), then female sterilization (20%) and male condoms (18%).
- Further, urban AI/AN were more likely to use Depo-Provera and Norplant or Lunelle, and were less likely to use vasectomy than NH-whites.

SECTION III: RESULTS

CONTRACEPTIVE USE

In examinations of women who were using the most common methods, age, education, parity, and poverty were all associated with differences among subgroups of urban AI/AN and NH-whites (data not in table).

Graph 5. Depo-Provera use according to age by race, Urban areas, 2002



Age

- Among urban AI/AN, a much higher percentage of women age 15-24 years use Depo-Provera (23%) than those age 25-34 years (5%) or age 35-44 years (1%). This exact trend does not exist among urban NH-whites as only 7% of women age 15-24 year were using Depo-Provera (See Graph 5).
- Conversely, as would be expected, the proportion of both urban AI/AN and NH-white women using female sterilization or vasectomy increases with age.
- A much higher percentage of urban AI/AN women age 22-44 years were using female sterilization or vasectomy compared to urban NH-white women of the same age group (75%; CI= [0.60,0.85] vs. 56%; CI= [0.50,0.61]).

Education

- A much higher percentage of urban AI/AN women age 22-44 years who are college educated use the pill compared to those with less than a high school education (39%; CI= [0.20,0.61] vs. 8%; CI= [0.03,0.20]). This same pattern exists among urban NH-white women age 22-44 years.

Parity

- Among urban AI/AN, women who had never given birth were more likely to use the pill than those who had at least one child (42% vs. 15%; $p= 0.00$). This is also true for urban NH-whites with 60% of women who had never given birth using the pill and 23% of women who had at least one child.

SECTION III: RESULTS

CONTRACEPTIVE USE

Poverty level

- Urban AI/AN women age 20-44 years living at or below poverty were most likely to use female sterilization and vasectomy (38%) and least likely to use the pill (13%).

Non-users

- Examinations of urban AI/AN women using any contraceptive method compared to non-users did not reveal statistically significant differences between subgroups for age, marital status, education or poverty status. However, 63%; (CI= [0.53,0.73]) of urban AI/AN women who had never given birth were not using any method compared to 49%; (CI= [0.46,0.52]) of NH-white women who had never given birth.

RISK OF UNINTENDED PREGNANCY AND USE OF CONTRACEPTION (SEE APPENDIX D: TABLE 11)

Women who are not using reversible contraception are classified by their reasons for non-use as follows, and are considered not at risk of an unintended pregnancy:

Currently pregnant- Answered “yes” to the question, “Are you pregnant now?” or “Do you think you are probably pregnant or not?”;

Postpartum- Last pregnancy had ended 6 weeks or less before the time of interview;

Seeking a pregnancy- She or her partner wanted to become pregnant as soon as possible;

Not sexually active- Never had intercourse or have not had intercourse in 3 months before interview;

They (or their partner) are surgically or non-surgically sterile; or

Other- Never had intercourse since their first menses.

Women who had intercourse in the 3 months prior to the interview, but were not using a method in the month of interview, are considered to be at risk of unintended pregnancy if they do not fall into any of the other categories above.

- The proportion of women at risk of an unintended pregnancy is the same among AI/AN and NH-whites (70%).

- Urban AI/AN age 15-19 years were less likely to be using any method of contraception than NH-whites of the same age group (13%; CI= [0.06, 0.25] vs. 35%; CI= [0.30, 0.40]) (data not in tables).

CONTRACEPTIVE METHODS USED AT LAST INTERCOURSE (IN PAST YEAR)

Contraceptive methods used at last intercourse were examined among unmarried women who were sexually active in the past year at the time of the interview. Select differences between subgroups of urban AI/AN and NH-white women were seen (data not in table).

- Urban AI/AN women who had never given birth were less likely to use the pill at last intercourse than NH-white women who had never given birth (25%; CI= [0.11, 0.46] vs. 52%; CI= [0.46, 0.58]).

SECTION III: RESULTS

CONTRACEPTIVE USE

CONTRACEPTIVE METHODS USED AT LAST INTERCOURSE (IN PAST YEAR) - CONTINUED

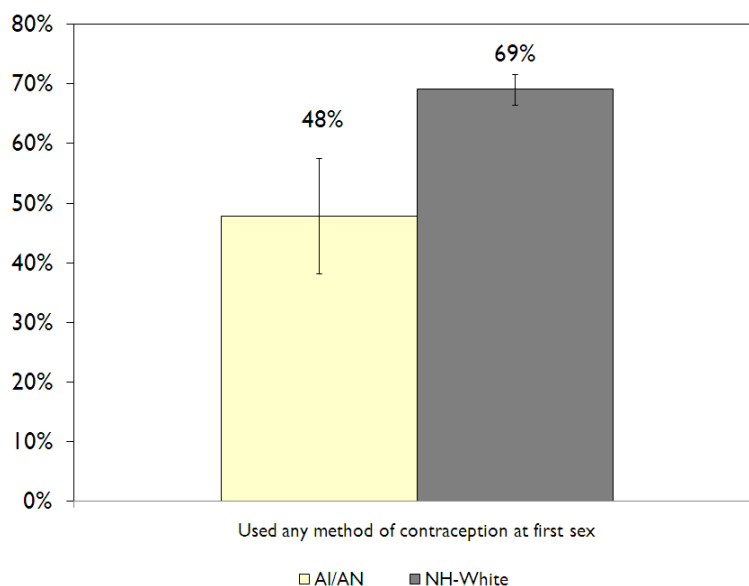
- Urban AI/AN women with private health insurance were less likely to use the pill at last intercourse than NH-white women with private health insurance (16%; CI= [0.07,0.35] vs. 50%; CI= [0.43,0.56]).
- Urban AI/AN women age 22-44 years with some college education were more likely to have used condoms at last intercourse compared to NH-white women with the same level of education (60%; CI= [0.34,0.82] vs. 24%; CI= [0.18,0.31]).

CONTRACEPTIVE METHODS USED AT FIRST INTERCOURSE

Use of contraceptive methods at first sexual intercourse after menarche was examined among women who had ever had sex. Use of any contraceptive method versus no method and select common methods were examined among subgroups of urban AI/AN and NH-white women (data not in table).

- Overall, urban AI/AN were more likely to have unprotected first sex than NH-whites (OR 0.35; $p=0.00$).
- When looking at age groups, urban AI/AN age 15-24 years were less likely to have used any method at first sex compared to NH-whites (62%; CI= [0.49, 0.73] vs. 81%; CI= [0.78, 0.84]).
- A smaller percentage of urban AI/AN who initiated sex at age 15 years or younger used a condom compared to NH-whites (40%; CI= [0.24, 0.59] vs. 70%; CI= [0.63, 0.75]).
- A greater percentage of urban AI/AN who initiated sex at age 15 years or younger used birth control pills compared to NH-whites (40%; CI= [0.25, 0.58] vs. 16%; CI= [0.13, 0.21]).

Graph 6. Use of any method of contraception at first sex by race, Urban areas, 2002



Overall, urban AI/AN were less likely to have used any method at first sex than NH-whites (48%; CI= [0.38, 0.57]) (69%; CI= [0.67, 0.72]) (See Graph 6).

SECTION III: RESULTS

NON-VOLUNTARY SEXUAL INTERCOURSE

Non-voluntary sexual intercourse is examined in the NSFG only among adult women age 18-44 years. The topic is included in the self-administered portion of the survey (ACASI) because of the sensitive nature of the questions.

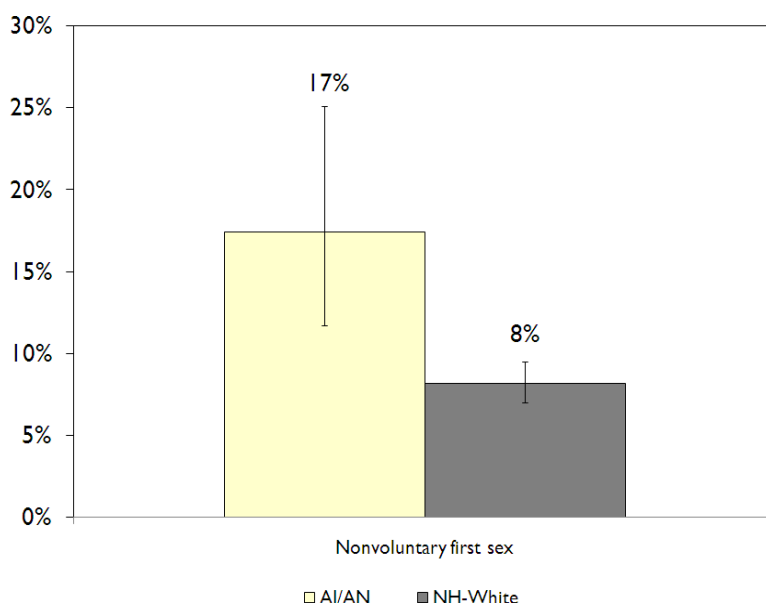
FIRST SEXUAL INTERCOURSE NON-VOLUNTARY (SEE APPENDIX D: TABLE 7)

There are two questions about the voluntariness or wantedness of first sexual intercourse. The first one asked how much the first intercourse was wanted with responses as:

- *I really didn't want it to happen at the time,*
- *I had mixed feelings-part of me wanted it to happen at the time and part of me didn't,*
- *I really wanted it to happen at the time.*

The second question asked was: "Would you say then that this first vaginal intercourse was voluntary or not voluntary, that is, did you choose to have sex of your own free will or not?"

Graph 7. Non-voluntary first sex by race, Urban areas, 2002



More than two times the number of urban AI/AN report their first sex was non-voluntary compared to NH-whites (17% vs. 8%; $p = 0.00$) (See Graph 7).

SECTION III: RESULTS

NON-VOLUNTARY SEXUAL INTERCOURSE

TYPES OF FORCE REPORTED AT FIRST FORCED SEX (SEE APPENDIX D: TABLE 8)

Respondents who reported having experienced forced sexual intercourse were asked about the type(s) of force used. Women could report more than one type of force and each of seven types were asked as a separate “yes” or “no” question.

- Among urban AI/AN women whose first sex was not voluntary, 85% specified the type(s) of force used.
- The most common reported type of force at first sex for both urban AI/AN and NH-whites was being “pressured into it by his words or actions, but without threats of harm” (63% and 62%).
- The second and third most common types of force were, “Did what he said because he was bigger or grownup, and you were young,” and being “physically held down”.

EVER EXPERIENCE OF FORCED SEXUAL INTERCOURSE (SEE APPENDIX D: TABLE 9)

Respondents who reported their first sex was voluntary (or who responded “don’t know” or refused) were asked, “At any time in your life, have you ever been forced by a male to have vaginal intercourse against your will?”

Respondents who reported their first sex was non-voluntary were asked, “Besides the time you already reported, have you ever been forced by a male to have vaginal intercourse against your will?”

Overall, rates of having ever experienced forced sexual intercourse were higher among urban AI/AN than NH-whites, but were not statistically significantly different (21% vs. 18%; $p = 0.29$). (See limitations section for discussion of small sample sizes).

Risky sexual behavior and negative sexual health outcomes are related to forced sexual intercourse in the general population; this is also seen in our study population (Child Trends, 2008).

- Urban AI/AN women who had ever been forced to have sexual intercourse were more likely to have initiated sex before age 15 years than NH-whites (46% vs. 23%; $p = 0.01$).

TYPES OF FORCE REPORTED AT FORCED SEX AT ANY TIME (SEE APPENDIX D: TABLE 10)

- Overall a smaller percentage of AI/AN reported specific types of force compared to NH-whites (90% vs. 99%; $p = 0.00$).
- The most common type of force reported among both AI/AN and NH-whites was being physically held down (89% and 74%).

- Fewer urban AI/AN reported having been given alcohol or drugs than NH-whites (15% vs. 37%; $p = 0.02$).

SECTION III: RESULTS

UNINTENDED PREGNANCY

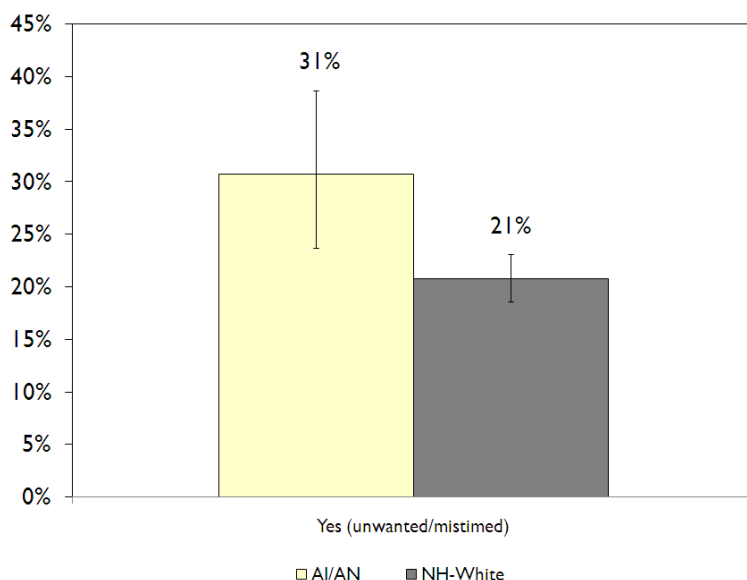
In the NSFG, women are asked questions about each of their pregnancies and about the time right before they became pregnant. On the basis of these questions, and regardless of whether or not contraception was being used, pregnancies are categorized as:

Intended- The pregnancy was wanted at the time, or sooner, or the respondent “didn’t care” about the timing of the pregnancy; or

Unintended- The pregnancy was not wanted at the time conception occurred.

(See Appendix D: Table 11)

Graph 8. Unintended pregnancy by race, Urban areas, 2002



Overall, urban AI/AN were more likely to have had an unintended pregnancy (unwanted or mistimed) than NH-whites (31% vs. 21%; $p=0.01$) (See Graph 8).

SECTION III: RESULTS

UNINTENDED PREGNANCY

- Among women of the same marital/cohabitation status, urban AI/AN women were 54% more likely to have had an unintended pregnancy than NH-whites (OR= 1.54; p= 0.05) (data not in table).

MISTIMED PREGNANCIES

Among unintended pregnancies, a distinction is made between mistimed and unwanted:

- Mistimed Pregnancies were wanted by the woman at some time, but occurred sooner than they were wanted; and
- Unwanted Pregnancies occurred when the woman did not want to have any more pregnancies at all. Sample sizes for unwanted pregnancies among urban AI/AN were too small to examine separately.

Urban AI/AN had more mistimed pregnancies than NH-whites (25% vs. 16%; p= 0.03).

In examinations of women who had a mistimed pregnancy, there were differences in age between urban AI/AN and NH-whites:

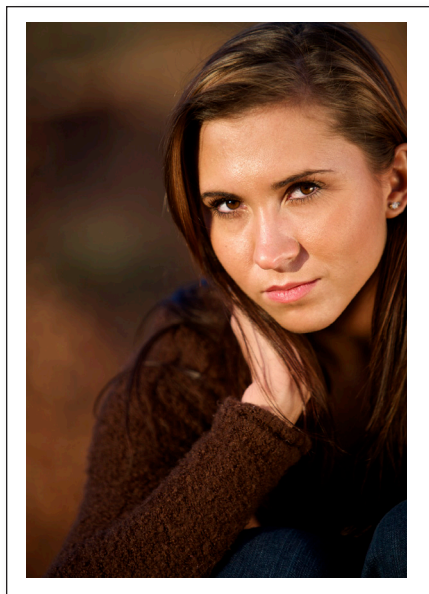
- Urban AI/AN were more likely to be age 25-34 years (58%; CI= [0.43, 0.72] vs. 35%; CI= [0.31, 0.41]) and less likely to be age 35-44 years (10%; CI= [0.04, 0.24] vs. 35%; CI= [0.29, 0.41]) than NH-whites (data not in table).

RISK OF UNINTENDED PREGNANCY (SEE APPENDIX D: TABLE 12)

In an examination of the effect of race group (AI/AN vs. NH-white) on the odds of having ever had an unintended pregnancy, AI/AN women of the same sexual risk factor status (i.e. sex before age 15 years, unprotected sex in the past year, and more than two sex partners in the past three months) were 77% more likely than NH-whites to have had an unintended pregnancy (OR=1.77; p = 0.01).

However, when socio-economic factors (age, marital/cohabitation status, poverty level and education) were considered, the difference in unintended pregnancy was no longer significant between groups.

SECTION IV: DISCUSSION



This report represents the only published report of National Survey of Family Growth (NSFG) data on American Indian and Alaska Native (AI/AN) women to date. Additionally, the findings provide the first estimates on pregnancies, births, sexual history and behavior, contraceptive patterns, non-voluntary sex, and unintended pregnancy among the nationwide urban AI/AN population. Data on AI/AN respondents in the NSFG are not included in public reports or released online as for other racial/ethnic groups, such as black, white and Hispanic. Furthermore, data on the topic areas covered in this report among urban AI/AN are limited at best. Improved access to AI/AN data will be critical to continued surveillance of these issues.

SOCIO-ECONOMIC DISPARITIES

Examinations of subgroups of urban AI/AN reveal a consistent pattern of socio-economic disparities associated with many of the potential risk areas addressed in this report, including unintended pregnancy and use of specific contraceptive methods. High fertility rates were also seen among subgroups with lower socio-economic status. More urban AI/AN having three or more pregnancies/births were un-partnered and were less educated than NH-whites, which brings greater obstacles for both the mother and the child (Child Trends, 2001).

Findings in these areas may reflect the experience of urbanization and poverty among minority groups in the U.S. more than the specific experience of urban AI/AN. Other contextual factors relevant to AI/AN, such as historical trauma, loss of land, and forced assimilation, which are also shown to play a role in health outcomes, are missing from these data and should be examined in future studies (Northwest Community Alliance, 2005; Walters, 2002).

RISK FACTORS AMONG YOUNG WOMEN

Risk factors are seen especially among young urban AI/AN women. Young urban AI/AN women are having more unprotected first sex and have much older first sex partners than NH-whites. Previous research shows that having an older first partner is associated with poor reproductive health outcomes and teen births (Manlove, 2006). Studies of the consequences for youth with older sex partners indicate a need for programs to address the risks, as well as to emphasize messages about the importance of delaying sexual initiation specifically among young girls.

Young urban AI/AN women are also having three or more pregnancies/births at much higher rates than NH-whites. Healthy People 2010 (HP2010) included the objective to reduce pregnancies among adolescent females, however a baseline estimate used to measure progress was not provided for the AI/AN population, which further highlights the need to focus on this area among urban AI/AN (U.S. DHHS, 2000).

Young urban AI/AN women are having more unprotected first sex and have much older first sex partners than NH-whites.

SECTION IV: DISCUSSION



A significantly higher percentage of young AI/AN had their period at age 11 years or younger compared to NH-whites. Age at first menstrual period (menarche) is used to mark the start of a woman's capacity to become pregnant if engaging in sexual intercourse and serves as a proxy measure of pubertal timing. Early onset of pubertal development has been identified as a significant risk factor for early pregnancy as well as other negative outcomes, such as conduct problems, depression, early substance use, poor body image, early sexual initiation, and higher risk of cancer (Caspi, 1993; Hayward, 1997; Dick, 2000; Siegel, 1999; Kim, 1999). It will be important to continue surveillance of this indicator in urban AI/AN to learn about the possible trend in effect.

ABORTION

Reports of having experienced two or more abortions among urban AI/AN was twice that of NH-whites. Abortions are under-reported in the NSFG as in most other demographic surveys; therefore these rates may be underestimated. Previous research shows that non-white and less educated women are more likely to underreport abortions than white women, however we do not have data specific to urban AI/AN on this issue (Udry, 1996; Fu, 1998).

With the number of providers and training programs for abortion dwindling, access to abortion is a challenge for all women in the U.S. currently, but AI/AN women face even greater complexities (Almeling, 2000). The Hyde Amendment, first passed in 1976, prohibits federal Medicaid dollars from being used to pay for abortion, except in cases of rape, incest, and danger to the life of the woman. The impact of the Hyde Amendment and the funding bans enacted in 33 states is greater for AI/AN women who depend on Medicaid and other federal programs. Furthermore, even more recent language in the Indian Health Care Improvement Act of 1976, which affirms the responsibility of the federal government for Indian health, prohibits the use of IHS funding for abortion services, except in the cases of rape, incest of a minor, or life endangerment. Further examination of abortions within urban AI/AN populations would provide greater clarity on the high rates seen in our study and the impact of the unique funding situation on access and quality of care for the population.

Reports of having experienced two or more abortions among urban AI/AN was twice that of NH-whites in our study sample.

CONTRACEPTION

Historical abuses

American Indian and Alaska Native women have endured a long history of reproductive rights abuses by government policies. For example, between 1972 and 1976, a report by the U.S. Government Accounting Office (GAO) documented that many thousands of AI/AN women were being sterilized without medical need or informed consent (U.S. GAO, 1975). Some incidents reportedly also involved coercion to consent to sterilization using harassment and deceit

SECTION IV: DISCUSSION



Historical abuses - Continued

(England CR, n.d.). There have also been multiple accounts of Depo-Provera use without informed consent and injections of mentally impaired AI/AN women to eliminate menstruation in the 1980's. Reports also document use of Depo prior to Federal Drug Administration approval. An investigation of these reports prompted amendments to IHS protocol on the use of the method by its providers (The Native American Community Board, 1993).

From historical references to online forums, the well-known public dialogue on these abuses alludes to the profound influence they still have on the well-being of AI/AN women and families. This sensitivity may well lend itself to a lack of trust in healthcare thereby impacting access to needed services. Perceived racial prejudices in healthcare delivery have been found to negatively affect women's protective health behaviors (Thorburn, 2005). Beliefs about use of birth control for genocide and a lack of trust in government and public health institutions for contraceptive testing and safety are negatively associated with attitudes towards contraceptive methods, specifically provider-dependent methods (Facione, 2007).

Recognition of the range of factors involved in contraceptive and family planning decisions for urban AI/AN is critical in attempts to achieve cultural competence in healthcare. The development of resources which address these issues as well as the needs of AI/AN women in reproductive health interactions could yield significant rewards in patient satisfaction and health outcomes among urban AI/AN.

Sterilization

Public reports of NSFG data from 1995 and 2002 show that NH-white women were less likely to rely on female sterilization, and more likely to rely on male sterilization or the pill, than Hispanic and black women (Mosher, 2004). Likewise, rates of female sterilization were significantly higher among urban AI/AN compared to NH-whites, especially among women age 35-44 years. Although we cannot make a direct connection with our data and previously described accounts of coercion for sterilization, it is possible that some respondents in our study were directly affected, which might in part explain the high rates of sterilization use. It is also possible that AI/AN women had reached or passed their desired fertility at an earlier age and self-selected for sterilization as an effective contraceptive method (Warren, 1990). It will be important to gather more information from urban AI/AN women to better understand the reason for the high rates of sterilization seen in our study.

*Recognition of the range
of factors involved in
contraceptive and family
planning decisions for urban
AI/AN is critical in attempts to
achieve cultural competence
in healthcare.*

SECTION IV: DISCUSSION



Depo-Provera

Rates of Depo-Provera use among urban AI/AN women age 15-24 years were more than three times that of NH-white women. Depo-Provera was also more common among urban AI/AN women with public insurance or Medicaid. Abnormal bleeding and weight gain are cited as the two most common reasons for discontinuation of this method in the general population. Unfortunately we were unable to examine discontinuation patterns among AI/AN because of small sample sizes. In a retrospective chart review conducted in 2000, Navajo women were found to have increased weight gain with use of Depo-Provera compared to other/no methods among women of the same age, parity and initial weight (Espey, 2000). These findings have significant negative implications for American Indian women who are known to have high rates of Type II diabetes that is often associated with obesity. Depo use has also been associated with a greater risk of diabetes compared with combination oral contraceptive use only among Navajo women (Kim, 2001).

Expanded surveillance of Depo-Provera use is needed in light of the higher potential risk among overweight AI/AN and the known history of abuses. Recommended data elements to gather on Depo use among AI/AN include satisfaction levels, discontinuation and failure rates, side effects of the method and cost and provision information. Improved data could be used to determine the suitability and effectiveness of the method in this population, as well as the need for increased education on potential risks, especially among young urban AI/AN women.

Male condom use

Overall, urban AI/AN women were less likely than NH-whites to report having ever used male condoms, however, current use was not significantly different between groups. Among women with some college education, AI/AN were two and a half times more likely to have used condoms at last intercourse than NH-whites, which may signify a different impact of education among AI/AN than other populations. These data may also reveal a trend towards increased condom use among urban AI/AN. It will be important to monitor data over time to better understand potential patterns. However, the low rates of condom use among urban AI/AN having sex at a young age point to the need to focus on youth.

The low rates of condom use among urban AI/AN having sex at a young age point to the need to focus on youth.

Oral contraceptive pill

In general, use of the oral contraceptive pill is associated with higher levels of education and income, and lower numbers of births. These patterns were also seen among urban AI/AN with even greater differentials in pill use among some subgroups.

SECTION IV: DISCUSSION



Oral contraceptive pill - Continued

For example, urban AI/AN women with no children had less than half the rates of pill use as NH-whites. Health insurance also did not appear to modify having ever used the pill or use of the pill at last sex among urban AI/AN. Urban AI/AN women with private health insurance had rates of pill use two times lower than those of NH-white women. Among those who had sex at age 15 years or younger, equal percentages of urban AI/AN used the pill or condoms; pill use at first sex among young women was more than two times the rate of NH-whites. Pill use among young women at sexual debut is uncommon and would be interesting to examine to further clarify these findings.

Risk factors for unintended pregnancy and STI's seen in contraceptive use trends among urban AI/AN, especially youth, indicate increased or improved programming is needed. Programs should help teach teens how to make healthy decisions about sex, contraception, especially condom negotiation, and relationship choices (Child Trends, 2008). Findings from a community-based participatory action research study with urban Native youth in Minnesota suggest specific pregnancy prevention strategies to inform program development. Suggested strategies from that project included: involving knowledgeable, trusted Native family and community leaders in discussions with youth and pregnancy prevention initiatives, the need for comprehensive sexuality education in schools, access to contraceptive resources, and community-based youth development programs (Garwick, 2007). Successful programs from other communities must be tailored to the unique culture and needs of urban AI/AN in different communities and evaluated for their effectiveness on this basis.

NON-VOLUNTARY SEXUAL INTERCOURSE

Urban AI/AN women experienced non-voluntary first sexual intercourse at a rate more than twice that of NH-whites. Further, urban AI/AN women who had ever been forced to have sexual intercourse were more likely than NH-whites to have initiated sex at a young age. These findings are consistent with previous analyses of Youth Risk Behavior Survey data, in which reports of being physically forced to have unwanted sexual intercourse were more than two-fold higher among urban AI/AN high school students compared to whites (Rutman, 2008). The current findings also confirm data gathered by multiple sources that have consistently shown higher rates of sexual violence among AI/AN women compared to the general population (Amnesty International, 2007).

Not all communities will or should respond to sexual violence in the same way. Agencies designed to support survivors of sexual violence

The current findings confirm data gathered by multiple sources that have consistently shown higher rates of sexual violence among AI/AN women compared to the general population.

SECTION IV: DISCUSSION



NON-VOLUNTARY SEXUAL INTERCOURSE - CONTINUED

must consider the historical context and legacy of oppression and violence experienced by AI/AN women to respond effectively (Lawrence, 2009). The context in which sexual assault occurs also needs to be examined in order to illuminate current problems, offer insight into solutions and find ways to promote justice.

UNINTENDED PREGNANCY

Multiple findings among young urban AI/AN can lead to high fertility and high levels of unintended pregnancy. HP2010 included the objective to increase the proportion of females at risk of an unintended pregnancy who use contraception (U.S. DHHS, 2000). While the overall proportion of women defined at risk of an unintended pregnancy is not different between racial groups in our study, a lower proportion of urban AI/AN teens were using contraception compared to NH-white teens.

Urban AI/AN had higher rates of unintended pregnancies and higher rates of mistimed pregnancies, a subgroup of the unintended pregnancies, than NH-whites. In adjusted analyses of the effect of racial group on having ever had an unintended pregnancy, urban AI/AN who had unprotected sex in the past year, had sex before age 15 years and had more than two sex partners in the past three months were 77% more likely than NH-whites with the same sexual risk factors to have an unintended pregnancy. Analyses further adjusted for socio-economic factors highlight the important impact of age, relationship status, education and income on experiences of unintended pregnancy among urban AI/AN compared to NH-whites.

URBAN INDIAN HEALTH ORGANIZATIONS (UIHO)

Urban Indian Health Organizations (UIHO) are private, non-profit corporations that are governed by Indian majority Boards of Directors and serve as service and social hubs for Indian identity and recognition in select cities. Today, UIHO are most often affiliated with contractual agreements with the federal Indian Health Service under Title V of the 1976 Indian Health Care Improvement Act. UIHO range in size and services from small information and referral sites to large community health centers offering medical and dental services and that are part of local safety net provider networks for the uninsured and poverty communities. UIHO serve individuals in approximately 102 U. S. counties in 19 states, and manage to provide services to more than 150,000 clients each year.

Often seen as centers for cultural activities and identity, UIHO offer AI/AN living in these urban areas a place where they can receive health information and services in a culturally appropriate manner.

SECTION IV: DISCUSSION



NEED FOR REPRODUCTIVE HEALTH SERVICES AT UIHO

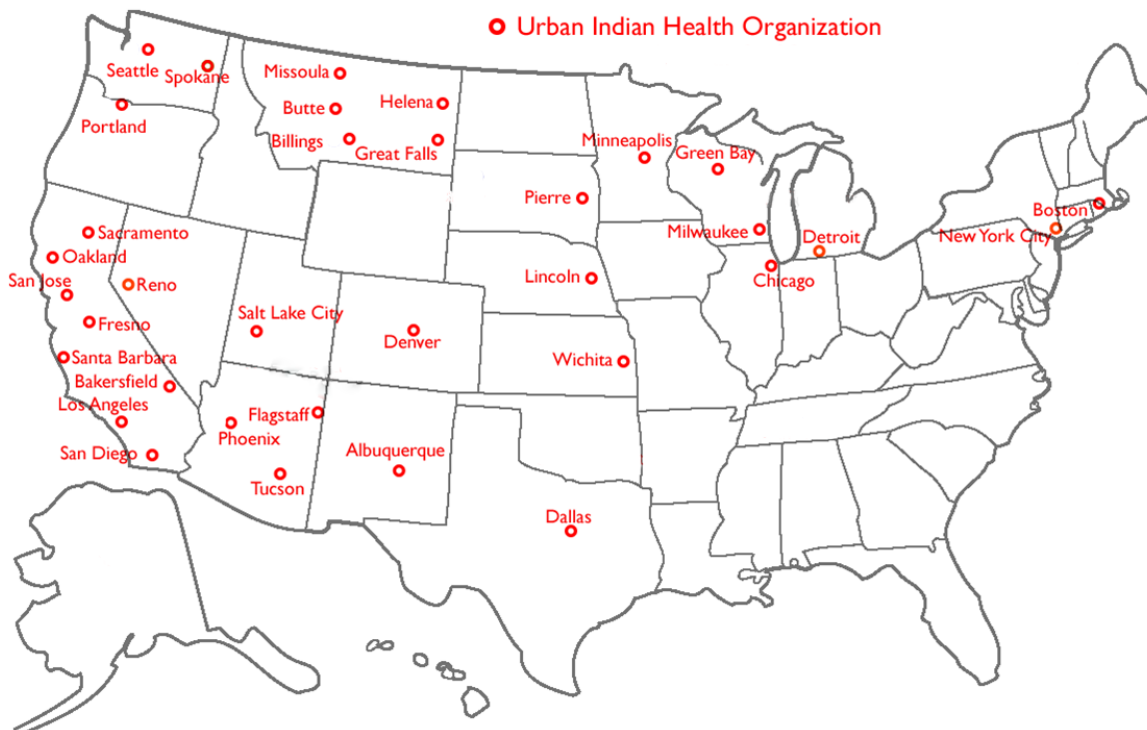
In a survey of the UIHO network in 2006, the UIHI gathered information about the provision of maternal and child health services, as well as the accessibility, quality, and affordability of those services (UIHI, 2009). The findings of the assessment highlighted areas of strength as well as areas of need among the participating UIHO.

Of 23 sites that provided data about provision of services, most reported that they provide on-site pregnancy tests (83%), contraceptive services (83%), preconception/inter-conception care (70%) and well women's exams (78%), while between 13-22% provide these services by referral and only 4 sites do not provide preconception/inter-conception care services on-site or by referral. There were no sites who reported offering on-site abortion services; 15 sites (65%) provide abortion services by referral and eight sites (35%) neither offer on-site nor refer for abortion services. It is unclear whether the lack of abortion provision is related to restrictions in public funding as discussed previously in this report.

The need for OBGYN providers and related-services was a theme repeated throughout the survey. These shortages are particularly concerning in light of the current findings of increased risk factors for unintended pregnancy in this report. Because OBGYN-related services and outcomes were reported as important areas of focus for the UIHO, the UIHI believes more funding in these areas is strongly warranted.

Map of the UIHO

Below is a map of the 34 UIHO across 19 states.



SECTION V: LIMITATIONS



Efforts should be made to increase the AI/AN sample in the NSFG to improve opportunities for analysis of subgroups.

National Survey of Family Growth data are subject to inaccuracies related to respondents' misunderstanding questions, non-uniformity in asking the questions, and possible bias due to giving socially desirable answers. Also, some NSFG questions rely on respondents' ability to recall events and dates. These events may be difficult to recall accurately, which could lead to recall error.

Beyond the specific limitations of NSFG data, national data overall have limitations when assessing the health of urban AI/AN (UIHI, 2009). For example, although the percentage of AI/AN in 2002 NSFG data (357 AI/AN = 5% of 7643 NSFG female sample) is high relative to the proportion of AI/AN in the U.S. population (4.1 million AI/AN population = 1.5% of U.S. Census population), the small number of respondents make it difficult to analyze with scientific validity. Some differences between our study subgroups may be masked because of the large variability that exists when examining a small sample. Also, we were unable to examine some subgroups in close detail. For example, examinations of youth often included a wider age range than is traditional (i.e. 15-24 years or 18-24 years rather than 15-19 years). Efforts should be made to increase the AI/AN sample in the NSFG to improve opportunities for analysis of subgroups.

Further, although the NSFG is designed to be representative of the U.S. household population age 15-44 years, it is important to keep in mind the small number of AI/AN respondents included when considering whether to generalize results for the entire urban AI/AN population nationwide. Also, we know that the AI/AN sample was not distributed equally within each region in the country—more AI/AN from the West region and fewer from the Midwest region were surveyed compared to NH-whites—therefore these national data may not accurately represent local issues. Local officials and community representatives should be consulted to discuss the findings presented in this report relative to their communities and to provide the specific context needed to appropriately address the disparities seen in this study.

Local officials and community representatives should be consulted to discuss the findings presented in this report relative to their communities.

SECTION VI: RECOMMENDATIONS



The following recommendations stem from the current study findings and previous examinations of data on the health of the urban AI/AN population.

IMPROVED ACCESS TO DATA ON URBAN AI/AN

- Sampling methods are needed which will ensure the ability to analyze urban AI/AN women and other subgroups, such as male respondents and age groups in NSFG and other datasets. Over-sampling, an attempt to include a higher percentage of individuals from specific sub-populations, may not be enough as is seen from this survey (AI/AN are 5% of the sample). “Equal explanatory power”, including an adequate number of respondents from the sub-population to assure the ability to make scientifically valid conclusions, has been proposed by Maori advocates in New Zealand (Te Rōpū Rangahau Hauora a Eru Pōmare, 2002). **Adequate sampling is essential to allow for more in-depth analysis of urban AI/AN and subgroups.**
- Although NSFG data is collected on all Office of Management and Budget (OMB) racial categories based on 1997 guidelines, many race groups are aggregated for reporting and therefore not publicly available (OMB, 1997). **Data must be collected and reported for all Office of Management and Budget racial categories.**
- The National Survey of Family Growth is a rich dataset that has the potential to provide comprehensive information on reproductive health topics for urban AI/AN. Although data were collected on AI/AN men for Cycle 6, the sample size was not adequate for analysis as was done for females in this report. **Sampling of AI/AN males in the NSFG should be increased to allow for analysis of this subgroup.**

FURTHER INVESTIGATION AND CONTINUED SURVEILLANCE OF REPRODUCTIVE HEALTH TOPICS FOR AI/AN

- This report presents new data on contraceptive use and sexual history and behavior for urban AI/AN, however, more detailed data could not be presented on some important areas because of the small AI/AN sample size and project scope. **Continued and expanded surveillance is essential on topic areas where greater clarification is needed on the current findings, such as early menarche, abortion, Depo-Provera and female sterilization use, and high fertility rates.**

SECTION VI: RECOMMENDATIONS



FURTHER INVESTIGATION AND CONTINUED SURVEILLANCE OF REPRODUCTIVE HEALTH TOPICS FOR AI/AN - CONTINUED

- Critical contextual factors are missing from the NSFG dataset that are relevant for AI/AN, and other underserved populations, and which might help explain the reasons for the disparities seen here and in other reports. Examples of these factors include: historical traumas, colonization, relocation, social support and isolation, gang activity, sexual exploitation and sex trafficking, homelessness and vulnerability. **Additional questions should be added on contextual factors in national surveys such as the NSFG.**
- Qualitative data is needed to examine social and economic factors that are shown to have an impact on risk areas, such as unintended pregnancies among urban AI/AN. **Qualitative studies must be conducted to verify survey data and provide information that cannot be gathered from national survey methods.**
- Research must be conducted by communities themselves to assure the outcomes are relevant to community members, improve participation and efficient use of resources, and allow community members greater control over their own health and well-being. **Future studies must be conducted with the involvement of AI/AN at all levels of project development.**

INCREASED FUNDING FOR URBAN AI/AN RESEARCH AND PROGRAMMING

- President Obama stated that the high rate of rape among AI/AN women can no longer be ignored, yet many resources are not made available for urban AI/AN (Obama, 2009). Programs should help bridge the divide to support AI/AN women regardless of where they reside. **There must be an increase in the allocation of funds for programming and research which is inclusive of urban AI/AN.**
- In order to be successful, studies including the AI/AN population may require small, community-based and localized efforts by organizations who work with and within underserved communities. **Funds must be made available to community based organizations, Urban Indian health organizations, Tribal Governments, Urban, Tribal and Native Epidemiology Centers, and Tribal Colleges and Universities to collect data and to assure the proper distribution and utilization of findings.**
- Additional resources should be focused on developing programs that address the unique culture and needs of urban AI/AN women as seen in study findings. **Resources must be identified and set aside for programs to work with urban AI/AN youth and those affected by sexual violence.**

SECTION VII: REFERENCES

Almeling, R, Tews L, Dudley S. (2000). Abortion Training in U.S. Obstetrics and Gynecology residency programs, 1998. *Fami Plann Perspect*, 32(6):268-271 & 320.

Amnesty International. (2007). *Maze of Injustice: The Failure to protect Indigenous women from sexual violence in the USA*. New York: Amnesty International.

Brown SS & Eisenberg L. (1995). *The Best Intentions: Unintended Pregnancy and the Well-Being of Children and Families*. Washington, DC: National Academy Press.

Caspi A, Lynam D, Moffitt TE, Silva PA. (1993, January). Unraveling girls' delinquency: biological, dispositional, and contextual contributions to adolescent misbehavior. *Dev Psychol*, 29(1):19-30.

Chandra A, Martinez GM, Mosher WD, Abma JC, Jones J. (2005). Fertility, family planning, and reproductive health of U.S. women: Data from the 2002 National Survey of Family Growth. *National Center for Health Statistics. Vital Health Stat*, 23(25).

Child Trends. (2001, April). *Births Outside of Marriage: Perceptions vs. Reality*. Washington, DC: Terry-Humen E, Manlove J, Moore K. Available at: http://www.childtrends.org/Files/Child_Trends-2001_04_01_RB_BirthsMarriage.pdf. Accessed December 4, 2009.

Child Trends. (2008, August). *Forced Sexual Intercourse Among Young Adult Women*. (Publication No. 2008-30). Washington, DC: Holcombe E, Manlove J, Ikramullah E. Available at: http://www.childtrends.org/Files/Child_Trends-2008_09_10_FS_ForcedSex.pdf.

Child Trends. (2008, April). *Long-Term Consequences for Teens with Older Sexual Partners*. (Publication No. 2008-16). Washington, DC: Schelar E, Ryan S, Manlove J. Available at: http://www.childtrends.org/Files/Child_Trends-2008_05_06_FS_OlderPartners.pdf. Accessed December 4, 2009.

Dick DM, Rose RJ, Viken RJ, Kaprio J. (2000, March). Pubertal timing and substance use: associations between and within families across late adolescence. *Dev Psychol*, 36(2):180-9.

England CR. A Look at the Indian Health Service Policy of Sterilization, 1972-1976. n.d. Available at: <http://www.dickshovel.com/IHSSterPol.html>. Accessed November 18, 2009.

Espey E, Ogburn T, Espey D, Etsitty V. (2003, July-August). IUD-related knowledge, attitudes and practices among Navajo Area Indian Health Service providers. *Perspect Sex Reprod Health*, 35(4):169-73.

Espey E, Steinhart J, Ogburn T, Qualls C. (2000, August). Depo-provera associated with weight gain in Navajo women. *Contraception*, 62(2):55-8.

Evans-Campbell T, Lindhorst T, Huang B, Walters KL. (2006, August). Interpersonal violence in the lives of urban American Indian and Alaska Native women: implications for health, mental health, and help-seeking. *Am J Public Health*, 96(8):1416-22.

SECTION VII: REFERENCES

- Facione NC & Facione PA. (2007). Perceived prejudice in healthcare and women's health protective behavior. *Nurs Res*, 56:175-184.
- Fu H, Darroch JE, Henshaw SK, Kolb E. (1998, May-June). Measuring the extent of abortion underreporting in the 1995 National Survey of Family Growth. *Fam Plann Perspect*, 30(3):128-33, 138.
- Garwick A, Rhodes KL, Peterson-Hickey M, Hellerstedt WL. (2008). Native Teen Voices: Adolescent Pregnancy Prevention Recommendations. *J Adolesc Health*, 42(1):81-88.
- Gutierrez SE & Barr A. (2003, January). The relationship between attitudes toward pregnancy and contraception use among drug users. *J Subst Abuse Treat*, 24(1):19-29.
- Hayward C, Killen JD, Wilson DM, et al. (1997, February). Psychiatric risk associated with early puberty in adolescent girls. *J Am Acad Child Adolesc Psychiatry*, 36(2):255-62.
- Kenney JW, Reinholtz C, Angelini PJ. (1997, July). Ethnic differences in childhood and adolescent sexual abuse and teenage pregnancy. *J Adolesc Health*, 21(1):3-10.
- Kim C, Seidel KW, Begier EA, Kwok YS. (2001, July). Diabetes and depot medroxyprogesterone contraception in Navajo women. *Arch Intern Med*, 161(14):1766-71.
- Kim K & Smith PK. (May, 1999). Family relations in early childhood and reproductive development. *J Reprod Infant Psychol*, 17(2):133-149.
- Lawrence N. Helping Survivors Survive. (2009, Fall). *Cultural Survival Quarterly*, 33(3). Available at: <http://www.culturalsurvival.org/publications/cultural-survival-quarterly>. Accessed December 16, 2009.
- Lobo S. (2003, Summer and Fall). Urban clan mothers: Key households in cities. *Am Indian Q*, 27(3&4): 505-522.
- Manlove J, Terry-Humen E, Ikramullah, E. (2006, December). Young Teenagers and Older Sexual Partners: Correlates and Consequences for Males and Females. *Perspect Sex Reprod Health*, 38(4):197-207. Available at: <http://www.guttmacher.org/pubs/journals/3819706.html>. Accessed December 4, 2009.
- Mosher WD & Bachrach CA. (1999, January-February). Understanding U.S. fertility: continuity and change in the National Survey of Family Growth, 1988-1995. *Fam Plann Perspect*, 28(1):4-12.
- Mosher WD, Martinez DM, Chandra A, Abma JC, Willson SJ. (2004, December). Use of Contraception and Use of Family Planning Services in the United States: 1982-2002. *Division of Vital Statistics*, Number 350.

SECTION VII: REFERENCES

U.S. Department of Health and Human Services. (2004, December). *Use of Contraception and Use of Family Planning Services in the United States* (Number 350). Atlanta, GA: Center for Disease Control and Prevention. Mosher WD, Martinez DM, Chandra A, Abma JC, Willson SJ.

The Native American Community Board. (1993, July). *A Study of the Use of Depo-Provera and Norplant by the Indian Health Services*. (Revised). Lake Andes, South Dakota: Krust L & Asetoyer C.

North Carolina Department of Health and Human Services. (2005, February). *North Carolina Minority Health Facts: American Indians*. Raleigh, NC: State Center for Health Statistics and Office of Minority Health and Health Disparities.

Northwest Community Alliance. (2005). *Living like neighbors: Supporting the treaty rights and sovereignty of indigenous nations*. Poulsbo, WA: Henry-Tanner L & Tanner C.

Obama, Barack. "Opening Remarks." Tribal Nations Summit. Washington, D.C. 5 Nov. 2009.

Office of Management and Budget. (1997). *Revisions to the Standards of the Classification of Federal Data on Race and Ethnicity*. Washington, DC: Office of Management and Budget. Available at: http://www.whitehouse.gov/omb/fedreg_1997standards/.

Oklahoma Pregnancy Risk Assessment Monitoring System. *PRAMSGRAM: Unintended Pregnancy*. OK: MCH Service.

Pallitto CC & O'Campo P. (2004, December). The relationship between intimate partner violence and unintended pregnancy: analysis of a national sample from Colombia. *Int Fam Plan Perspect*, 30(4):165-73.

Rutman S., Park A, et al. (2008, July). Urban American Indian and Alaska Native Youth: Youth Risk Behavior Survey 1997-2003. *Matern Child Health J*, 12 Suppl 1:76-81.

Seattle-King County Department of Public Health. (1999, January). *Public Health Data Watch : Unintended Pregnancy and Birth, King County, 1993-1996*. Seattle, WA: Seattle-King County Department of Public Health.

Siegel JM, Yancey AK, Aneshensel CS, Schuler R. (1999, August). Body image, perceived pubertal timing, and adolescent mental health. *J Adolesc Health*, 25(2):155-65.

Te Röpü Rangahau Hauora a Eru Pōmare. (2002). *Mana Whakamārama - Equal Explanatory Power: Māori and non-Māori sample size in national health surveys*. Wellington, New Zealand: University of Otago Wellington School of Medicine and Health Science.

Thorburn S, Bogart LM. (2005). Conspiracy beliefs about birth control: barriers to pregnancy prevention among African Americans of reproductive age. *Health Educ Behav*, 32(4):474-487.

SECTION VII: REFERENCES

Udry JR, Gaughan M, Schwingl PJ, van den Berg BJ. (1996, September-October) A medical record linkage analysis of abortion underreporting. *Fam Plann Perspect*, 28(5):228-31.

Urban Indian Health Institute, Seattle Indian Health Board. (2009). *Urban American Indian/Alaska Native Maternal, Infant and Child Health Capacity Needs Assessment*. Seattle, WA. Available at: http://www.uihi.org/wp-content/uploads/2010/01/MCHNA_RoundII_UPDATEDec2009.pdf.

Urban Indian Health Institute, Seattle Indian Health Board. (2009). *Visibility Through Data: Health Information for Urban American Indian and Alaska Native Communities*. Seattle, WA. Available at: http://www.uihi.org/wp-content/uploads/2009/08/OMH%20Report_Final.pdf.

U.S. Department of Health and Human Services. (2000, November). *Healthy People 2010. Understanding and Improving Health*. 2nd edition. Washington, DC: U.S. Government Printing Office.

U.S. General Accounting Office. (1975, November). *Summary of Information Obtained: Medical Research Involving Indian Subjects*. Washington, DC: U.S. General Accounting Office.

U.S. Department of Justice, National Institute of Justice. (1998, April). *Stalking in America: Findings From the National Violence Against Women Survey: Research in Brief (NCJ 169592)*. Washington, DC: U.S. Department of Justice, National Institute of Justice. Tjaden P, Thoennes N.

Walters KL, Simoni JM. (2002, April). Reconceptualizing native women's health: an "indigenist" stress-coping model. *Am J Public Health*, 92(4):520-4.

Warren CW, Goldberg HI, Oge L, Pepion D, Friedman JS, Helgersson S, La Mere EM. (1990, Spring-Summer). Assessing the reproductive behavior of on- and off-reservation American Indian females: characteristics of two groups in Montana. *Soc Biol*, 37(1-2):69-83.

Washington State Department of Health. (2006). *MCH Data Report 2006 Unintended Pregnancy*. Olympia, WA: Washington State Department of Health.

Williams, RL. (1994). Effects on Navajo birthrate from loss of intrauterine device. *J Health Care Poor Underserved*, 5(1):47-54.

SECTION VIII: LIST OF PRODUCTS

This report is the primary product of this project at this time. Also, presentations have been made to two national audiences with a Power point presentation via conference calls. The first was to the UIHI's Maternal and Child Health Advisory Council. This Council is comprised of leaders from grassroots community groups, maternal and infant health, and urban Indian health; and includes technical experts in: epidemiology, infant mortality, injury, pediatric oral health care, and MCH nutrition.

The second presentation of data findings was to the directors and staff of the Tribal Epidemiology Centers (TEC). Funded through the Indian Health Service, the TEC work with tribal and urban AI/AN communities to manage public health information systems, investigate diseases of concern, manage disease prevention programs, respond to public health emergencies and coordinate activities with other public health authorities. The UIHI is one of eleven TECs, and the only one to focus on AI/AN living in urban areas.

We submitted an abstract for presentation of our findings at the 2010 American Public Health Association Annual Meeting and Exposition.

We also plan to submit the study findings for presentation at the 16th Annual Maternal and Child Health Epidemiology (MCH EPI) Conference.

Further products from this work will consist of both electronic and hard copy distribution. The plan for this continued work is outlined below. These efforts will be intended to disseminate important findings and generate support that may assist with addressing potential health disparities in AI/AN maternal and child populations.

- First, when urban specific findings are obtained, they are of special significance to urban AI/AN organizations across the country. The UIHI will use its relationship with these organizations to distribute these findings both electronically and through hard copy.
- Second, because the findings of this report are of national significance, it will be made widely available for distribution using the UIHI website, which can be accessed by any group or individual.
- Third, study findings will be used for the development of fact sheets to educate legislators and community members on significant study findings. Specifically, factsheets are planned for individual topic areas, such as non-voluntary sexual experience, reproductive health among urban AI/AN youth and use of contraceptives among urban AI/AN.
- Fourth, at least one article will be drafted for submittal to a peer-reviewed journal. The following submissions are planned for June 2010:
 - Rutman S, Park A, Tualii M, Forquera, R. Reproductive health among urban American Indian and Alaska Native women. *Matern Child Health J.* [draft].
 - Rutman S, Park A, Tualii M, Forquera, R. Sexual violence among urban American Indian and Alaska Native women: Findings from the National Survey of Family Growth. *American Journal of Public Health.* [draft].

Page intentionally left blank.

UIHI Publication Feedback Form

We are very interested in your feedback regarding this and other UIHI publications.

Please take a moment to detach and fill out the following form with your comments, questions and suggestions. Mail to the Urban Indian Health Institute, Seattle Indian Health Board, PO Box 3364, Seattle WA 98114 or fax to 206-812-3044. You can also fill this form out on-line at www.uihi.org. Thank you very much for your time.

I am commenting on the following UIHI publication:

- ☐ Reproductive Health of Urban American Indian and Alaska Native Women (2010)
- ☐ Visibility Through Data (2009)
- ☐ Health and Health-Influencing Behaviors among Urban AI/AN (2008)
- ☐ Urban AI/AN Maternal, Infant and Child Health Capacity Needs Assessment (2007)
- ☐ Communications Broadcast (monthly)
- ☐ Other: _____

I received this publication in the following way:

- ☐ Electronic version sent to me directly
- ☐ UIHI (over email)
- ☐ Hard copy sent to me directly from UIHI
- ☐ Downloaded it from the website
- ☐ Someone in my agency shared it with me
- ☐ Someone outside my agency shared it with me
- ☐ Other: _____

Please share your thoughts, questions or comments about the publication:

Overall, did you consider this publication helpful? ☐ Yes ☐ No

What would have made it more helpful? _____

Overall, did you consider this publication easy to understand and use? ☐ Yes ☐ No

What would have made it easier to understand and use? _____

How do you intend to use this publication and the information it contains? (Check all that apply)

- ☐ Grants ☐ Program Planning ☐ Presentations ☐ General Background
- ☐ Unknown ☐ Advocacy ☐ Other: _____

If you would like a staff person to respond to your questions or comments, please share your contact information: Do you prefer to be contacted by: ☐ Phone ☐ Email

Name: _____ Agency: _____

Phone: _____ Email: _____

Page intentionally left blank.

APPENDIX A

BRIEF OUTLINE OF THE NSFG CYCLE 6 SURVEY TOPICS

Section A: Background, demographic information Age, marital/cohabitation status, race/ethnicity, household roster, life history calendar introduction, education, childhood/parental background

Section B: Pregnancy history and adoption-related information Menarche, current pregnancy status, number of pregnancies, detailed pregnancy history, age of father of pregnancy, relinquishment for adoption, care of nonbiological children, adoption plans (current and past), and preferences (current seekers only)

Section C: Marital and relationship history Marriage and cohabitation history, husband/partner characteristics, timing of first sexual intercourse and characteristics of first partner, reasons for not having sex (among virgins), sex education (teens only), number of sexual partners, recent (past 12 months) partner history

Section D: Sterilizing operations and impaired fecundity Sterilizing operations, desire for reversal (for tubal sterilizations and vasectomies), nonsurgical sterility and impaired fecundity

Section E: Contraceptive history and wantedness Ever-use of methods, first method use, periods of nonintercourse (last 3 years), method use each month (last 3 years), method use with partners in past 12 months, wantedness and other circumstances surrounding each pregnancy, consistency of condom use, frequency of sex in past 4 weeks

Section F: Family planning and medical services Birth control and medical services in past 12 months, provider and payment information for each visit (more detail if clinic cited) and whether regular source of medical care, first birth control service (date and details), ever visited a clinic

Section G: Birth desires and intentions Wanting a/nother baby, intending a/nother baby (joint or individual, as appropriate), number intended

Section H: Infertility services and reproductive health Infertility services, vaginal douching, health problems related to childbearing (including PID and disability), HIV testing

Section I: More background, demographic information, and attitudes questions Health insurance, residence, place of birth, rent/own/payment for current residence, religion, work background and in past year, current or last job (R and partner), child care, attitudes about premarital sex, parenthood, marriage, cohabitation, gender roles, condom use

Section J: (Audio CASI) General health, height and weight, numbers of pregnancies, substance use, sex with males (including nonvoluntary sex and STD/HIV risking behaviors), sex with females, condom use at last sex of any type, sexual orientation and attraction, STDs and HIV, family income, public assistance

APPENDIX B

REGION OF RESIDENCE

NSFG data are classified by residence into four regions: Northeast, Midwest, South, and West. These regions, which correspond to those used by the U.S. Bureau of the Census, are as follows:	
Region	States included:
Northeast	Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania;
Midwest	Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas;
South	Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, and Texas;
West	Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Washington, Oregon, California, Alaska, and Hawaii.

APPENDIX C

CONTRACEPTIVE METHODS

Contraceptive methods used by NSFG study participants are listed by defined priority of effectiveness as follows:

1. Female (contraceptive) sterilization
2. Male (contraceptive) sterilization
3. Norplant™ implant
4. IUD
5. Lunelle™ 1-month injectable
6. Depo-Provera™ 3-month injectable
7. Pill
8. Contraceptive patch
9. Morning-after pill
10. Male condom
11. Diaphragm (with or without jelly or cream)
12. Female condom (vaginal pouch)
13. Today™ sponge
14. Cervical cap
15. Natural family planning or temperature rhythm methods
16. Calendar rhythm
17. Withdrawal
18. Foam - suppository or insert
19. Jelly or cream (without diaphragm)
20. Other methods

APPENDIX D

LIST OF TABLES

DEMOGRAPHIC CHARACTERISTICS OF PARTICIPANTS
Table 1. Selected socio-demographic characteristics, by race: United States, 2002
Table 1-1. Selected socio-demographic characteristics, by race: Urban areas, United States, 2002
SEXUAL HISTORY AND BEHAVIOR
Table 2. Pregnancies, births, birth outcomes and related factors, by race: Urban areas, United States, 2002
Table 3. Selected sexual history and behavior characteristics, by race: Urban areas, United States, 2002
CONTRACEPTIVE USE
Table 4. Ever use of selected contraceptive methods, by race: Urban areas, United States, 2002
Table 5. Current contraceptive status and method, by race: Urban areas, United States, 2002
Table 6. Current contraceptive method, by race: Urban areas, United States, 2002
NON-VOLUNTARY SEXUAL INTERCOURSE
Table 7. Non-voluntary first intercourse, according to age at first sexual intercourse, by race: Urban areas, United States, 2002
Table 8. Specific types of force at non-voluntary first intercourse, by race: Urban areas, United States, 2002
Table 9. Ever forced sexual intercourse, according to selected characteristics, by race: Urban areas, United States, 2002
Table 10. Specific types of force at any time, by race: Urban areas, United States, 2002
UNINTENDED PREGNANCY
Table 11. Selected unintended pregnancy characteristics, by race: Urban areas, United States, 2002
Table 12. Effect of race on having ever had an unintended pregnancy: Urban areas, United States, 2002

APPENDIX D

Table I. Selected socio-demographic characteristics, by race: United States, 2002

Characteristic	Race		P-value
	Number of Observations Percent [95% CI]		
	AI/AN (N=357)	NH-Whites (N=4039)	
Age			
15-19 years	59 20.5% [14.5, 28.2]	591 15.4% [13.9, 16.9]	0.01
20-24 years	79 21.5% [16.6, 27.4]	759 15.0% [13.0, 17.3]	
25-29 years	69 16.0% [12.2, 20.6]	608 14.2% [12.7, 15.8]	
30-34 years	62 16.4% [12.0, 22.1]	695 16.3% [14.8, 17.9]	
35-39 years	53 14.0% [10.1, 19.2]	692 18.3% [16.7, 20.1]	
40-44 years	35 11.6% [6.9, 19.0]	694 20.7% [18.7, 22.9]	
Age, mean (se) [95% CI]	27.6 (.63) [26.3, 28.8]	30.1 (.18) [29.7, 30.4]	0.00
General health status			
Excellent/very good/good	315 88.0% [82.7, 91.9]	3807 94.6% [93.6, 95.5]	0.00
Fair/poor	42 12.0% [8.1, 17.3]	225 5.4% [4.5, 6.4]	
Marital or cohabiting status			
Currently married	126 33.4% [28.4, 38.8]	1854 50.8% [48.0, 53.6]	0.00
Cohabiting (opposite sex)	49 16.9% [10.4, 26.3]	338 7.9% [7.0, 8.9]	
Never married, not cohabiting	141 38.7% [31.0, 47.0]	1402 31.7% [29.6, 34.0]	
Formerly married, not cohabiting	41 11.0% [7.7, 15.5]	445 9.6% [8.4, 10.9]	
Education ¹			
No high school diploma/GED	86 33.1% [26.6, 40.2]	211 6.4% [5.4, 7.4]	0.00
High school diploma/GED	80 31.4% [25.2, 38.3]	884 29.3% [27.0, 31.7]	
Some college/no bachelor's degree	75 25.3% [20.4, 30.8]	973 31.3% [29.3, 33.4]	
Bachelor's degree or higher	29 10.3% [6.5, 16.0]	1077 33.0% [30.6, 35.6]	
Poverty level income ²			
Above 150%	145 46.1% [38.3, 54.1]	2738 80.0% [77.5, 82.3]	0.00
At or below 150%	153 53.9% [45.9, 61.7]	710 20.0% [17.7, 22.5]	

APPENDIX D

Health insurance			
Not currently covered	96 27.4% [21.4, 34.4]	520 12.0% [10.7, 13.5]	0.00
Private plan	130 33.6% [28.7, 38.9]	3010 76.5% [74.7, 78.2]	
Medicaid	75 18.6% [14.1, 24.1]	283 6.1% [5.3, 7.1]	
Public health care ³	56 20.4% [17.2, 24.0]	226 5.4% [4.3, 6.6]	
Metropolitan status ⁴			
MSA	299 77.3% [69.5, 83.6]	3173 77.6% [75.0, 80.0]	0.94
Not MSA	58 22.7% [16.4, 30.5]	866 22.4% [20.0, 25.0]	
Region of residence ⁵			0.00
Northeast	54 10.3% [6.8, 15.5]	599 15.8% [13.8, 18.2]	
Midwest	36 12.1% [7.7, 18.7]	967 28.0% [25.0, 31.1]	
South	80 20.6% [14.9, 27.8]	1527 35.1% [31.0, 39.5]	
West	187 56.9% [48.3, 65.1]	946 21.1% [18.5, 23.9]	

AI/AN= American Indians/Alaska Natives; NH-whites= Non-Hispanic whites; se=standard error; CI= confidence interval

¹ Limited to women 22–44 years of age at time of interview

² Limited to women 20–44 years of age at time of interview; based on the 2001 poverty levels defined by the US Census Bureau

³ If any mention of Medicare, Medi-Gap, Military health care, Indian Health Service, CHIP, State-sponsored health plan, or other government health care

⁴ U.S. Census Bureau defined Metropolitan Statistical Area

⁵ U.S. Census Bureau defined regions (see Appendix B for details)

APPENDIX D

Table I-I. Selected socio-demographic characteristics, by race: Urban areas, United States, 2002

Characteristic	Race		P-value
	Number of Observations	Percent [95% CI]	
	AI/AN (N=299)	NH-Whites (N=3173)	
Age			
15-19 years	41 16.5% [11.6, 23.0]	435 14.2% [12.6, 16.0]	0.00
20-24 years	65 22.3% [17.3, 28.2]	584 14.9% [13.0, 17.0]	
25-29 years	64 18.5% [14.4, 23.3]	479 14.5% [12.9, 16.3]	
30-34 years	56 19.1% [13.6, 26.2]	567 17.4% [15.7, 19.1]	
35-39 years	43 13.7% [9.3, 19.8]	548 18.1 [16.4%, 19.8]	
40-44 years	30 9.9% [6.5, 14.9]	560 21.0% [18.6, 23.5]	
Age, mean (se) [95% CI]	27.8 (.53) [26.7, 28.9]	30.6 (.24) [30.2, 31.1]	0.00
General health status			
Excellent/very good/good	264 86.5% [80.7, 90.8]	2990 94.7 [93.6, 95.6]	0.00
Fair/Poor	35 13.5% [9.2, 19.3]	177 5.3% [4.4, 6.4]	
Marital or cohabiting status			
Currently married	112 37.2% [31.5, 43.2]	1450 51.4% [48.0, 54.7]	0.00
Cohabiting (opposite sex)	42 15.3% [10.7, 21.4]	262 7.6% [6.5, 8.8]	
Never married, not cohabiting	110 35.6% [29.2, 42.5]	1103 31.6% [29.4, 34.0]	
Formerly married, not cohabiting	35 11.9% [7.9, 17.7]	358 9.4% [8.0, 11.0]	
Education ¹			
No high school diploma/GED	79 35.9% [29.0, 43.5]	141 5.1% [4.1, 6.3]	0.00
High school diploma/GED	65 26.6% [21.5, 32.4]	647 26.8% [24.2, 29.7]	
Some college/no bachelor's degree	63 24.9% [19.7, 30.9]	809 32.4% [30.1, 34.8]	
Bachelor's degree or higher	29 12.5% [8.0, 19.1]	929 35.7% [32.7, 38.8]	
Poverty level income ²			
Above 150%	129 48.6% [42.0, 55.3]	2237 82.2% [79.6, 84.5]	0.00
At or below 150%	129 51.4% [44.7, 58.0]	501 17.8% [15.5, 20.4]	

APPENDIX D

Health insurance			
Not currently covered	87 31.9% [24.4, 40.6]	387 11.1% [9.4, 13.0]	0.00
Private plan	117 37.4% [31.8, 43.4]	2407 77.9% [75.6, 80.0]	
Medicaid	63 18.7% [13.7, 25.1]	209 5.6% [4.7, 6.8]	
Public health care ³	32 11.9% [8.6, 16.4]	170 5.4% [4.1, 7.1]	
Region of residence ⁴			
Northeast	51 12.0% [7.9, 17.9]	514 17.5% [14.9, 20.5]	0.00
Midwest	24 9.5% [4.7, 18.5]	699 25.2% [21.6, 29.1]	
South	66 21.2% [14.6, 29.6]	1084 32.4% [27.4, 37.9]	
West	158 57.3% [47.3, 66.7]	876 24.9% [21.5, 28.5]	

AI/AN= American Indians/Alaska Natives; NH-whites= Non-Hispanic whites; se=standard error; CI= confidence interval

¹ Limited to women 22–44 years of age at time of interview

² Limited to women 20–44 years of age at time of interview; based on the 2001 poverty levels defined by the US Census Bureau

³ If any mention of Medicare, Medi-Gap, Military health care, Indian Health Service, CHIP, State-sponsored health plan, or other government health care

⁴ U.S. Census Bureau defined regions (see Appendix B for details)

APPENDIX D

Table 2. Pregnancies, births, birth outcomes and related factors, by race: Urban areas, United States, 2002

Characteristic	Race		P-value
	Number of Observations	Percent [95% CI]	
	AI/AN (N=299)	NH-Whites (N=3173)	
Age at first menstrual period (menarche) ¹ , mean (se) [95% CI]	12.4 (.13) [12.2, 12.7]	12.6 (.04) [12.6, 12.7]	0.08
Fecundity ²			
Surgically sterile	64 23.2% [18.3, 29.0]	605 21.3% [19.3, 23.3]	0.73
Impaired fertility	44 12.0% [8.1, 17.4]	410 13.2% [11.7, 14.8]	
Fecund	191 64.8% [57.5, 71.4]	2158 65.6% [63.0, 68.1]	
Pregnancies (gravidae), mean (se) [95% CI]	2.1 (.17) [1.8, 2.4]	1.7 (.06) [1.6, 1.8]	0.02
Pregnancies by age groups, mean (se) [95% CI]			
15-19 years	0.2 (.10) [0.0, 0.4]	0.2 (.03) [0.1, 0.2]	0.00
20-24 years	1.6 (.33) [0.9, 2.3]	0.6 (.05) [0.5, 0.7]	
25-29 years	2.6 (.42) [1.8, 3.4]	1.5 (.12) [1.3, 1.7]	
30-34 years	2.6 (.24) [2.1, 3.0]	2.0 (.08) [1.8, 2.2]	
35-39 years	3.2 (.38) [2.5, 4.0]	2.5 (.09) [2.3, 2.7]	
40-44 years	4.2 (.73) [2.8, 5.7]	2.8 (.17) [2.4, 3.1]	
Births (parity), mean (se) [95% CI]	1.5 (.14) [1.2, 1.8]	1.1 (.04) [1.1, 1.2]	0.01
Abortions			
None	234 81.4% [76.8, 85.3]	2608 82.8% [80.3, 85.0]	0.03
1	32 8.5% [6.0, 11.8]	371 11.0% [9.7, 12.5]	
2 or more	30 10.1% [7.3, 13.7]	180 6.2% [4.4, 8.6]	
Stillbirth/miscarriage/ectopic pregnancies			
None	211 74.5% [68.1, 80.0]	2490 76.6% [74.2, 78.8]	0.56
1	49 15.3% [11.5, 20.1]	440 15.2% [13.4, 17.1]	
2 or more	35 10.2% [6.8, 14.8]	225 8.2% [6.4, 10.4]	

AI/AN= American Indians/Alaska Natives; NH-whites= non-Hispanic whites; se=standard error; CI= confidence interval

¹ Among women who have reached menarche and reported the age

² Surgically sterile includes either contraceptive or non-contraceptive reasons. A married or cohabiting respondent is considered "surgically sterile" based on sterilizing operations that either she had or her husband or partner had. In this respect, this recode for fecundity status is "couple-based".

APPENDIX D

Table 3. Selected sexual history and behavior characteristics, by race: Urban areas, United States, 2002

Characteristic	Race		P-value
	Number of Observations	Percent [95% CI]	
	AI/AN (N=299)	NH-Whites (N=3173)	
Ever had sexual intercourse	76	768	
Among never-married women ¹	61.4% [48.0, 73.3]	66.1% [61.9, 70.1]	0.48
Among all women	265	2838	
	86.3% [79.8, 90.9]	89.3% [87.8, 90.6]	0.25
Ever had sexual intercourse (since menarche)	76	766	
Among never-married women ¹	61.4% [48.0, 73.3]	66.0% [61.7, 70.0]	0.49
Among all women	265	2835	
	86.3% [79.8, 90.9]	89.2% [87.7, 90.5]	0.26
Age at first intercourse (since menarche) ² , mean (se) [95% CI]	17.5 (.32) [16.9, 18.1]	17.4 (.09) [17.3, 17.6]	0.85
Age at first intercourse (ever) ² , mean (se) [95% CI]	17.5 (.32) [16.9, 18.1]	17.3 (.10) [17.2, 17.5]	0.64
Age difference with first sex partner ²			
Younger	19	201	
	5.1% [3.1, 8.2]	7.3% [6.2, 8.6]	
Same age	35	564	
	14.9% [10.4, 21.0]	19.5% [17.7, 21.5]	
1-3 years older	103	1388	
	38.7% [32.5, 45.4]	51.1% [48.4, 53.7]	0.00
4-6 years older	69	405	
	27.5% [21.6, 34.2]	13.2% [11.4, 15.2]	
7 or more years older	39	280	
	13.8% [9.4, 19.7]	8.9% [7.7, 10.2]	
Had sexual intercourse in past 3 mos. ²			
Among unmarried women ³	72	711	
	65.2% [51.9, 76.5]	64.0% [60.1, 67.7]	0.85
Among all women	216	2323	
	82.0% [74.8, 87.5]	82.8% [80.3, 85.0]	0.81
Number of lifetime male sex partners ² , mean (se) [95% CI]			
Among unmarried women ³	4.7 (.75) [3.2, 6.2]	5.9 (.30) [5.3, 6.5]	0.13
Among all women	4.3 (.46) [3.4, 5.2]	6.0 (.19) [5.6, 6.3]	0.00
Number of male sex partners (past year) ² , mean (se) [95% CI]			
Among unmarried women ³	1.5 (.20) [1.1, 1.9]	1.4 (.09) [1.2, 1.5]	0.56
Among all women	1.2 (.08) [1.0, 1.4]	1.1 (.03) [1.1, 1.2]	0.53

AI/AN= American Indians/Alaska Natives; NH-whites= non-Hispanic whites; se=standard error; CI= confidence interval

¹ Never-married includes non-cohabitating women who have never been married

² Among women who have ever had sex

³ Unmarried includes non-cohabitating women who were formerly married or were never married

APPENDIX D

Table 4. Ever use of selected contraceptive methods, by race: Urban areas, United States, 2002

Method	Race Number of Observations Percent [95% CI]		P-value
	AI/AN (N=265)	NH-Whites (N=2838)	
Any method	261 99.0% [96.6, 99.7]	2800 98.8% [98.3, 99.2]	0.77
Female sterilization	59 26.6% [20.3, 34.1]	398 16.3% [14.3, 18.5]	0.00
Male sterilization (vasectomy)	15 6.0% [3.4, 10.2]	454 17.4% [15.3, 19.8]	0.00
Pill	198 76.9% [70.5, 82.2]	4577 86.9% [84.9, 88.6]	0.00
Implant (Norplant™)	11 5.0% [2.2, 11.0]	43 1.4% [1.0, 1.9]	0.00
1-month injectable (Lunelle™)	5 1.8% [0.6, 5.2]	20 0.5% [0.3, 0.9]	0.03
3-month injectable (Depo- Provera™)	66 27.5% [21.0, 35.1]	411 12.9% [11.1, 14.8]	0.00
Emergency contraception	12 3.8% [2.0, 7.0]	143 4.5% [3.6, 5.5]	0.61
Contraceptive patch	5 4.0% [1.6, 10.0]	21 0.7% [0.4, 1.2]	0.00
Today™ Sponge	6 3.1% [1.2, 7.9]	275 9.4% [8.2, 10.8]	0.02
Intrauterine device (IUD)	19 6.4% [3.4, 11.6]	121 4.7% [3.6, 6.0]	0.35
Diaphragm	9 3.2% [1.3, 7.6]	289 11.1% [9.7, 12.8]	0.00
Condom	230 86.9% [81.3, 91.0]	2624 92.5% [90.9, 93.8]	0.01
Female condom	9 2.6% [1.2, 5.8]	33 1.2% [0.8, 1.9]	0.07
Periodic abstinence— calendar rhythm	47 18.8% [14.4, 24.1]	98 17.5% [15.5, 19.7]	0.65
Periodic abstinence— natural family planning	9 4.0% [1.8, 8.6]	1703 3.6% [2.9, 4.6]	0.81
Withdrawal	146 53.9% [47.3, 60.4]	341 60.4% [57.1, 63.6]	0.07
Foam alone	36 14.4% [10.7, 19.3]	220 12.1% [10.8, 13.5]	0.28
Jelly or cream alone	18 6.8% [3.7, 12.0]	220 8.1% [7.0, 9.4]	0.52
Suppository or insert	16 7.7% [4.1, 13.7]	250 8.4% [7.0, 9.9]	0.77
Other method ¹	NS	NS	0.11

AI/AN= American Indian/Alaska Native; NH-whites= non-Hispanic whites; CI= confidence interval; NS= Not specified- cell numbers too small to display

Among women who had ever had sexual intercourse

APPENDIX D

Table 5. Current contraceptive status and method, by race: Urban areas, United States, 2002

Contraceptive Status & Method	Race Number of Observations Percent [95% CI]		P-value
	AI/AN (N=299)	NH-Whites (N=3173)	
Using contraception:			0.00
Female sterilization	56 21.0% [15.8, 27.4]	357 12.6% [11.0, 14.4]	
Male sterilization	6 1.7% [0.7, 4.0]	223 7.9% [6.7, 9.3]	
3-month injectable (Depo-Provera™)	17 5.3% [2.8, 9.7]	81 2.2% [1.7, 2.9]	
Implant (Norplant™), 1-month injectable (Lunelle™), or contraceptive patch	5 3.2% [1.2, 8.4]	19 0.5% [0.3, 0.9]	
Pill ¹	43 13.3% [10.0, 17.4]	771 22.9% [21.2, 24.7]	
Condom	39 12.7% [8.5, 18.7]	359 11.6% [10.2, 13.1]	
Withdrawal	7 2.1% [1.0, 4.3]	82 3.0% [2.3, 3.9]	
Other methods ²	NS	NS	
Not using contraception:			
Surgically sterile, female (non-contraceptive) or non-surgically sterile, female or male	6 1.1% [0.4, 2.9]	104 3.1% [2.5, 3.9]	
Pregnant or postpartum	20 5.2% [3.0, 9.1]	167 5.0% [3.9, 6.4]	
Seeking pregnancy	19 4.9% [2.2, 10.8]	135 4.2% [3.5, 5.0]	
Other nonuse:			
Never had intercourse since menarche	30 13.0% [8.4, 19.4]	299 9.5% [8.3, 10.8]	
No intercourse in 3 months before interview	16 6.1% [3.4, 10.8]	247 7.8% [6.1, 10.0]	
Had intercourse in 3 months before interview	29 7.7% [5.3, 11.2]	232 6.9% [5.8, 8.1]	

AI/AN= American Indian/Alaska Native; NH-whites= non-Hispanic whites; CI= confidence interval; NS= Not specified- cell numbers too small to display

Current use is defined by use of contraception during the month of the interview.

Methods shown in order of effectiveness with the exception of some methods included in "Other methods".

¹ Women using both pill and condom are listed under pill

² Other methods include diaphragm, Today™ Sponge, cervical cap, female condom, foam, suppository/insert, jelly/cream, periodic abstinence, and morning after pill and other methods mentioned by respondents (not shown separately)

APPENDIX D

Table 6. Current contraceptive method, by race: Urban areas, United States, 2002

Method	Race		P-value
	Number of Observations	Percent [95% CI]	
	AI/AN (N=179)	NH-Whites (N=1989)	
Using contraception ("contraceptors"):			0.00
Female sterilization	56 34.0% [25.3, 43.9]	357 19.8% [17.4, 22.5]	
Male sterilization	6 2.7% [1.2, 6.2]	223 12.4% [10.6, 14.5]	
Pill ¹	43 21.4% [15.4, 28.9]	771 36.0% [33.5, 38.6]	
Implant (Norplant™), or 1- month injectable (Lunelle™)	5 5.2% [2.0, 13.0]	19 0.8% [0.5, 1.4]	
3-month injectable (Depo- Provera™)	17 8.5% [4.8, 14.6]	81 3.5% [2.6, 4.6]	
Intrauterine device (IUD)	5 3.4% [1.2, 9.0]	30 1.4% [0.9, 2.0]	
Condom	39 20.6% [14.5, 28.4]	359 18.2% [16.2, 20.5]	
Withdrawal	NS	NS	
Other methods ²	NS	NS	

AI/AN= American Indian/Alaska Native; NH-whites= non-Hispanic whites; CI= confidence interval; NS= Not specified- cell numbers too small to display

Among women currently using contraception

Current use is defined by use of contraception during the month of the interview

Methods shown in order of effectiveness with the exception of some methods included in "Other methods".

¹ Women using both pill and condom are listed under pill

² Other methods include IUD, contraceptive patch, diaphragm, Today™ Sponge, cervical cap, female condom, foam, suppository/insert, jelly/cream, periodic abstinence, morning after pill and other methods (not shown separately)

APPENDIX D

Table 7. Non-voluntary first intercourse, according to age at first sexual intercourse, by race: Urban areas, United States, 2002

Characteristic	Race Number of Observations Percent [95% CI]		P-value
	AI/AN (N=253)	NH-Whites (N=2728)	
First intercourse non-voluntary	35 17.4% [11.7, 25.1]	223 8.2% [7.0, 9.5]	0.00
Age at first sexual intercourse			
Under 15 years	12 34.2% [17.2, 56.7]	77 33.7% [26.2, 42.2]	0.39
15-17 years	11 35.8% [19.5, 56.2]	102 45.6% [37.6, 53.8]	
18- 19 years	7 16.8% [7.8, 32.6]	30 15.4% [10.6, 21.9]	
20 years and over	5 13.1% [4.9, 30.6]	14 5.3% [2.9, 9.5]	

AI/AN= American Indian/Alaska Native; NH-whites= non-Hispanic whites; CI= confidence interval

Information in this table is based on questions asked in ACASI, only of adult respondents, 18-44 years of age

Table 8. Specific types of force at non-voluntary first intercourse, by race: Urban areas, United States, 2002

Characteristic	Race Number of Observations Percent [95% CI]		P-value
	AI/AN (N=35)	NH-Whites (N=223)	
One or more types of force reported	28 85.4% [68.0, 94.2]	209 93.7% [82.8, 97.9]	0.23
Given alcohol or drugs	6 20.8% [8.6, 42.2]	85 38.0% [31.3, 45.1]	0.10
Did what he said because he was bigger or grownup, and you were young	23 57.7% [37.6, 75.6]	119 52.2% [42.8, 61.5]	0.64
Told that the relationship would end if you didn't have sex	6 21.0% [8.7, 42.5]	30 13.0% [8.4, 19.5]	0.31
Pressured into it by his words or actions, but without threats of harm	21 63.0% [43.5, 79.0]	146 62.2% [52.5, 71.1]	0.94
Threatened with physical harm or injury	8 19.3% [8.0, 39.8]	68 32.1% [24.7, 40.6]	0.19
Physically hurt or injured	7 13.2% [5.0, 30.5]	64 28.8% [22.0, 36.6]	0.06
Physically held down	17 53.8% [32.4, 73.8]	122 54.9% [47.1, 62.5]	0.92

AI/AN= American Indian/Alaska Native; NH-whites= non-Hispanic whites; CI= confidence interval

Information in this table is based on questions asked in ACASI, only of adult respondents, 18-44 years of age

APPENDIX D

Table 9. Ever forced sexual intercourse, according to selected characteristics, by race: Urban areas, United States, 2002

Characteristic	Race		P-value
	Number of Observations Percent [95% CI]		
	AI/AN (N=53)	NH-Whites (N=542)	
Age at first sexual intercourse			
Under 15 years	19 46.2% [29.6, 63.7]	133 23.0% [18.9, 27.7]	0.01
15-17 years	22 35.4% [21.0, 53.0]	277 52.6% [47.2, 58.0]	
18-19 years	7 11.1% [5.3, 21.6]	87 16.6% [12.2, 22.2]	
20 years and over	5 7.3% [3.1, 16.2]	43 7.8% [5.6, 10.8]	
Age at interview			
18-24 years	14 21.5% [11.6, 36.3]	111 16.6% [13.6, 20.1]	0.57
25-29 years	11 21.7% [8.8, 44.1]	85 14.6% [11.2, 18.9]	
30-34 years	13 24.9% [13.5, 41.5]	112 22.9% [18.5, 28.1]	
35-39 years	6 12.7% [5.1, 28.3]	111 21.0% [17.0, 25.6]	
40-44 years	9 19.2% [8.9, 36.8]	123 24.8% [20.1, 30.3]	
Marital or cohabiting status			
Currently married/cohabiting (opposite sex)	27 58.4% [46.1, 69.8]	274 55.8% [50.3, 61.2]	0.69
Never/formerly married, not cohabiting	26 41.6% [30.2, 53.9]	268 44.2% [38.8, 49.7]	
Education ¹			
No high school diploma/GED	19 41.4% [26.6, 57.9]	37 6.7% [4.3, 10.3]	0.00
High school diploma/GED	12 26.5% [14.2, 44.0]	162 35.1% [29.5, 41.2]	
Some college/bachelor's degree or higher	16 32.1% [19.0, 48.8]	301 58.1% [52.2, 63.9]	
Poverty level income ²			
At or below 150%	31 60.3% [43.3, 75.0]	129 24.4% [19.6, 29.9]	0.00
Above 150%	20 39.7% [25.0, 56.7]	395 75.6% [70.1, 80.4]	
Health insurance			
Not currently covered	14 30.8% [16.9, 49.3]	100 19.1% [14.7, 24.5]	0.00
Private plan	15 30.6% [18.1, 46.8]	332 62.3% [56.8, 67.5]	
Public health care ³ /Medicaid	24 38.6% [25.8, 53.3]	110 18.6% [14.1, 24.1]	

AI/AN= American Indian/Alaska Native; NH-whites= non-Hispanic whites; CI= confidence interval

APPENDIX D

Table 10. Specific types of force at any time, by race: Urban areas, United States, 2002

Characteristic	Race		P-value
	Number of Observations	Percent [95% CI]	
	AI/AN (N=37)	NH-Whites (N=446)	
One or more types of force reported	32 89.5% [74.5, 96.1]	434 98.5% [96.5, 99.3]	0.00
Given alcohol or drugs	7 15.1% [6.4, 31.6]	177 36.6% [31.6, 41.9]	0.02
Did what he said because he was bigger or grownup, and you were young	15 49.4% [33.1, 65.9]	145 35.9% [29.7, 42.6]	0.10
Told that the relationship would end if you didn't have sex	NS	NS	0.33
Pressured into it by his words or actions, but without threats of harm	15 50.2% [28.1, 72.3]	228 56.0% [50.0, 61.8]	0.64
Threatened with physical harm or injury	23 49.0% [28.6, 69.8]	207 52.5% [46.5, 58.5]	0.76
Physically hurt or injured	19 46.8% [26.3, 68.4]	153 36.8% [30.8, 43.2]	0.41
Physically held down	29 79.5% [58.5, 91.5]	323 73.5% [67.8, 78.5]	0.53

AI/AN= American Indian/Alaska Native; NH-whites= non-Hispanic whites; CI= confidence interval; NS= Not specified- cell numbers too small to display

Information in this table is based on questions asked in ACASI, only of adult respondents, 18-44 years of age

Among women who reported their first sex was voluntary

APPENDIX D

Table 11. Selected unintended pregnancy characteristics, by race: Urban areas, United States, 2002

Characteristic	Race Number of Observations Percent [95% CI]		P-value
	AI/AN (N=299)	NH-Whites (N=3173)	
At risk for unintended pregnancy ¹			
No	91 30.4% [24.0, 37.6]	952 29.6% [27.4, 31.9]	0.82
Yes	208 69.6% [62.4, 76.0]	2221 70.4% [68.1, 72.6]	
Total	299	3173	
Ever had an unintended pregnancy			
No (intended)	155 69.3% [61.3, 76.3]	1441 79.2% [76.9, 81.4]	0.01
Yes (unwanted/mistimed)	61 30.7% [23.7, 38.7]	483 20.8% [18.6, 23.1]	
Total	216	1924	
Unintended pregnancy status			
Mistimed (Too soon)	50 24.8% [18.7, 32.2]	358 15.9% [14.0, 17.9]	0.03
Intended (Right time, later, didn't care)	155 69.3% [61.3, 76.3]	1441 79.2% [76.9, 81.4]	
Unwanted	11 5.9% [2.7, 12.4]	125 4.9% [4.1, 5.9]	
Total	216	1924	

AI/AN= American Indian/Alaska Native; NH-whites= non-Hispanic whites; CI= confidence interval

¹ At risk of unintended pregnancy defined as all current contraceptors (ie women who are using contraception in the month of the interview) plus women who have had sex in the last 3 months but are not current contraceptors

APPENDIX D

Table 12. Effect of race on having ever had an unintended pregnancy: Urban areas, United States, 2002

Characteristic	Odds Ratio	[95% CI]	P-value
Unadjusted:			
Non-Hispanic Whites	ref		
American Indians/Alaska Natives	1.77	[1.19, 2.63]	0.01
Two or more sex partners in the past 3 months	2.01	[1.20, 3.36]	0.01
Unprotected sex in the past year	0.64	[0.46, 0.91]	0.01
Sex before age 15 years	1.76	[1.28, 2.43]	0.00
Adjusted^:			
Non-Hispanic Whites	ref		
American Indians/Alaska Natives	1.42	[0.81, 2.52]	0.22
Two or more sex partners in the past 3 months	0.73	[0.38, 1.41]	0.35
Unprotected sex in the past year	0.58	[0.39, 0.85]	0.01
Sex before age 15 years	1.00	[0.70, 1.44]	0.99

CI= confidence interval; Ref= reference group

^= Adjusted for age, relationship status, poverty level, and education

