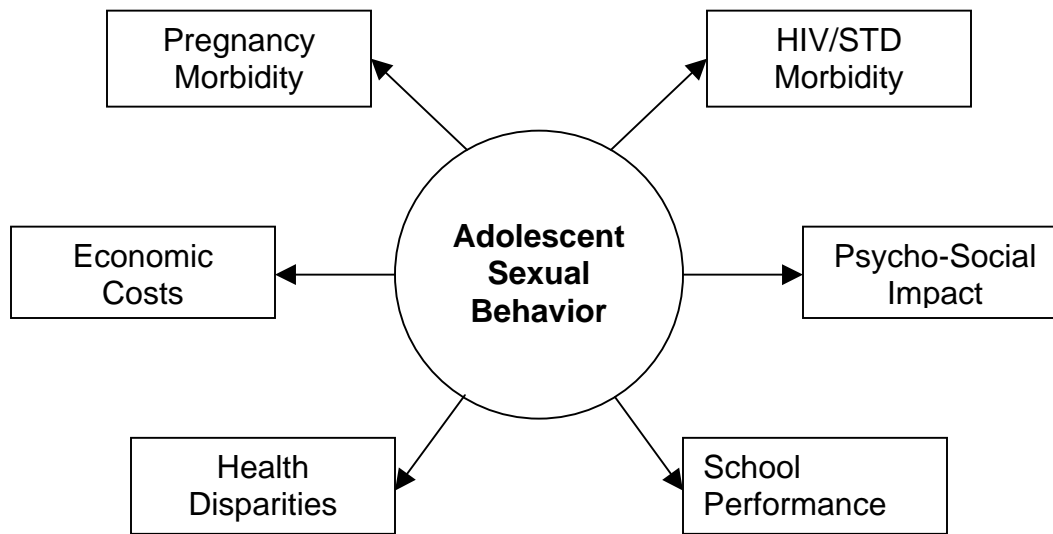


The State of Adolescent Sexual Health North Carolina



North Carolina State Advisors on Adolescent Sexual Health (SAASH)

Department of Public Instruction
Healthy Schools Initiative

Department of Health and Human Services
HIV/STD Prevention and Care Branch
Family Planning and Reproductive Health Unit
School Health Services

Office of Minority Health and Health Disparities

Impact: The current state of adolescent sexual health in North Carolina is of great concern because of the high pregnancy and STD rates among adolescents and the impact they have on mental and social health, the state and local economy, and school performance. Prevention efforts to reduce these outcomes must come from a community perspective. Health departments and community based organizations have long provided after school prevention programs, HIV/STD testing, medical treatment, and case management. In some communities, churches have provided prevention education to youth as well as spiritual and financial support to those infected and affected. But, it is the schools of North Carolina that are in a unique position to provide medically accurate, skills based, age appropriate HIV/STD and teen pregnancy prevention education to all youth, regardless of the communities they come from or the communication, knowledge and comfort levels of their parents regarding sexuality education. According to the Centers for Disease Control and Prevention, school-based programs are critical for reaching youth before behaviors are established. Because risk behaviors do not exist independently, topics such as HIV, STDs, unintended pregnancy, tobacco, nutrition, and physical activity should be integrated and ongoing for all students in kindergarten through high school. The specific scope and content of these school health programs should be locally determined and consistent with parental and community values. Research has clearly shown that the most effective programs are comprehensive ones that include a focus on delaying sexual behavior and provide information on how sexually active young people can protect themselves.

Scope of Adolescent Sexual Behavior: North Carolina high school students participated in the 2003 Youth Risk Behavior Survey (YRBS) that, in addition to other health related topics, assessed sexual behavior. The results of this survey provide representative data for all North Carolina high school students and reveals that 52.3% of all high school students and 73.5% of seniors had experienced sexual intercourse and 10% of the state's high school students had sex before the age of 13. Of the sexually active students, 17.1% had had sex with four or more partners and the percent of students who used drugs or alcohol before last intercourse was 18.1%. The more encounters and sexual partners an adolescent has without using protection the greater increased risk to exposures to sexually transmitted disease, infections, and HIV/AIDS. In 2003, 62.1% of the students reported the use of condoms and 17.6% reported use of other methods of birth control. Teen pregnancy rates have often been used as an indicator of "at risk" activities (**Attachment A**). According to an October, 2003 press release from the NC Department of Health and Human Services, "While adolescent pregnancy rates have declined by more than 39% in NC since 1990, the state still has the fourteenth highest birth rate for 15-19 years old in the U.S." (October 23, 2003). Particularly concerning is that 30% of pregnancies to teens 19 and under are repeat pregnancies (NC Department of Health and Human Services State Center for Health Statistics, 2003).

Teen Pregnancy: The 2003 North Carolina pregnancy rate for teens ages 15 through 19 was 61.0 pregnancies per 1,000 girls, down from 64.1 per 1,000 in 2002. The total number of teens aged 15-19 who were pregnant in 2003 was 17,390 (**Attachment B**). Thirty (30.4) percent of those pregnancies were to girls who had been pregnant at least once before. The total number of 10 to 14-year-olds who were pregnant was 443. The pregnancy rate among Hispanic adolescents in the state was 185.9, up from 181.5 per 1,000 girls aged 15-19 in 2002, and one of the highest rates in the nation. African American teens had a pregnancy rate of 86.3, down from 89.9. While adolescent pregnancy rates have declined by more than 40 percent in North Carolina since 1990, the state still has the fourteenth-highest birth rate for 15-19 year olds in the U.S. in 2002 (NC Department of Health and Human Services State Center for Health Statistics, 2003).

Unplanned pregnancies during the teen years have long been associated with a host of critical social issues, including poverty and overall child well-being, out-of-wedlock births, workforce readiness, and responsible fatherhood. A research report released by the US Congress Ways and Means Committee found that between 1991 and 2002, the teen birth rate for girls aged 15-19 declined 30 percent. During the same time period, official child poverty rates fell by 23 percent and percentage of children living with a single mother declined for the first time in decades. The report also showed that the decrease in the teen birth rate accounts for 26 percent of the reduction in the number of children under age six living in poverty between 1995 and 2002. Nationwide, 35% of young women get pregnant at least once by age 20 and taxpayers shoulder at least 7 billion dollars in costs associated with adolescent childbearing. In FY 2001 through 2002, teen pregnancy cost North Carolinians more than one billion dollars (\$1,039,390,739) in WIC, Medicaid, TANF and food stamps (NC Budget and Tax Center). Interrupting this cycle of poverty and disadvantage is a critical social priority, and helping young women and men avoid early pregnancy is easier and much more cost effective than dealing with all of the problems that occur after their babies are born.

HIV and other Sexually Transmitted Diseases (STD): Nearly half of all new sexually transmitted diseases (STD) and HIV occur in youth between 15-24 years of age. Like many adolescents across the US, adolescents in North Carolina are at substantial risk for HIV and STDs, because of their physiological make up and risk taking behaviors. Data from the North Carolina HIV/STD Prevention and Care Branch's *2005 Epidemiological Profile* illustrates the scope of Gonorrhea, a STD treatable with antibiotics, on adolescents. If left untreated, the bacteria can lead to infertility later in life. According to the report, female adolescents ages 10-14 have a Gonorrhea rate of 51.4 per 100,000, versus for 7.9 among males. For adolescents ages 15-19 the rate increases significantly to 991.8 per 100,000 for females and 431.8 in males. These numbers do not include those that are infected and unaware of their status, as Gonorrhea is often asymptomatic (showing no symptoms). The more sexual partners an adolescent has, the more susceptible they are to diseases that have no cure, such as herpes, genital warts (found in 99% of cervical cancer patients) and HIV/AIDS. Sadly, in North Carolina there are 228 youths under age 19 living with HIV/AIDS. Education to help modify these behaviors is essential. STDs are costly when clinic visits, treatment and follow-up are considered. This cost increases with a virulent STD like HIV. In FY 2003 HIV drug assistance programs cost North Carolinians \$27,835,867 for 2,986 people. The amount spent on adolescents could be estimated to be \$2,125,445.

According to the CDC (2004), the most effective programs are comprehensive and focus on delaying sexual behavior and provide information on how sexually active young people can protect themselves. Evidence of prevention success can be seen in trends from the YRBS conducted over an 8-year period, which shows both a decline in sexual risk behaviors and an increase in condom use among sexually active youth. Programs that encourage parents to talk with their youth about risk taking behaviors, which include the consequences of premarital sexual activity, the importance of prevention from engaging in high risk behaviors to avoid disease, broken relationships, date rape and emotional instability are also encouraged. As part of this comprehensive prevention effort, schools are an excellent venue for helping adolescents realize their risk for HIV/STDs and the medical implications these disease have on their body and their lives.

Health Disparities: African American high school students are more likely than white high school students to report that they ever had sexual intercourse and have ever been pregnant or gotten someone pregnant (2003 YRBS). Compared to whites, American Indians, African American and Hispanics have a higher risk of unintended pregnancy. Adolescent minorities who are uninformed about sexual activity are at greater risk for teenage pregnancies and STDs. Pregnancies result in school absenteeism resulting in decreased school performance and increased dropout rates. Teenage

pregnancy, higher STD rates, limited access to care, and low self-esteem result in a downward spiral of expected educational outcomes. With STDs, African Americans are 10 times more likely than whites to be diagnosed with HIV, 8 times more likely to be diagnosed with Chlamydia and 21 times more likely to be diagnosed with Gonorrhea. American Indians were 37 times more likely to report syphilis and African Americans and Hispanic/Latinos are twice as likely as whites to become pregnant. This is alarming when only 30.15% of North Carolina's population is minority.

Psycho-Social: North Carolina does not collect psycho-social data as it relates specifically to adolescent sexual activity. National data suggests that some adolescents have sex when the real needs they seek to satisfy may be increasing self-esteem, alleviating a sense of loneliness, meeting societal expectations of what it means to be masculine or feminine, expressing anger or escaping from boredom. There is also national data on the psycho-social impact of youth born to teen mothers. Children born to young teen mothers are much more likely to be victims of abuse and neglect, and spend a longer amount of time if placed in foster care. The children of teen mothers are three times more likely to spend time in a jail or prison in their adolescence or early 20's. If teen moms, 17 and younger, delayed childbearing to ages 20 to 21, the national annual savings in foster care would be around \$1 billion, for abuse/neglect investigation would be \$100 million a year and incarceration savings would be \$900 million.

School Performance: According to a 2000 National Association of State Boards of Education (NASBE) report, 70% of young mothers drop out of high school, resulting in weak employment prospects and more hours of work away from the home and child. Many who do finish, do so with the GED. Many of those that finish high school have low basic skills (Maynard, 1996). Teen fathers tend to complete one less semester of high school than men who are not teen fathers. According to the 2003 YRBS, NC students who have ever had sexual intercourse are significantly more likely to receive a grade of C or below than a grade of B or above and are significantly less likely to report future plans that include higher education (2003 YRBS and Brad McMillen).

Children of teen mothers have more than a 4 point lower score (where the mean is set at 100) for home environment, which includes emotional support and cognitive stimulation. The children of teen mothers score lower in mathematics and reading recognition (4 points), reading comprehension (3 points) up to age 14. They are twice as likely to repeat a grade in school and receiving unfavorable ratings by teachers in high school. These are found among all children whose mother was a teen parent at first birth. Delaying first birth from ages 16 or 17, to 20 or 21, would increase the probability that their children will graduate from high school by 9% (NASBE, 2000).

A New Epidemic: There is a new and disturbing epidemic of HIV infections among North Carolina college students. Between January 1, 2000 and December 31, 2003, 998 men aged 18-30 were diagnosed with HIV infection in North Carolina. Cases reviewed from 69 counties revealed that 84 (11.4%) were college males compared with 651 (88.6%) that were not college males. In 2000, college males and their contacts represented approximately 5% of all new HIV infections among men 18-30 years of age. By 2003, college males and their contacts represented approximately 21% of all new HIV infections among men 18-30 years of age.

Forty percent of the HIV-infected male students reported having female sexual contacts in the year prior to their diagnosis. There is a genuine potential for the spread of HIV infection from male college students to their female partners as well as to the heterosexual college community. This implies that HIV risk and prevention messages are not reaching young adults in North Carolina. New and aggressive HIV prevention activities for young adults are urgently needed. With the emergence of HIV among North Carolina youth, the opportunity to educate adolescents must begin prior to graduating high school with medically accurate and forthright communication (**Attachment C**).

State of Education: The North Carolina Healthful Living Standard Course of Study (SCS) has sexuality education objectives for the 7th and 8th grade and high school. These objectives include the (1) understanding that a mutually faithful monogamous heterosexual relationship in the context of marriage is the best lifelong means of avoiding sexually transmitted diseases, including HIV/AIDS, (2) the effectiveness and failure rates of condoms and other contraception as a means of preventing STDs and HIV and (3) abstinence until marriage as the only certain means of avoiding out-of-wedlock pregnancy, HIV/AIDS/STDs and any other health and emotional problems associated with sexual intercourse. In the eighth grade students are required to learn skills and strategies for remaining or becoming abstinent from sexual intercourse and avoiding HIV/AIDS/STD, and these skills are to be refined in high school (usually the 9th grade). According the 2003 North Carolina Parent Opinion Survey (**Attachment D**) 71.2% of parents believe that sexuality education should begin before the 7th grade. Parents also believe that a significant amount of time should be devoted to sexuality instruction and that topics not included in the Healthful Living SCS, such as how to talk with a girlfriend, boyfriend or partner about birth control and sexually transmitted diseases, how to use birth control or condoms, and sexual behaviors such as the risks of oral sex, should be addressed. Additionally, preliminary data from the 2003 Health Education Profiles Survey indicate that what is being taught in health education does not parallel what parents believe should be taught (**Attachment E**). Finally, the Adolescent Pregnancy Prevention Coalition of North Carolina (APPCNC), in an effort to make HIV/STD and teen pregnancy prevention education in North Carolina medically accurate proposes changes to the Basic Education law – GS 115C-81(e1) (**Attachment F**).

Responsibility: Information presented in this document demonstrates that HIV/STD and teen pregnancy prevention education is the responsibility of all facets of society, but schools have a unique and essential role because of the access they have to students. While the State Advisors on Adolescent Sexual Health (SAASH) recognize the increased pressure on schools for academic accountability, academic success will inevitably become hindered, or even meaningless to students who are teen parents or are infected with a fatal STD. Teen pregnancy and STDs are prevalent in our state, but are **preventable**. No longer should we hear a teen parent say, “I didn’t know,” or an adolescent newly infected with a lifetime of herpes say, “No one told me.” If the NC State Board of Education accepts the challenge to influence the prevalence of adolescent HIV/STD and teen pregnancy, North Carolina will begin to see a decrease in the negative outcomes of adolescent sexual activity, and an increase in healthier, happier students with stronger academic success and contributions to society.

SAASH thanks the State Board of Education for reviewing the information in this document on the state of adolescent sexual health. The state partners in this initiative believe there is an urgent need for additional attention to the issue of adolescent sexual health for the prevention of HIV/STD and teen pregnancy among youth. For additional information please contact Paula Hudson Collins, Senior Advisor for Healthy Schools at the Department of Public Instruction at 919-807-3859. You can also contact members of SAASH for more information.

SAASH Contacts

Asay, Marilyn, RN, MS. School Nurse Consultant (919) 715-3298
School Health Services, Department of Health and Human Services

Atkinson, Sydney, MSSW. Unit Supervisor (919) 715-3393
Family Planning and Reproductive Health Unit, Department of Health and Human Services

Bryant, Christopher, M.Ed. Teen Pregnancy Prevention Initiative Team Leader (919) 715-8431
Family Planning and Reproductive Health Unit, Department of Health and Human Services

Carter, Linda, BSPH, M.Ed. Unit Manager (919) 733-9576
HIV/STD Prevention and Community Planning Unit, Department of Health and Human Services

Ellis, Danny. LPN, MBA, HCM. Research Associate (919) 431-1627
Office of Minority Health and Health Disparities

Langer, Sarah, MPH. Evaluation and Abstinence Consultant (919) 807-3867
Healthy Schools Initiative, Department of Public Instruction

Lehman, Sherry, M.Ed., LPC. HIV/AIDS Policies and Programs Consultant (919) 807-3860
Healthy Schools Initiative, Department of Public Instruction

Sanderson, Michael, MPH. Senior Advisor for Healthy Schools (919) 715-2273
Healthy Schools Initiative, Department of Public Instruction

References

National Association of State Boards of Education (NASBE), 2000. *The Impact of Adolescent Pregnancy and Parenthood on Educational Achievement: A Blueprint for Education Policymakers' Involvement in Prevention Efforts.*

North Carolina Center for Health Statistics (NCCHS, 2003).
<http://www.schs.state.nc.us/SCHS/data/pregnancies/2002/>

North Carolina Department of Public Health, HIV/STD Prevention and Care Branch
<http://www.epi.state.nc.us/epi/hiv/surveillance.html>

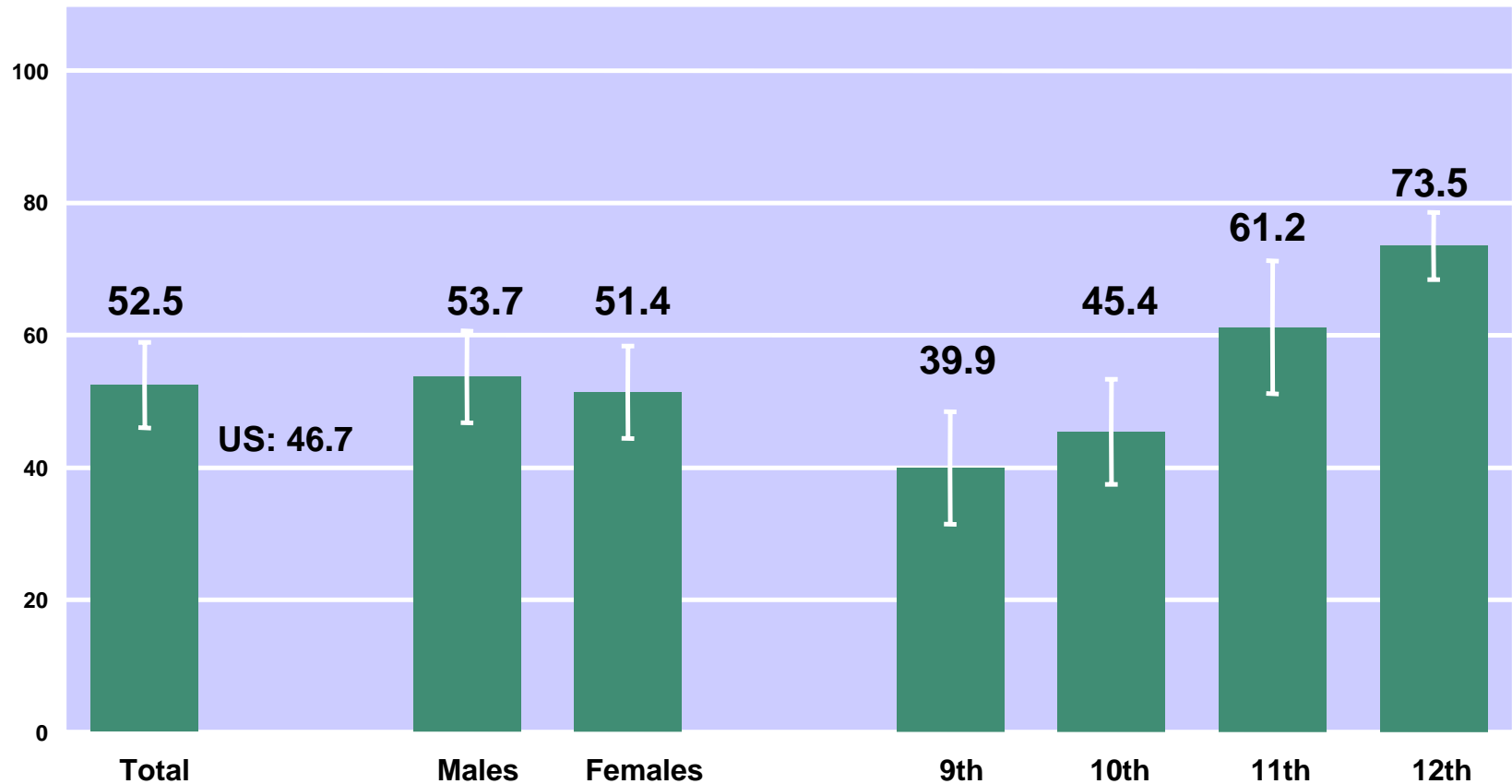
North Carolina Epidemiological Profile for 2005 for HIV/STD Prevention and Community Planning
<http://www.epi.state.nc.us/epi/hiv/pdf/profile2005.pdf>

Maynard, R. A., 1996. *Kids Having Kids: A Robin Hood Foundation Special Report on the Costs of Adolescent Childbearing.* The Robin Hood Foundation
<http://www.uvm.edu/~nnfruv/robnhood.html>



North Carolina High School Survey

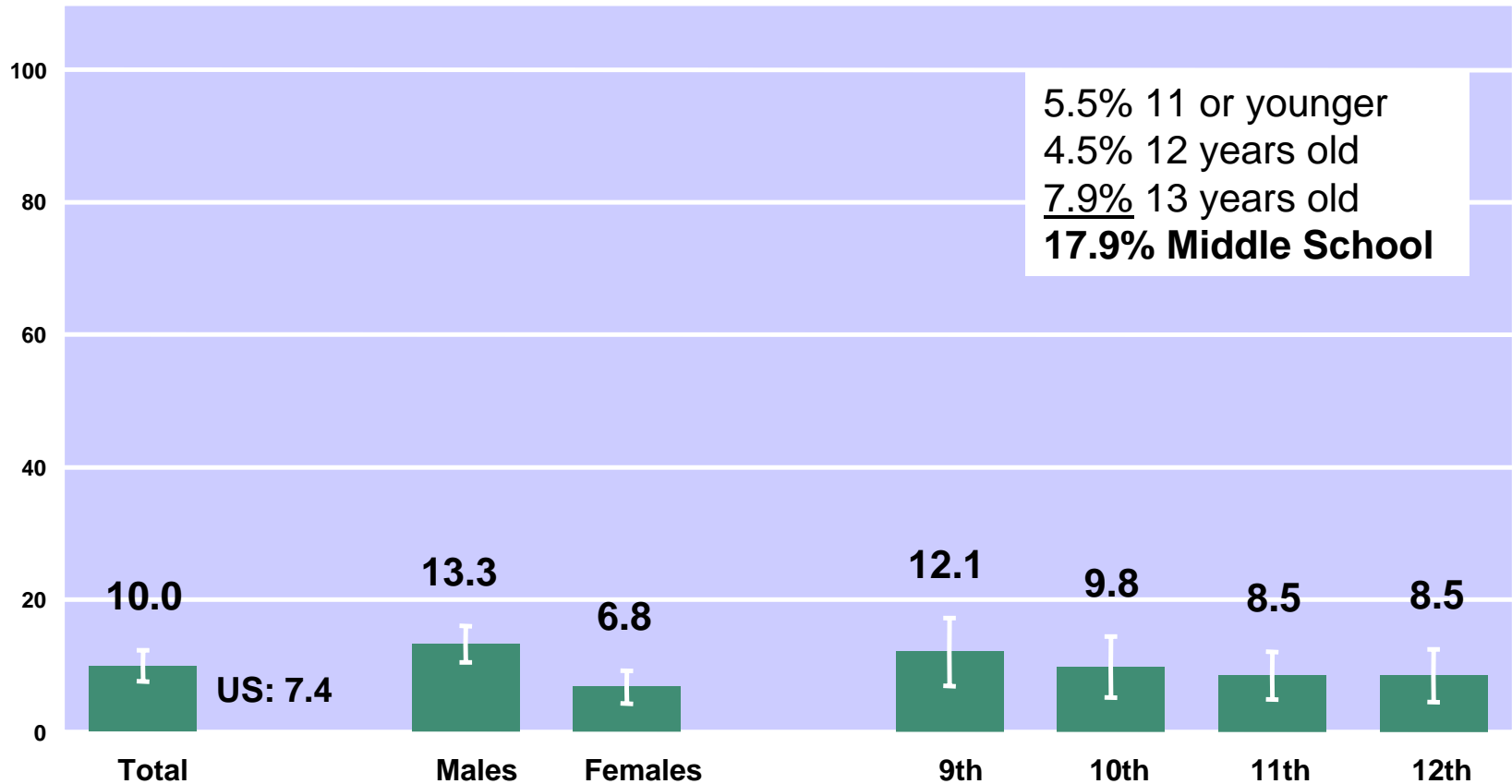
Percentage of students who ever had sexual intercourse





North Carolina High School Survey

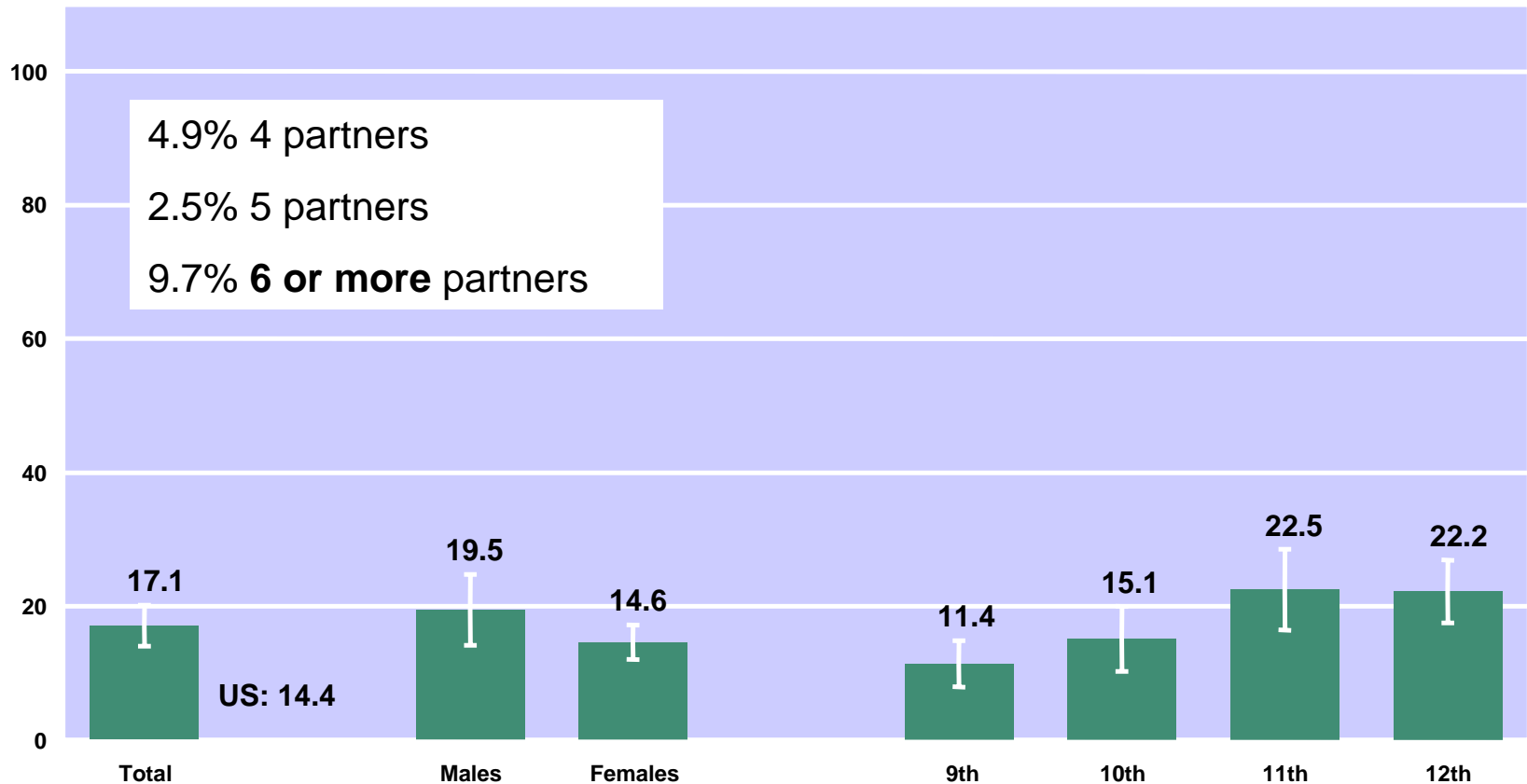
Percentage of students who had sexual intercourse for the first time before age 13





North Carolina High School Survey

Percentage of students who had sexual intercourse with four or more people during their life

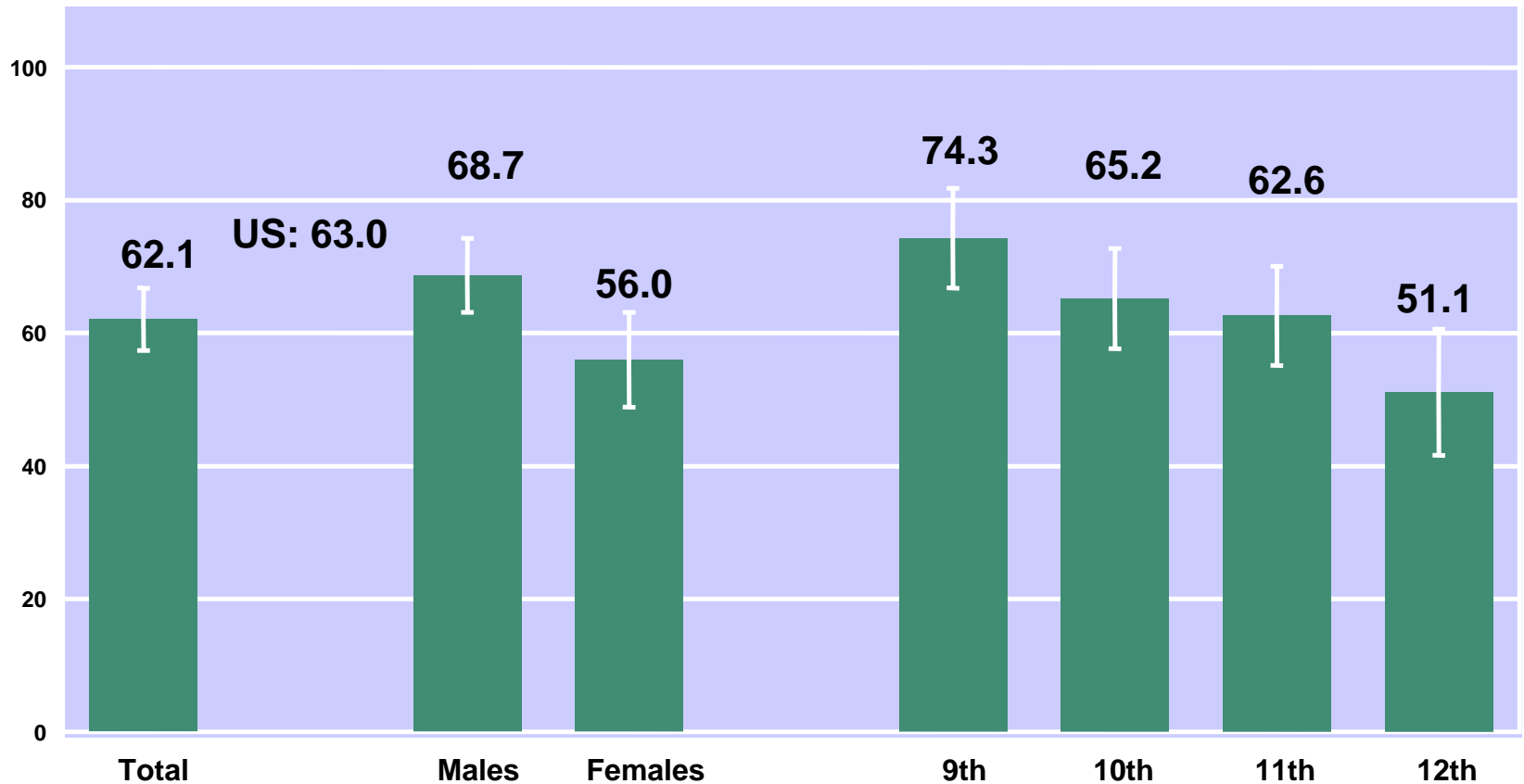




Attachment A

North Carolina High School Survey

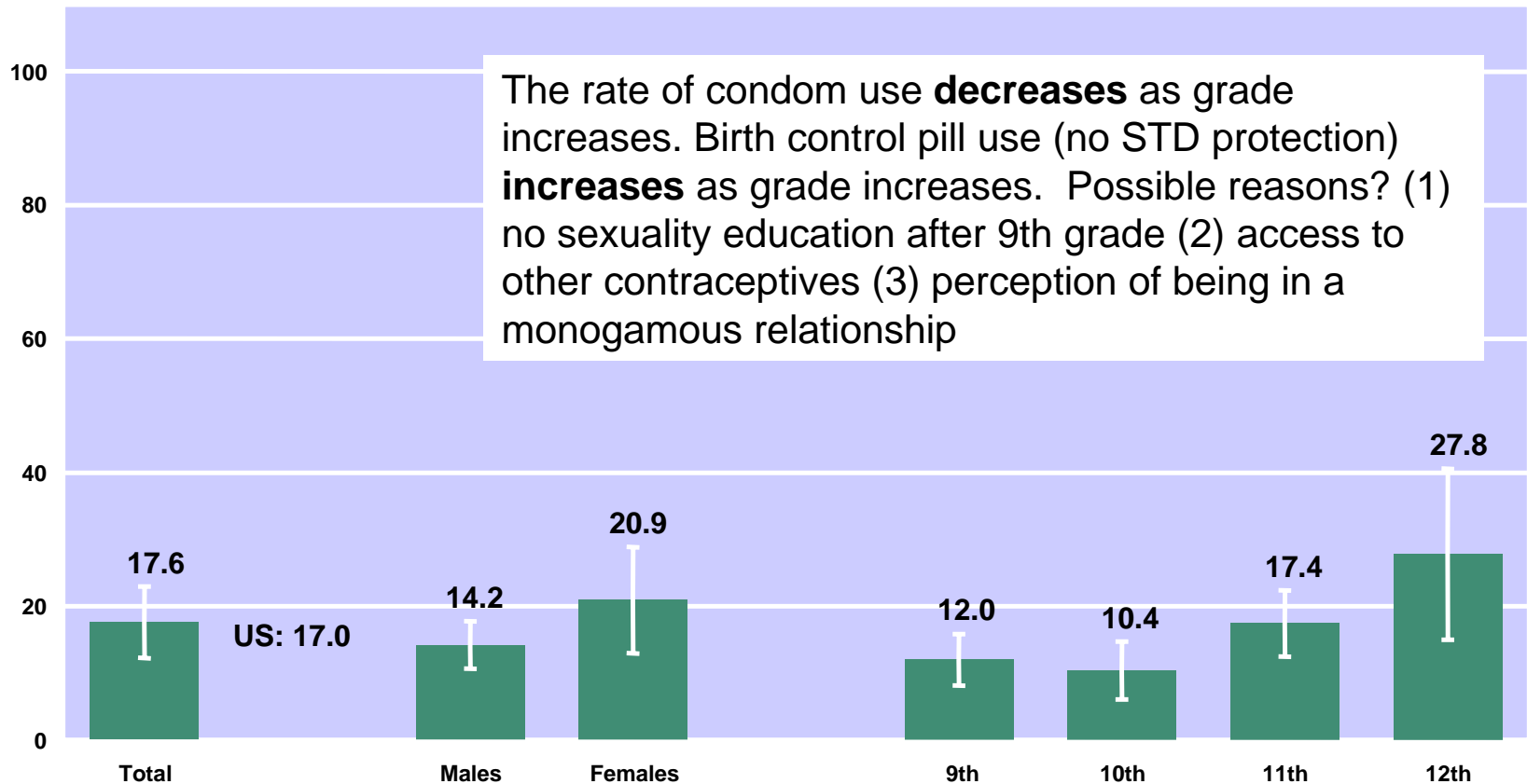
Of students who had sexual intercourse during the past three months, the percentage who used a condom during last sexual intercourse



Q63 - Weighted Data

North Carolina High School Survey

Of students who had sexual intercourse during the past three months, the percentage who used birth control pills during last sexual intercourse



2002 Adolescent Pregnancies and Rates: Ages 15-19

	TOTAL		
	Pregnancies 15-19	Rate per 1,000	RANKING
NORTH CAROLINA	17,976	64.1	
VANCE	166	110.4	1
WILSON	256	102.8	2
ROBESON	486	102.7	3
MONTGOMERY	88	101.9	4
HALIFAX	194	98.1	5
ONslow	546	95.6	6
LENOIR	177	91.6	7
GREENE	58	91.3	8
LEE	150	90.3	9
DUPLIN	151	89.9	10
COLUMBUS	166	87.1	11
HOKE	113	86.6	12
BLADEN	93	86.4	13
SWAIN	36	86.1	14
CRAVEN	252	85.2	15
HERTFORD	79	84.9	16
RICHMOND	127	82.8	17
CHOWAN	41	82.3	18
EDGEcombe	158	81.4	19
CUMBERLAND	874	80.0	20
JONES	27	79.6	21
SAMPSON	154	77.2	22
SCOTLAND	104	76.5	23
GASTON	454	74.8	24
PASQUOTANK	105	74.7	25
ANSON	63	74.7	
MARTIN	64	73.6	27
WILKES	145	73.5	28
WAYNE	295	72.7	29
DARE	70	72.6	30
HARNETT	257	71.9	31
ROCKINGHAM	201	71.6	32
RUTHERFORD	140	71.3	33
DURHAM	555	71.0	34
BERTIE	51	70.6	35
NASH	205	69.8	36
PERQUIMANS	27	69.8	
CLEVELAND	222	69.1	38
FORSYTH	677	68.8	39
JOHNSTON	281	68.2	40
FRANKLIN	110	68.0	41
CHEROKEE	48	67.3	42
BEAUFORT	95	67.1	43
BURKE	189	66.9	44
ALAMANCE	326	66.8	45
GRAHAM	15	66.7	46
CABARRUS	308	66.3	47
CATAWBA	301	66.1	48
NORTHAMPTON	49	66.1	

2002 Adolescent Pregnancies and Rates: Ages 15-19

Attachment B

	TOTAL		
	Pregnancies 15-19	Rate per 1,000	RANKING
MOORE	154	65.5	50
DAVIDSON	312	65.1	51
STANLY	130	65.1	
TYRRELL	8	64.5	53
SURRY	132	64.3	54
BUNCOMBE	413	64.0	55
BRUNSWICK	141	63.7	56
PAMLICO	23	63.0	57
ROWAN	274	62.5	58
PERSON	70	61.8	59
RANDOLPH	266	61.7	60
POLK	30	61.2	61
CASWELL	45	61.0	62
WASHINGTON	30	60.4	63
ASHE	39	60.2	64
MECKLENBURG	1,428	59.9	65
IREDELL	250	59.5	66
UNION	264	59.0	67
CALDWELL	136	58.2	68
MADISON	37	58.2	
GRANVILLE	88	58.0	70
YADKIN	64	57.5	71
PENDER	76	57.2	72
ALEXANDER	61	56.4	73
TRANSYLVANIA	50	56.2	74
CHATHAM	87	56.1	75
DAVIE	62	54.5	76
MCDOWELL	70	54.4	77
NEW HANOVER	320	54.3	78
GUILFORD	852	54.1	79
CLAY	13	53.9	80
WARREN	35	53.4	81
LINCOLN	112	53.1	82
AVERY	28	52.6	83
MITCHELL	24	52.4	84
CURRITUCK	37	52.2	85
HENDERSON	129	51.7	86
MACON	45	51.7	
HAYWOOD	81	51.6	88
CARTERET	90	48.8	89
ALLEGHANY	13	47.6	90
PITT	318	46.9	91
CAMDEN	12	46.2	92
GATES	17	44.5	93
WAKE	999	44.4	94
JACKSON	67	42.0	95
HYDE	6	39.0	96
STOKES	49	35.9	97
YANCEY	17	35.3	98
ORANGE	171	23.1	99
WATAUGA	51	18.5	100

Prepared by NC DHHS State Center for Health Statistics 10/16/2003

* Rates based on small numbers (fewer than 20 cases) are statistically unreliable and should be interpreted with caution.

Adolescent Risk
and the
North Carolina College HIV

Peter Leone, MD

Associate Professor of Medicine

University of North Carolina

Why Adolescents are at Risk for STD/HIV

- Higher STD/HIV risk
 - Biological susceptibility
 - Cervical columnar epithelium
 - Health care utilization
 - Fewer, shorter visits (esp. males)
 - STD knowledge, information sources
 - Level of trust
 - Developmental issues
 - “Invincibility”
 - Peer Pressure
 - Sexuality (Orientation and Identity)
 - Lifestyle choices
 - Experimentation

STD Burden in 15-24 yr old in USA

- Account for ~ 25% of sexually active population
- ~9 million STD infections in 2000 for 15-24 yr old
- 15-24 yr old account for ~ 50% of new STDs

Estimated Cases of STDs in American Youth Ages 15-24, Year 2000

STD	New Cases	Prevalence [¶]	Level of Evidence [▼]
Chlamydia	1,500,000	1,000,000	II
Genital herpes	640,000	4,200,000	II
Gonorrhea	431,000	No estimates	II
Hepatitis B	7,500	No estimates	II
HIV	15,000	No estimates	II
Human papillomavirus (HPV)	4,600,000	9,200,000	III
Syphilis	8,200	No estimates	II
Trichomoniasis	1,900,000	No estimates	III
Total new cases	>9,000,000		

Youth and STDs: Quick Facts

- Nearly half of all new STD cases occur among youth ages 15-24.³
- Half of new HIV infections occur among youth ages 15-24.⁴
- By age 25, one of two sexually active youth will acquire an STD.
- Teens ages 15-19 who have had sex have the highest STD rates of any age group in the country.⁵
- The highest rates of gonorrhea and chlamydia are among 15- to 19-year-old females.⁶
- The lifetime medical costs of STDs acquired by American youth ages 15-24 in the year 2000 will be at least \$6.5 billion.⁷
- Early testing and treatment are necessary to prevent potential lifelong consequences.
- STDs can be prevented.

Impact of STDs in Youth

- HPV- 74% of total cases
- HIV- ~ 50% of new infections
- GC- ~60% of total cases
- CT - ~54% of total cases
- HSV - ~ 46% of new infections

National Adolescent Health Survey

Adolescent Virginity Pledges

- Delayed 1st intercourse by 1.5yrs
- Less likely to use contraception at 1st intercourse
- Marry earlier
- Less likely to use condoms
- Less likely to test for STDs
- STD rates as high as non-pledge at 18-24 years of age

Conclusion for Virginitv Pledges from National Adolescent Health Survey

- Pledges did delay sexual debut
- There was no difference in overall STD rates by age 18-24
- Pledges at greater risk for STDs since they were less likely to:
 - use condoms
 - recognize STD symptoms
 - seek STD screening

Condom Availability in Schools is not associated with increased sexual activity

Adolescents in schools where condoms available:

- More likely to receive condom use instruction
- Less likely to report lifetime or recent sexual intercourse
- Sexually active adolescents in those schools were twice as likely to use condoms during their most recent sexual encounter.

Condom Effectiveness

The surest way to avoid STDs is to abstain from sex, or to be in a long-term, mutually monogamous relationship with a partner who has been tested and does not have an STD.

For people whose sexual behaviors place them at risk for STDs, correct and consistent use of a male latex condom can reduce the risk. When used the right way every time, latex condoms are highly effective in preventing sexual transmission of HIV, and can reduce the risk of chlamydia, gonorrhea, genital herpes, syphilis, and trichomoniasis. While the effectiveness of condoms in preventing HVP is unknown, condom use has been associated with a lower rate of cervical cancer, an HPV-associated disease.^{53, 54}

However, no protective method is 100 percent effective, and condom use cannot guarantee absolute protection against any STD. Most youth do not use condoms every time they have sex, and most have not been taught the correct way to use a condom.

Wake Adolescent Focus Groups

- Reported they mostly learned about STDs and available services from friends or “the street”
- Reported information gained from health care providers or health education outreach was trusted but limited.
- Reported getting little information from parents “You don’t discuss this stuff with your parents.”
- Reported they had not learned much about STDs in Wake County schools beyond “the basics” because “they aren’t supposed to teach it.”

HIV Transmission among North Carolina College Students

L. B. Hightow, P. MacDonald, C. D. Pilcher, A. H.
Kaplan, E. Foust, T. Q. Nguyen, and
P. A. Leone

Background

- **Colleges low HIV prevalence sites**
 - NEJM 1990
- **As of 2001, the South had greatest number of people estimated to be living with AIDS**
 - Kaiser Family Foundation 2002
- **Significant spread of HIV/AIDS cases in MSM and men who have sex with men and women (MSM/W) in communities of color**
 - Brooks AIDS Ed and Prev 2003
- **Young African-American MSM seem to be most vulnerable**
 - CDC 2001, Valleroy JAMA 2000

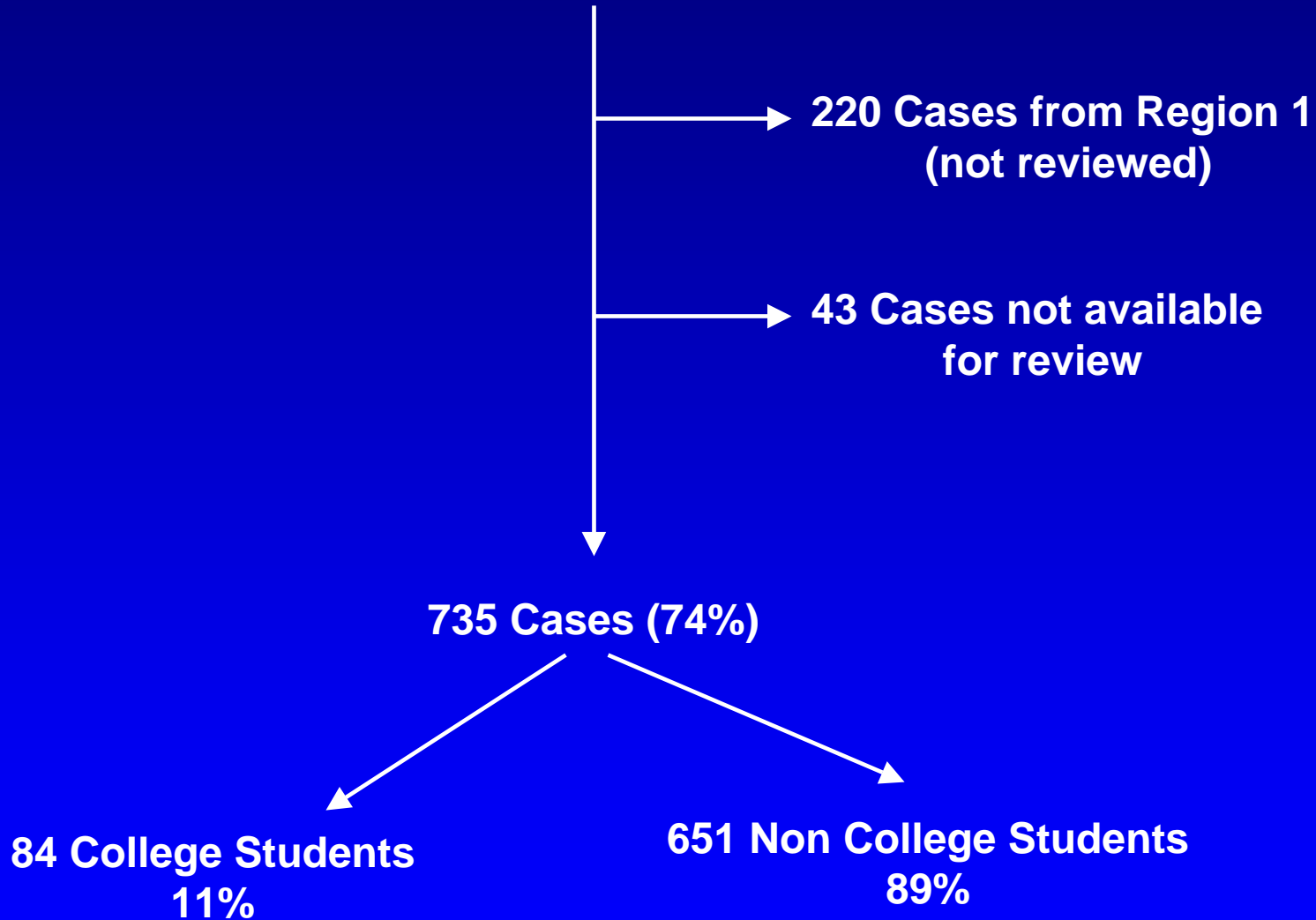
Detection of Outbreak

- **November 2002: NC's Screening & Tracing Active Transmission (STAT) Program:**
 - HIV RNA screening to all public VCT for detection of Ab-negative, acute HIV Infections
 - Rapid notification/confirmatory testing
 - Rapid tracing/prospective screening of partners
- **Of 5 acute infections detected in <3 months, 2 were male students attending college in the same town.**

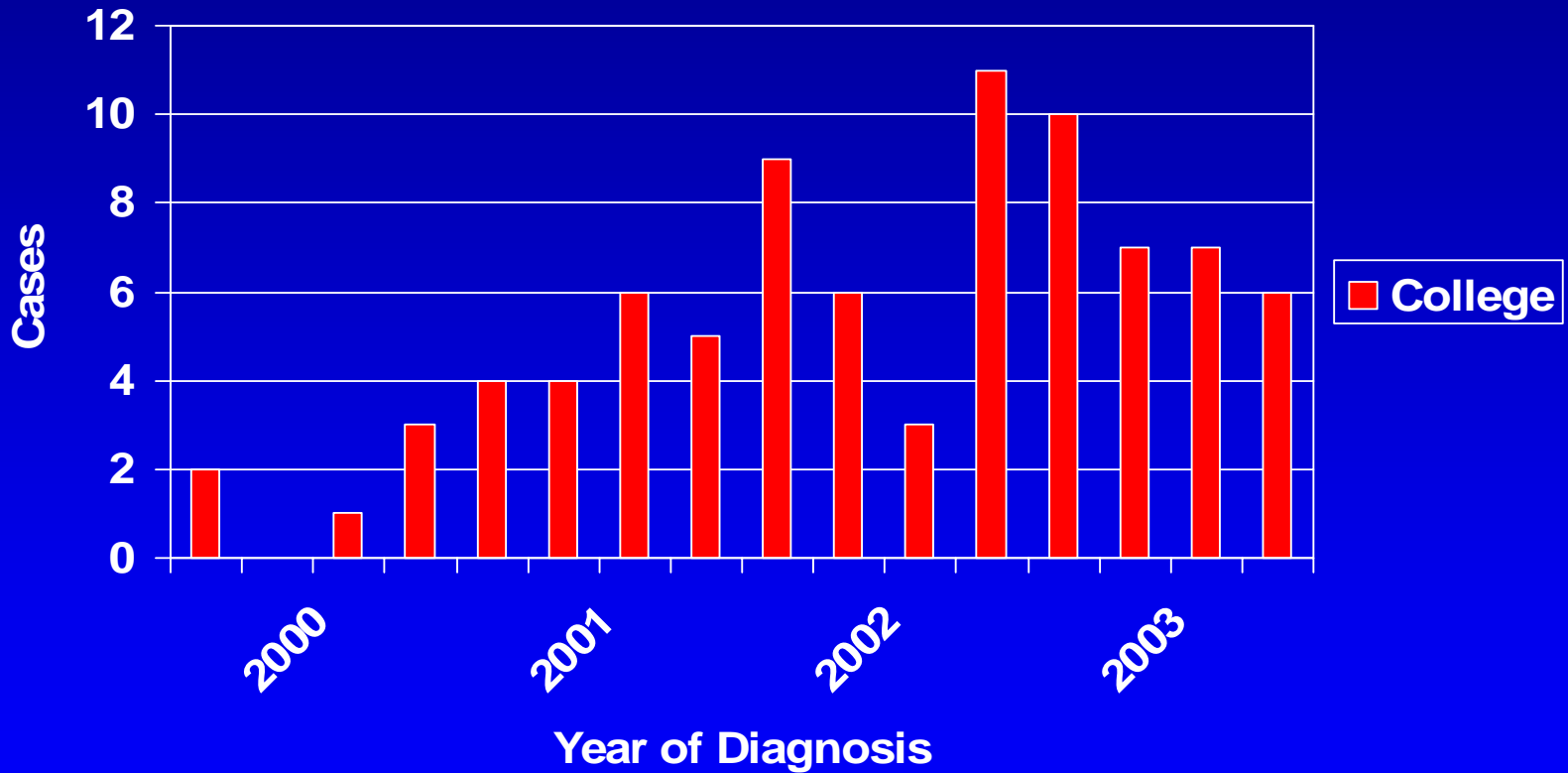
Study Design

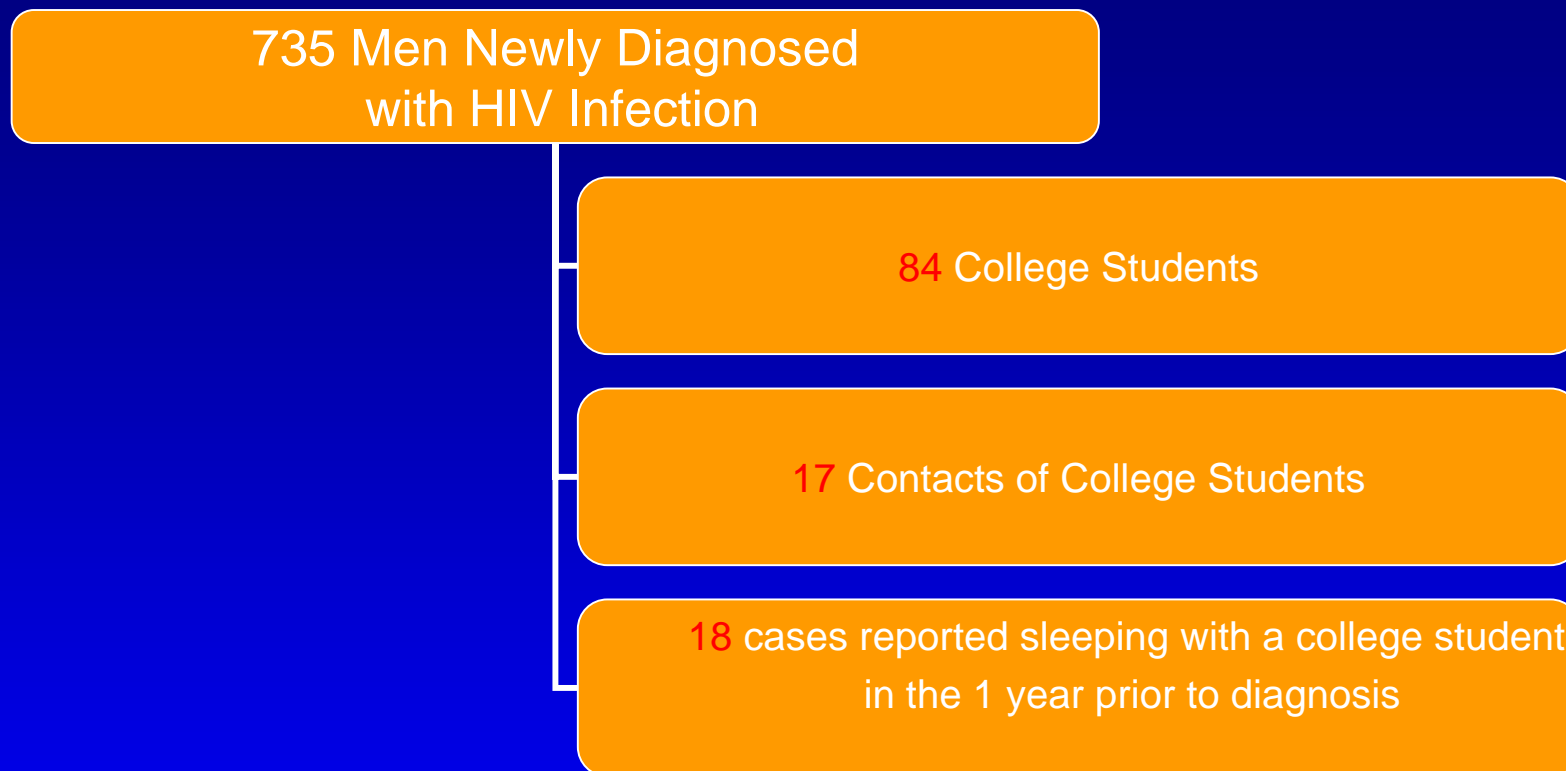
- **Retrospective review of state HIV surveillance records**
- **Cohort included individuals with new diagnosis of HIV/AIDS**
 - **Males age 18-30 years**
 - **January 1, 2000- December 31, 2003**
 - **Surveillance area was 69 counties (6/7 regions) throughout North Carolina**
- **Sexual network analysis**

998 Men Aged 18-30 Newly Diagnosed with HIV in North Carolina, 2000-2003



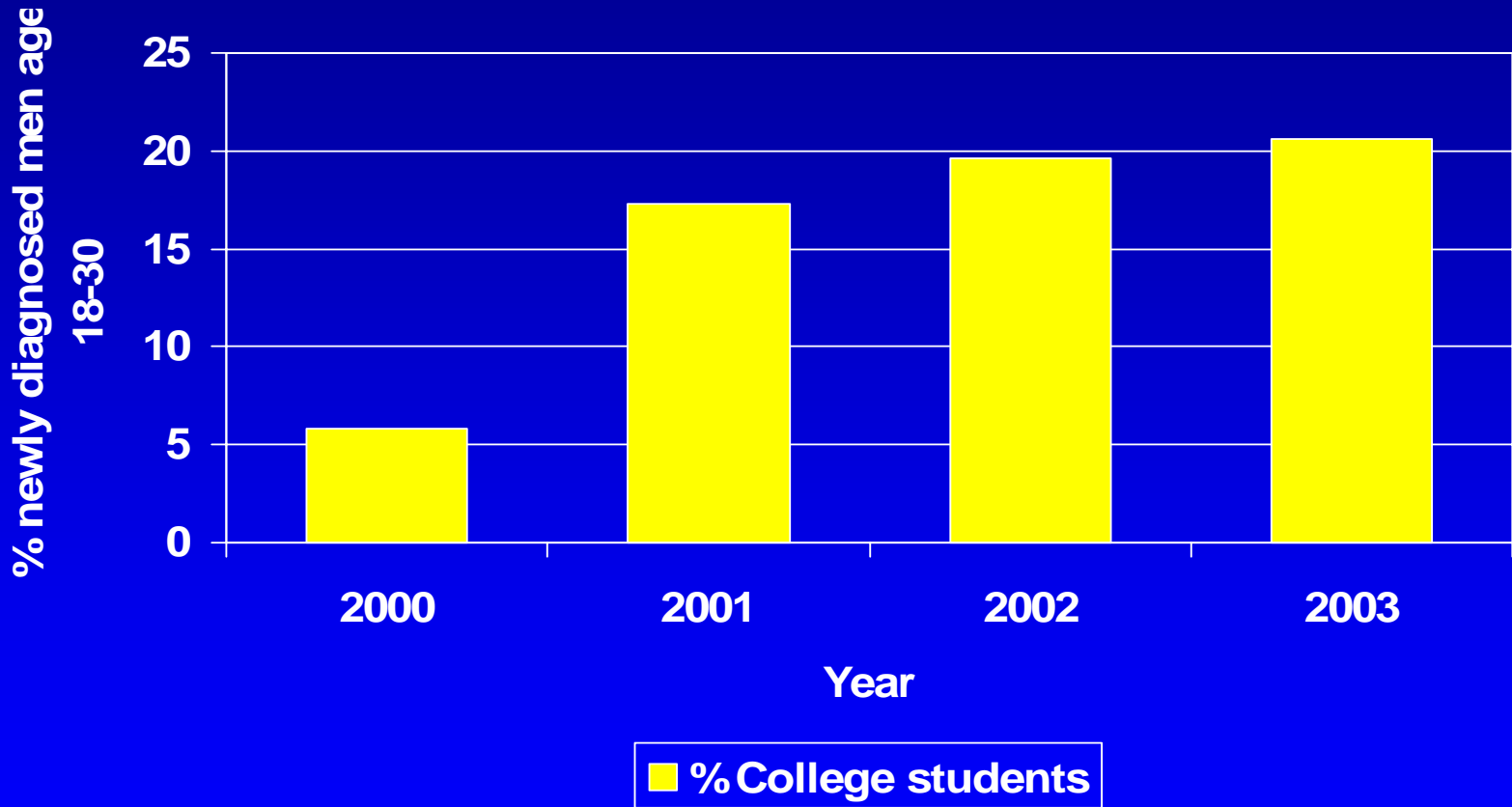
Newly-Diagnosed Cases of HIV Among College Males





Overall: 119/735 (16.2%) of cases had some relation to colleges

Proportion of College Students and Related Cases Newly Diagnosed with HIV Infection



Looking at the data: Comparing the College HIV+ to Non-College HIV+

- Odds Ratio (OR): likelihood of a factor being associated with a college HIV+ compared to the non-college HIV+ while controlling for other factors
- OR of 1.0 = equally likely
3.0= three times as likely, etc.

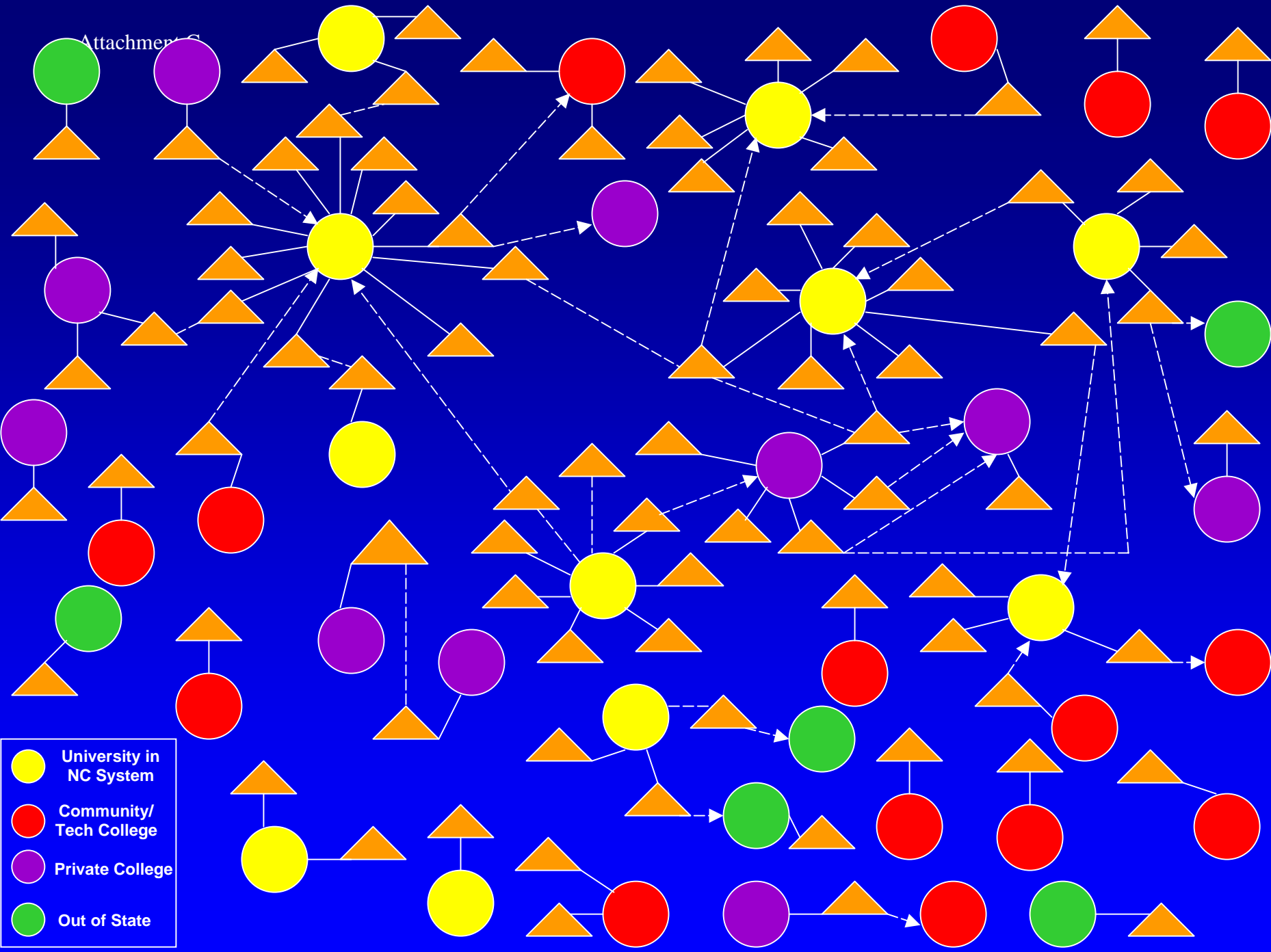
Factors Associated with College Enrollment of Cases

<u>Factor</u>	<u>OR</u>	<u>95% (CI)</u>
Race/Ethnicity		
African American	3.70	(1.86 – 7.54)
Acute/Recent Infection	3.33	(1.54 – 7.11)
Gender of sex partners:		
Women only	0.09	(0.02 – 0.29)
Male and female	3.78	(2.19 – 6.51)
Place to meet sex partners:		
Gay Bars/clubs	3.01	(1.77 – 5.10)
Internet/chat lines	4.95	(2.53 – 9.64)
College/University	34.16	(6.59 – 332.59)

Factors Associated with College Enrollment of Cases

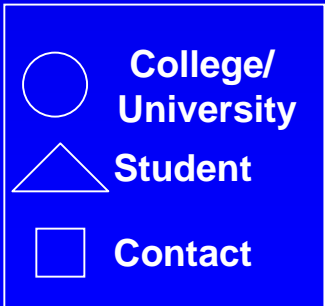
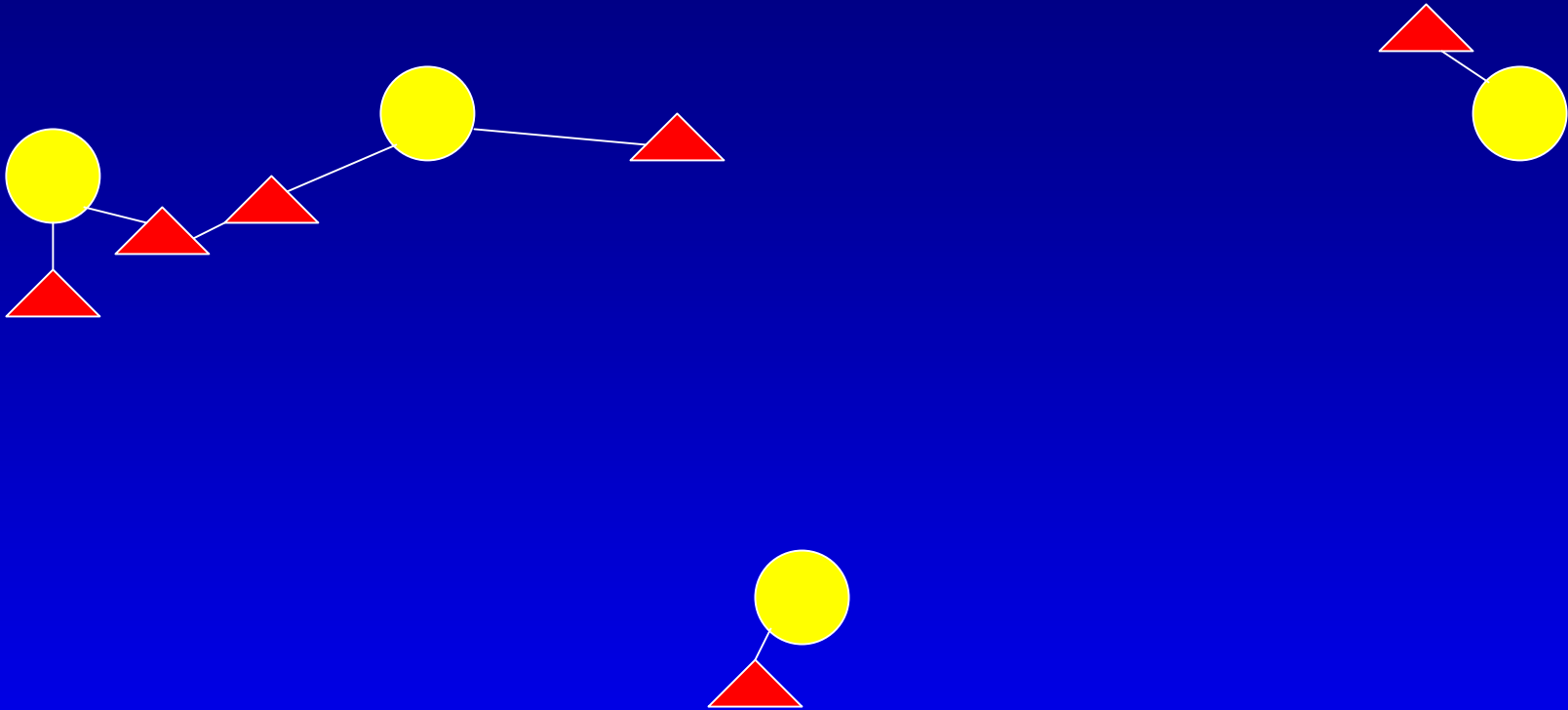
<u>Factor</u>	<u>OR</u>	<u>95% (CI)</u>
Drug Use		
Ecstasy	5.90	(1.36 – 23.98)
Crack Cocaine	0.16	(0.00 – 0.96)
Travel Out of NC		
Atlanta	2.69	(1.27 – 5.62)
Washington D.C.	4.79	(1.77 – 12.67)

Attachment 6



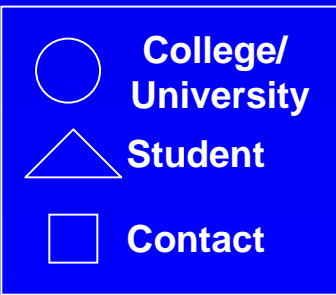
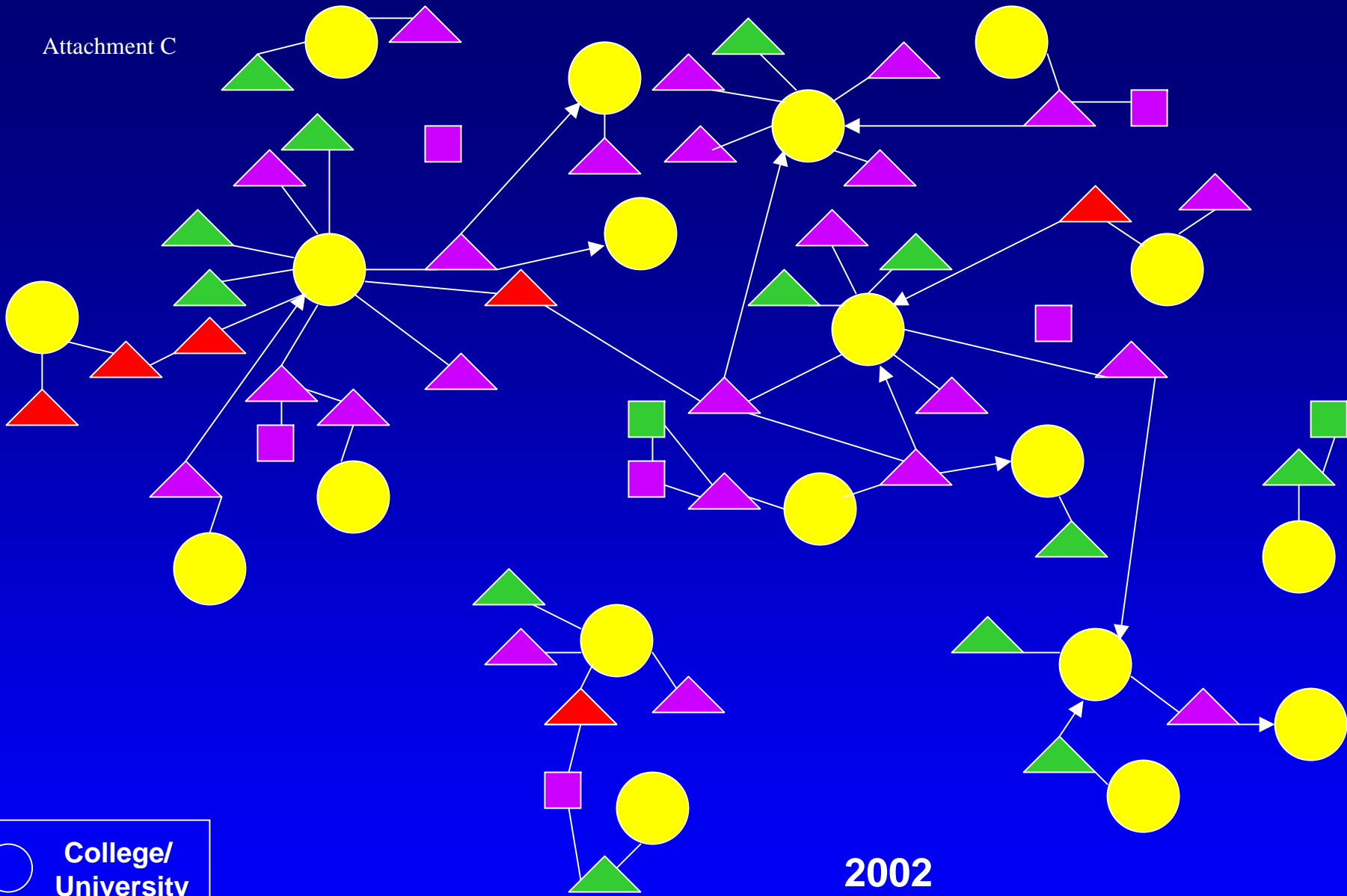
	University in NC System
	Community/Tech College
	Private College
	Out of State

Attachment C



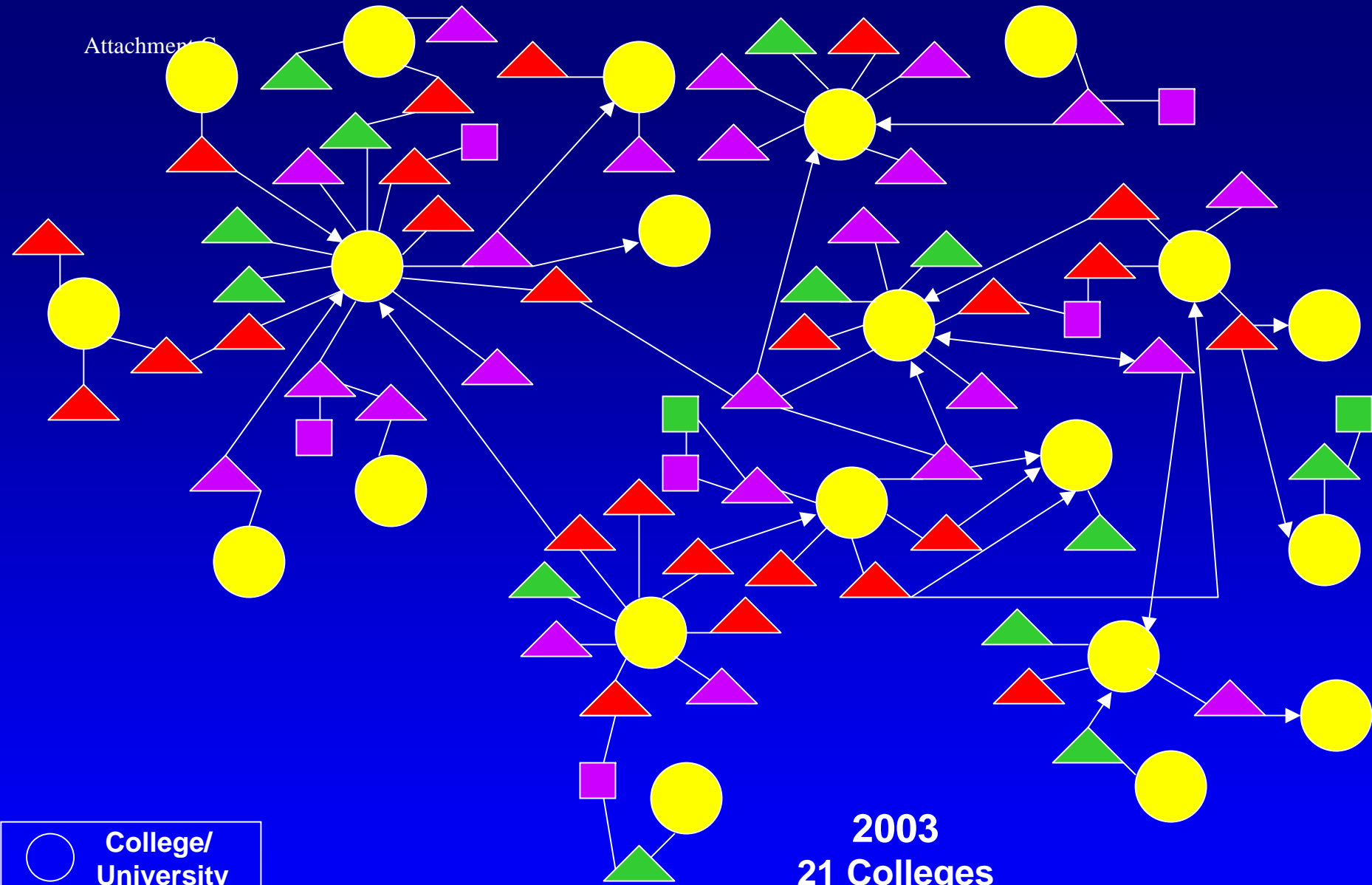
2000
4 Colleges
6 students
0 contacts




Attachment C



2002
19 Colleges
42 Students
8 Contacts

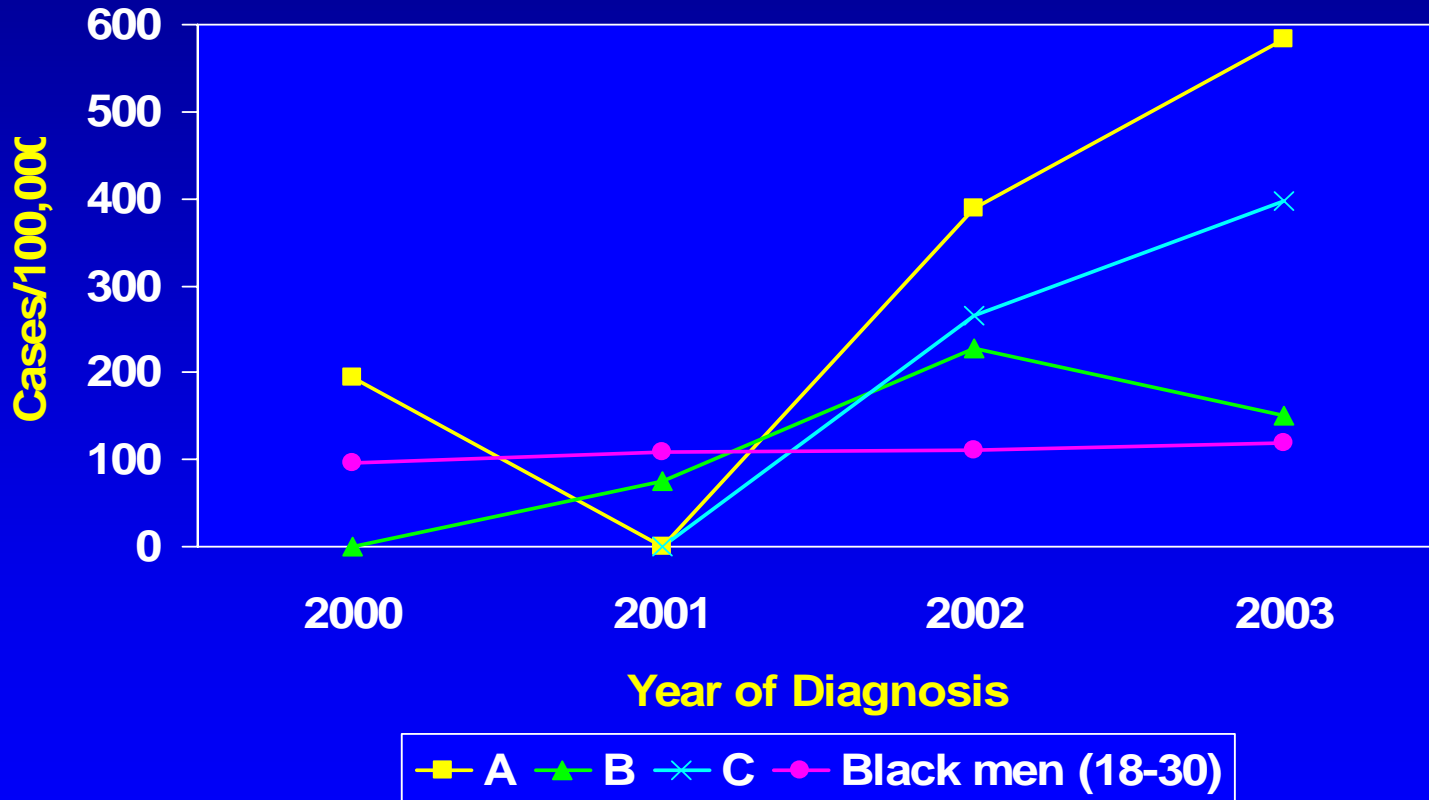
Attachment 6



	College/ University
	Student
	Contact

2003
21 Colleges
61 Students
8 Contacts

New HIV Infection Rates Among Black Men, age 18-30, at 3 North Carolina Colleges/Universities, 2000-2003 Were Higher than North Carolina rate for young black men



Background

- November 2002
 - 2 cases of acute HIV were identified in Black college students
 - Led to active case finding
- May 2003
 - 56 cases in college students identified
- August 2003
 - CDC invited to assist in epidemiological investigation

CDC Epi-Aid of College Outbreak

- Case-Control Study
 - To assess differences between HIV-positive and HIV-negative MSM
- Comprehensive questionnaire developed
- Cases enrolled by DIS and through HIV clinics
- Controls enrolled through nightclubs and public health clinics

Sexual Identity and Risk Perception

	Cases (n=18)	College Controls (n=19)	Non-College Controls (n=15)
Straight/Bi	50%	42%	20%
Gay	44%	58%	80%
Openness (to no one or some)	72%	63%	33%
Risk Perception (Very, Unlikely)	73%	63%	66%

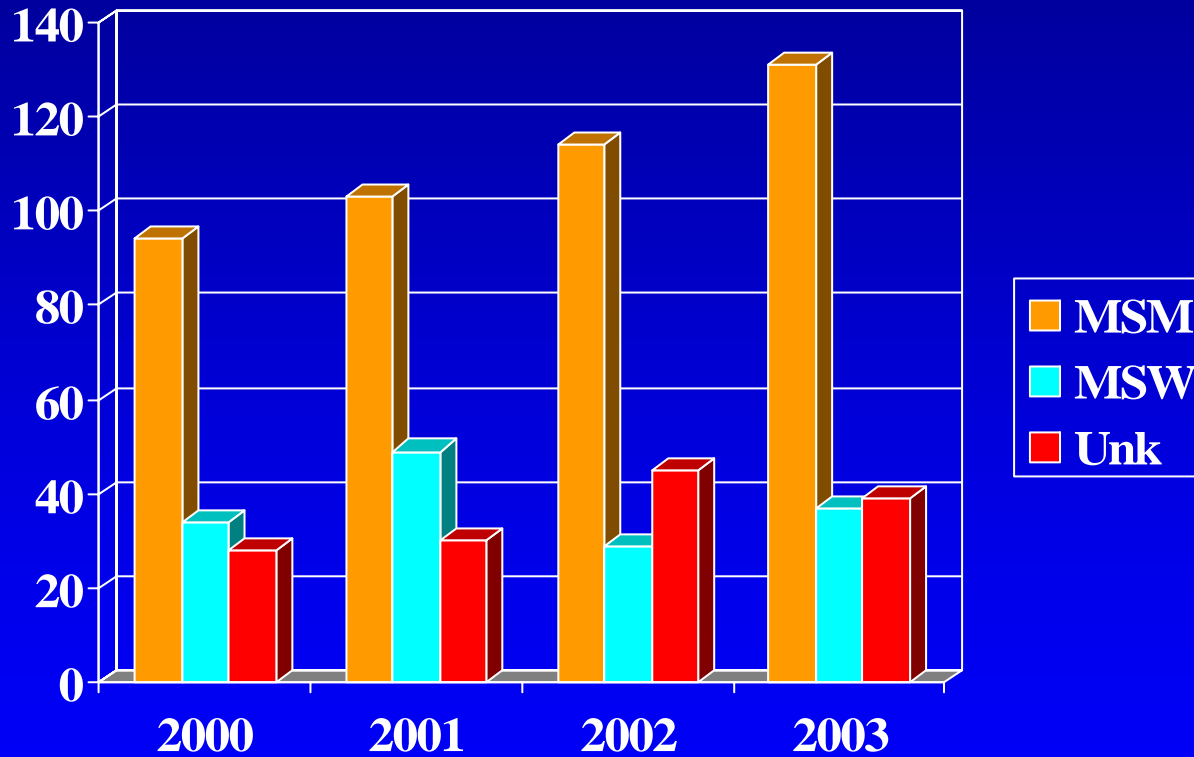
Conclusions

- High-risk behaviors are occurring in young, Black MSM college and non-college students
- Venues for meeting partners are not limited to college campuses, providing ample opportunity for sexual mixing
- Strategies for integrating HIV prevention into routine STD evaluation and care are warranted

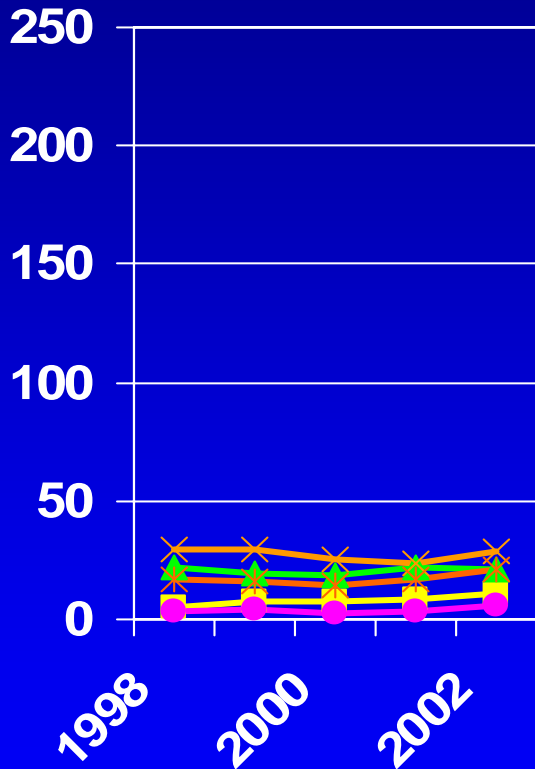
Conclusions

- Opportunities to link HIV-positive cases to care may be missed
- Strategies for integrating HIV prevention into STD treatment programs are warranted
- College students were less likely to identify as gay and to disclose sexual identity

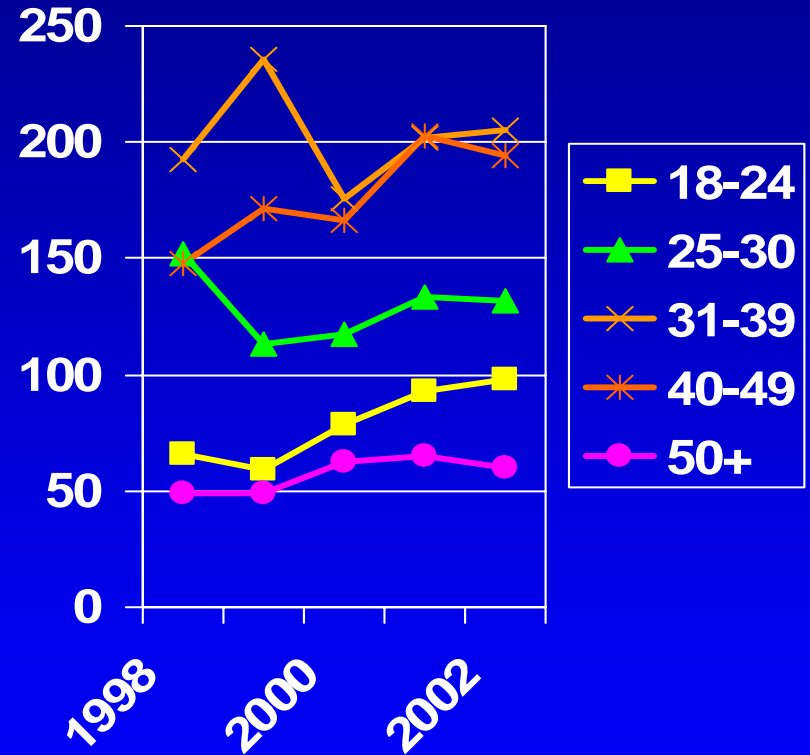
Cases of HIV for Black men 18-30 by Risk



HIV Rates (per 100,000) Among Men (North Carolina)



White



Black

Conclusions

- **Identification of previously unrecognized HIV epidemic centered on North Carolina college campuses principally involving black MSM and MSM/W**
- **Not unique to college students or to North Carolina, but speaks more to transmission of HIV among young black men in the Southeastern US**

**North Carolina Parent Opinion Survey of
Public School Sexuality Education
October 2003**

A report from

**Department of Health and Human Services
HIV/STD Prevention and Care Branch
& State Center for Health Statistics**

&

**Department of Public Instruction
Healthy Schools Initiative**

**HIV/STD Prevention and Care Branch
North Carolina Department of Health and Human Services
1902 Mail Service Center
Raleigh, NC 27699-1908**

February 2004

State of North Carolina
Michael F. Easley, Governor

Department of Health and Human Services
Carmen Hooker Odom, Secretary

Division of Public Health
Leah M. Devlin, D.D.S, M.P.H., State Health Director
www.dhhs.state.nc.us/dph

Epidemiology Section
Steve Cline, D.D.S, M.P.H., Section Chief

HIV/AIDS Prevention and Care Branch
Evelyn Foust, Branch Head

Department of Public Instruction
Michael Ward, EdD, State Superintendent
www.ncpublicschools.org

Healthy Schools Initiative
Paula Hudson Collins, MHD, R.H.Ed., Senior Advisor for Health Schools

Contributing Authors
Natalie Kil, M.P.H
Ziya Gizlice, PhD, Survey Operations Team Leader
Sherry Lehman, MEd, LPC, HIV/AIDS Policies and Programs Consultant
Sarah Langer, MPH, Abstinence and Evaluation Consultant
Judy Owen-O'Dowd, Special Projects and Policy Coordinator

Special Thanks to
We would like to thank Dr. Paul Buescher for reviewing and making valuable suggestions to this document.

An electronic copy of this document is available at www.nchealthyschools.org

NC DHHS and NC DPI are equal opportunity employers and providers.



Executive Summary

North Carolina students are at risk for unintended pregnancies and sexually transmitted diseases (STDs). In 2003, 73.5% of high school seniors reported having had sexual intercourse and 31.1% of seniors who had sex did not use a condom at last sexual intercourse (North Carolina Youth Risk Behavior Survey (NC YRBS), 2003). Sexuality education in public schools is one way to impart important information and skills for students to delay sexual intercourse and to use safer sex methods when they do not choose to abstain.

In October 2003, the North Carolina Department of Health and Human Services, Division of Public Health, HIV/STD Prevention and Care Branch, and the Department of Public Instruction, Healthy School Initiative, collaborated to implement a telephone survey of parents of public school students across the state. The purpose of this survey was to assess parent opinions regarding sexuality education in North Carolina public schools.

The Survey Operations Program of the North Carolina Center for Health Statistics conducted the survey in the survey laboratory from October 15 through October 29, 2003. For this survey 1,306 parents of public school students were randomly selected and interviewed across North Carolina. Of the people who were contacted and eligible (parents of current North Carolina public school students, K-12), 84% completed the survey.

Major Findings:

- **Of all parents of public school students surveyed, 90.5% thought sexuality education should be taught in North Carolina public schools.**
- Parents of all demographic groups thought sexuality education should be taught in public schools.
Of these 90.5% of parents:
- More than 2/3 of parents thought sexuality education should start by the 6th grade.
- Of parents who thought sexuality education should start in elementary school, almost one third thought that 9 hours of class time per year should be devoted to sexuality education.
- 40% of parents thought students should receive 36 hours per year of sexuality education during high school.

The majority of parents surveyed felt the following topics were important (responded "Very Important" or "Somewhat Important") and should be taught as part of sexuality education at an age appropriate grade.

- Transmission and prevention of sexually transmitted diseases (98.5%)
- Transmission and prevention of HIV/AIDS (98.4%)
- What to do if one has been raped or sexually assaulted (98.2%)
- The basics of reproduction or how babies are made, pregnancy, and birth (98.0%)

- How to deal with pressure to have sex (97.7%)
- How to talk with a girlfriend, boyfriend, or partner about not having sex (96.9%)
- How to talk with parents about sex and relationship issues (96.7%)
- How to deal with the emotional issues and consequences of being sexually active (93.9%)
- How to talk with a girlfriend, boyfriend, or partner about birth control and sexually transmitted diseases (92.9%)
- Abstinence until marriage (91.2%)
- Waiting to have sex until after graduating from high school (90.3%)
- Effectiveness and failure rates of birth control methods, including condoms (88.9%)
- How to get tested for HIV/AIDS and sexually transmitted diseases (88.3%)
- Risks of oral sex (82.7%)
- How to use other birth control methods, such as birth control pills, or Depo-Provera (80.8%)
- Risks of anal sex (80.3%)
- How to use condoms (80.1%)
- Talking about what sexual orientation means (77.7%)
- Where to get birth control, including condoms (73.9%)
- Classroom demonstrations of how to use a condom correctly (56.8%)

However,

- 24.0% of parents who supported teaching sexuality education in public schools were opposed to their children having classroom demonstrations of how to use a condom correctly.
- Of the 9.5% of parents who did not think sexuality education should be taught in public schools, most believed that sexuality education should be taught in the home by parents.

Additionally,

- Of parents who thought sexuality education should be taught in schools, more than 95% believed that parents and public health professionals should be able to determine how sexuality education should be taught, followed by school administrators (80.8%), students (54.6%), religious leaders (49.4%) and finally politicians (6.9%).

The results of this survey indicate that North Carolina parents want sexuality education to begin in earlier grades and think that a substantial amount of class time should be devoted to sexuality education. The majority of parents also thought sexuality education should include a range of skills and information for preventing HIV/STD. Finally, more than half of parents who thought sexuality education should be taught in public schools believed that public health professionals, parents, school administrators, and students should be able to determine how sexuality education is taught in public schools.

DRAFT August 2, 2004

2005 LEGISLATIVE SESSION

ISSUE: MEDICAL INACCURACIES IN ABSTINENCE UNTIL MARRIAGE LAW – GS 115C-81(e1)

ACTION NEEDED: Correct inaccurate medical references in the current law so that young people will receive necessary information to help them make responsible decisions about sexuality and avoid unintended pregnancies and STDs including HIV.

The medical inaccuracies are as follows:

The term AIDS is used when, in fact, HIV (Human Immunodeficiency Virus) should be used because HIV is the actual virus that is transmitted, not AIDS.

Teachers are required to teach that abstinence is a certain means of avoiding AIDS, when in fact the transmission of AIDS also occurs through intravenous drug use; receipt of blood, tissue, or organs from infected individuals; and, although rarely, the transmission of AIDS occurs from needle pricks or other accidental exposure to blood or body fluids of HIV-positive individuals. Abstinence is the only certain way to avoid sexual transmission of HIV, but the law does not include this statement.

Teachers are required to teach that abstinence is a certain means of avoiding sexually transmitted diseases, when in fact, abstinence is the only certain way to avoid most sexually transmitted diseases because some STDs can be transmitted in non-sexual ways; for example, herpes can be transmitted by skin-to-skin contact.

The law requires that **any instruction concerning the causes of sexually transmitted diseases, including AIDS, in cases where homosexual acts are a significant means of transmission, shall include the current legal status of those acts**, when in fact, North Carolina does not have laws on homosexual acts, but rather laws pertaining to crimes against nature.

The law requires teachers to inform students of the effectiveness and failure rates of each contraceptive method when used by adolescents. Research on the effectiveness of contraceptives has yielded a considerable range of findings, and usually such research is based on the population in general and not specifically on adolescents alone.

OTHER POINTS

The law does not define essential terms, for example:

- The law requires the State Board of Education to create or approve abstinence "curricular," but does not define the term.
- The law does not define "comprehensive sex education program," but it outlines specific steps that local school boards must take before adopting a "comprehensive sex education program."

