Twenty-Two Year Trend Comparison Showed Racial/Ethnic **Disparities in School-Based HIV/AIDS Education Among** Adolescents

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WAYNE STATE UNIVERSITY

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ABSTRACT

- 37,968 individuals were diagnosed with HIV in 2018. 21% (7,891) of those who were diagnosed with HIV were between the ages of 13-24.
- People ages 13-24 displayed the similarities and differences among high school students who reported never being taught about HIV/AIDS infection in school.
- HIV/AIDs education is important in schools because it will help reduce the amount of HIV/AIDs cases and will provide knowledge for safer sex practices in adolescents and young adults.
- The 1991-2013 national Youth Risk Behavior Survey (YRBS) data was compared to the trends stratified by gender; race/ethnicity; and, grade level and displayed the longitudinal trends in a series of line charts
- The data that was selected for analysis included students who have never been taught about HIV/AIDs and the sample included those in African American and Hispanic groups, high schools that had a higher enrollment of minority groups, and sampled different grade levels.
- Caucasian adolescents appeared U-shaped, while Hispanic and African American adolescents had fluctuating trends (W-shaped). U-shaped graph means that on the graph Caucasians had more people who did not have education on HIV/AIDS at the start of the survey and then less during the middle and the more people once again in later years creating a U like shape when looking at the graph.
- A higher proportion of Hispanic adolescents reported never being taught about HIV/AIDS in school, followed by African Americans and Caucasians respectively. From 2011, Hispanic adolescents show a sharp decrease.

INTRODUCTION

- HIV infection issue, especially among adolescents and young adults.
- The Centers for Disease Control and Prevention (CDC) claims that an estimated 21% of new infections of HIV were from the 13-24 age group (1).
- United States, data shows that HIV/AIDS disproportionately affects African Americans and Hispanics, compared to others.
- African American youth have the highest percentage (57%) of newly diagnosed HIV infections, followed by Hispanic/Latino (20%) and Caucasian (20%) adolescents (1).
- Goal is to reduce the number of HIV infections (3).
- Healthy People 2020 HIV Objectives stresses the importance of reducing HIV transmission
- 33 states and the District of Columbia mandate that HIV/AIDS education in high schools (4). The rest of the schools do not have HIV education in schools.
- Monitoring and evaluating the impact of school HIV/AIDS education are important to the

development of more effective high school sex health programs.

METHODS Participants

- with high minority enrollments (5). Instrumentation
- Survey given was anonymously
- Procedure
- Yes b) No c) Not sure. Data Analysis
- Longitudinal trend charts of a variable were created by the individual stratum of the other two variables. This resulted in 4-line charts. After the charts were created for Hispanic/Latino and African American, a total of 12-line charts

9 th	25	
to	20	
12 th	10 5 9 1 93 95 97 99 01 03 05 07 09 11 13	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
98		91 03 95 97 99 01 02
10 th	30 25 20 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
114	30 25 20 10 5 0 10 5 0 10 5 0 10 5 0 10 5 0 5 0	91 93 93 97 99 01 0
12*	30 25 26 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	100000000
Lagan	Female Male	

	All races/ethnicities	1
All		91
F	30 25 29 15 6 0 1 93 95 97 99 01 03 05 07 09 11 13	
м		91

(2) University of Toledo, School of Population Health

METHODS

YRBS has been conducted 12 times by the CDC. The YRBS uses a 3-cluster sampling design to provide data from the 9th-12th grade students in the U.S.

• 3 different approaches to attain oversampling of Hispanic and African American students: larger sampling rates were used to select sampling units in high African American and high Hispanic strata; increase the probability that high schools with a disproportionately high enrollment of minorities are selected; and two classes per grade, instead of one per grade, are chose in schools

Students have 45 minutes to complete the survey (5).

CDC has conducted 2 test-retest reliability studies on the national YRBS in 1992 and 2000.

 One question that measured HIV education on the YRBS questionnaires was: "Have you ever been taught about AIDS or HIV infection in school?" (6). Response options to this question were: a)

• 3 strata: gender (male/female), major race/ethnicity (Caucasian, Hispanic/Latino, African American), and grade levels (9th, 10th, 11th, 12th).

were compiled into one figure for comparison (Figure 1).





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http://www.thecommunityguide.org/hiv/riskreduction.html 3:Office of Disease Prevention and Health Promotion. (2014). HIV- Objectives. 4:National Conference of State Legislatures. (2014). State Policies on Sex Education in schools. http://www.ncsl.org/research/health/state-policies-on-sex education-in-schools.aspx

5:Brener ND, Kann L, Shanklin SL, et al. (2013). Methodology of the Youth Risk Behavior Surveillance System--2013. *MMWR*. Recommendations and reports : Morbidity and mortality weekly report. 62(RR-1):1-20.

6: Kann L, Kinchen S, Shanklin SL, et al. (2014). Youth risk behavior surveillance--United States, 2013. United States. ps://www.cdc.gov/mmv

RESULTS

- Figure 1 shows the grade-race/ethnicity-specific trend comparison across genders from 1991 to 2013.
- African American males had a higher proportion of never been taught about HIV/AIDS infection than females over 22 years while no distinct gender difference among Hispanic and Caucasian adolescents
- African American males had higher proportions than African American females in each of the 4 grade levels.
- African American students in 2013, especially 9th graders, had the highest increase on the proportion of never having been taught about HIV/AIDS infection than any other races/ethnicities.
- Caucasian adolescents who reported never being taught about HIV/AIDS in school appear nearly 'U' shaped, while Hispanic and African American adolescents had 'W' shaped trends.
- The trends of African Americans and Caucasians in the recent years were increasing while Hispanics were decreasing.
- For Hispanic females and males, the trends of never having been taught about HIV/AIDS infection in school show 2 common peaks around 2001 and 2011
- Hispanics showed a sharp decline to 2013. Looking at the 2007-2013 trends, both African American and Caucasian adolescents show an increase in the proportions of never having being taught about HIV/AIDS infection in school.
- ¹/₄ of African American boys and girls in the 9th grade had never been taught about HIV/AIDS infection in 2013.
- Figure 3 confirmed a decline from 2011 to 2013 among Hispanics across all grade levels and genders, while African Americans and Caucasians showed an increase from 2007.

CONCLUSIONS

- Hispanic boys and girls reported the highest prevalence of not being taught about HIV/AIDS in school.
- Cultural/religious reasons may have contributed but gender differences were only found in African Americans. African American males had a higher proportion of not getting HIV/AIDs education compared to African American females. Trends showed that Hispanics that were never taught about
- Trends fluctuated the most in the Hispanic and African American populations in comparison to Caucasian populations.

PUBLIC HEALTH IMPLICATIONS

- Findings applied today because the study evaluates prevalence of HIV/AIDS in schools between different ages, genders, and races.
- The educational trends can be linked to the rate of HIV/AIDS infection by seeing that those who received the education were more likely to practice safer sex.
- Knowledge can prevent or reduce the risk of adolescents getting HIV/AIDS and will allow them to receive more

cultural-sensitive sex education through their schools.

HIV/AIDs had two peaks around 2001 and 2011 but then drastically declined in 2013.

- group (1).
- others.
- (20%) and Caucasian (20%) adolescents (1).
- •Healthy People 2030 HIV Objectives stresses the importance of reducing HIV transmission.
- •39 states and the District of Columbia mandate that HIV/AIDS education in high schools (4). The rest of the schools do not
- have HIV education in schools.
- high school sex health programs.

Introduction

•The Centers for Disease Control and Prevention (CDC) estimates that 21% of new infections of HIV were from the 13-24 age

•Data shows that HIV/AIDS disproportionately affects African Americans and Hispanics in the United States, compared to

•African American youth have the highest percentage (57%) of newly diagnosed HIV infections, followed by Hispanic/Latino

•Monitoring and evaluating the impact of school HIV/AIDS education are important to the development of more effective

•One question that measured HIV education on the YRBS questionnaires was: "Have you ever been taught about AIDS or HIV infection in school?" (6). Response options to this question were: a) Yes b) No c) Not sure.

•3 strata: gender (male/female), major race/ethnicity (Caucasian, Hispanic/Latino, African American), and grade levels (9th, 10th, 11th, 12th). •Longitudinal trend charts of a variable were created by the individual stratum of the other two variables. This resulted in 4-line charts.

METHODS **Participants**

 YRBS has been conducted 12 times by the CDC. The YRBS uses a 3-cluster sampling design to provide data from the 9th-12th grade students in the U.S.

Procedure

Data Analysis



Figure 1. Never Being Taught about HIV/AIDS: 1991-2013 Grade-Race/Ethnicity-Stratified Trend Comparisons Across Genders

RESULTS



Figure 3. Never Being Taught about HIV/AIDS: Sex-Race/Ethnicity-Stratified Trend Comparison Across Grades



CONCLUSION

about HIV/AIDS in school. found in African Americans. education compared to African American females. peaks around 2001 and 2011 but then drastically declined in 2013.

•Hispanic boys and girls reported the highest prevalence of not being taught

•Cultural/religious reasons may have contributed but gender differences were only

African American males had a higher proportion of not getting HIV/AIDs

•Trends showed that Hispanics that were never taught about HIV/AIDs had two

Public Health Implications

- •Findings applied today because the study evaluates prevalence of HIV/AIDS in
- schools between different ages, genders, and races.
- •The educational trends can be linked to the rate of HIV/AIDS infection by seeing
- that those who received the education were more likely to practice safer sex.
- •Knowledge can prevent or reduce the risk of adolescents getting HIV/AIDS and
- will allow them to receive more cultural-sensitive sex education through their
- schools.

References

1: Centers for Disease Control and Prevention. (2016). HIV Among Youth. http://www.cdc.gov/hiv/risk/age/youth/index.html?s_cid=tw_std0141316

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