



# The First National Look at Health Risk Behaviors Among Sexual Minority High School Students, United States, 2015

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Division of Adolescent and School Health

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# Overview

- Background on the Youth Risk Behavior Surveillance System (YRBSS)
- Background on measurement of sexual orientation
- New report
- Results
- Uses of YRBSS sexual orientation data
- Plans for the future
- Access to data and documentation
- Questions

# Background on the YRBSS

# Purposes of the YRBSS

- Focus the nation on behaviors among youth causing the most important health problems
- Assess how risk behaviors change over time
- Provide comparable data

# Priority Health-Risk Behaviors and Health Outcomes Monitored by YRBSS

- Behaviors that contribute to the leading causes of mortality and morbidity
  - Unintentional injuries and violence
  - Sexual behaviors
  - Alcohol and other drug use
  - Tobacco use
  - Unhealthy dietary behaviors
  - Inadequate physical activity
- Obesity
- Asthma

# Current Components of the YRBSS

- **National Youth Risk Behavior Survey (YRBS)**
  - Representative of all public and private school students in grades 9-12 in 50 states and DC
- **State, territorial, tribal, and large urban school district YRBS's**
  - Representative of mostly public school students in grades 9-12 in the jurisdiction

Note: National data are not used to generate state and local estimates and state and local data are not combined to generate national estimates.

# Two YRBS Questionnaires

- **Standard YRBS questionnaire**
  - Starting point for state and local questionnaires
  - Typically contains 89 questions
  - Modified by each site to meet their needs
  - Can have as many as 99 questions
  - Optional question list available for additional questions
  - Only 4 sites used the standard questionnaire without changes in 2015
- **National YRBS questionnaire**
  - The standard questionnaire plus 10 additional questions

# Characteristics of the National, State, and Local School-Based YRBS

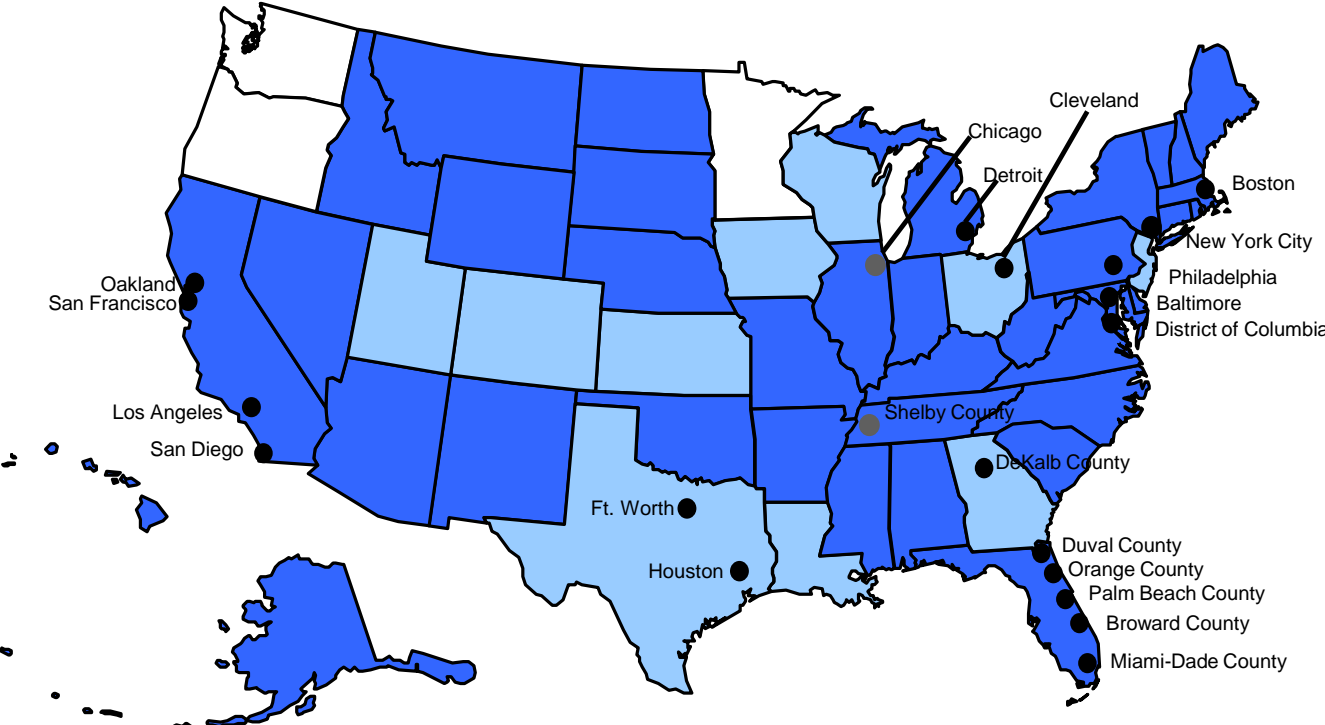
- 9<sup>th</sup> – 12th grade students
- Probability samples of schools and students
  - Schools selected with probability proportional to size
  - Classes selected randomly
  - All students in sampled classes included
- Anonymous
- Parental permission following local procedures
- Self-administered, computer-scannable questionnaire or answer sheet
- Completed in one class period (45 minutes)
- Conducted biennially, usually during the spring



# State, Local, Territorial, and Tribal YRBS's, 1991-2015

	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015
# of states	26	40	39	38	41	37	43	44	44	47	47	47	47
# of cities	11	14	17	17	17	19	22	23	22	23	22	22	21
# of territories	2	2	5	5	4	7	5	4	5	4	4	5	4
# of tribal governments	--	--	--	--	--	--	--	--	--	2	2	2	1
Total # of sites	38	56	61	60	62	63	70	71	71	76	75	76	73
% of sites with weighted data	45%	59%	61%	72%	61%	60%	80%	90%	93%	87%	93%	92%	82%

# State and large urban school district Youth Risk Behavior Surveys – United States, 2015

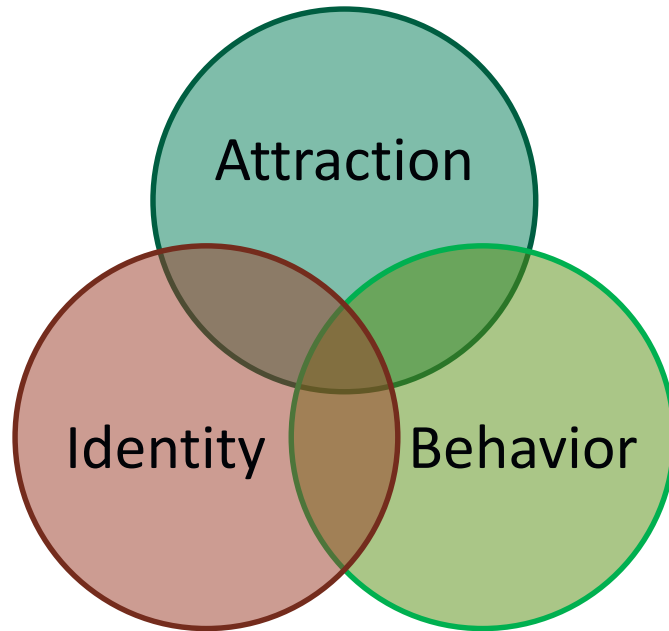


- Weighted large urban school district results
- Unweighted large urban school district results
- Weighted state results
- Unweighted state results
- Did not participate

# Background on Measurement of Sexual Orientation

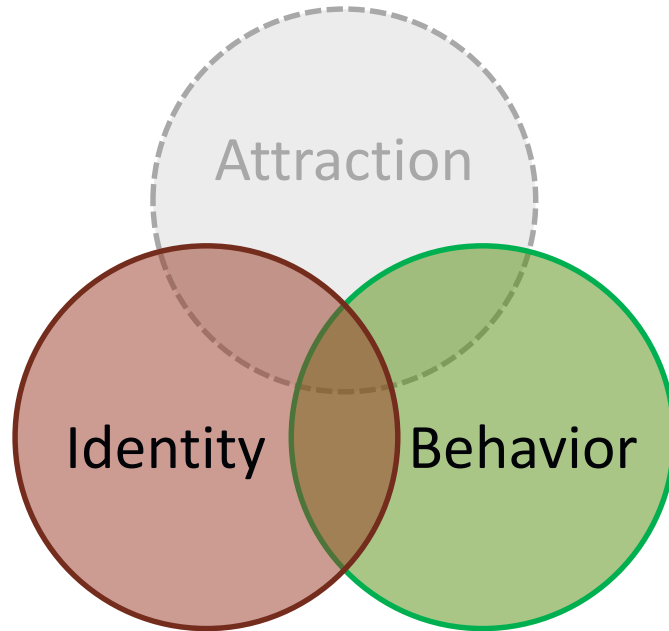
# Measurement of Sexual Orientation

- Sex of sexual contacts
- Sexual identity
- Sexual attraction



# Measurement of Sexual Orientation

- Sex of sexual contacts
- Sexual identity



# Measurement of Sex of Sexual Contacts

During your life, with whom have you had sexual contact?

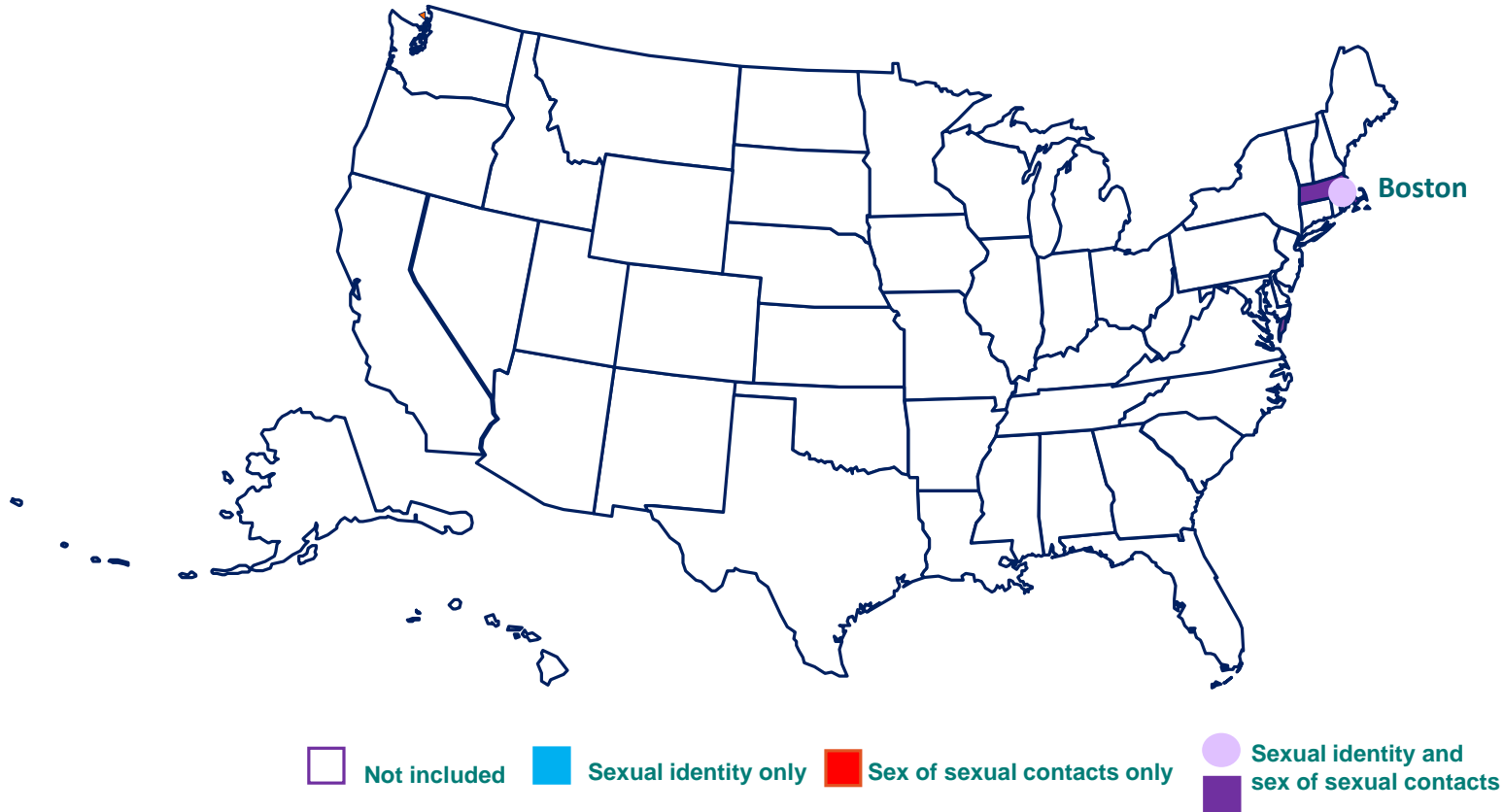
- A. I have never had sexual contact
- B. Females
- C. Males
- D. Females and males

# Measurement of Sexual Identity

Which of the following best describes you?

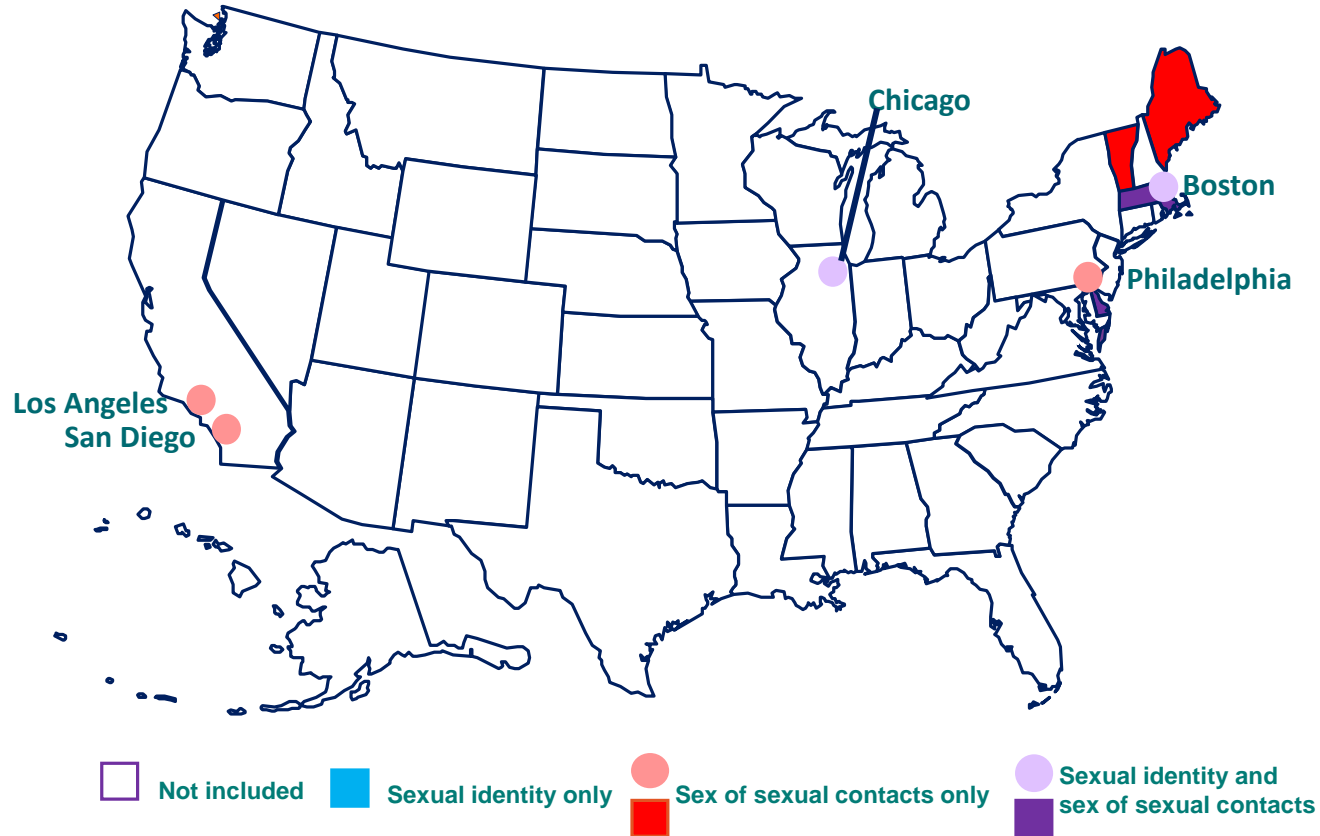
- A. Heterosexual (straight)
- B. Gay or lesbian
- C. Bisexual
- D. Not sure

# Sites assessing sexual orientation, 1995

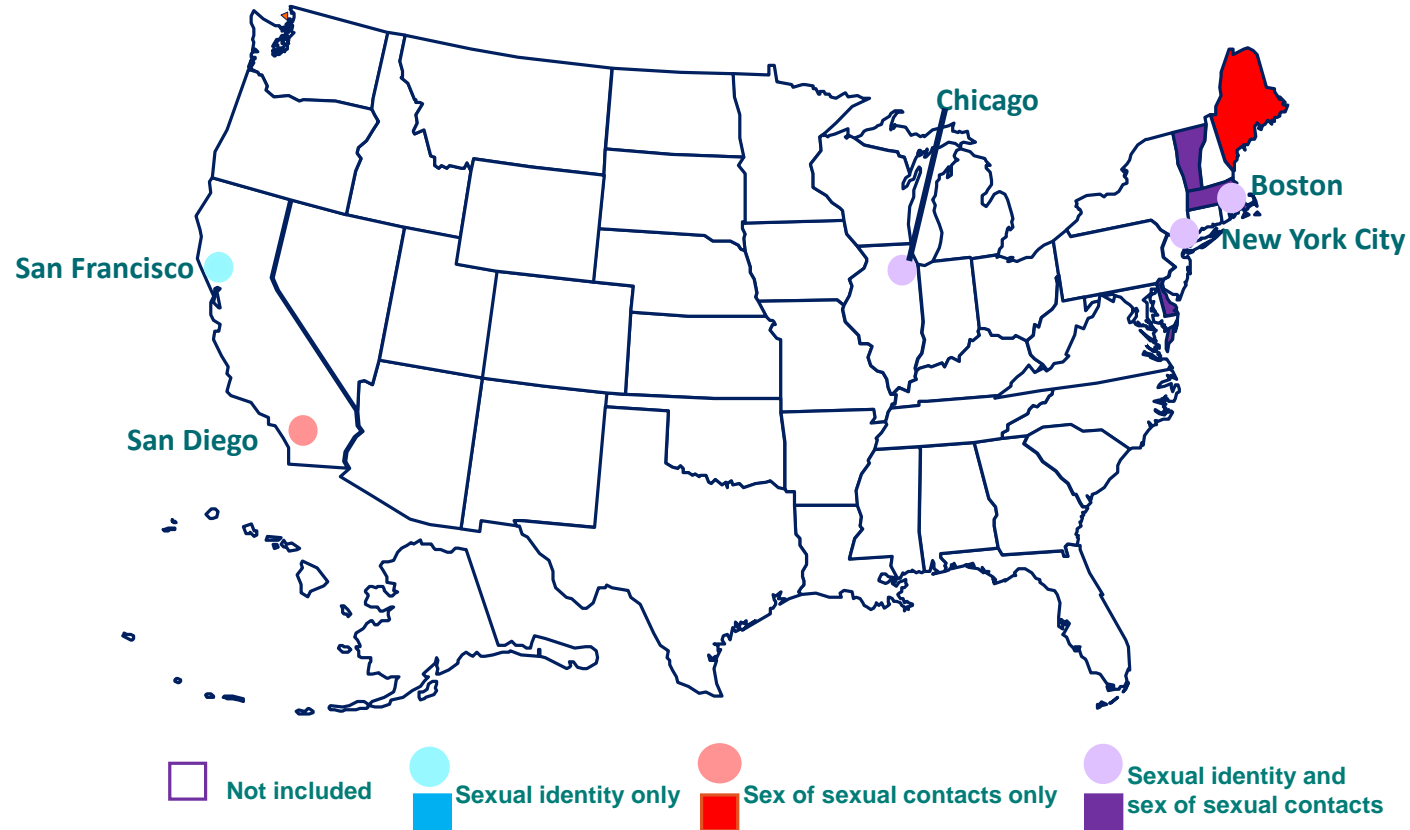




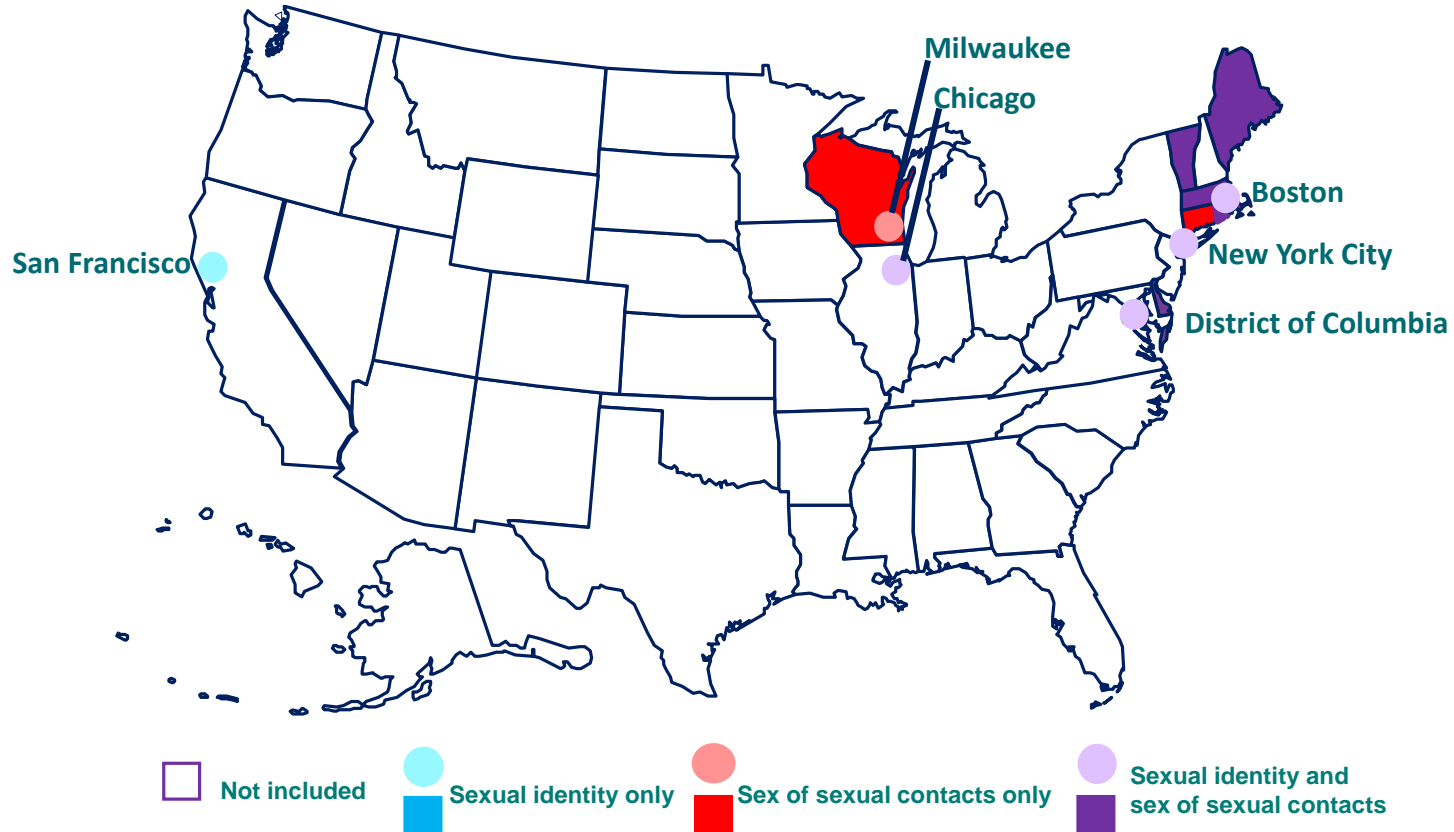
# Sites assessing sexual orientation, 2003



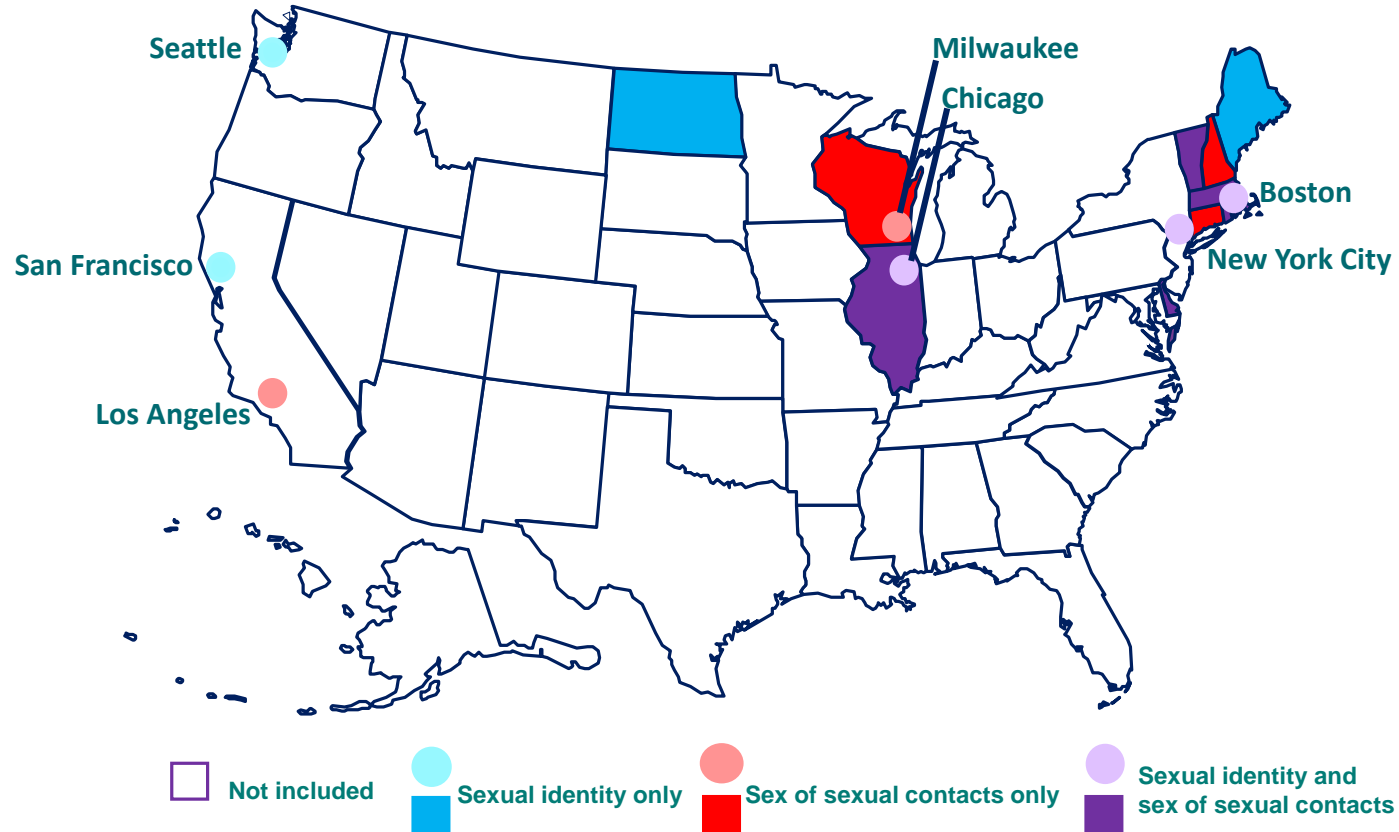
# Sites assessing sexual orientation, 2005



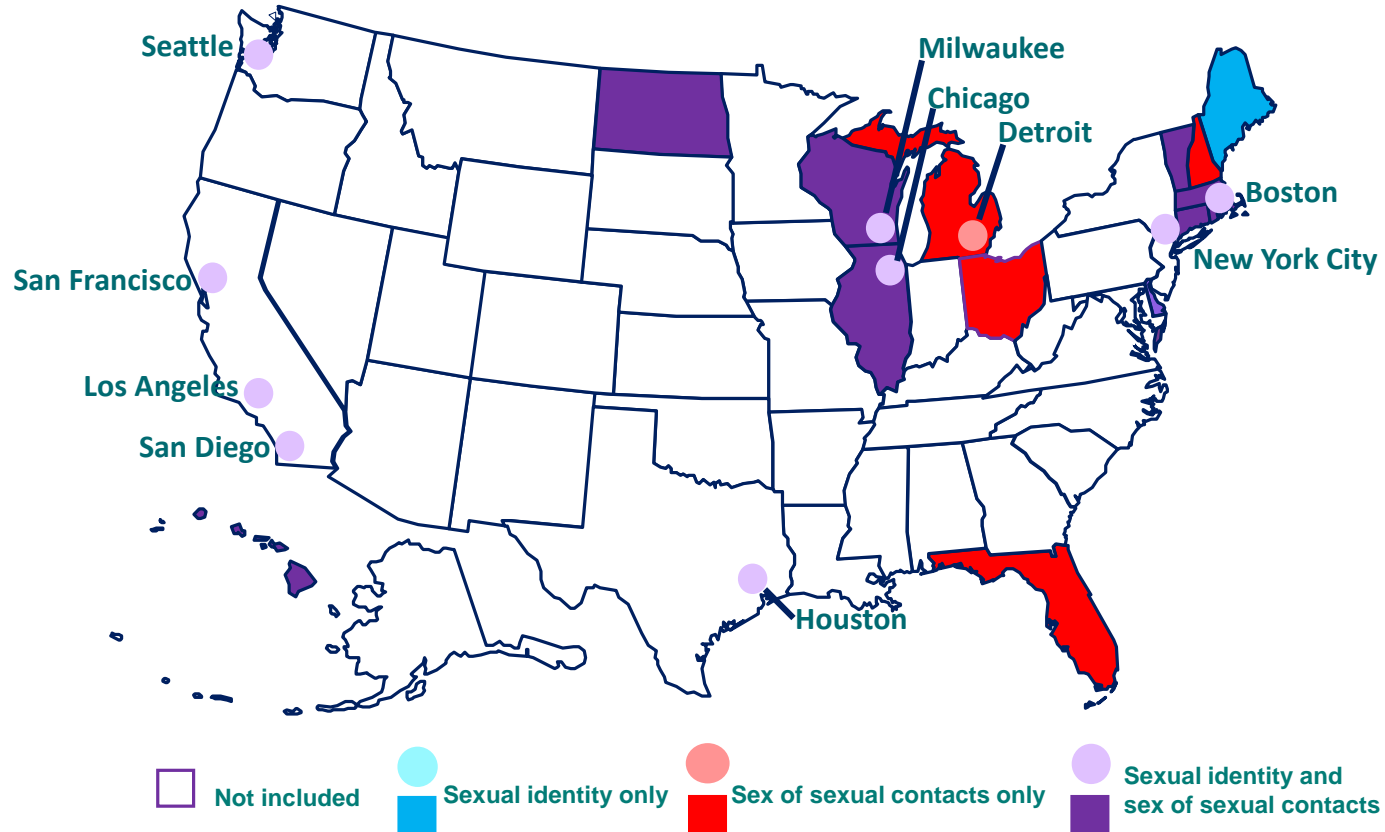
# Sites assessing sexual orientation, 2007



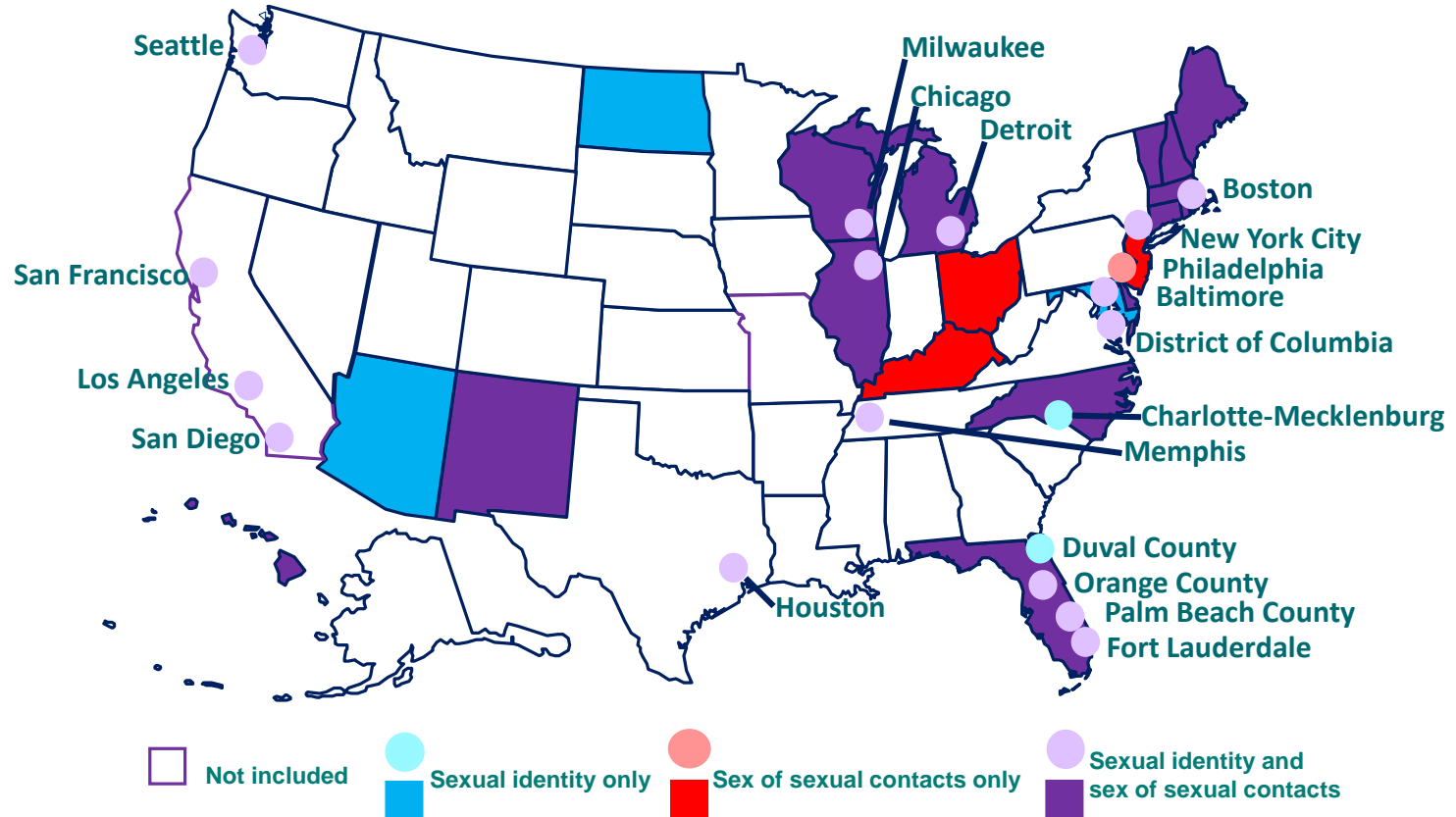
# Sites assessing sexual orientation, 2009



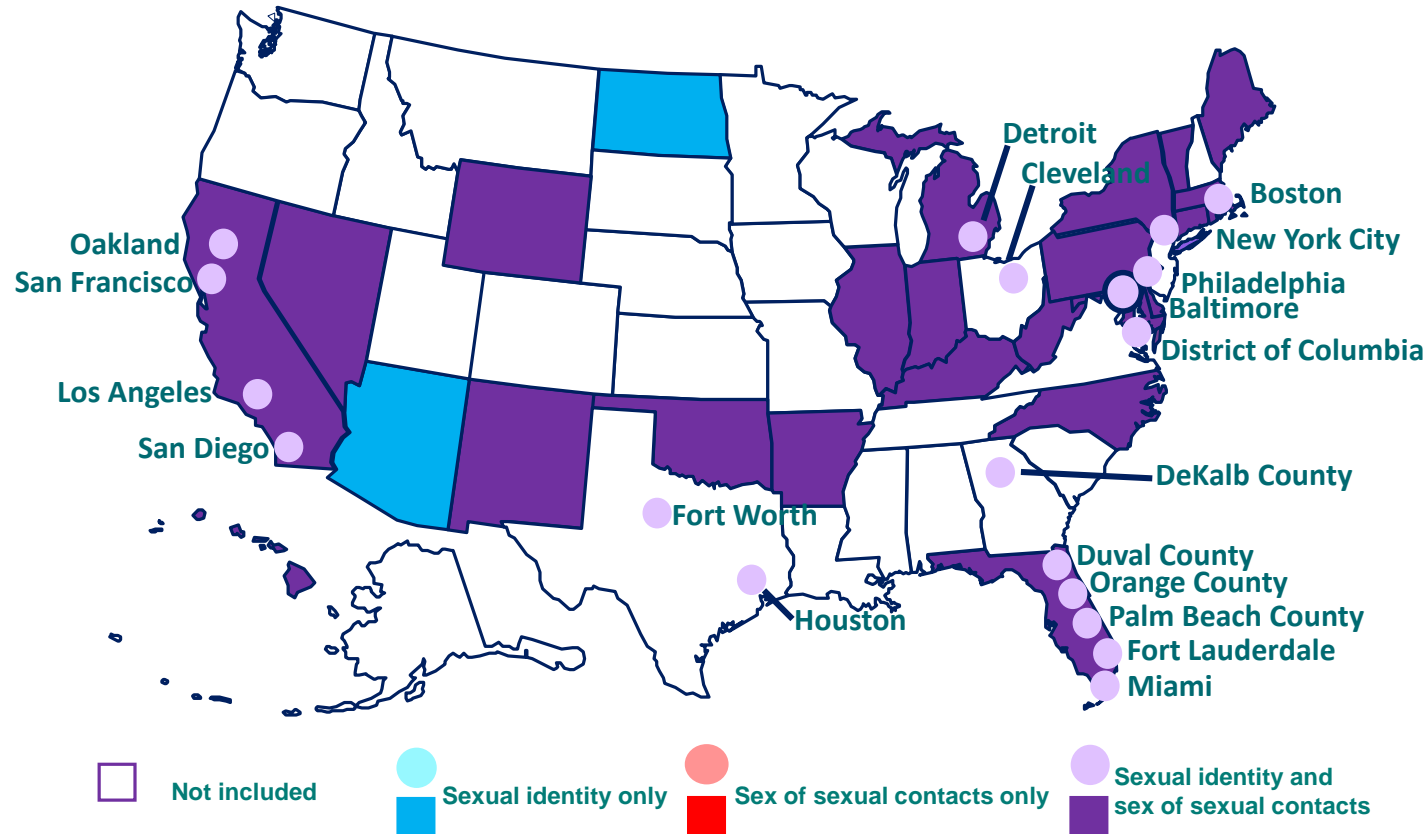
# Sites assessing sexual orientation, 2011



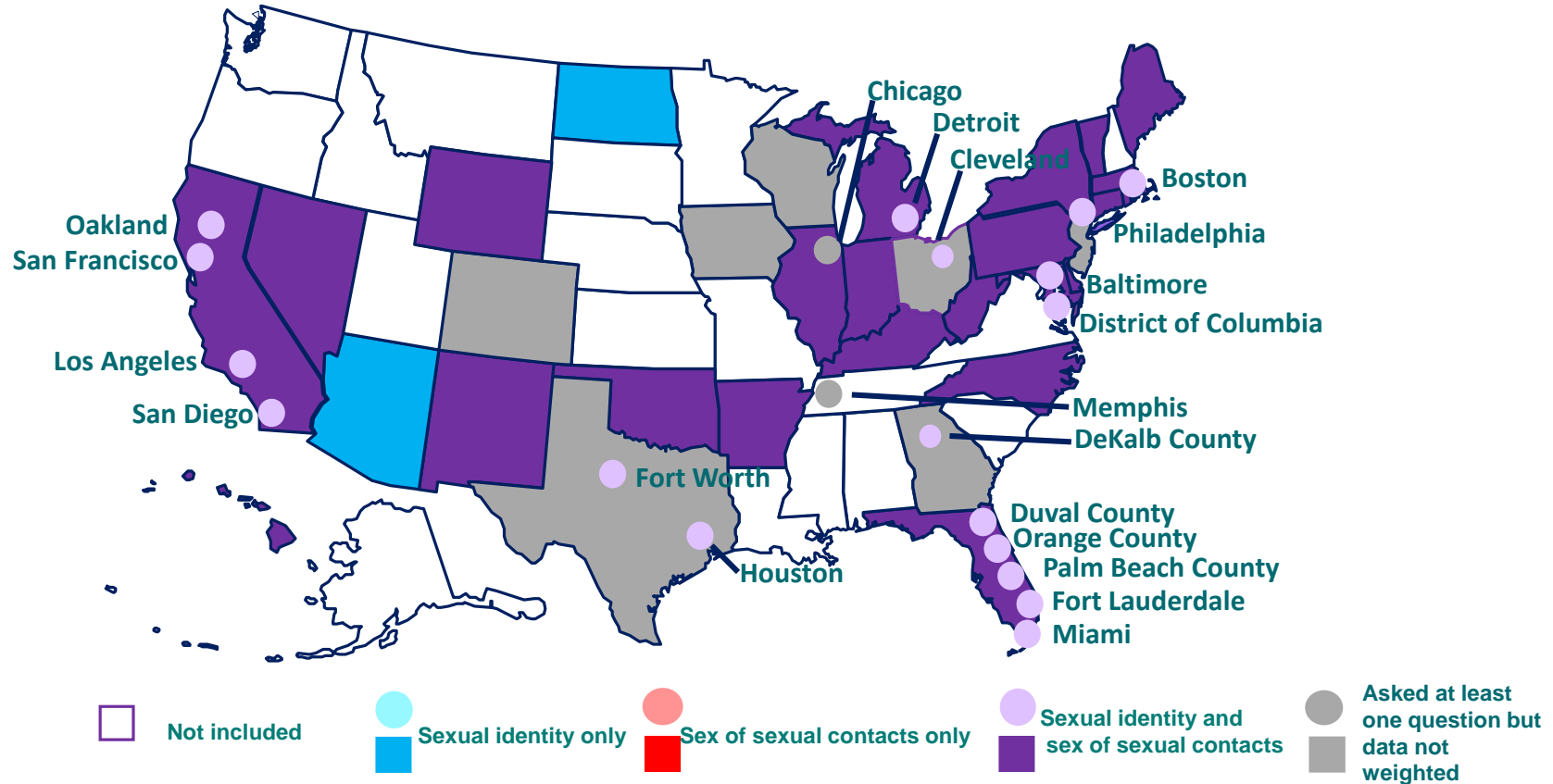
# Sites assessing sexual orientation, 2013



# Sites assessing sexual orientation, 2015

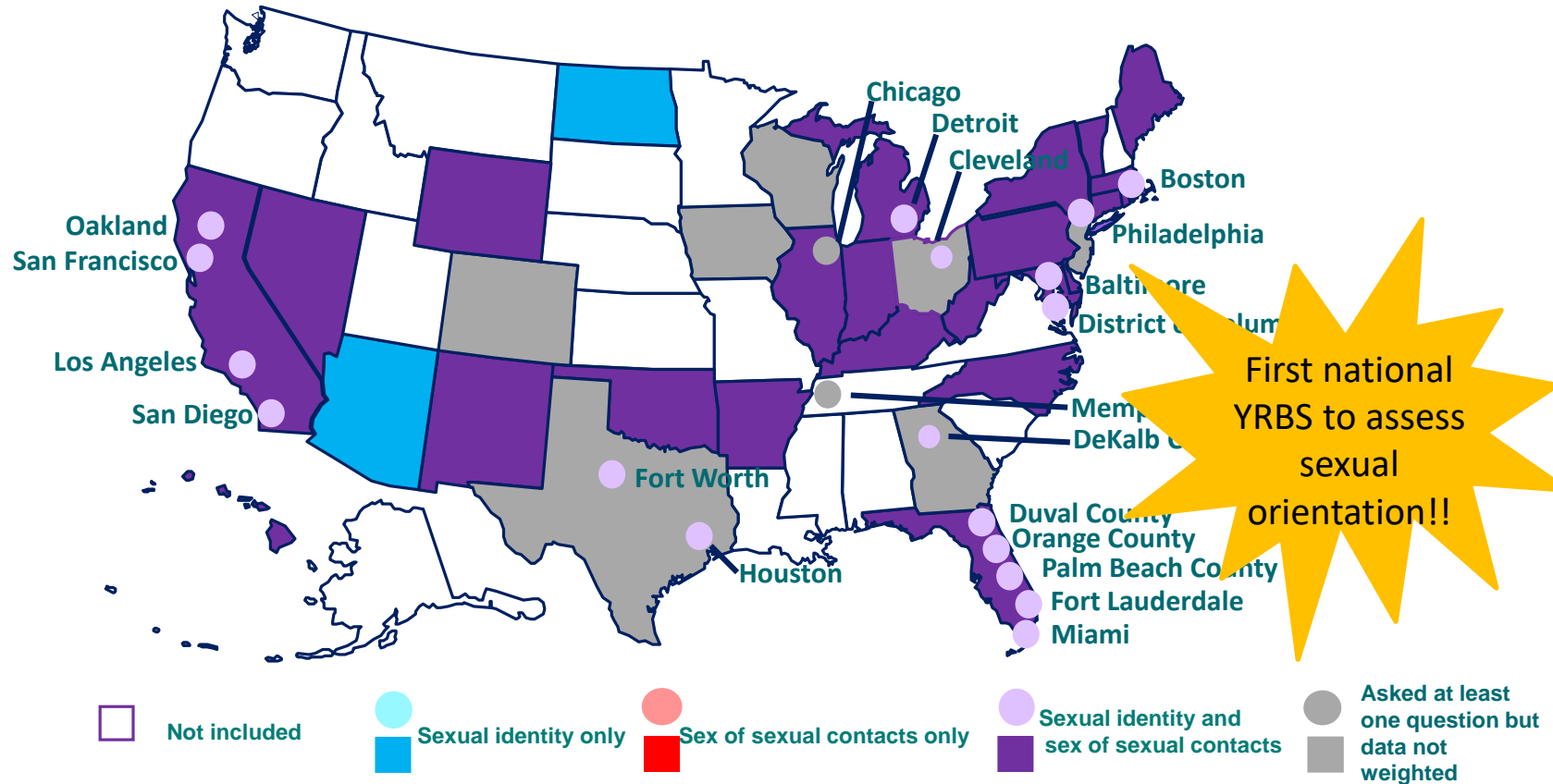


# Sites assessing sexual orientation, 2015





# Sites assessing sexual orientation, 2015

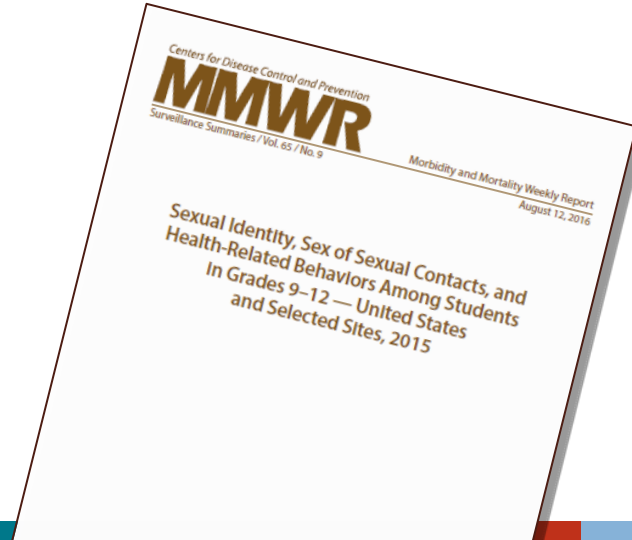


# New Report



# Purpose

- To use 2015 Youth Risk Behavior Survey (YRBS) data to describe
  - The number of sexual minority students nationwide and in states and large urban school districts
  - How the prevalence of 118 health risk behaviors vary by sexual identity and sex of sexual contacts



# Data Sets

2015

- national YRBS
- 25 state surveys
- 19 large urban school district surveys

# 2015 National YRBS Characteristics

- Sample size – 15,624
- School response rate – 69%
- Student response rate – 86%
- Overall response rate (school X student) – 60%

# Data Analysis

- Weighting
  - Based on student sex, race/ethnicity, and grade in school
  - Adjusted for school and student non-response
  - Adjusted for oversampling of black and Hispanic students
- T-tests to detect significant ( $p < 0.05$ ) pairwise differences in health risk behaviors by subgroups

# Results

## Distribution of sexual identity and sex of sexual contact subgroups among high school students in the US, 2015

	Sexual Identity				Sex of Sexual Contacts			
	Heterosexual	Gay or Lesbian	Bisexual	Not sure	Opposite Sex Only	Same Sex Only	Both Males and Females	Never Had Sexual Contact
<b>Total</b>	88.8%	2.0%	6.0%	3.2%	48.0%	1.7%	4.6%	45.7%
<b>Male</b>	93.1%	2.0%	2.4%	2.6%	53.3%	1.3%	1.9%	43.6%
<b>Female</b>	84.5%	2.0%	9.8%	3.7%	42.6%	2.1%	7.4%	47.9%



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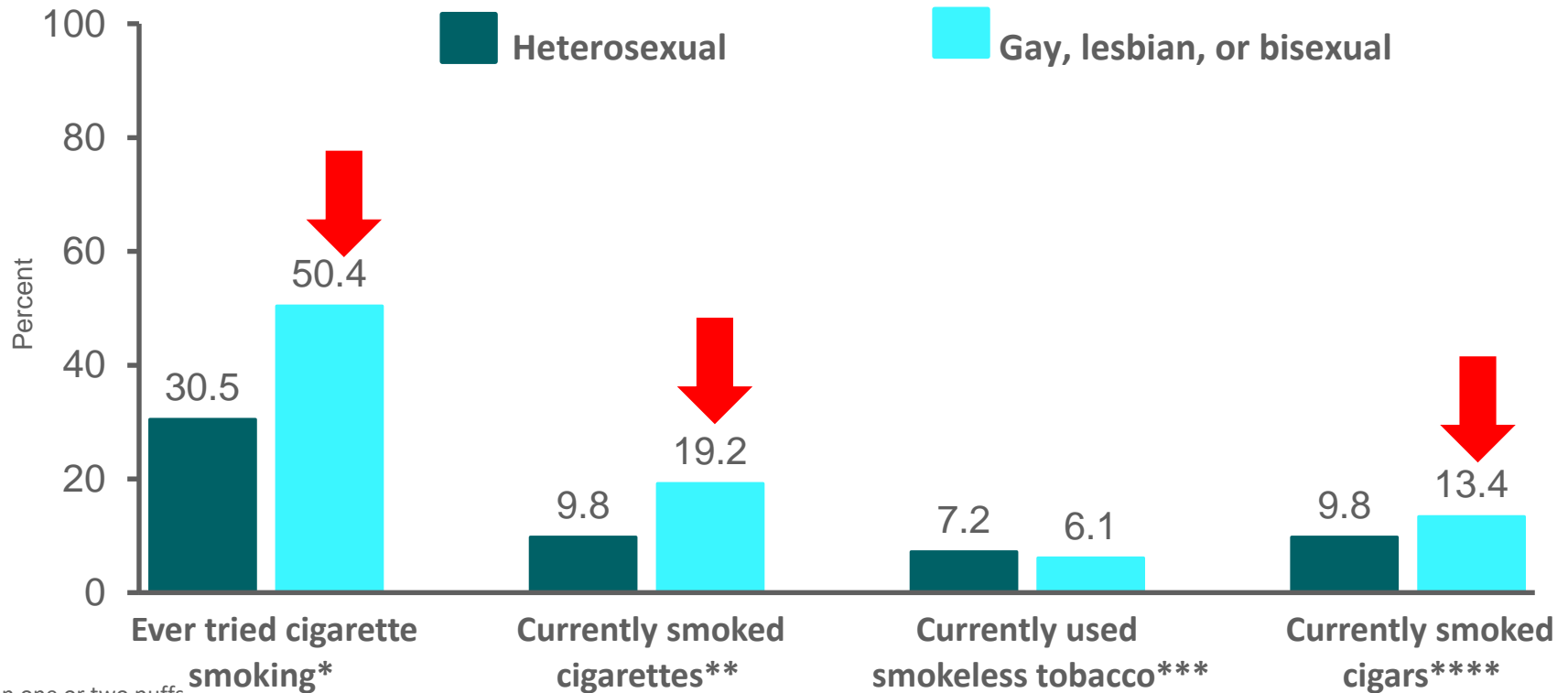
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**1.3 million high school students!**

## Distribution of sex of sexual contact by sexual identity among high school students in the US, 2015

Sex of Sexual Contacts	Sexual Identity		
	Heterosexual	Gay, Lesbian, or Bisexual	Not Sure
Opposite sex only	95.7%	<b>2.8%</b>	1.5%
Same sex only or both sexes	<b>25.0%</b>	61.4%	13.6%
No sexual contact	90.8%	5.8%	3.3%

# Percentage of high school students who used tobacco, by sexual identity, 2015



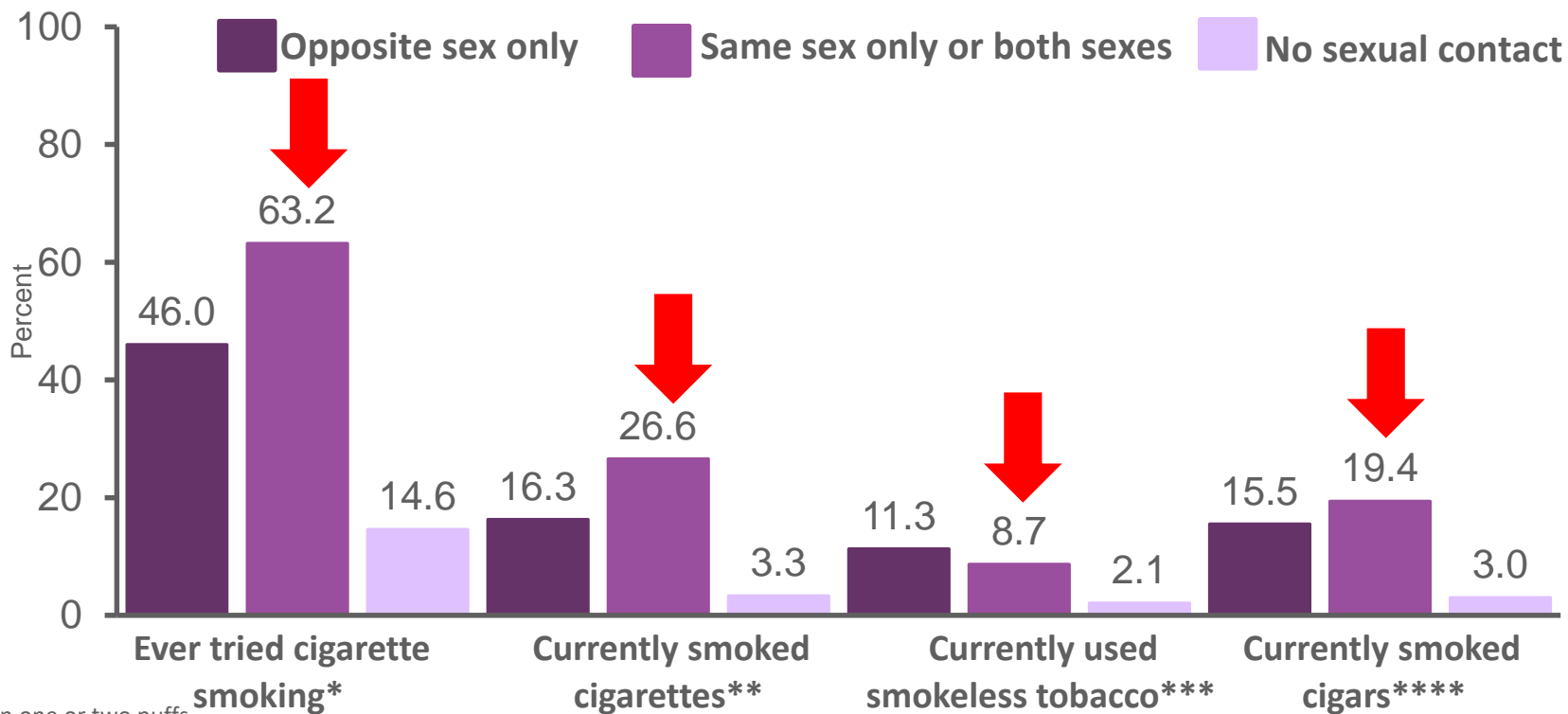
\*Even one or two puffs.

\*\*On at least one day during the 30 days before the survey.

\*\*\*Chewing tobacco, snuff, or dip on at least one day during the 30 days before the survey.

\*\*\*\*Cigars, cigarillos, or little cigars on at least one day during the 30 days before the survey.

# Percentage of high school students who used tobacco, by sex of sexual contact, 2015



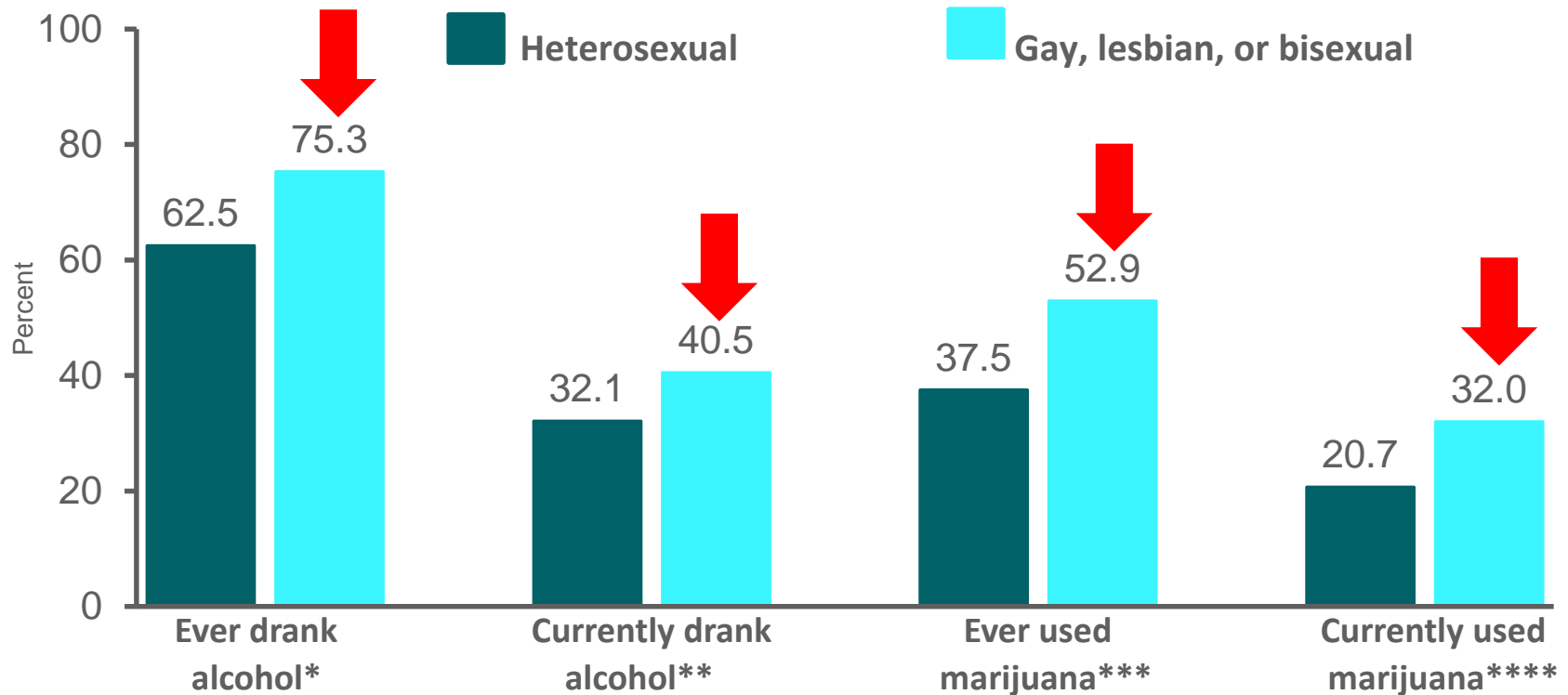
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# Percentage of high school students who drank alcohol and used marijuana, by sexual identity, 2015



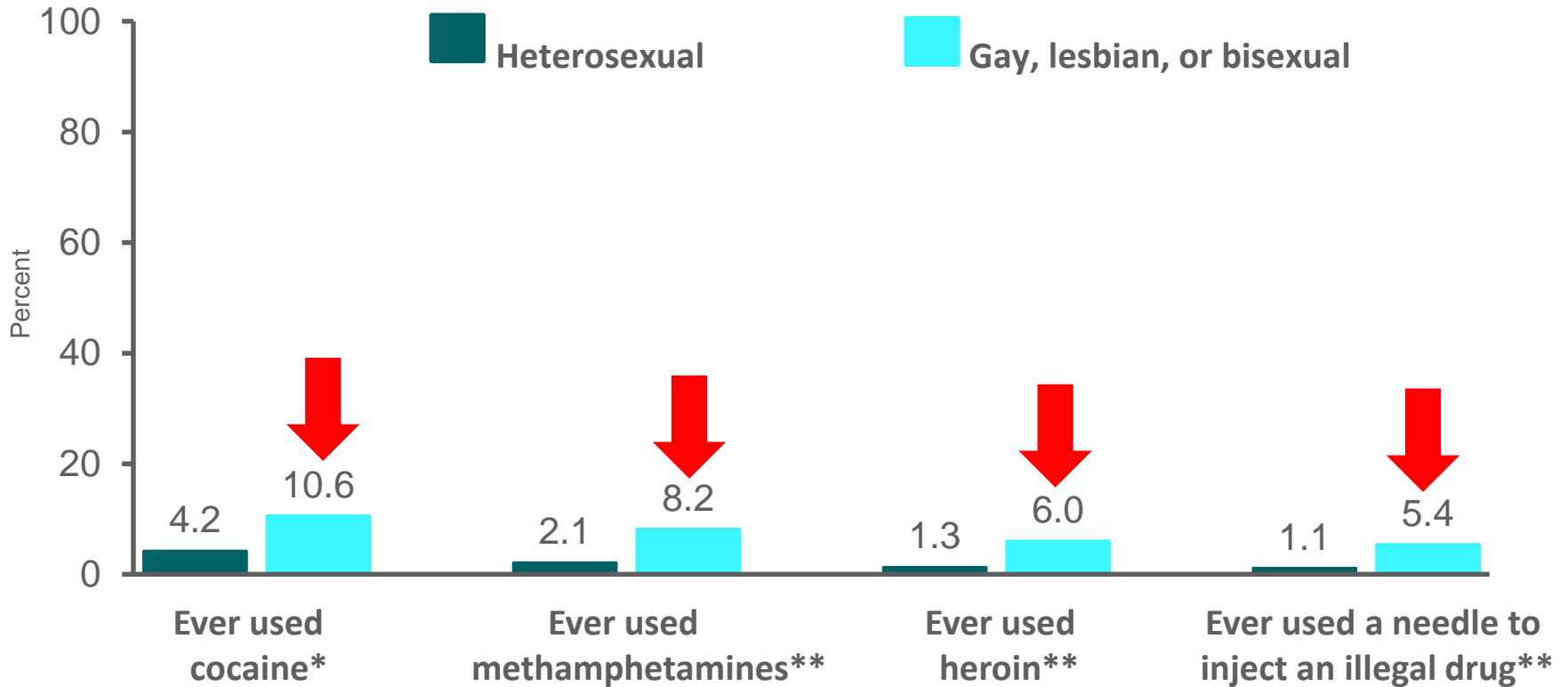
\*At least one drink of alcohol on at least 1 day during their life.

\*\*At least one drink of alcohol on at least 1 day during the 30 days before the survey.

\*\*\*One or more times during their life.

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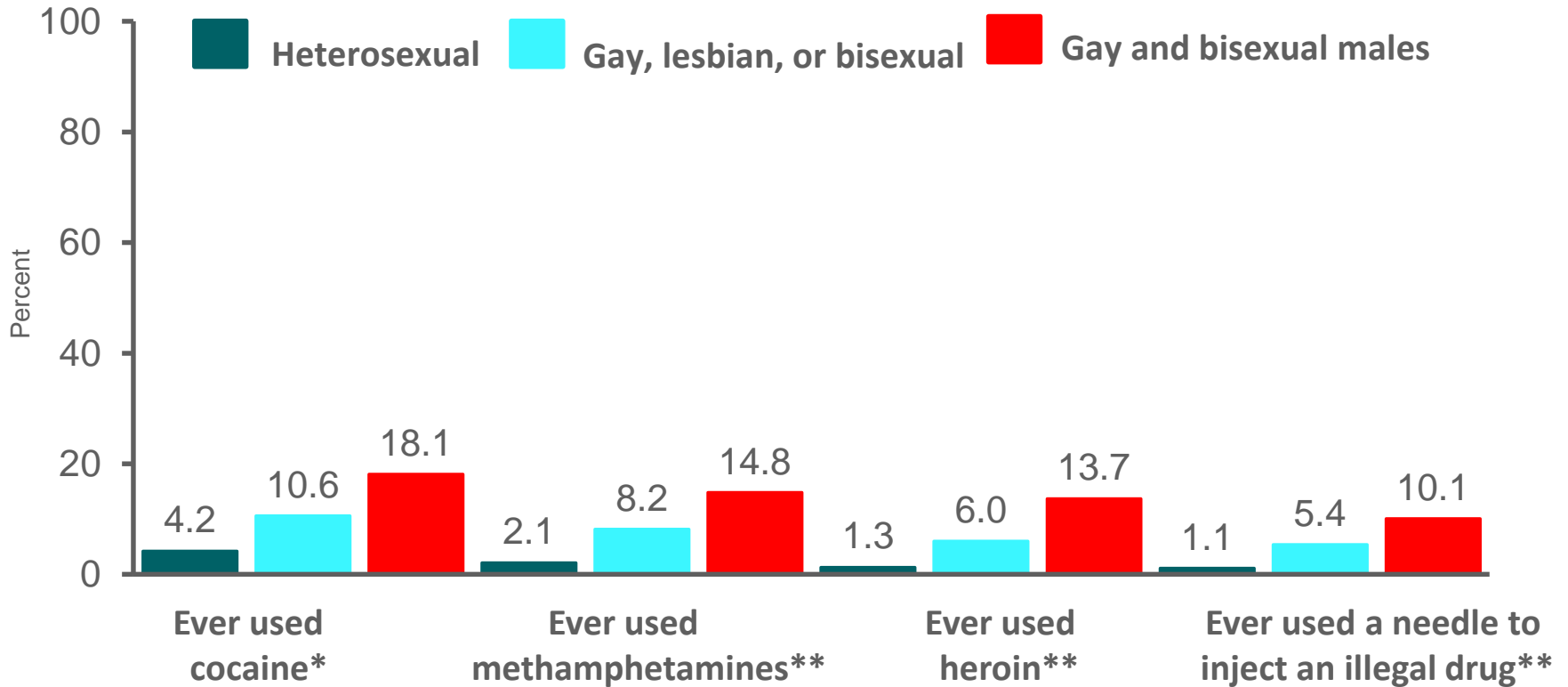
## Percentage of high school students who used drugs, by sexual identity, 2015



\*Any form of cocaine (e.g., powder, crack, or freebase) one or more times during their life.

\*\*One or more times during their life.

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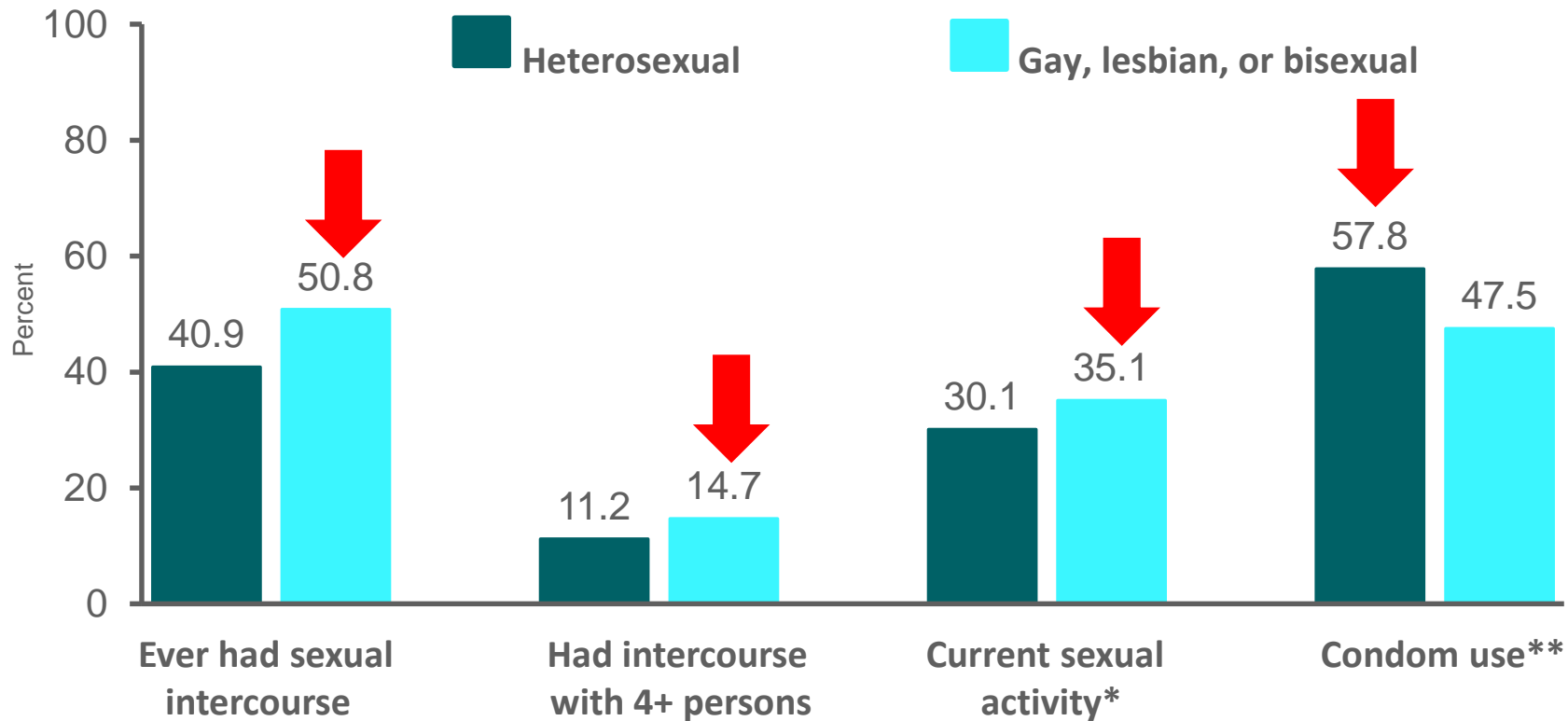


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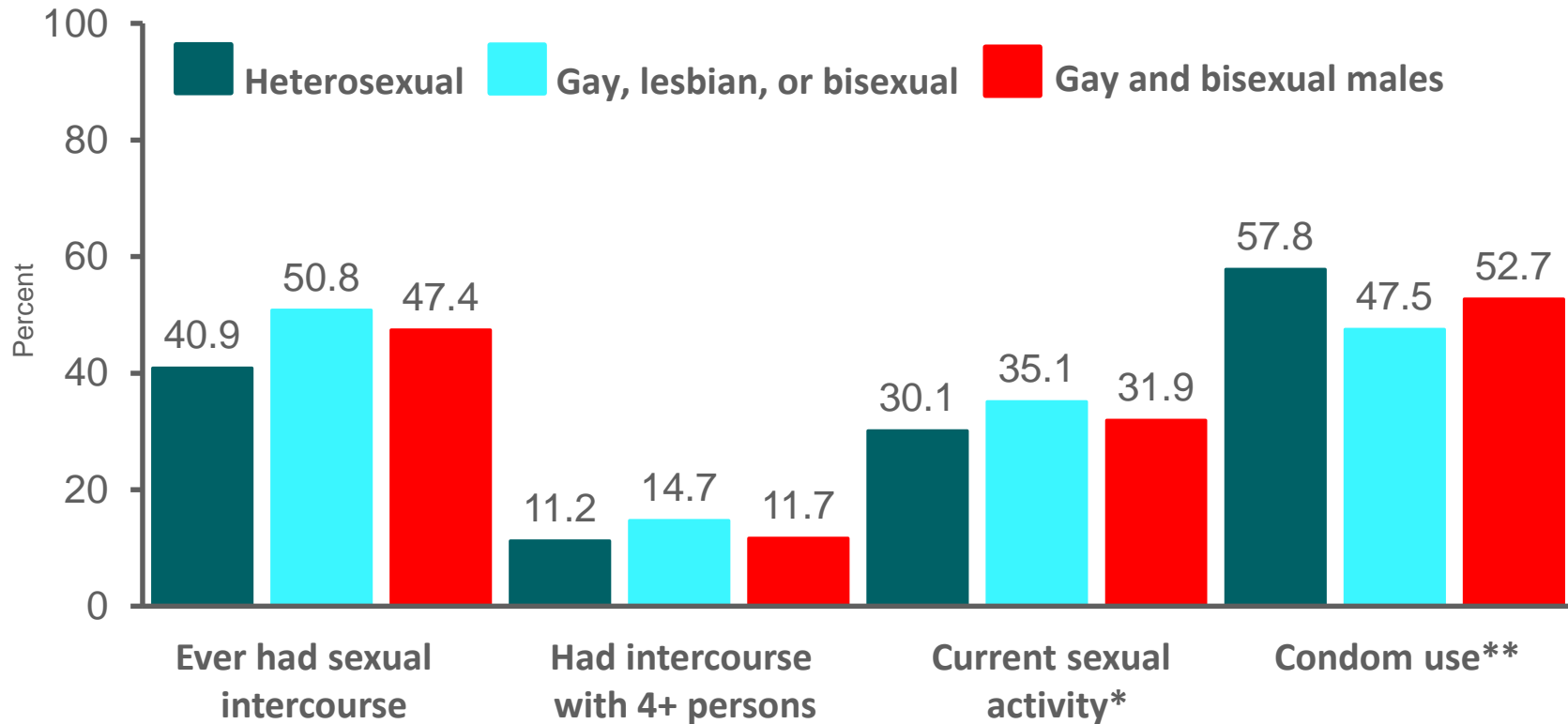
## Percentage of high school students who reported HIV-related sexual behaviors, by sexual identity, 2015



\*Had sexual intercourse during the 3 months before the survey.

\*\*Among students who were currently sexually active.

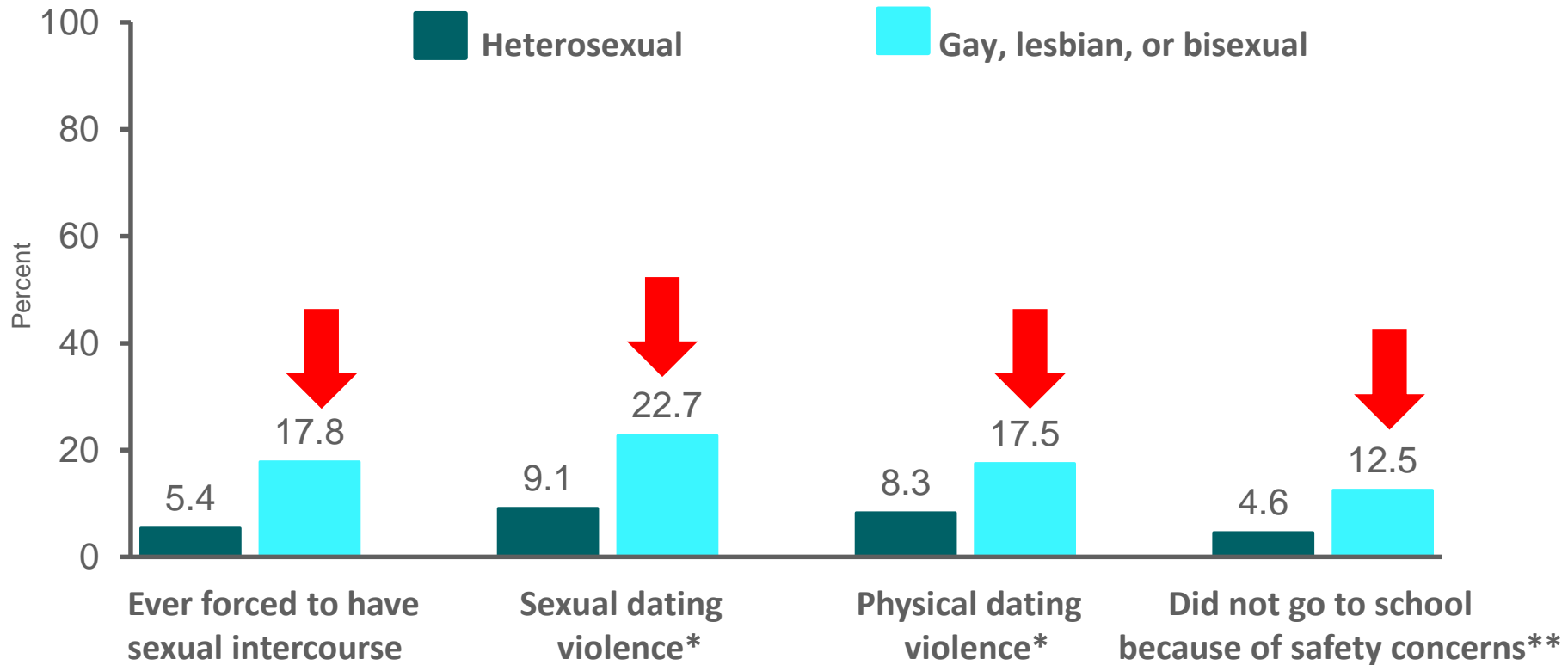
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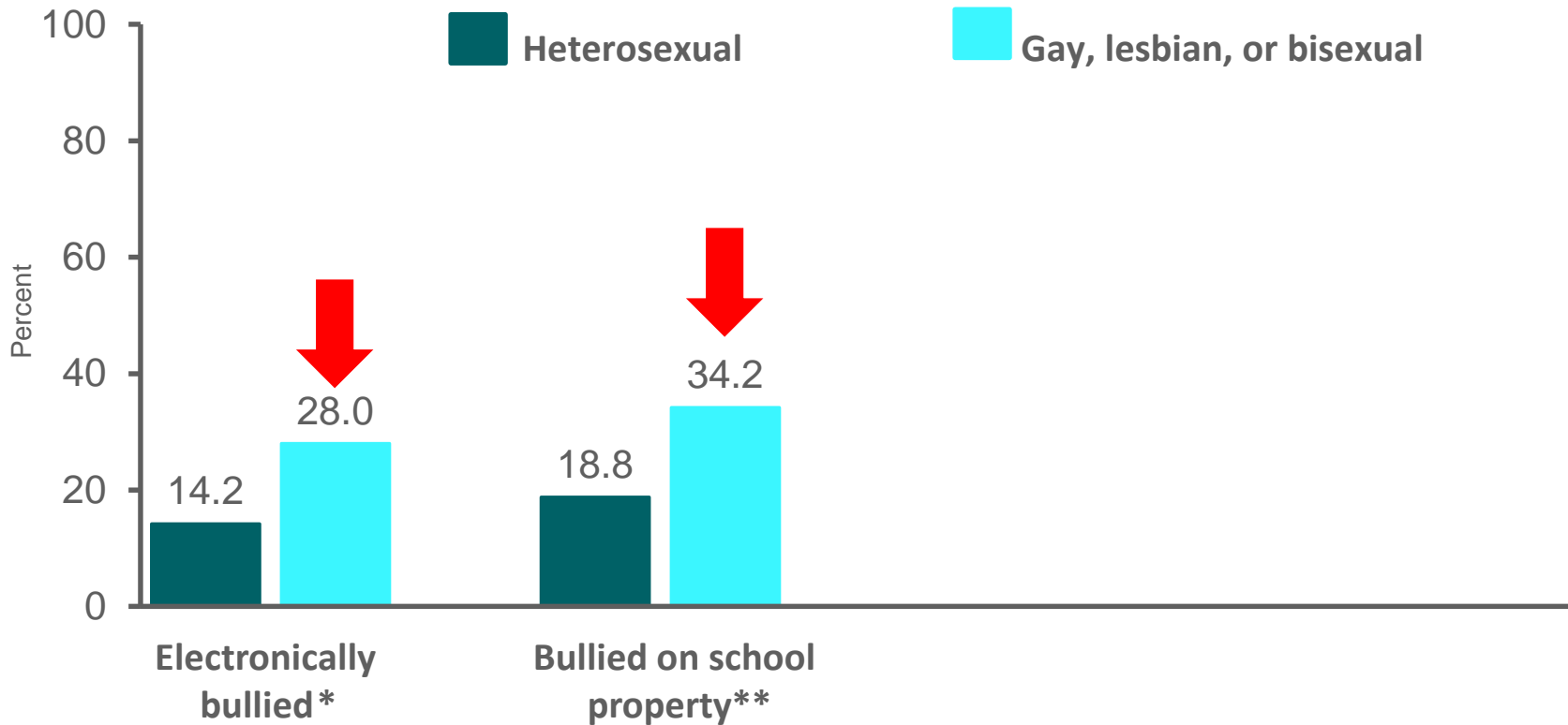
## Percentage of high school students who reported violence-related behaviors, by sexual identity, 2015



\*Among students who dated or went out with someone during the 12 months before the survey.

\*\*On at least 1 day during the 30 days before the survey.

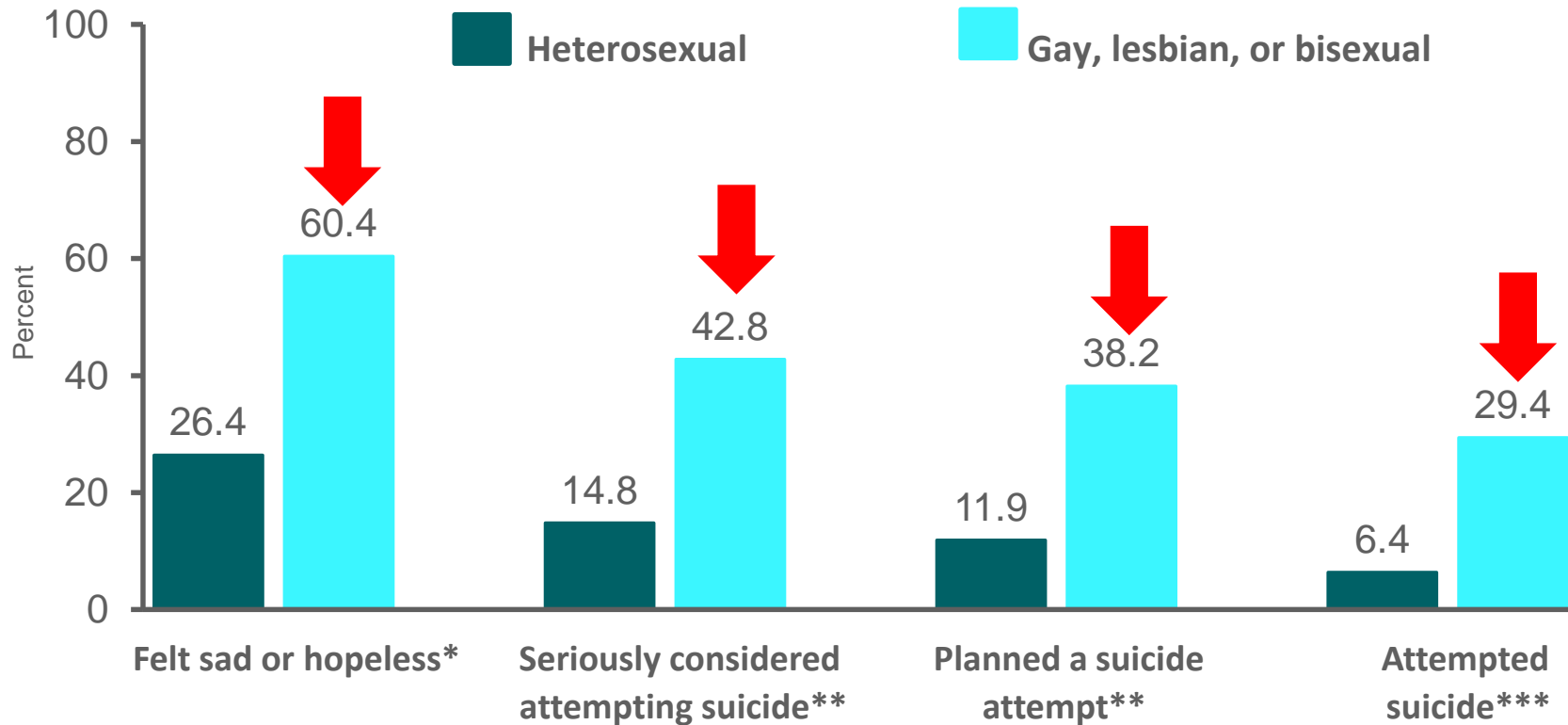
# Percentage of high school students who experienced bullying, by sexual identity, 2015



\*Counting being bullied through e-mail, chat rooms, instant messaging, Web sites, or texting during the 12 months before the survey.

\*\*During the 12 months before the survey.

## Percentage of high school students who reported suicide-related behaviors, by sexual identity, 2015



\*Almost every day for  $\geq 2$  weeks in a row so that they stopped doing some usual activities during the 12 months before the survey.

\*\*During the 12 months before the survey.

\*\*\* One or more times during the 12 months before the survey.

# Limitations

- Results apply only to youth who attend school
  - 3% of 16-17 year olds not enrolled and not completed high school
  - Sexual minority youth might represent disproportionate percent of dropouts
- Extent of underreporting or overreporting cannot be determined
- Some students may not know their sexual identity, may be unwilling to disclose it or label themselves, or may not have understood the question
- No definition provided for sexual contact so it is likely students considered a range of sexual activities, possibly including involuntary activities

# Conclusions

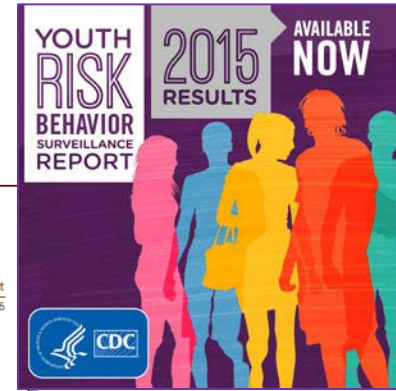
- Collecting high quality, national population-based data on the size of the sexual minority population in high schools is possible
- The prevalence of many health-risk behaviors among sexually minority high school students is disturbing

# Uses of YRBSS Sexual Orientation Data



# CDC Uses of YRBSS Sexual Orientation Data

- MMWR reports
- Scientific journal articles
- Traditional and social media



Centers for Disease Control and Prevention  
**MMWR** Morbidity and Mortality Weekly Report  
Surveillance Summaries / Vol. 65 / No. 9 August 12, 2016

**Sexual Identity, Sex of Sexual Contacts, and Health-Related Behaviors Among Students In Grades 9–12 — United States and Selected Sites, 2015**

**JAMA**

VIEWPOINT Lesbian, Gay, and Bisexual Adolescents Population Estimate and Prevalence of Health Behaviors

AVAILABLE NOW!

YRBSS 2015 Results

CDC A-Z INDEX

Morbidity and Mortality Weekly Report (MMWR)

CDC • MMWR

HIV-Related Risk Behaviors Among Male High School Students Who Had Sexual Contact with Males — 17 Large Urban School Districts, United States, 2009–2013

Weekly / February 12, 2016 / 65(5):106–109

Journal of Adolescent Health

Volume 55, Issue 3, September 2014, Pages 432–438

ELSEVIER

Original article

School Violence and Bullying Among Sexual Minority High School Students, 2009–2011

SECTIONS HOME SEARCH

The New York Times

**Gay and Lesbian High School Students Report ‘Heartbreaking’ Levels of Violence**

By JAN HOFFMAN AUG. 11, 2016

f t e s



# Partner Uses of YRBSS Sexual Orientation Data

- Describe levels of risk
- Support development of policies to support sexual minority youth
- Develop interventions and programs to address risk behaviors
- Justify need for additional resources
- Create social media campaigns
- Modify school curricula and teacher training programs
- Document need for social change

**Plans For the Future**

# Continue to Measure Sexual Orientation

- Trends over time
- Race/ethnicity by sex analyses
- Increased number of sites including one or both questions on their YRBS's

# Explore Measurement of Transgender Status

- CDC working with advocates and researchers for several cycles to develop a question
- Proposed question for sites to pilot in 2017
  - Review of literature
  - Consideration of questions asked previously on YRBS's
  - Consultation with advocates and partners
- Credible data - a prevalence estimate of approximately 0.5% to <1%
  - Average YRBS sample - 15 to <30 transgender students
  - National YRBS sample – 75 to <150 transgender students
- Unclear if the YRBS is the right mechanism to collect health behavior data on transgender youth.

# Transgender Question Recommended for 2017 YRBS Questionnaires

Some people describe themselves as transgender when their sex at birth does not match the way they think or feel about their gender. Are you transgender?

- A. No, I am not transgender
- B. Yes, I am transgender
- C. I am not sure if I am transgender
- D. I do not know what this question is asking

**Access to Data and Documentation**

# How to Get YRBS Data for Analysis

- [www.cdc.gov/yrbs](http://www.cdc.gov/yrbs)

The screenshot displays the 'Adolescent and School Health' website. The left sidebar contains a navigation menu with the following items: DASH Home, About DASH, Data, Data By Topic, School Health Profiles, SHPPS, YRBS (highlighted with a red star), Overview, Results, Participation Maps & History, Frequently Asked Questions, Methods, Questionnaires, Data & Documentation (circled in red), Journal Articles, NYFANS, Data Request Form, Communication Resources, Disparities, Funding Areas, Protective Factors, Sexual Risk Behaviors, Program Evaluation, Effective Programs, Health & Academics, Whole School, Whole Community, Whole Child, and Tools.

The main content area features a breadcrumb trail: CDC > DASH Home > Data > YRBS. Below this is the title 'Youth Risk Behavior Surveillance System (YRBS)' with social media icons for Facebook, Twitter, and YouTube. A dark blue banner reads 'New 2015 YRBS Sexual Minority Data Released!'. Below the banner is a grid of six tiles: OVERVIEW, METHODS, YOUTH ONLINE DATA ANALYSIS TOOL, DATA & DOCUMENTATION (circled in red with a red star), RESULTS, QUESTIONNAIRES, PARTICIPATION MAPS & HISTORY, COMMUNICATION RESOURCES, YRBS FREQUENTLY ASKED QUESTIONS, and CONTACT US.

The text under the YRBS title states: 'The Youth Risk Behavior Surveillance System (YRBS) monitors six types of health-risk behaviors that contribute to the leading causes of death and disability among youth and adults, including—' followed by a bulleted list: Behaviors that contribute to unintentional injuries and violence; Sexual behaviors related to unintended pregnancy and sexually transmitted diseases, including HIV infection; Alcohol and other drug use; Tobacco use; Unhealthy dietary behaviors; and Inadequate physical activity. Below the list, it says: 'YRBS also measures the prevalence of obesity and asthma and other priority health-related behaviors plus sexual identity and sex of sexual contacts. YRBS includes a national school-based survey conducted by CDC and state, territorial, tribal, and local surveys conducted by state, territorial, and local education and health agencies and tribal governments.'



# State and Local and National YRBS Data

## Adolescent and School Health

**DASH Home** [CDC > DASH Home > Data > YRBSS > Data & Documentation](#)

About DASH +

Data -

Data By Topic +

School Health Profiles +

SHPPS +

YRBSS -

### YRBSS Data & Documentation



Youth Risk Behavior Survey (YRBS) data are available in two file formats: Access® and ASCII. The Access and ASCII data can be downloaded and used as is. Additionally, SAS® and SPSS® programs are provided to convert the ASCII data into SAS® and SPSS® datasets for use in those packages. Note: YRBS documentation files on this page are within the following file size ranges: pdfs: 45K-1M; dat files: 3M-5M; sas programs: 2K-15K; sps programs: 2K-25K; zip files: 2M-6M.

#### On this Page

- Combined YRBS Datasets and Documentation
- National YRBS Datasets and Documentation
- Requesting Data Files
- Additional Resources
- YRBS Dataset File Formats

**New Sexual Minority Data are Now Available.**

### Combined YRBS Datasets and Documentation

**ASCII** | Access® | Programs

The combined YRBS dataset includes national, state, and large urban school district data from selected surveys from 1991-2015. The [Combined Datasets User's Guide](#) (PDF - 690 KB) provides detailed information about how to analyze the data.

**ASCII**

- [National.dat \(zip\)](#)
- [States A-M.dat \(zip\)](#)
- [States N-Z \(zip\)](#)
- [Districts.dat \(zip\)](#)



# National YRBS Data

The screenshot shows a web browser window with the URL <http://www.cdc.gov/healthyouth/data/yrbs/data.htm>. The page title is "National YRBS Datasets and Documentation". A navigation bar contains years from 2015 to 1993. Below the navigation bar, there are three tabs: "Alternative High School (1998)", "College (1995)", and "National College YRBS (1995)". The "2015" tab is selected, and the content area displays the following information:

**2015**

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Data	Documentation
<a href="#">ASCII Data: dat</a>	<a href="#">Data User's Guide</a> [PDF - 986 KB]
<a href="#">SAS Format Program: sas</a>	
<a href="#">SAS Input Program: sas</a>	
<a href="#">SPSS Syntax: sps</a>	
<a href="#">Access File: mdb</a>	

# Requesting Additional Data Sets

- Complete a YRBSS Data Request Form
- If we have permission, we will share the data set.
- If we do not have permission, you will need an email granting permission from the site
- DASH will provide contact information so you can reach out to sites
- Process can take several weeks

## Requesting Data Files






Learn more about [Data Availability and Requesting YRBSS Data Files](#).

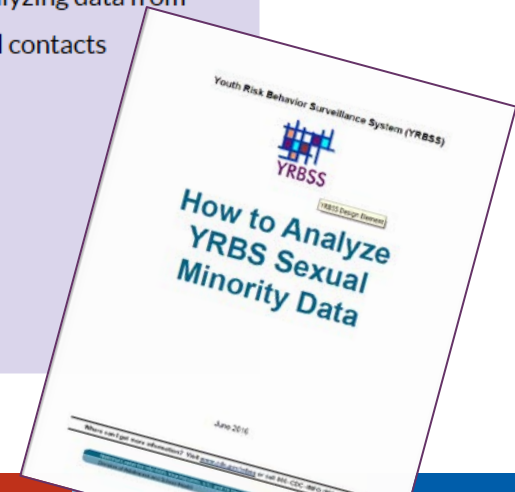
National data files are downloadable from this website. To request state, district, territory, or tribal government data files, please use the [YRBSS Data Request Form](#).



# Additional Resources

## Additional Resources

- [Software for Analysis of YRBS Data](#)  [PDF - 389 KB]  
A review of software packages suitable for analyzing YRBS data and guidance on how to use them
- [Combining YRBS Data Across Years and Sites](#)  [PDF - 226 KB]  
Guidance and best practices for combining data from multiple Youth Risk Behavior Surveys (YRBSs)
- [Conducting Trend Analyses of YRBS Data](#)  [PDF - 235 KB]  
Guidance and methods for conducting trend analyses of Youth Risk Behavior Survey (YRBS)
- [Interpretation of YRBS Trend Data](#)  [PDF - 228 KB]  
Guidance on interpreting YRBS trend data analyses
- [How to Analyze YRBS Sexual Minority Data](#)  [PDF - 143 KB]  
Guidance and best practices for analyzing data from the sexual identity and sex of sexual contacts questions.



# For More Information

- [www.cdc.gov/yrbs](http://www.cdc.gov/yrbs)
  - MMWR Surveillance Summary Report
  - Data sets and technical documentation
  - Questionnaires
  - Press and social media materials
- Laura Kann – [LKK1@CDC.GOV](mailto:LKK1@CDC.GOV) or 404 457 3983

# Thank you!

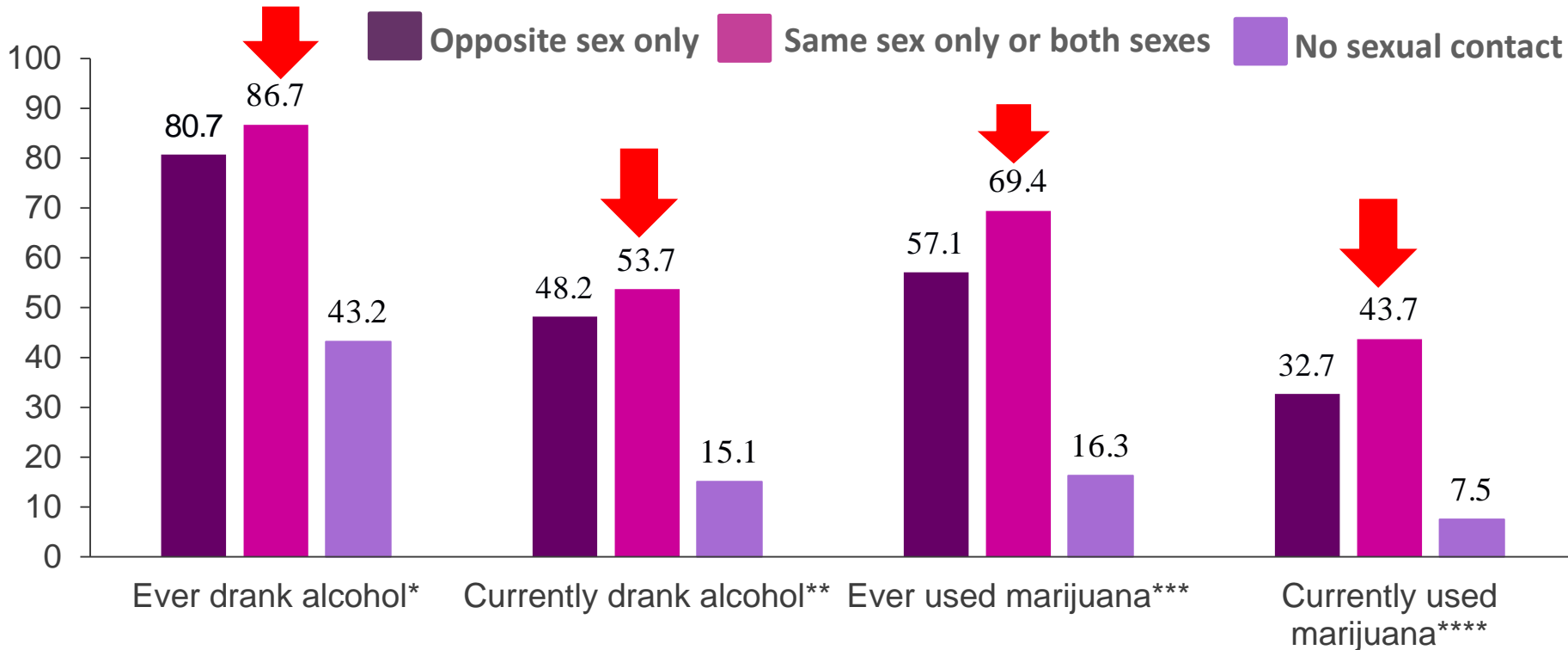
For more information, contact CDC  
1-800-CDC-INFO (232-4636)  
TTY: 1-888-232-6348 [www.cdc.gov](http://www.cdc.gov)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.





# Percentage of high school students who drank alcohol and used marijuana, by sex of sexual contact, 2015



\*At least one drink of alcohol on at least 1 day during their life.

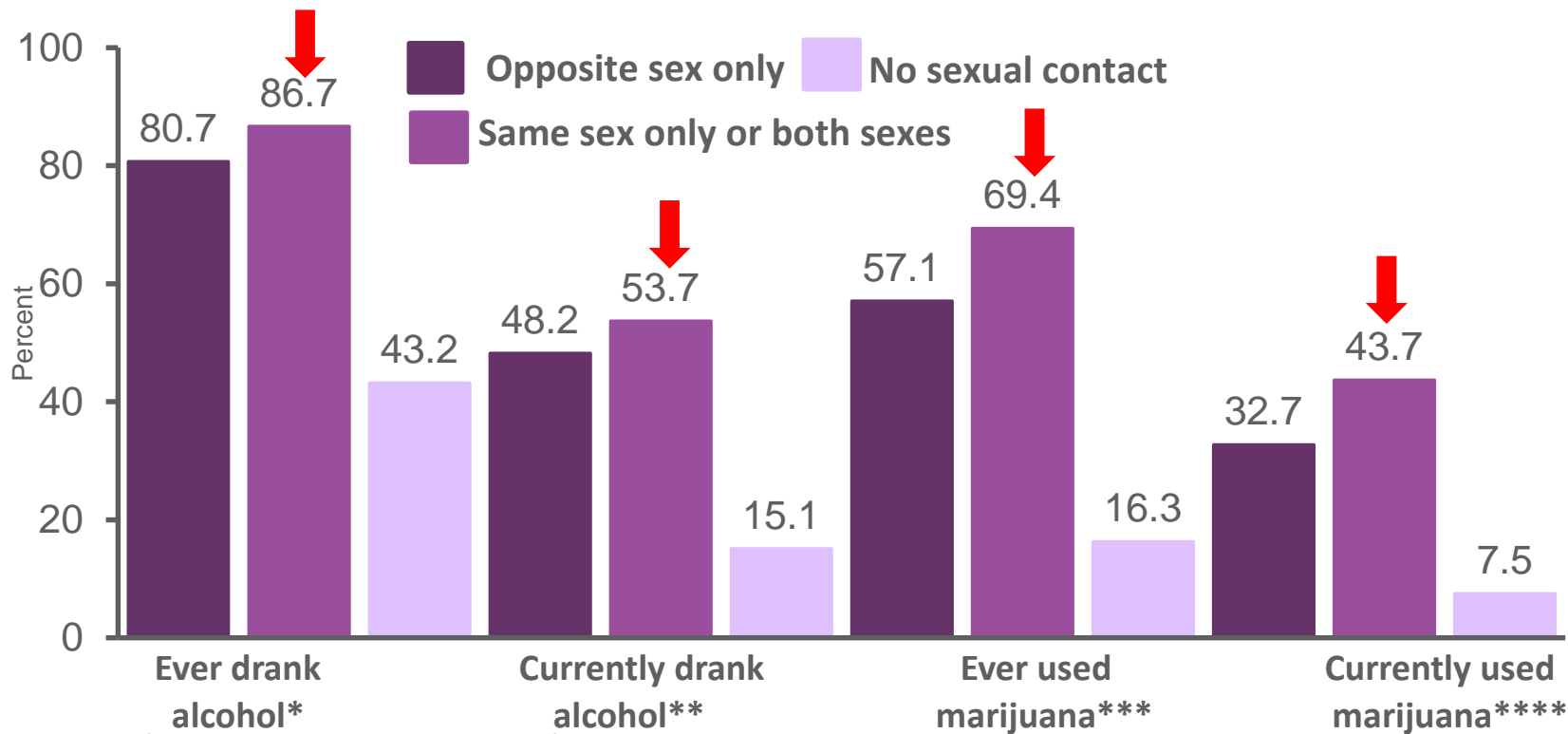
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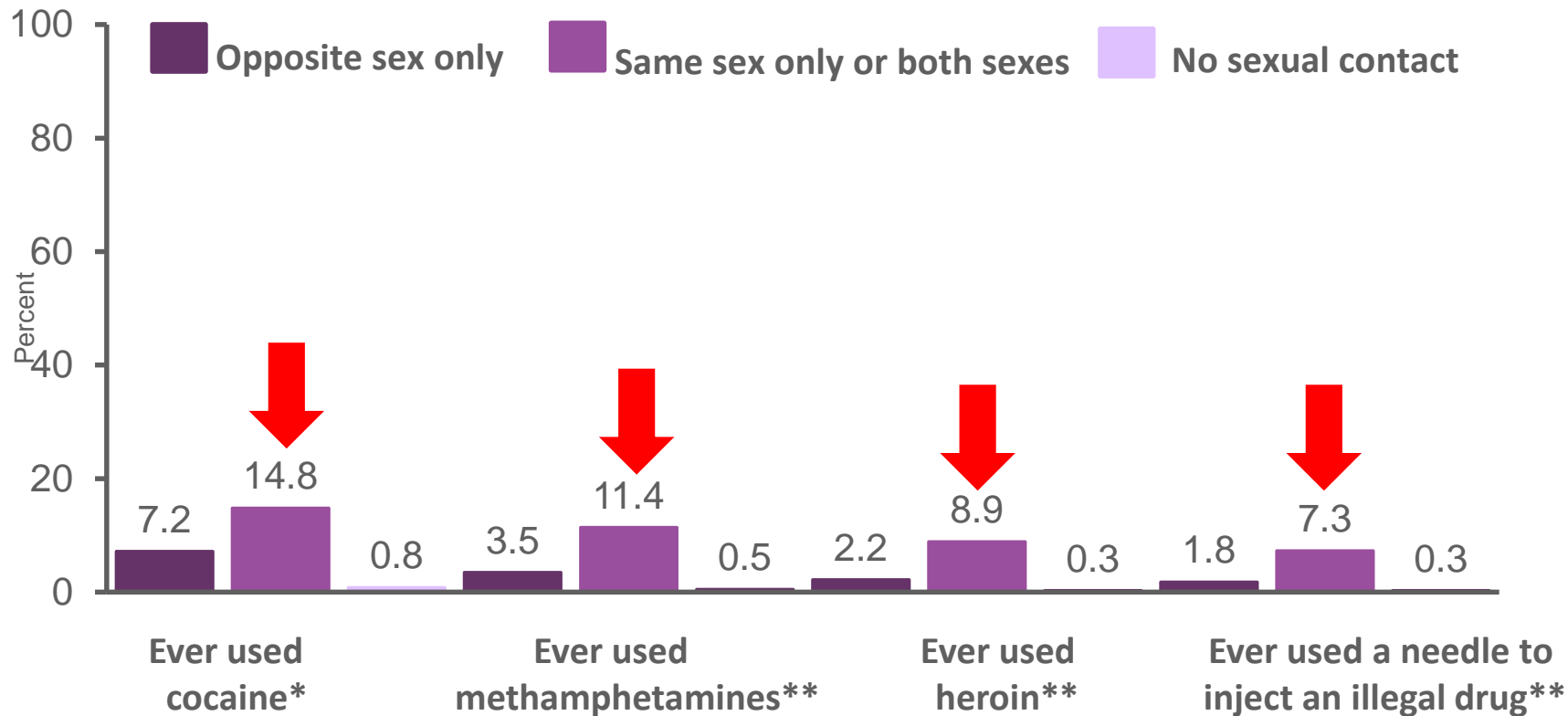
\*At least one drink of alcohol on at least 1 day during their life.

\*\*At least one drink of alcohol on at least 1 day during the 30 days before the survey.

\*\*\*One or more times during their life.

\*\*\*\*One or more times during the 30 days before the survey.

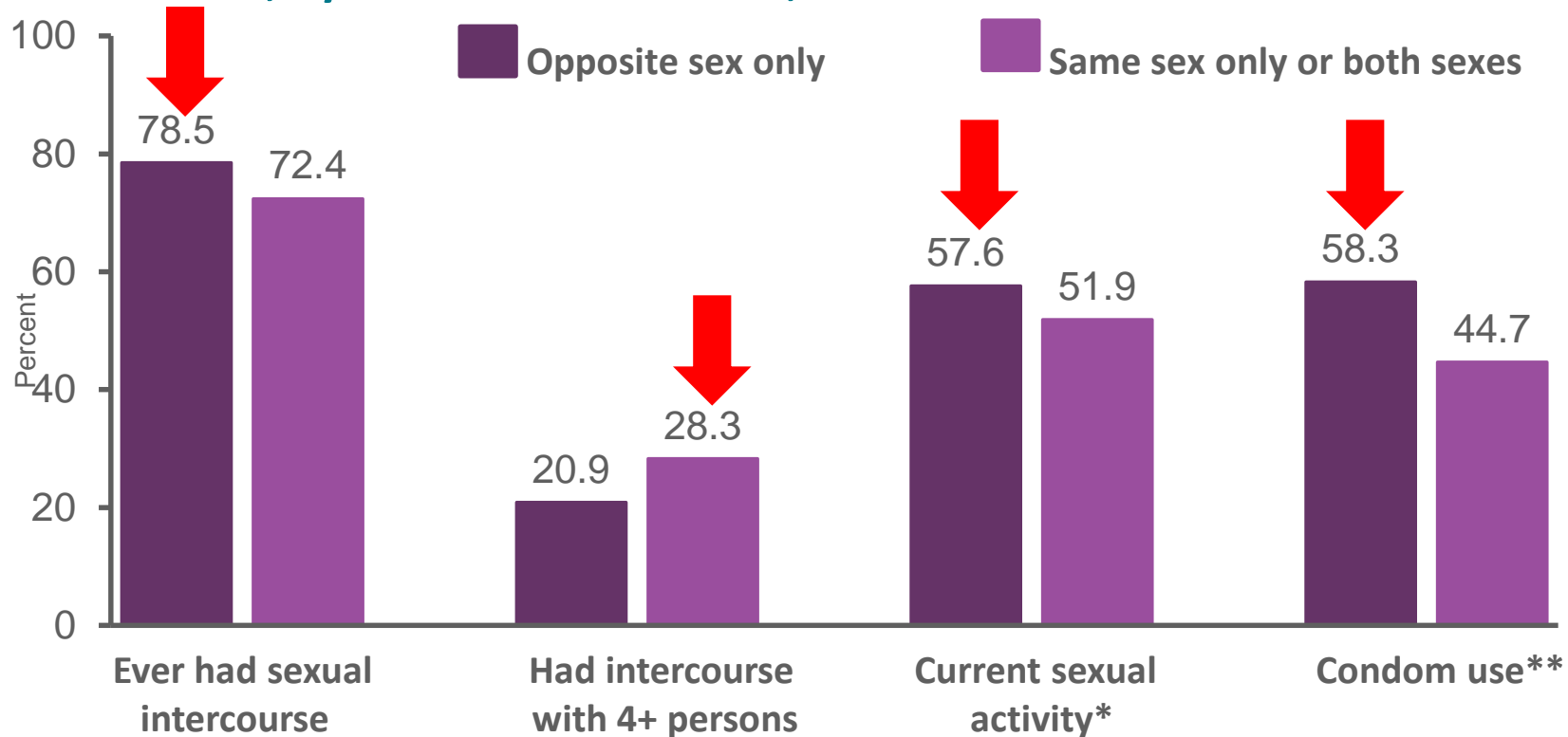
# Percentage of high school students who used drugs, by sex of sexual contact, 2015



\*Any form of cocaine (e.g., powder, crack, or freebase) one or more times during their life.

\*\*One or more times during their life.

## Percentage of high school students who reported HIV-related sexual behaviors, by sex of sexual contact, 2015



Note: Students who had no sexual contact were excluded from these analyses.

\*Had sexual intercourse during the 3 months before the survey.

\*\*Among students who were currently sexually active.

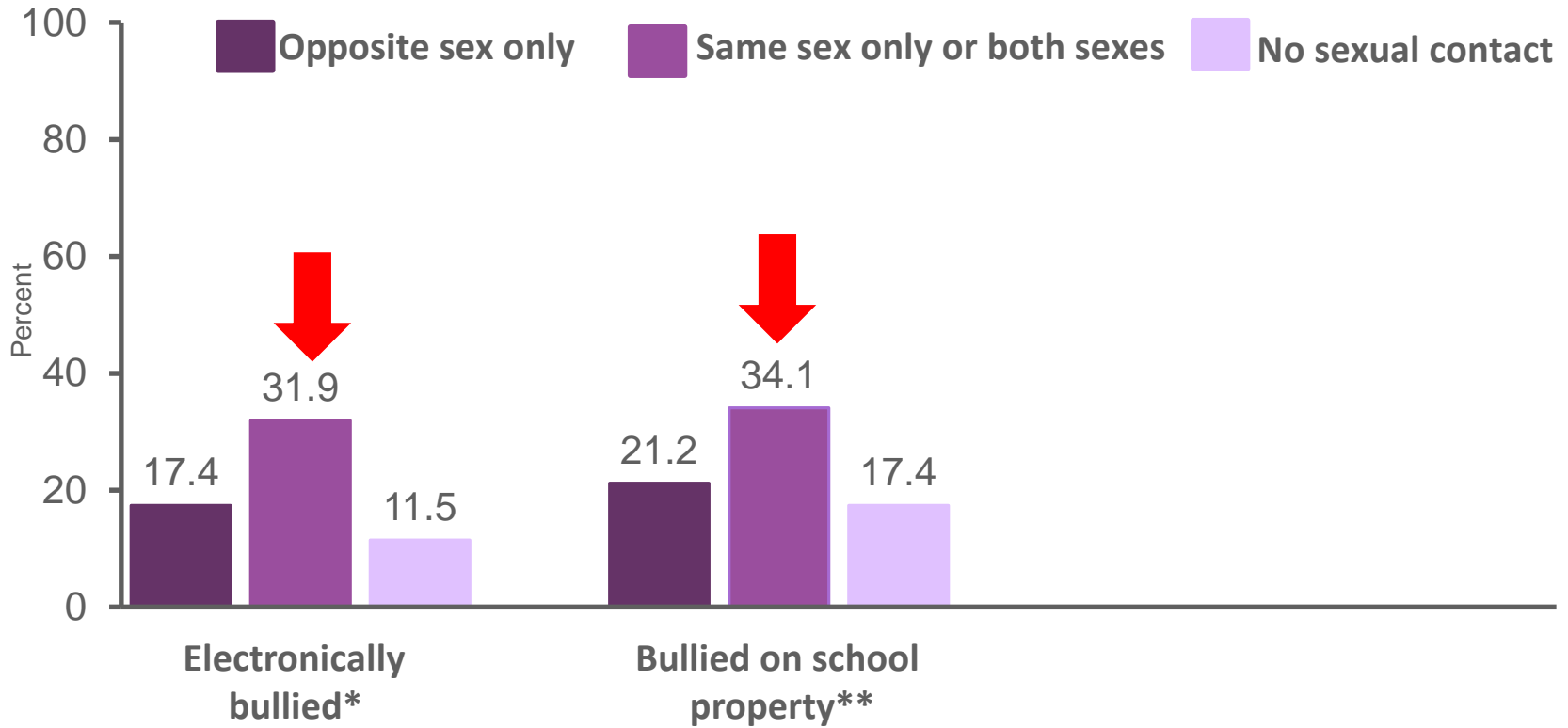
## Percentage of high school students who reported violence-related behaviors, by sex of sexual contact, 2015



\*Among students who dated or went out with someone during the 12 months before the survey.

\*\*On at least 1 day during the 30 days before the survey.

# Percentage of high school students who experienced bullying, by sex of sexual contact, 2015



\*Counting being bullied through e-mail, chat rooms, instant messaging, Web sites, or texting during the 12 months before the survey.

\*\*During the 12 months before the survey.

## Percentage of high school students who reported suicide-related behaviors, by sex of sexual contact, 2015



\*Almost every day for  $\geq 2$  weeks in a row so that they stopped doing some usual activities during the 12 months before the survey.

\*\*During the 12 months before the survey.

\*\*\* One or more times during the 12 months before the survey.