

Trends in School-Related Victimization of Lesbian, Gay, and Bisexual Youths—Massachusetts, 1995–2015

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Objectives. To compare changes over time in prevalence of school victimization among lesbian, gay, and bisexual (LGB) students compared with heterosexual students.

Methods. We analyzed data from 11 Youth Risk Behavior Surveys conducted among representative samples of students in grades 9 through 12 in Massachusetts during 1995 to 2015. We used multivariable logistic regression models to identify trends over time by sexual identity.

Results. During 1995 to 2015, the prevalence of missing school decreased overall (from 5.6% to 4.8%) and among heterosexual (from 4.3% to 3.8%) and LGB (from 25.0% to 13.4%) students. The prevalence of having been threatened decreased overall (from 7.8% to 4.1%) and among heterosexual (from 6.5% to 3.5%) and LGB (from 32.9% to 6.7%) students.

Conclusions. We identified evidence of a significant decrease in victimization among all students regardless of sexual identity and a steep decline among LGB students. Additional actions to improve school climate may help eliminate the disparities and decrease victimization for all youths. (*Am J Public Health.* 2017;107:1116–1118. doi:10.2105/AJPH.2017.303761)

Lesbian, gay, and bisexual (LGB) youths routinely experience violence and bullying more frequently than do their heterosexual peers; this disparity is well-documented in the literature.^{1,2} However, no studies have assessed long-term trends in victimization among LGB youths compared with heterosexual youths.

We compared changes over time in prevalence of school-related victimization by sexual identity by using Massachusetts Youth Risk Behavior Survey (MYRBS) data from 1995 to 2015. Based on the increased acceptance of LGB individuals³ and improvements to school climate in recent years,⁴ we hypothesized that school victimization has decreased during 1995 to 2015 for all sexual identity subgroups, but that the magnitude of the trend (i.e., the slope) may differ for heterosexual compared with LGB students.

METHODS

The MYRBS has been conducted biennially since 1991 among population-based

representative samples of public school students in grades 9 through 12 in the state of Massachusetts. Participating students completed an anonymous, voluntary questionnaire during a single class period. More information about the survey methods, which are consistent between cycles, are published elsewhere.⁵

In 1995, 2 questions were added to the MYRBS to ascertain sexual orientation, including 1 question assessing sexual identity. The MYRBS was one of the first population-based surveys of youths to ascertain sexual orientation. Sexual identity was ascertained with the question, “Which of the following best describes you?” and response

options, “Heterosexual or straight,” “gay or lesbian,” “bisexual,” and “not sure.” For this analysis, “gay or lesbian” was combined with “bisexual” to create a LGB category. Students who selected “not sure” remained in the models but their results are not reported separately.

The 1995 to 2015 MYRBSs also assessed having not gone to school because of safety concerns and having been threatened or injured with a weapon on school property; in addition, in 2009, a question was added to assess bullying victimization on school property.

With SUDAAN version 11 (Research Triangle Institute, Research Triangle Park, NC) to account for the complex sample design and sampling weights, we used the *t* test to assess differences in unadjusted prevalence estimates. The trend analysis used logistic regression to separately model secular trends in each school violence measure; all models set sexual identity as the exposure variable (with heterosexual students as the reference group) and adjusted for sex and race/ethnicity. We coded continuous linear and quadratic time variables by using orthogonal coefficients. Because the bullying measure was only assessed in 4 MYRBS cycles, we did not test for quadratic time components in this model only. Additional information about trend analysis methods can be found in Appendix A (available as a supplement to the online version of this article at <http://www.ajph.org>).

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

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TABLE 1—Prevalence and Trends of School-Related Victimization Among Students in Grades 9 Through 12, by Sexual Identity: Massachusetts Youth Risk Behavior Surveys, 1995–2015

Year	Did Not Go to School Because of Safety Concerns, ^a Prevalence (95% CI)			Threatened or Injured With a Weapon on School Property, ^b Prevalence (95% CI)			Bullied on School Property, ^c Prevalence (95% CI)		
	Overall	Heterosexual	LGB	Overall	Heterosexual	LGB	Overall	Heterosexual	LGB
1995	5.6 (4.4, 7.2)	4.3 (3.4, 5.5)	25.0 (15.4, 37.8)	7.8 (6.6, 9.1)	6.5 (5.5, 7.7)	32.9 (24.3, 42.7)	...	...	...
1997	4.6 (3.9, 5.6)	3.9 (3.2, 4.8)	22.2 (13.5, 34.3)	7.5 (6.6, 8.5)	6.5 (5.7, 7.3)	31.2 (20.2, 44.8)	...	...	...
1999	6.4 (5.0, 8.0)	5.3 (4.1, 7.0)	20.0 (13.0, 29.4)	8.6 (7.7, 9.6)	7.6 (6.8, 8.5)	24.4 (16.2, 35.1)	...	...	...
2001	8.1 (6.1, 10.6)	7.7 (5.7, 10.3)	17.6 (11.9, 25.4)	8.2 (7.2, 9.3)	7.6 (6.7, 8.7)	17.4 (11.8, 25.0)	...	...	...
2003	4.6 (4.0, 5.3)	3.9 (3.3, 4.5)	16.3 (10.4, 24.6)	6.3 (5.3, 7.4)	5.4 (4.6, 6.3)	19.3 (13.3, 27.2)	...	...	...
2005	4.0 (3.4, 4.7)	3.3 (2.7, 4.0)	16.5 (11.4, 23.1)	5.4 (4.6, 6.4)	5.0 (4.2, 6.1)	10.3 (5.5, 18.7)	...	...	...
2007	4.7 (3.9, 5.7)	3.8 (3.0, 4.9)	13.0 (9.4, 17.7)	5.3 (4.5, 6.3)	4.3 (3.5, 5.3)	18.7 (13.4, 25.5)	...	...	...
2009	4.0 (3.1, 5.2)	3.1 (2.2, 4.2)	13.9 (8.4, 22.2)	7.0 (6.0, 8.2)	6.2 (5.1, 7.5)	17.3 (12.4, 23.7)	19.4 (17.7, 21.2)	17.3 (15.7, 19.0)	42.3 (35.6, 49.3)
2011	4.8 (3.9, 6.1)	4.2 (3.3, 5.5)	9.9 (6.2, 15.6)	6.8 (5.6, 8.2)	5.6 (4.5, 7.1)	15.2 (10.5, 21.5)	18.1 (16.1, 20.2)	16.4 (14.5, 18.5)	33.5 (26.7, 41.1)
2013	3.6 (2.9, 4.5)	2.9 (2.2, 3.8)	15.3 (9.6, 23.4)	4.3 (3.7, 5.2)	3.9 (3.2, 4.7)	14.0 (10.0, 19.3)	16.6 (14.7, 18.6)	15.5 (13.6, 17.6)	37.7 (29.9, 46.2)
2015	4.8 (4.0, 5.8)	3.8 (2.9, 4.8)	13.4 (8.9, 19.7)	4.1 (3.2, 5.1)	3.5 (2.7, 4.5)	6.7 (3.6, 12.3)	15.6 (14.0, 17.3)	13.8 (12.3, 15.4)	34.3 (27.4, 41.9)
Linear B ^d (SE)	-0.697 (0.147)	-0.702 (0.166)	-0.798 (0.347)	-0.879 (0.098)	-0.837 (0.104)	-1.275 (0.310)	-1.041 (0.286)	-0.867 (0.294)	-0.902 (0.789)
P B	<.001	<.001	.072	<.001	<.001	<.001	<.001	.003	.25
Conclusions ^e	Linear decrease	Linear decrease	Linear decrease	Linear decrease	Linear decrease	Linear decrease	Linear decrease	Linear decrease	No change

Note. CI = confidence interval; LGB = lesbian, gay, or bisexual. Ellipses indicate that data were not available for that year.

^aDid not go to school on 1 or more days during the 30 days before the survey because they felt they would be unsafe at school or on the way to or from school.

^bWere threatened or injured with a weapon (e.g., a gun, knife, or club) on school property 1 or more times during the 12 months before the survey.

^cWere bullied on school property during the 12 months before the survey.

^dParameter estimate for the B associated with the linear time component regressed on the victimization outcome, stratified by sexual identity and controlled for sex and race/ethnicity.

^eInterpretation of the linear time components.

RESULTS

During 1995 to 2015, the MYRBS was conducted 11 times. The sample sizes ranged from 2707 (in 2009) to 4415 (in 1999; median = 3522); the school response rates ranged from 75% (in 2015) to 96% (in 1999 and 2001; median = 87%); the student response rates ranged from 77% (in 1995) to 88% (in 2013; median = 81%); and the overall response rates ranged from 61% (in 2015) to 77% (in 2001; median = 70%).

In 1995 and 2015, the prevalence of having not gone to school because of safety concerns was higher among LGB than heterosexual students (Table 1). In 2009 and 2015, the prevalence of having been bullied on school property was also higher among LGB than heterosexual students. However, although the prevalence of having been threatened or injured with a weapon on school property was higher among LGB than heterosexual students in 1995, in 2015 we detected no differences in the prevalence of this behavior by sexual identity.

During 1995 to 2015, when we controlled for race/ethnicity and sex, the prevalence of having not gone to school because of safety concerns decreased linearly overall (from 5.6% to 4.8%), among heterosexual students (from 4.3% to 3.8%), and among LGB students (from 25.0% to 13.4%). The prevalence of having been threatened or injured with a weapon on school property also decreased linearly overall (from 7.8% to 4.1%), among heterosexual students (from 6.5% to 3.5%), and among LGB students (from 32.9% to 6.7%). Furthermore, during 2009 to 2015, when we controlled for race/ethnicity and sex, the prevalence of having been bullied on school property decreased linearly overall (from 19.4% to 15.6%) and among heterosexual students (from 17.3% to 13.8%), but we did not detect a linear change among LGB students. We did not detect quadratic trends overall or by subgroup for any of the 3 behaviors.

DISCUSSION

The results of this analysis support our hypotheses and indicate that school-related

violence victimization significantly declined among both heterosexual and LGB students during 1995 to 2015. However, this was not true for being bullied on school property. Although being bullied on school property was not assessed on the MYRBS until 2009, during the past 4 MYRBS cycles, being bullied on school property has declined significantly among heterosexual but not among LGB students. To note, current prevalence of some school victimization is still higher among LGB than heterosexual students.

This analysis is subject to several limitations. The data are only generalizable to Massachusetts students who are enrolled in public school; furthermore, LGB youths might represent a disproportionate percentage of high-school dropouts and other youths who are absent from or do not attend school.⁶ In addition, some students might not have known their sexual identity; might have been unwilling to disclose it on the MYRBS questionnaire; might have been unwilling to label themselves as heterosexual, gay, lesbian, or bisexual; or might not have understood the sexual identity question. Next, the extent of underreporting or overreporting of health-related behaviors cannot be determined, although the survey questions demonstrate good test-retest reliability.⁷

Finally, possibly because of the small prevalence of LGB identity, we were unable to detect significant differences in the linear time components between heterosexual and LGB students. Replicating these analyses on larger data sets may yield more convincing results. Despite these limitations, these results are the first to assess secular trends of victimization by sexual identity among large, population-based samples of youths.

PUBLIC HEALTH IMPLICATIONS

Since the mid-1990s, societal acceptance of LGB individuals has increased,³ and school-related victimization of LGB students has decreased. Nonetheless, the prevalence of victimizations remains too high, and it is important to eliminate school-related victimization for all students. Previous studies suggest that victims of school violence and bullying are at greater risk for many other health-risk behaviors,⁸ and may have worse

long-term outcomes compared with their nonvictimized peers,⁹ especially for LGB youths.¹⁰ Schools can take action to improve school climate, which may help eliminate disparities and decrease victimization for all youths.

In 2010, Massachusetts enacted comprehensive legislation to address bullying in public and nonpublic schools and require every school to have a bullying prevention plan (Mass Gen Laws, Ch 71, § 37O [2010, 2014]). The law was amended in 2014 to require schools to “recognize” in their bullying prevention plan that certain enumerated categories of students may be more vulnerable to being bullied based on actual or perceived differentiating characteristics. The Massachusetts Safe Schools Program for lesbian, gay, bisexual, transgender, and queer (LGBTQ) students is designated specifically to help schools implement all state laws that have an impact on LGBTQ students, including this antibullying law. A recent report suggests that Massachusetts schools increased their ability to facilitate access to health services for LGBTQ youths, implementation of “safe spaces,” prohibition of harassment on the basis of sexual orientation, and staff development on safe and supportive school environments.¹¹ These policies and practices aim to reduce victimizations and bullying for all students and particularly for LGB students, and recent research has indicated that they may be effective at preventing and decreasing bullying.¹² **AJPH**

CONTRIBUTORS

E. O. Olsen originated the study, participated in its design and coordination, conducted all statistical analyses, and drafted the article. A. M. Vivolo-Kantor participated in the design of the study, assisted with analysis and interpretation of the data, helped draft the article and revisions, and provided content expertise. L. Kann participated in the design and coordination of the study, assisted with analysis and interpretation of the data, and helped to draft the article and revisions. C. N. Milligan provided the data, helped draft the article, and provided content expertise. All authors read and approved the final article.

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HUMAN PARTICIPANT PROTECTION

The contractor for the MYRBS, the Center for Survey Research at UMASS Boston, determined that the MYRBS is surveillance and not research and therefore it

is exempt from full institutional review board review. Survey protocols were submitted to the institutional review board.

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