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Injury Prevention Activities in US Schools, School Health Policies and Practices Survey 2014

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Abstract

BACKGROUND—Exposure to injury and violence early in life increases the risk of experiencing injury and violence later in life. In 2019, the top three leading causes of death among 15- to 18-year-olds in the United States were unintentional injury, suicide, and homicide. This study examines the extent to which schools promote injury and violence prevention.

METHODS—This study examined injury- and violence-related school policies and practices using nationally representative data from the 2014 School Health Policies and Practices Study. The social ecological model served as the theoretical framework to identify level of impact.

RESULTS—For many injury-related topics, more than 75% of schools nationwide had relevant policies and practices to address those topics. However, this study showed differences in schools' injury-related policies and practices by urbanicity.

CONCLUSIONS—Understanding and identifying gaps in school policies and practices is essential for reducing and preventing the injury and violence children experience. Collecting data on school policies and practices allows for better monitoring and evaluation to determine which are efficacious and aligned with the best available evidence.

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Human Subjects Approval Statement

Preparation of this paper did not involve primary research or data collection involving human subjects, and therefore, no institutional review board examination or approval was required.

Conflict of Interest Disclosure Statement

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Keywords

School Health; Injury; Policies

Exposure to injury and violence early in life increases the risk of experiencing injury and violence later in life.[1] In 2019, the top three leading causes of death among those ages 15 to 18 years in the United States were unintentional injury (37.9%), suicide (25.7%), and homicide (20.6%).[2] A study showed that between 2001 and 2013, one in five (21%) unintentional injuries in this age group occurred at school, with no statistically significant changes in the annual incidence rate over the time period.[3] Furthermore, one in six (17.4%) youth ages 15 to 18 years reported a serious fight at school in 2014.[4] More recently, the 2019 national Youth Risk Behavior Survey (YRBS) shows that during the 12 months before the survey, 8% of high school students were in a physical fight on school property,[5] 22% were in a physical fight anywhere,[5] 19.5% were bullied on school property,[6] 15.7% were electronically bullied,[6] and 19% of students seriously considered attempting suicide.[6] Identifying and addressing relevant risk factors for injury and violence can aid prevention efforts.[7] These risk factors include weapons possession or use,[8] alcohol or other drug use,[9] emotional, behavioral, and mental health, including symptoms of depression,[10] and gang activity.[11]

Experiencing or witnessing violence, including physical fights, bullying, and gang activity are potentially traumatic events. When occurring in childhood (0–17 years), such events may be considered adverse childhood experiences (ACEs). ACEs can also include growing up in a household with substance use, mental health problems, or instability due to parental separation or incarceration of a parent, sibling, or other member of the household.[12,13] These experiences can have long term effects on children's life potential and opportunities for success, including academic achievement and graduation rates.[13–17]

Schools can facilitate early injury and violence prevention by implementing policies and practices that improve the health and well-being of children and adolescents. Evidence for such policies exists. For example, schools successfully addressed weight-related concerns for students by limiting less healthy food and drink in schools,[19] decreased student soda consumption by limiting soda promotional products and sales,[20] and reduced the number of students smoking tobacco by implementing and enforcing comprehensive health-policies.[21]

Considering the prevalence of injuries and violence on school grounds and related risk factors (e.g., substance use), understanding which prevention policies and programs schools should consider implementing is important. This analysis examines the extent to which schools promote injury and violence prevention via programs and policies that address ACEs, bullying, physical fighting, suicide, dating violence, transportation safety, traumatic brain injury (TBI), and violence and injury overall. It builds upon previous literature by also examining whether schools promote the prevention of risk factors associated with injury and violence (i.e., weapons possession or use, alcohol or other drug use, poor emotional, behavioral, and mental health, and gang activity).

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Additionally, this study considered the breadth of these injury prevention policies and programs by labeling them in accordance with the Social Ecological Model (SEM).[18,19] Intervention effectiveness tends to have increasing population impact when focused on changing the local context (e.g., policy changes) rather than individuals (e.g., clinical interventions).[20] As such, some school activities may have a broader impact. Additionally, based on previous research, health-promoting policies vary by urbancity.[21] Thus, this study also examines these variations across urban, suburban, and rural schools.

METHODS

This study examined school-level data from the 2014 School Health Policies and Practices Study (SHPPS). SHPPS was a national survey conducted periodically during 1994–2016 to assess school health policies and practices at the classroom, school, district, and state level.

A detailed description of the SHPPS 2014 study methods have been published elsewhere.[22] Using seven questionnaires, SHPPS 2014 examined 10 components of school health in a nationally representative sample of schools. The components include health education, physical education and physical activity, nutrition environment and services, health services, counseling, psychological and social services, healthy and safe school environment (including social and emotional climate), physical environment, employee wellness, family engagement, and community involvement. All public, Catholic, and non-Catholic private schools with any grades K through 12 were eligible. In participating schools, the most knowledgeable respondent for each questionnaire module was determined. Schools that lacked programs or services addressed by a module were considered ineligible for that module.

For the current study, subject matter experts reviewed each questionnaire and found the following five questionnaires had questions related to injury and violence prevention: Health Education (N=546, response rate [RR]=68%), Health Services (N=588, RR=71%), Healthy and Safe School Environment (N=586, RR =71%), Physical Education and Activity (N=582, RR=70%), and Mental Health and Social Services (N=545, RR=68%). Each of the relevant questions were categorized into 13 topics: ACEs; alcohol or other drug use; bullying; dating violence; emotional, behavioral, and mental health; gang activity; general injury prevention and safety; physical fighting; suicide; transportation safety; traumatic brain injury (TBI); violence prevention; and weapons.

SEM was used as a theoretical framework to identify areas of influence. The associated level of the SEM was identified for each policy or program to describe school activities based on expected breadth and reach of impact across three SEM levels:[21,22] 1) individual, 2) school resources and services, and 3) school community, culture, and policy. Health promoting activities were coded as policy referring to the “School Community, Culture, and Policy.” Health promoting facilities were coded as school referring to “School Resources and Services.” Individual-level interventions were coded as “Individual.” Not all topics contained all three groupings.

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DATA ANALYSIS

Data were weighted to account for the probability of selection and for nonresponse to produce national estimates of policies and practices among public and private schools in the United States. The percentage of schools that responded affirmatively (yes or always/almost always) to each question were calculated overall and by urbanicity (urban, suburban, rural/town [hereinafter referred to as rural]). Pairwise comparisons of means were performed to determine if statistically significant differences existed in the prevalence of policies and practices by level of urbanicity. Two-tailed p-values <0.05 were considered statistically significant. Table 1 includes all survey items by topic areas and SEM level and the percentage of schools implementing each activity overall and stratified by urbanicity. All analyses were conducted using STATA version 15 (Stata Corp LP, College Station, TX) to account for the complex sampling design.

RESULTS

Table 1 reports the percentage of schools with each injury-related policy or program overall by topic, SEM level, and by urbanicity. For results related to urbanicity only significant pairwise differences are described below.

Adverse Childhood Experiences (ACEs)

More than 75% of schools had practices for the identification or referral of suspected child physical, sexual, or emotional abuse, and/or family problems such as divorce, substance use, or violence in the home. Rural and suburban schools were more likely than urban schools to have these practices, all of which reached children at the school resources and services level; no policies were at the individual; or school community, culture, or policy levels.

Alcohol or other drug use

More than half of schools required that students receive instruction on alcohol or other drug use prevention, with rural schools more likely to have this policy than urban and suburban schools. Only 32.8% of schools provided one-on-one or small group sessions, with this prevention practice more prevalent in rural than urban schools. More than half of schools had arrangements with other organizations or mental health or social service professionals to provide alcohol or other drug use treatment. More than three-fourths of schools informed students in the student handbook about rules related to cigarette smoking or smokeless tobacco use; this policy was most prevalent in rural schools and least prevalent in urban schools. Similarly, most schools informed students about rules in the student handbook related to alcohol use (89.3%) and illegal drug possession or use (91.4%), with no urbanicity differences. Most policies operated at the school resources and services or school community, culture, and policy levels; only one policy existed at the individual level.

Bullying

Bullying was defined in the questionnaire as “when one or more students tease, threaten, spread rumors about, hit, shove, or hurt another student repeatedly. It is not bullying when two students of about the same strength or power argue or fight or tease each other in a

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friendly way." Most schools (79.7%) reported having a program to prevent bullying, with this being more prevalent in suburban schools compared to urban schools.

The following results refer to schools that had four or more incidents during the school year. Less than half of schools had a zero-tolerance policy for students who were caught bullying, with more suburban schools having this policy than urban or rural schools. Most schools considered the effect or severity of the violation (87.2%), repeat offender status (85.6%), and type of bullying perpetrated (83.6%) in their response to punishment for bullying. More than half of schools (58.4%) referred students who were caught bullying to a school administrator, with this policy being more prevalent in suburban than urban schools. Less than 5% of schools referred students who were caught bullying to legal authorities, placed them in detention, assigned in-school suspension, or restricted their extracurricular activities. Less than 10% of schools suspended students from school, with suburban schools having this policy more often than rural and urban schools. Most schools reported having a policy that prohibits cyber-bullying on school property or at off campus, school sponsored events (84.0%), and that addressed cyber-bullying that interferes with the educational environment, even if it happens away from school property or school-sponsored events (84.0%). Less than half of schools referred students who were caught cyber-bullying to a school counselor or administrator; this policy was less likely in urban schools compared to rural and suburban schools. All but one policy operated at the school community, culture, and policy level. The other policy reached children at the school resources and services level; no individual level policies existed.

Dating violence

Few schools (13.3%) participated in a program to prevent dating violence. No significant differences existed between rural, urban, and suburban schools. This policy was within the school resources and services level.

Emotional, behavioral, and mental health

More than half of schools required students to receive instruction on emotional and mental health, with rural schools more likely to have this policy than urban schools. Similarly, more than half of schools obtained and kept emotional or mental health histories of their students; this policy was less prevalent in rural schools. More than 80% of schools provided crisis intervention, with no differences reported by urbanicity. More than half of schools provided stress management interventions or resources. Furthermore, more than 75% had a part-time or full-time school counselor, with this policy being more prevalent in rural than urban or suburban schools. However, only 56.2% of schools had a part-time or full-time school psychologist; this was more prevalent in suburban than urban and rural schools. Most policies operated at the school resources and services level, with three policies focused on the individual level; none operated at the school community, culture, and policy level.

Gang activity

Less than 20% of schools had or participated in a program to prevent gang violence, with this policy being more prevalent in urban schools compared to rural or suburban schools. More than 50% of schools included information about gang activity in the student handbook

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and adopted a policy prohibiting gang activity. Policies reached children at the school resources and services, and school community, culture, and policy levels; none were at the individual level.

General injury prevention and safety

More than half of schools required students to receive instruction on injury prevention and safety, with this being least prevalent in urban schools. Nearly a third (31.8%) of schools provided students with individual and/or small group sessions on injury prevention or had established arrangements to provide these services externally. One policy operated at the individual level, two policies reached children at the school resources and services level, and none existed at the school community, culture, and policy level.

Physical fighting

The following results refer to schools that had four or more incidents of physical fighting during the school year. Less than half of schools referred students who were caught physically fighting to a school counselor or administrator; this policy was found more frequently in suburban schools than in urban and rural schools. Less than 10% of schools encouraged or required students who engaged in physical fights to participate in assistance or education programs, referred them to legal authorities, placed them in detention, assigned them to in-school suspension, or removed them from extracurricular activities. However, 37.8% of schools had a policy where students who were caught physically fighting were suspended from school. All policies operated at the school community, culture, and policy level; none were at the individual or school resources and services levels.

Suicide

Over a third of all schools required students to receive instruction on suicide prevention. More than 70% of schools provided or had arrangements to provide suicide prevention services to students through individual or small group sessions. Only 30% of schools participated in programs to prevent suicide; this service was more prevalent in rural and suburban schools compared to urban schools. More than 90% of schools had a plan delineating what to do when a student is at risk for suicide, but only 76% of schools had a plan that required students be referred to a mental health provider. Urban and suburban schools were more likely than rural schools to have these policies in place. More than half of all schools required a documented visit with a mental health provider before the student could return to school, a policy that is more prevalent among suburban schools. Policies were found in all three levels of the SEM.

Transportation safety

More than three fourths of schools had a speed limit lower than 35 mph on streets that are adjacent to school grounds during peak school travel times. Most schools had crossing guards, law enforcement, or traffic calming devices, with suburban schools more likely to employ these policies. More than half of schools had reduced speed limits during peak school travel times; rural and suburban schools were more likely to have had this policy

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than urban schools. All school policies for transportation safety were related to the school's community, culture, and policy SEM level.

Traumatic brain injury

Slightly more than 25% of schools had an athletic trainer available part-time or full-time at the school. In comparison, 47.3% of schools had a certified athletic trainer who provided services for interscholastic sports team; rural and suburban schools had higher percentages than urban schools. Most elementary schools (84.6%) had a student handbook that informs students about rules related to playground safety. More than three-fourths of schools distributed a handbook for student athletes who participated in interscholastic sports; urban schools did so less frequently than rural or suburban schools. Less than half of schools required students and parents to sign a concussion information sheet before participating in sports, with more urban and suburban schools requiring this than rural schools. Policies were related to the school resources and services, and school community, culture, and policy levels; no individual level policies existed.

Violence prevention

More than three-fourths of schools required students to receive instruction on violence prevention and provided services in one-on-one or small group sessions. While no general violence prevention policies operated at the school community, culture, and policy level, only one policy, at both the individual and school resources and services levels existed.

Weapons

Nearly all schools (96.5%) had rules in their student handbook regarding weapon possession or use. The following results refer to schools that had four or more incidents during the school year. The majority (97.3%) referred students to a school counselor or administrator when caught using or possessing a weapon. Less than a quarter of schools encouraged or required students to participate in an assistance or education program when caught using or possessing a weapon. Almost half of schools referred them to legal authorities, and more than three-fourths of schools placed students in detention or suspension or removed them from extracurricular activities when caught using or possessing a weapon. All policies operated at the school community, culture, and policy SEM level.

DISCUSSION

Injury, violence, and associated risk factors can have lasting effects on school environments and on students' academic achievements and physical, mental, and emotional wellbeing.[23–25] Witnessing violence, having a loved one attempt suicide or die due to violence, and experiencing violence, abuse, or neglect can result in childhood trauma, with lasting effects throughout the lifetime.[13] Such violence can elevate the risk of experiencing injury and violence again later in life.[1] Therefore, understanding school policies and practices, and identifying any gaps is essential for reducing and preventing the injury and violence experienced by children.

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Coverage of Injury and Violence Topics and Related Risk Factors

This study showed that US schools' policies and practices cover most injury and violence-related topics. However, differences emerge in the prevalence of injury-related policies and practices implemented. More than 75% of policies and practices implemented in schools are related to injury-related topics such as bullying, alcohol and other drug use, suicide related behaviors, weapons, transportation, playgrounds, and sports safety behaviors. Other injury-related policies and practices were less prevalent. School prevention policies and practices related to dating violence were minimal (13.3%) and none were identified for sexual violence prevention, indicating these may be an area where schools can increase attention.

To ensure that school policies and practices are well-aligned with current needs, schools and their districts can review incidence rates and prevalence of different types of injury outcomes in their local areas as these may differ from national patterns. Schools can adjust their policies and practices by selecting evidenced-based strategies that align with local and national injury and violence prevention needs. Such strategies can be found in CDC's series of violence prevention technical packages, including preventing child abuse and neglect,[26] ACEs,[13] intimate partner violence,[27] sexual violence,[28] suicide,[29] and youth violence.[30] CDC's HEADS UP campaign provides resources for promoting TBI prevention.[31] The Substance Abuse and Mental Health Service Administration offers materials to schools for preventing drinking and substance use,[32] and the Drug Free Communities Support Program, managed through a partnership between the Office of National Drug Control Policy and CDC, funds local coalitions to reduce youth substance use.[33]

Breadth of coverage across SEM level

Examining each topic shows that broader-reaching policies (i.e., school community, culture, and policy items) were more prevalent than mid-tier resources and services, which were more prevalent than focused individual interventions. Policies and contextual change tend to be primary prevention oriented, while individual-level services tend to be secondary prevention oriented.[34] Preventing injuries and their risk factors from ever occurring can be both cost-effective and high impact.[35] Implementing strategies across the SEM, from policy to individual, helps schools ensure that they reach the needs of individual students in addition to creating a healthy school culture.

Differences based on urbanicity

Some policies and practices differed by urbanicity. Rural schools provided more instruction on topics such as emotional and mental well-being, suicide prevention, and ACEs; whereas, urban schools tended to provide more instruction on preventing gang violence and on general injury and safety. Differences in access to professionals (e.g., school counselors, psychologists, athletic trainers) also emerged based on urbanicity as did practices related to how schools enforced policies (e.g., referring to administrators or practitioners, requiring practitioner exams, suspending, having parents sign papers). These differences may reflect variations in the prevalence of injury and violence outcomes based on urbanicity (e.g., gang violence may be more of a concern in urban schools than rural[36]), access to resources (e.g., rural schools may have less access to mental health services[37]), or other unknown reasons.

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Additionally, this could be reflective of how schools choose to prioritize when creating policies and practices and may be related to historical or cultural contexts based on their location.

Increasing impact of school-based prevention

Approaches that focus on multiple forms of violence by addressing shared risk factors (e.g., substance use, mental health) may have a greater impact by preventing multiple injury outcomes through one activity.[38] Different forms of violence are interconnected [34] and different forms of injury and violence share common risk and protective factors.[40] Designing school programs, policies and practices that address these shared risks and interconnected forms of violence can impact multiple outcomes.

LIMITATIONS

This study has several limitations. First, data are from 2014, which are the most recent data available. The prevalence of some policies and programs may have changed. Second, SHPPS relies on the knowledge of the person responding to the questionnaire. Although an attempt to identify the most knowledgeable respondent for each questionnaire was made during school recruitment, no objective review of policies and practices was conducted. Third, the practices and questions included in this analysis do not encompass the full scope of injury prevention practices that may be occurring in schools. SHPPS is intended as a comprehensive assessment of school health policies and practices at school; however, to include every policy or practice that may affect students' injury-related behaviors is not possible. Finally, some injury topics (e.g., bullying prevention, emotional, behavioral, and mental health promotion) are well represented in SHPPS, while others (e.g., dating violence prevention or ACEs prevention) are not and had fewer survey questions, or were not represented at all (e.g., sexual violence). Similarly, the items coded according to the SEM to capture breadth of impact are likewise not even across topics making it challenging to draw conclusions across different areas and factors based on school characteristics.

We did not include several survey items that were difficult to categorize into specific injury and violence areas or related upstream factors, though those items might have offered insights into prevention. For instance, schools can generally improve their resources and services for injury and violence prevention by providing access to a school nurse, ensuring staff are trained and certified for health education, and offering curriculum planning to staff from diverse backgrounds related to the field. Also, this study did not address student handbooks overall; however, they can be used to alert students and parents to behavioral expectations and set the tone for school community, culture, and policy.

Another limitation was that this study could not identify the extent to which school services were coordinated with other important aspects of student life. For example, collaborating with mental healthcare staff to coordinate student services or working with families can help ensure they are aware of important issues and the most effective means for managing them. Also, this study could not capture the extent to which some injury and violence topics may have been addressed within non-injury or violence policies or programs. For instance, schools may use human sexuality instruction to also discuss the importance of boundaries,

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consent, and preventing unhealthy relationships that may lead to sexual violence.[39,40] Similarly, schools with programs that promote bicycling and walking to school could consider how to use them to also promote transportation safety.

SHPPS was discontinued after the 2016 cycle. The lack of ongoing data collection precludes exploring changes over time in health-promoting policies and practices that schools are implementing for preventing injury, violence, and related risk factors. This data collection has been effective in preventing youth violence,[30] suicide-related behaviors,[29] and sexual violence.[28] Promoting connectedness has also been an effective strategy for preventing youth violence[30] and suicide.[29]

Disclaimer:

The findings and conclusions in this manuscript are those of the author(s) and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

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IMPLICATIONS FOR SCHOOL HEALTH

Collecting data on school policies and practices allows for better monitoring and evaluation of these activities to determine which are efficacious and aligned with the best available evidence. These data could allow for tracking new health promotion activities in schools as needs and innovative interventions emerge. Moreover, these data are essential for understanding if activities are implemented consistently across schools and how inconsistences might look based on factors such as urbanicity. Schools may consider implementing a comprehensive set of policies and practices that can support such protective environments. CDC issued guidance in 2001 with eight recommendations for school based unintentional injury, violence, and suicide prevention.[41] It will be important to consider updating these guidelines in the future when more recent data become available in order to assess current policy implications.

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Table 1.

Percentage of Schools with Specific Policies and Practices Related Injury and Violence Prevention, Overall and by Urbanicity – School Health Policies and Practices Survey, 2014

		SEM Level	All Schools	Rural/Town Schools	Suburban Schools	Urban Schools
			% 95% CI	% 95% CI	% 95% CI	% 95% CI
Adverse Childhood Experiences	Identification or referral for physical, sexual, or emotional abuse[bc]	School	85.1 80.8-88.6	88.5 82.1-92.9	88.3 80.4-93.3	78.0 68.4-85.2
	Identification or referral for family problems (e.g., parental divorce, substance abuse, or violence)[bc]	School	82.9 78.4-86.7	87.4 81.7-91.5	84.1 75.3-90.2	76.5 66.2-84.3
Alcohol or Other Drug Use	Instruction on alcohol or other drug use prevention[bd]	Individual	62.3 57.3-67.0	70.8 63.3 - 77.4	60.9 51.8-69.3	53.5 44.0-62.8
	Small group alcohol or other drug use prevention[b]	School	32.8 28.3-37.6	42.3 35.5-49.4	27.9 20.8-36.2	25.7 17.2-36.4
	Provides alcohol or other drug use treatment[e]	School	22.5 17.9-27.8	25.8 19.4-33.5	20.9 13.4-30.9	19.5 10.9-32.3
	Arrangements to provide alcohol or other drug use treatment	School	60.8 51.1-69.8	63.1 50.1-74.5	67.2 44.8-83.8	52.0 33.1-70.3
	Student handbook includes rules related to cigarette smoking/ smokeless tobacco use[bcd]	Policy	76.3 71.0-80.8	86.0 78.5-91.2	73.1 63.3-81.1	67.4 56.2-76.9
	Student handbook included rules related to alcohol use	Policy	89.3 85.2-92.3	91.1 85.4-94.7	90.1 81.7-95.0	86.3 77.2-92.2
	Student handbook includes rules related to illegal drug possession or use	Policy	91.4 87.6-94.1	92.8 87.6-95.9	91.7 83.1-96.2	89.4 80.9-94.4
	Interscholastic sports program strictly enforce prohibitions against alcohol or drug use[b]	Policy	97.1 94.2-98.5	98.6 94.6-99.7	97.0 89.9-99.1	94.9 86.3-98.2
Bullying	A program to prevent bullying[c]	School	79.7 75.5-83.4	78.7 72.2-84.0	82.2 74.5-87.9	78.6 69.5-85.6
	Student handbook includes rules related to electronic aggression or cyber-bullying	Policy	90.2 86.6-92.9	91.0 85.5-94.6	91.9 84.9-95.8	87.7 79.3-93.0
	Specific criteria to help determine the response to incidents of bullying:[f]					
	Zero tolerance[cd]	Policy	48.3 41.9-54.8	46.4 36.0-87.3	59.4 48.2-69.7	41.2 30.5-52.8
	Effect or severity of the violation	Policy	87.2 81.9-91.1	81.2 72.6-87.6	90.2 81.1-95.2	90.7 77.0-96.6
	Grade level of the student	Policy	64.3 57.4-70.7	63.1 53.7-71.6	57.6 43.3-70.8	71.0 57.6-81.5
	Repeat offender status	Policy	85.6 80.5-89.6	84.2 75.1-90.5	86.9 78.5-92.3	86.0 75.2-92.6

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	SEM Level	All Schools	Rural/Town Schools	Suburban Schools	Urban Schools
		% 95% CI	% 95% CI	% 95% CI	% 95% CI
Type of bullying (e.g., physical or verbal)	Policy	83.6 78.1-88.0	77.6 68.9-84.5	86.7 77.6-92.4	87.2 73.6-94.3
Almost always or always took specific actions for incidents of bullying:[f]					
Referred to school counselor[a] or administrator[ac]	Policy	58.4 52.3-64.3	57.8 48.3-66.8	68.1 57.3-77.2	51.1 40.0-62.1
Encouraged or required to participate in an assistance or education program[ab]	Policy	13.3 9.0-19.1	9.1 4.2-18.4	10.0 4.8-19.5	20.2 11.7-32.6
Referred to legal authorities[ac]	Policy	2.4 1.2-4.4	0.7 0.1-0.5	4.6 2.3-8.9	2.1 0.5-8.6
Placed in detention[a], in-school suspension[a], or not allowed to participate in extracurricular activities or interscholastic sports[a]	Policy	3.8 1.9-7.3	3.6 1.3-9.8	2.8 0.5-12.5	4.8 1.7-12.9
Suspended from school[acd]	Policy	7.0 4.4-11.0	4.0 1.4-10.8	12.9 7.3-21.6	5.2 1.7-15.1
Policy prohibiting cyber-bullying on school property or at off-campus, school sponsored events[bc]	Policy	84.0 79.6-87.6	86.4 80.8-90.5	87.8 80.6-92.6	77.6 66.8-85.6
Policy prohibiting cyber-bullying that interferes with the educational environment[bc]	Policy	84.0 80.1-87.2	84.0 78.6-88.2	90.1 83.5-94.2	78.5 69.6-85.3
Specific criteria to help determine the response to incidents of electronic aggression or cyber-bullying?[f]					
Zero tolerance[cd]	Policy	43.3 34.9-52.1	37.2 26.4-49.5	59.3 43.7-73.3	30.1 14.9-51.3
Effect or severity of the violation	Policy	88.9 81.6-93.5	87.6 78.3-93.3	85.2 66.8-94.3	96.6 86.1-99.3
Grade level of the student	Policy	44.3 35.9-53.0	38.2 26.6-51.4	40.2 26.7-55.3	61.5 42.6-77.4
Repeat offender status	Policy	82.6 74.0-88.9	82.8 71.6-90.2	81.1 63.0-91.5	84.6 60.4-95.2
Almost always or always took specific actions for incidents of electronic aggression or cyber-bullying:[f]					
Referred to school counselor[a] or administrator[abc]	Policy	47.4 38.3-56.7	49.2 35.6-62.9	58.9 42.1-73.9	26.8 13.4-46.5
Encouraged or required to participate in an assistance or education program[a]	Policy	8.5 4.4-15.7	7.1 2.9-16.5	9.9 3.2-26.5	8.8 1.8-33.1
Referred to legal authorities[acd]	Policy	10.9 6.8-17.1	7.0 3.0-15.4	20.2 10.6-35.1	4.1 0.5-27.3

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		SEM Level	All Schools	Rural/Town Schools	Suburban Schools	Urban Schools
			% 95% CI	% 95% CI	% 95% CI	% 95% CI
	Placed in detention[a], in-school suspension[a], or not allowed to participate in extracurricular activities or interscholastic sports[a]	Policy	1.1 0.3-4.3	1.2 0.2-8.4	1.7 0.3-10.3	0.0
	Suspended from school[a]	Policy	9.8 5.9-16.0	10.3 4.8-20.6	8.8 3.6-20.1	10.7 3.5-28.3
Dating Violence	A program to prevent dating violence[e]	School	13.3 10.9-16.1	14.6 11.0-19.1	14.0 9.8-19.6	11.0 7.0-16.9
Emotional, Behavioral, and Mental Health	Receive instruction on emotional and mental health[b]	Individual	62.6 57.5-67.4	68.7 61.0-75.4	60.3 49.5-70.2	57.6 48.9-65.8
	Obtain and keep emotional or mental health history[bd]	Individual	59.4 54.0-64.6	52.7 45.1-60.0	66.9 56.4-76.0	60.6 49.7-70.5
	Students screened for mental health problems[b]	Individual	8.5 5.9-12.1	5.0 2.0-11.8	9.5 5.2-16.7	11.8 6.9-19.3
	Crisis intervention for personal problems	School	84.2 79.2-88.1	86.3 79.8-90.0	82.8 73.1-89.5	82.9 71.3-90.5
	Counseling or Identification of emotional or behavioral disorders[g]	School	68.8 63.4-73.7	73.2 65.0-80.0	67.2 58.7-74.6	64.9 53.4-74.9
	Provide stress management	School	58.6 53.0-63.9	59.7 51.8-67.1	56.5 46.8-65.7	59.2 47.5-70.0
	Is there a part-time/full-time staff who provides standard mental health or social services to students?					
	School counselor[bd]	School	78.5 72.7-83.2	86.7 78.9-91.9	74.9 63.0-83.9	72.4 60.9-81.6
	school psychologist[bd]	School	56.2 49.7-62.5	50.0 41.2-58.7	61.7 49.8-72.4	58.1 44.5-70.6
	Social worker	School	45.3 38.3-52.5	46.8 35.9-58.1	44.7 32.6-57.5	44.1 31.8-57.2
	Private room for counseling students[c]	School	92.7 89.2-95.2	92.0 87.1-95.1	93.9 83.6-97.9	92.6 85.2-96.4
	Dedicated phone line, answering machine, or voice mail reserved for mental health or social services staff[c]	School	54.0 48.5-59.4	55.5 48.2-62.6	57.9 46.7-68.4	48.5 38.7-58.5
	Locked storage space for files related to mental health or social services	School	90.4 86.5-93.3	90.9 84.1-95.0	90.5 83.0-94.9	89.8 81.1-94.8
	Do mental health or social services staff provide:					
	Case management for students with emotional or behavioral problems[b]	School	81.9 77.1-85.9	86.6 80.1-91.2	82.1 73.1-88.6	76.2 65.5-84.3
	Group counseling or individual counseling	School	75.9 70.7-80.4	76.3 69.9-81.8	76.6 65.9-84.9	74.6 63.3-83.3

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		SEM Level	All Schools	Rural/Town Schools	Suburban Schools	Urban Schools
			% 95% CI	% 95% CI	% 95% CI	% 95% CI
	Comprehensive assessment or intake evaluation	School	66.5 60.8-71.8	67.9 59.9-75.0	63.9 53.4-73.1	67.2 55.0-77.4
	Self-help or support groups	School	52.4 47.4-57.4	51.9 44.4-59.2	57.7 48.8-66.1	48.2 38.7-57.8
	Crisis intervention for personal problems	School	82.8 75.9-88.0	78.1 66.0-86.8	80.6 65.8-90.0	91.1 81.0-96.1
	Identification of emotional or behavioral disorders[g]	School	73.8 65.9-80.4	77.4 65.5-86.1	72.1 54.9-84.6	69.7 54.4-81.6
	Counseling for emotional or behavioral disorders[g]	School	81.6 74.9-86.8	81.5 71.1-88.8	78.9 63.1-89.2	83.6 70.9-91.4
Gang Activity	A program to prevent gang violence[bc]	School	19.2 15.4-23.6	17.3 12.1-24.2	17.7 11.8-25.8	22.8 15.6-32.1
	Student handbook includes rules related to gang activity	Policy	62.9 57.0-68.5	65.3 56.3-73.4	61.1 48.2-72.7	61.6 51.7-70.7
	Policy prohibiting gang activity (e.g., recruiting or wearing gang colors, symbols or other gang attire)[b]	Policy	57.1 51.5-62.5	54.1 46.2-61.7	55.9 45.5-65.8	61.8 50.4-72.0
General Injury Prevention and Safety	Receive instruction on injury prevention and safety[c]	Individual	69.2 63.7-74.2	69.3 60.7-76.7	73.1 62.0-81.8	65.5 55.1-74.5
	Reviewed student injury reports to identify hazardous school areas or activities or ways to prevent injuries	School	68.5 63.0-73.5	63.7 55.9-70.9	70.6 60.6-79.0	72.3 60.4-81.7
	Provide injury prevention and safety counseling[b]	School	31.8 27.0-37.0	26.4 20.5-33.3	31.3 22.6-41.6	38.7 28.8-49.6
Physical Fighting	Almost always or always took specific actions for incidents of physically fighting:[f]					
	Referred to school counselor[a] or administrator[acd]	Policy	39.7 32.1-47.9	36.4 25.4-49.1	52.0 37.2-66.4	31.9 19.8-47.1
	Referred to peer mediation[a]	Policy	10.1 6.0-16.5	6.5 2.4-16.1	9.7 3.5-24.1	14.0 6.5-27.7
	Encouraged or required to participate in an assistance or education program[ac]	Policy	6.3 3.3-11.4	8.3 3.0-20.6	9.4 3.8-21.4	1.4 0.2-9.2
	Referred to legal authorities[a]	Policy	6.5 4.3-9.7	5.9 2.9-11.5	8.7 4.5-16.3	5.0 2.2-10.9
	Placed in detention[a], in-school suspension[a], or not allowed to participate in extracurricular activities or interscholastic sports[a]	Policy	4.9 2.7-8.9	7.4 3.5-15.1	1.2 0.2-5.2	5.8 1.9-16.1
	Suspended from school[ac]	Policy	37.8 31.2-45.0	49.0 36.6-61.4	41.9 32.5-52.0	22.7 13.1-36.6

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		SEM Level	All Schools	Rural/Town Schools	Suburban Schools	Urban Schools
			% 95% CI	% 95% CI	% 95% CI	% 95% CI
Suicide	Receive instruction on suicide prevention	Individual	39.1 34.5-43.9	42.9 35.5-50.6	37.4 28.7-46.9	36.3 28.3-45.0
	Provide suicide prevention services	School	79.1 73.6-83.7	80.5 72.4-86.7	74.3 64.0-82.5	82.9 69.4-91.2
	Have a program to prevent suicide[bc]	School	30.8 26.3-35.7	33.5 26.6-41.1	33.6 25.1-43.2	25.0 17.3-34.7
	A plan for the actions to be taken when a student at risk for suicide is identified	Policy	91.5 87.9-94.1	93.8 89.2-96.5	90.1 82.4-94.7	90.1 80.6-95.2
	Plan require that student be referred to a mental health provider[bd]	Policy	75.7 70.7-80.1	65.9 58.2-72.9	82.7 71.7-90.0	81.6 71.1-88.8
	Plan require that visit with a mental health provider be documented before return to school[cd]	Policy	53.1 47.0-59.1	48.0 39.4-56.8	63.7 50.7-74.9	49.6 38.3-61.0
Transportation Safety	Has maximum speed limit on streets that abut or are adjacent to school grounds:					
	15 mph or lower or 20 mph or 25 mph	Policy	76.4 71.3-80.8	76.6 68.9-82.9	76.3 67.0-83.5	76.2 64.9-84.7
	30 mph or 35 mph or higher	Policy	23.6 19.2-28.7	23.4 17.1-31.1	23.8 16.5-33.0	23.8 15.3-35.1
	Paid/volunteer crossing guards, to promote traffic safety[cd]	Policy	78.7 74.3-82.6	77.6 70.9-83.1	84.4 74.9-90.8	74.8 65.9-82.0
	Reduced speed limits during peak school travel times[bc]	Policy	68.1 62.6-73.2	70.0 62.1-76.9	71.4 60.6-80.2	62.9 51.3-73.3
Traumatic Brain Injury	Athletic trainer available	School	28.3 24.5-32.5	33.5 27.7-39.8	25.4 18.9-33.2	25.0 17.9-33.6
	Certified athletic trainers[bc]	School	47.3 40.9-53.8	51.8 42.3-61.2	52.0 39.4-64.3	36.4 24.6-50.0
	Student handbook includes rules related to playground safety[h]	Policy	84.6 77.5-89.7	83.7 74.3-90.1	89.7 76.5-95.8	81.5 64.8-91.3
	Handbook includes policies, regulations, rules, and enforcement for students who participate in interscholastic sports[bc]	Policy	78.6 73.5-82.9	84.2 77.1-89.4	77.2 66.1-85.4	72.0 61.3-80.6
	Require student athletes and their parents to review and sign a concussion information sheet before participation[abd]	Policy	31.9 25.7-38.7	20.5 13.0-30.7	40.7 27.7-55.2	40.5 28.6-53.7
	Establish criteria, including clearance by a healthcare provider after a suspected concussion[b]	Policy	94.8 89.77-97.4	97.3 91.4-99.2	94.1 81.4-98.3	91.5 75.7-97.4
	Head Coach has training on how to prevent, recognize, and respond to concussions among student athletes[bc]	Policy	80.4 74.1-85.5	89.3 80.9-94.3	78.0 63.1-88.1	69.7 56.3-80.5

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		SEM Level	All Schools	Rural/Town Schools	Suburban Schools	Urban Schools
			% 95% CI	% 95% CI	% 95% CI	% 95% CI
Violence Prevention	Receive instruction on Violence prevention[i]	Individual	77.3 72.5-81.5	77.5 69.5-83.9	79.6 71.0-86.2	74.9 64.8-82.8
	Violence prevention[i] services[b]	School	93.2 89.7-95.6	91.7 86.4-95.1	91.5 80.2-96.6	96.5 90.3-98.8
Weapons	Student handbook includes rules related to weapon possession or use	Policy	96.5 93.8-98.1-	95.8 89.9-98.3	98.2 94.5-99.4	95.9 90.0-98.5
	Almost always or always took specific actions for incidents using or possessing a weapon:[f]					
	Referred to school counselor[a] or administraton[a]	Policy	97.3 80.7-99.7	100	100	86.8 27.0-99.2
	Encouraged or required to participate in an assistance or education program[a]	Policy	21.1 8.8-42.5	13.7 4.0-86.1	28.3 8.5-62.6	11.9 7.5-70.5
	Referred to legal authorities[a]	Policy	49.9 30.3-69.5	56.6 24.1-84.3	46.0 17.7-77.2	49.9 10.9-89.0
	Placed in detention[a], in-school suspension[a], or not allowed to participate in extracurricular activities or interscholastic sports[a]	Policy	77.6 59.5-89.1	69.3 28.1-92.9	78.1 47.1-93.4	88.1 29.6-99.3
	Suspended from school[a]	Policy	82.8 58.9-94.2	71.3 18.5-96.5	82.3 39.5-97.1	100
	Posts signs marking a weapons-free school zone[d]	Policy	42.0 35.3-48.9	45.3 34.8-56.3	34.0 22.2-48.2	45.3 33.4-57.8

Note: CI=confidence interval; SEM=Social ecological model

[a]Percentages reported for this item reflect schools reporting “always or almost always” responses. All other percentages reported reflect schools reporting a “yes” response.

[b]Rural/town is statistically significantly different from urban based on t-test (p<.05)

[c]Urban is statistically significantly different from suburban based on t-test (p<.05)

[d]Rural/town is statistically significantly different from suburban based on t-test (p<.05)

[e]Among middle and high schools only

[f]Among schools that had 4 or more incidents during the school year

[g]Such as anxiety, depression, or ADHD

[h]Among elementary schools only

[i]Such as bullying, fighting, or dating violence prevention