Creating Safe School Environments in Colorado

Policymakers, educators and advocates have identified a need to increase school safety following several high-profile incidents of violence in U.S. schools. The Colorado Children's Campaign compiled existing research on strategies to create safer school environments that are supported by strong evidence.

What do we know about the safety of school environments in general?

- **The scope of school violence is broad, and overall, schools are safer than we might think.** National statistics demonstrate that school violence has decreased overall since the early 1990s.[1] The term "*school violence*" encompasses many types of violence including student victimization, violent deaths, bullying and weapons carrying, among others. Over the last three decades, U.S. public schools have seen significant decreases in the student victimization rate (instances of theft, violence or serious violence), the shares of students reporting being threatened with a weapon or reporting carrying a weapon at school, and the percentage of students reporting being in physical fights. The percentage of schools reporting incidents of crime occurring has also decreased each year, and data continue to show that the vast majority of homicides or suicides of school-age youth occur away from school.[2] **Despite these improvements, violence is still present in our public schools and can be very harmful to a student's environment.**

- **We know very little about school shooting events and how to stop them, though these events cause significant fear among children and parents.** More than half of American teens worry about a shooting happening in their school, as do a significant portion of U.S. parents.[3,4] While school shooting events are tragic and horrific, their prevalence on a population level is still very rare, making them difficult for researchers to study.

- **Certain experiences and exposures can make a young person more or less likely to engage in violent behavior.** A large body of research exists on the risk and protective factors associated with youth violence in schools, both at the individual and social levels.[5] Individually, students who experience **high emotional stress, low academic performance, being a bully or the victim of bullying, exposure to violence and anti-social attitudes** are at higher risk for violence; experiences that protect against violence and offset the impacts of violence risk factors include **positive social orientation and high educational aspirations.** At the peer level, **low commitment to school, social rejection and a lack of involvement in activities** are risk factors for violence; protective factors include **exposure to positive school climates and close relationships with peers.**

Which prevention strategies are effective in reducing school violence?

- **School violence prevention strategies that aim to mitigate violence risk factors and/or strengthen protective factors among students have shown promising results and require long-term investments.** The following prevention strategies are supported by research findings and align with expert recommendations from the Colorado School Safety Resource Center, the American Public Health Association, the National Association of School Psychologists, and the U.S. Federal Bureau of Investigation; these strategies are likely to have the strongest impacts and positively affect an entire student population of a school when used together.

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Prevention Strategy	What does the research say?
In-school mental health services and behavioral interventions	Research summaries and literature reviews from the last two decades have found that in-school mental health services and behavioral interventions (on the part of school counselors, psychologists, social workers and nurses, but also parents and other services in the community) can effectively respond to a variety of emotional and behavioral issues.[6,7,8] Specifically, intervention programs focusing on aggression have been shown to significantly decrease aggressive behaviors among students.[9]
Positive school climate	The school environment can play a significant role in setting the stage for safety.[10] Three national studies have demonstrated that schools with students who report feeling more connected to their school tend to have less disorder and violence.[11,12,13]
Positive behavioral interventions and supports	Positive Behavioral Interventions and Supports (PBIS) is a school-wide curriculum that explicitly teaches behavioral expectations to students.[14] In schools where the PBIS curriculum has been implemented, two studies found reductions in suspensions, discipline referrals, and bullying among students as reported by teachers.[15,16]
Threat assessment process	The Virginia Student Threat Assessment Guidelines is a school discipline model that recognizes student conflict early with the aim of de-escalation.[17] One study found that students at schools using the Virginia Student Threat Assessment Guidelines reported less bullying and more positive perceptions of school climate.[18] When examining students who made violent threats, those attending schools using this Virginia model were more likely to receive counseling and parent conferences.[19]

Are school resource officers (armed police in schools or "SROs") and physical security measures such as metal detectors effective in reducing school violence?

- **Research on the effectiveness of SROs in schools is limited; it finds mixed results as to whether SROs are associated with decreased school violence.[20]** Importantly, the majority of research on this intervention does not address school shootings. Some research has shown that an increased presence of SROs is associated with an increase in school-based arrests for minor misbehaviors, escalating matters of school discipline to matters for the criminal justice system.[21]

- **Research on the effectiveness of physical security measures in schools is extremely limited.[22]** There is no high-quality evidence on the impacts of the following interventions intended to address school violence: video cameras, entry control equipment, identification technology, communication technology and anonymous tip lines.[23] The few investigations into metal detectors find that they may discourage weapons carrying but have no clear effect on reducing violence.[24,25,26]

What do we know about school safety and recent investments in school safety in Colorado?

- **Colorado schools are already implementing some of these violence prevention strategies, but measures of implementation and effectiveness are still unclear.** Between 2009 and 2014, the Colorado Department of Education (CDE) trained 1,000 state schools in Positive Behavioral Interventions and Supports (PBIS).[27] Today, many school districts conduct their own threat assessment processes.[28] The state needs to collect data on how these violence prevention strategies are being implemented and whether they are

demonstrating effectiveness, especially with regard to threat assessment processes. An inventory of practices schools employ and their effectiveness would allow for more evidence-based policymaking in future years.

- **In the last few years the Colorado legislature has invested in several measures to improve school safety.** In the 2018 session, the budget was amended to address school safety with an additional $35 million in one-time funding. The funds were directed "to local school districts, BOCES, and public schools including charter schools to use for capital construction; assistance for physical security; communication improvements; the training of school personnel and school resource officers; and/or coordination with emergency response teams." Critical bills addressing school safety that passed in the 2019 legislative session include **HB19-1120** (Youth Mental Health Education and Suicide Prevention), **HB19-1017** (Kindergarten Through Fifth Grade Social And Emotional Health Act) and **SB19-010** (Professional Behavioral Health Services For Schools), all of which made investments in the mental and behavioral health of Colorado children.

- **There are some federal opportunities available**. CDE received a five-year School Climate Transformation Grant from the U.S. Department of Education to support the development of an integrated multi-tiered behavioral framework at the state, district and school level. Driven by the local needs of up to four local education providers, the Colorado School Climate Grant will meaningfully integrate and sustainably implement evidence-based climate improvement strategies, including Positive Behavioral Interventions and Supports (PBIS), dropout prevention as related to suicide prevention, behavioral health, substance abuse prevention, and trauma informed practices to effectively address several early warning indicators. The anticipated funding level is approximately $200,000 for the 2018-19 school year and $300,000 for the remaining four years of the grant.[29]

Best Practices

A joint statement including best practices and policy considerations for supporting school safety was published in 2015 by a coalition of education associations. *A Framework for Safe and Successful Schools* was coauthored by the National Association of School Resource Officers, the American School Counselor Association, the National Association of School Psychologists, the School Social Work Association of America, the National Association of Elementary School Principals, and the National Association of Secondary School Principals.[30] Recommendations from the report include:

1. Allow for **blended, flexible use of funding** streams in education and mental health services;
2. **Improve staffing ratios** to allow for the delivery of a full range of services and effective school–community partnerships;
3. **Develop evidence-based standards** for district-level policies to promote **effective school discipline and positive behavior**;
4. Fund continuous and sustainable crisis and **emergency preparedness, response, and recovery planning** and training that uses evidence-based models;
5. Provide incentives for **intra- and interagency collaboration**; and
6. Use **multi-tiered systems of support (MTSS).** Colorado defines MTSS as "a prevention-based framework of team-driven, data-based problem solving for improving the outcomes of every student...through a layered continuum of evidence-based practices."[31]

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1. What are the root causes of youth violence?

Certain experiences and exposures can make a young person more or less likely to engage in violent behavior. A large body of research exists on the risk factors associated with youth violence as well as the protective factors which protect against a young person engaging in violent behavior.

It is important to remember that while risk and protective factors help us to understand the relative *likelihood* of a child experiencing an outcome, the factors themselves are not predictive; that is, a child who experiences one or more risk factors for youth violence is not certain to engage in violent behavior. The following risk and protective factors have been established by the Centers for Disease Control, the Office of the Surgeon General, the Department of Justice, and findings from the National Longitudinal Study of Adolescent Health:

Factors in bold have been established by more than one source

| Domain	Youth Violence Risk Factors	Youth Violence Protective Factors
Individual	• **History of violent victimization**, exposure to violence in the family, exposure to television violence, **early aggressive behavior,** aggression (males), crimes against people, **physical violence, weapons carrying** • **Attention deficits, hyperactivity**, or learning disorders, poor behavioral control, **restlessness**, **risk-taking**, **antisocial beliefs and attitudes**, dishonesty (males) • Low IQ, deficits in social cognitive or information-processing abilities • High emotional distress, history of treatment for emotional problems, psychological condition • **Substance use** • Being male	• High IQ, **high grade point average (as an indicator of high academic achievement),** high educational aspirations, highly developed skills for realistic planning • Highly developed social skills/competencies, positive social orientation, popularity acknowledged by peers • **Religious beliefs** • Intolerant attitude toward deviance • Being female
Family	• Authoritarian childrearing attitudes, **abuse**, neglect, harsh, relaxed, or inconsistent disciplinary practices, **poor monitoring and supervision of children**, **poor family functioning, family conflict** • **Low parental involvement, separation from parents,** low emotional attachment to parents or caregivers, • Low parental education and income • Parental substance abuse or **criminality**	• Parental monitoring, consistent presence of parent during at least one of the following: when awakening, when arriving home from school, at evening mealtime, or when going to bed, parental/family use of constructive strategies for coping with problems • **Connectedness to family or adults outside the family,** ability to discuss problems with parents, frequent shared activities with parents • **Perceived parental expectations about school performance are high** • Involvement in social activities

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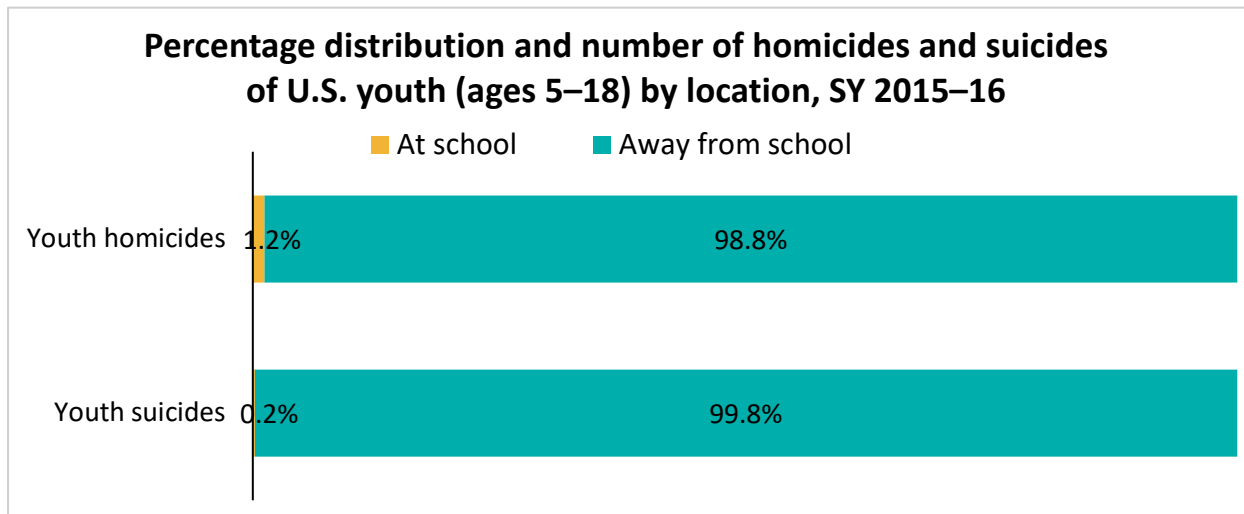|		
School, Peer & Social	- Social rejection by peers, weak social ties **Association with delinquent/antisocial peers, involvement in gangs,** delinquent siblings - Lack of involvement in conventional activities **Poor academic performance, low commitment to school, school failure** - Truancy and dropping out, frequent school transitions	- Possession of affective relationships with those at school that are strong, close, and pro-socially oriented, close relationships with non-deviant peers, membership in peer groups that do not condone antisocial behavior **Investment in school and in doing well in school** - Involvement in prosocial activities, recognition for involvement in activities - Exposure to school climates with the following characteristics: intensive supervision, clear behavior rules, consistent negative reinforcement of aggression, engagement of parents and teachers
Community	- Diminished economic opportunities, **high concentrations of low income residents,** high level of transiency, high level of family disruption **Neighborhood crime,** drugs - Low levels of community participation, **socially disorganized neighborhoods** - Availability of drugs and firearms - Exposure to violence and racial prejudice	
Sources	Centers for Disease Control, National Center for Injury Prevention and Control, Division of Violence Prevention. (2019). *Youth violence: risk and protective factors.* Retrieved from: https://www.cdc.gov/violenceprevention/youthviolence/riskprotectivefactors.html Office of the Surgeon General, National Center for Injury Prevention and Control, National Institute of Mental Health, Center for Mental Health Services. (2001). *Youth violence: a report of the Surgeon General*. Rockville, MD: Office of the Surgeon General. Resnick, M., Ireland, M., & Borowsky, I. (2004). Youth violence perpetration: what protects? What predicts? Findings from the National Longitudinal Study of Adolescent Health. *Journal of Adolescent Health*, *35*(5), 424.e1-424.e10. Hawkins, J.D., Herrenkohl, T.I., Farrington, D.P., Brewer, D., Catalano, R.F., Harachi, T.W. & Cothern, L. (2000). *Predictors of youth violence.* U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention. Juvenile Justice Bulletin April 2000.	

2. Are youth more likely to die on school grounds today than they have been in the past?

Kids are safer at school today than they have been in the past, and homicides at school remain very rare. However, limited research on mass shooting incidents suggests educational settings are a common location for these events.

There are fewer kids dying on school grounds today than there were in the 1990s, and the vast majority of youth homicides and suicides continue to take place away from school.[1,2,3] There has also been a significant decrease in the rate of nonfatal violent victimizations of students taking place at school (violent episodes which do not result in death).[4]

**Homicides of youth (ages 5-18) at U.S. schools,
SY 1992-93 through SY 2015-16**
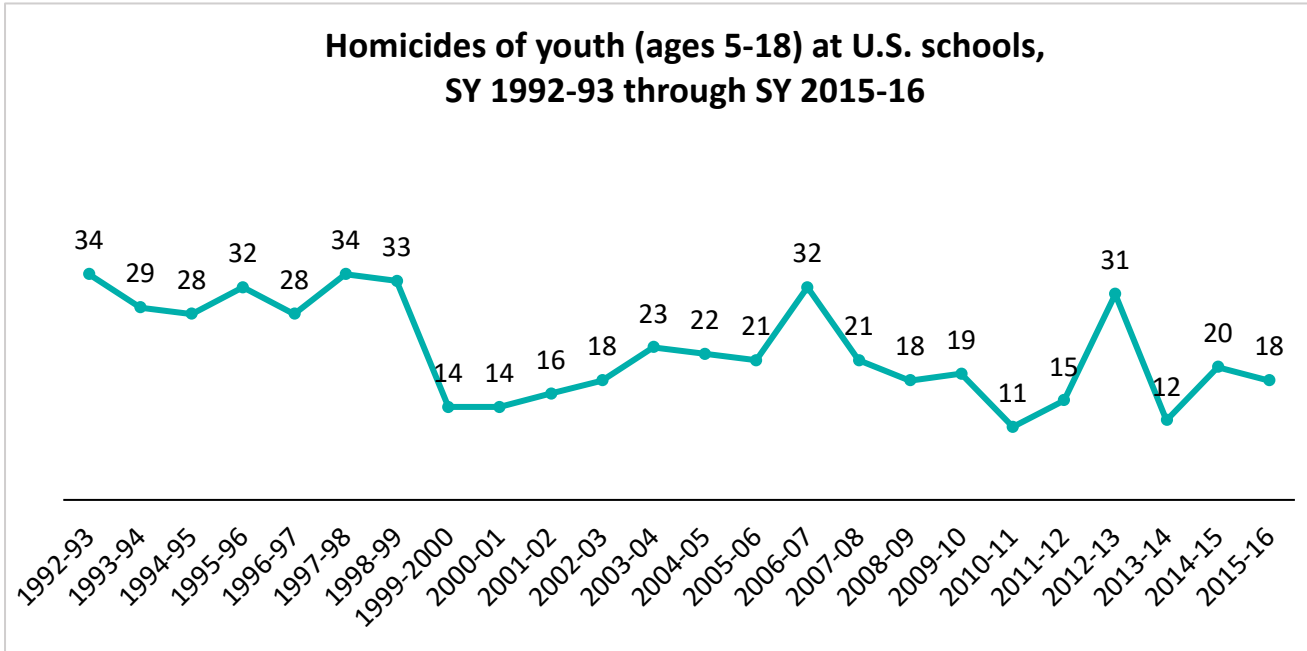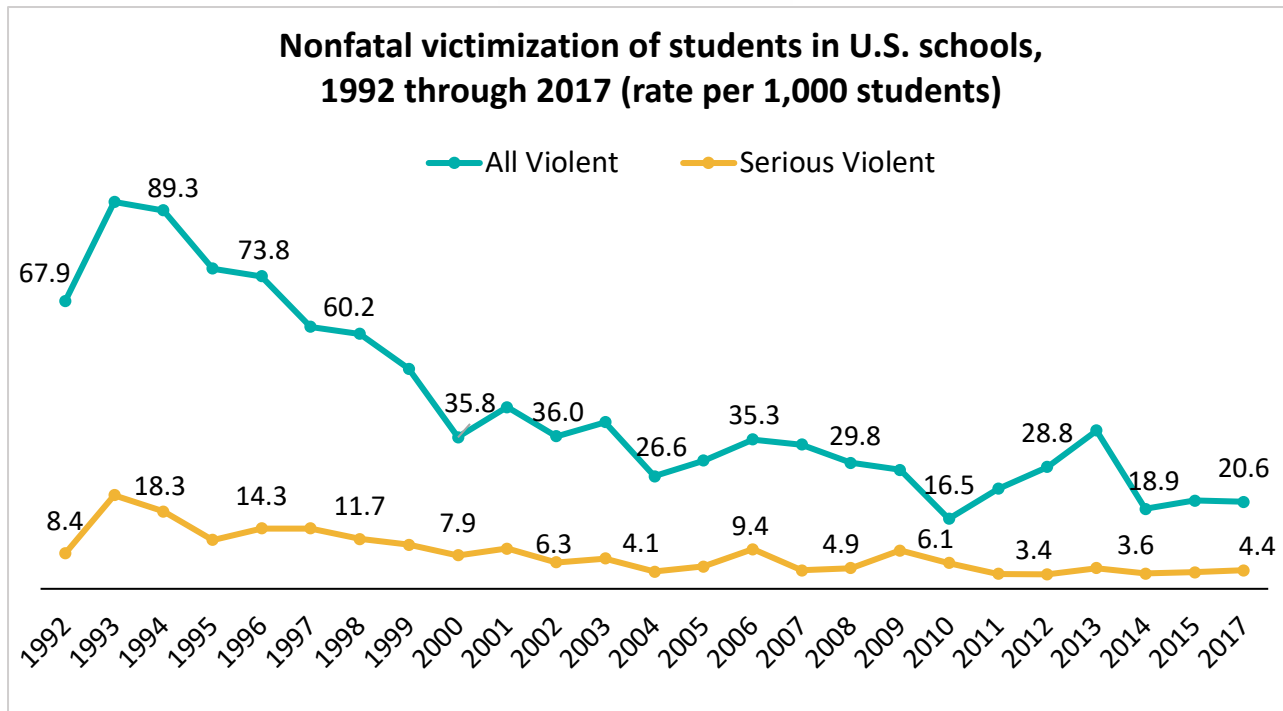

Source: Centers for Disease Control and Prevention (CDC), 1992-2016 School-Associated Violent Death Surveillance System (SAVD-SS).
"At school" includes on the property of a functioning elementary or secondary school, on the way to or from regular sessions at school, and while attending or traveling to or from a school-sponsored event.

**Percentage distribution and number of homicides and suicides
of U.S. youth (ages 5–18) by location, SY 2015–16**

■ At school ■ Away from school

Youth homicides 1.2% 98.8%

Youth suicides 0.2% 99.8%

Sources: Centers for Disease Control and Prevention (CDC), 2016 School-Associated Violent Death Surveillance System (SAVD-SS),
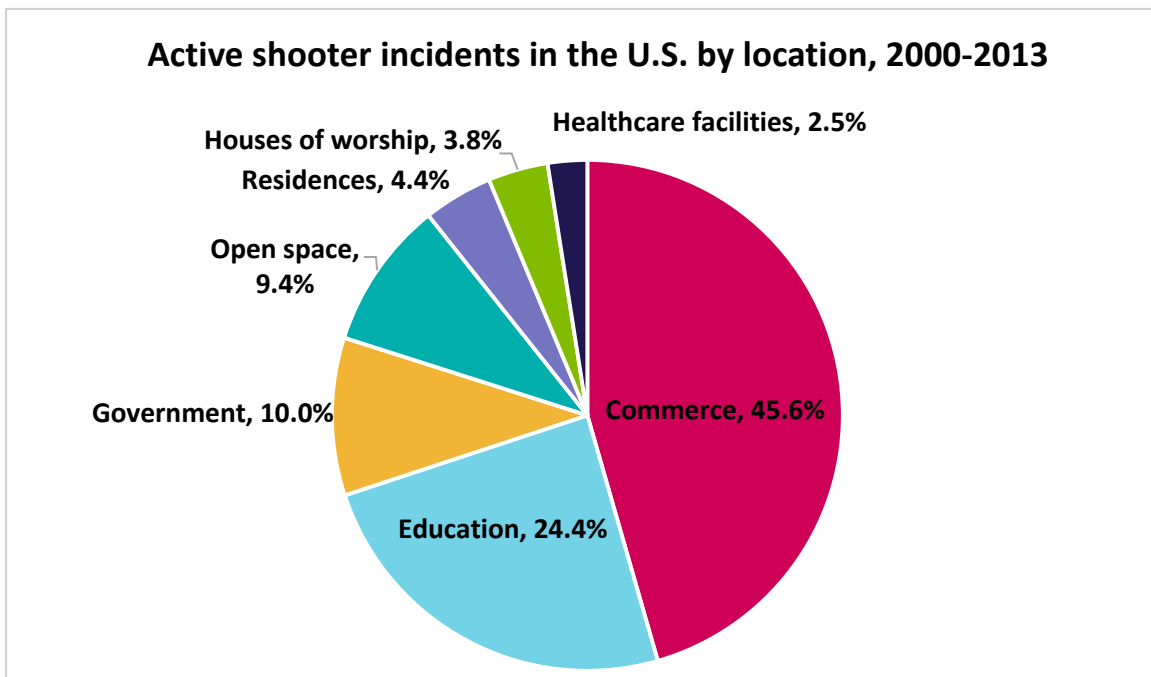CDC National Center for Health Statistics, 2016 National Vital Statistics System (NVSS).

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Nonfatal victimization of students in U.S. schools, 1992 through 2017 (rate per 1,000 students)

All Violent   Serious Violent

All Violent values: 67.9, 89.3, 73.8, 60.2, 35.8, 36.0, 26.6, 35.3, 29.8, 16.5, 28.8, 18.9, 20.6

Serious Violent values: 8.4, 18.3, 14.3, 11.7, 7.9, 6.3, 4.1, 9.4, 4.9, 6.1, 3.4, 3.6, 4.4

Years: 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2017

Source: National Center for Education Statistics (NCES), 2018 Digest of Education Statistics Table 228.20.
Due to a sample increase and redesign in 2016, victimization estimates in 2016 were not comparable to estimates for other years.

Limited research from the Federal Bureau of Investigation suggests that educational settings (including K-12 schools, school board meetings, and institutions of higher education) experienced nearly a quarter of mass shooting events between 2000 and 2013.[5,6]

Active shooter incidents in the U.S. by location, 2000-2013

- Healthcare facilities, 2.5%
- Houses of worship, 3.8%
- Residences, 4.4%
- Open space, 9.4%
- Government, 10.0%
- Commerce, 45.6%
- Education, 24.4%

Source: U.S. Department of Justice, Federal Bureau of Investigation.

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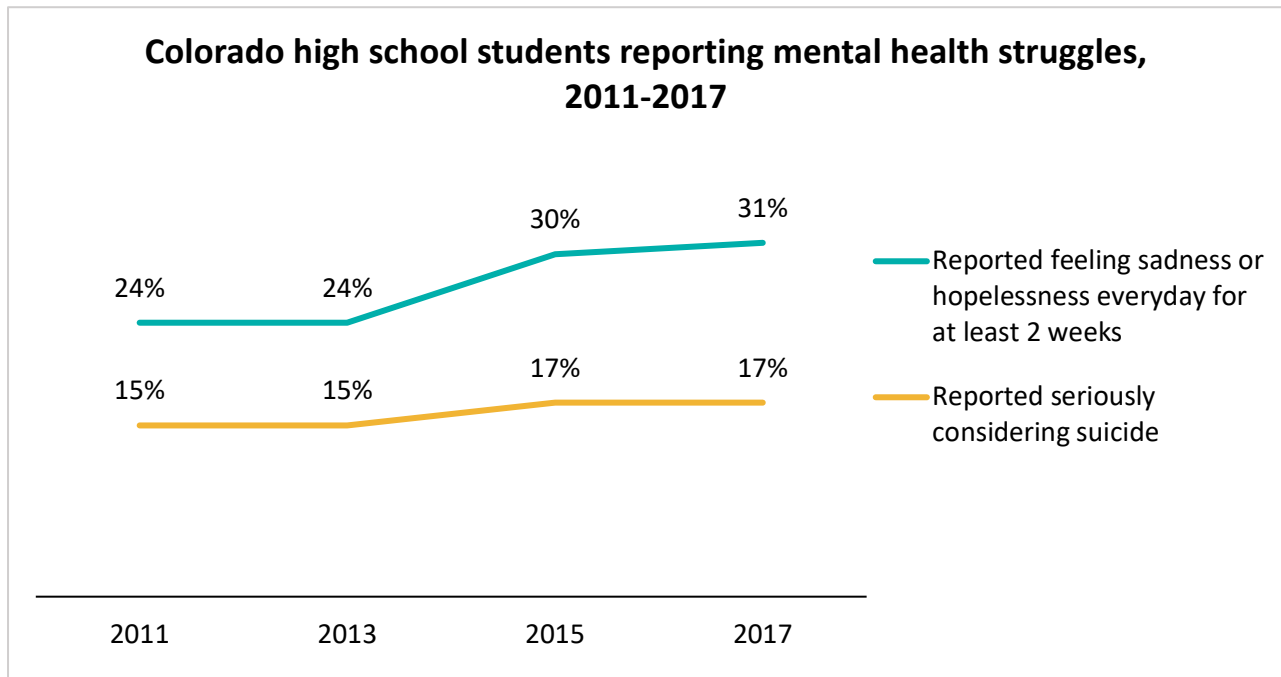Leslie Colwell, Vice President, Education Initiatives: 202.641.0865

These data indicate that students are seeing less violence in American schools overall, and school settings do not significantly contribute to youth homicides. At the same time, when mass shooting incidents occur, educational settings appear to be a common location.

3. Is there evidence of suicidal ideation among school shooters? Could suicide prevention programming serve as a strategy to reach youth who might potentially become violent?

We do not have enough high quality evidence to understand suicidality among young people who commit mass shootings; however, we do have evidence that a significant portion of Colorado's young people deal with suicidal ideation. Some of the risk factors for youth violence are also risk factors for youth suicide (peer rejection, failure in school, abuse, family conflicts, etc.)[7,8] and therefore programming that targets these risk factors would likely serve both kids who are having suicidal thoughts and kids who are at increased risk of committing violence.

Research on youth who commit mass shootings is extremely limited; the population is considered tiny and the information that can be obtained about a shooter after the fact varies widely. Limited evidence from qualitative case studies have found that a diagnosis of mental illness was present among some of the shooters who have been studied.[9,10] While the picture of suicidality among young people who commit mass violence is likely to remain unclear, we do know that overall, many Colorado teens struggle with depression and suicidal ideation. Symptoms of clinical depression and the consideration of suicide has risen significantly among Colorado high school students in the last decade.[11]

Colorado high school students reporting mental health struggles, 2011-2017

Year	Reported feeling sadness or hopelessness everyday for at least 2 weeks	Reported seriously considering suicide
2011	24%	15%
2013	24%	15%
2015	30%	17%
2017	31%	17%

Source: Colorado Department of Public Health and Environment (CDPHE), Healthy Kids Colorado Survey Summary Tables.

We do not have empirical evidence to ensure that young people at risk of committing acts of mass violence would be prevented from committing an attack by suicide prevention programming. However, suicide prevention programming is likely to serve a significant portion of Colorado youth who need support, including young people who are at increased risk for committing acts of violence.

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4. Is there research into the effectiveness of arming teachers, staff, administrators, etc.?

Currently there is no empirical evidence on the effect of arming teachers in school settings on school violence.[12] More broadly, recent research has found that the access to and possession of a gun is not associated with protection from harm, and that using a gun in self-defense is rare and fails to be more effective than other protective measures.[13,14]

5. Is there research into the effectiveness of active shooter trainings for both teachers and students?

Currently there is no empirical evidence on the effect of active shooter trainings for both teachers and students on school violence; there is some concern among experts that these drills can be traumatizing or increase anxiety.[15,16]

6. Is there research on the role of social media and its impact on youth mental health?

Research on the impact of social media use on child wellbeing is just beginning to emerge. Thus far, studies have found mixed effects of social media use on adolescent mental health and depressive symptoms. [17,18,19]

Online settings may serve as additional settings for the instigation of youth violence and cyberbullying, and these relational dynamics between young people may carry into real world settings.[20] Cyberbullying specifically appears to be associated with depression.[21] However, public health researchers also see social media as a potential tool for delivering health education and intervention to many populations, especially adolescents.

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