RAPID HEALTH IMPACT ASSESSMENT:

The Safe and Supportive Minnesota Schools Act

HF0826 | SF0783

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This report refers to the third unofficial engrossment of bill HF0826 which was amended March 11, 2014. The text of the bill can be found at http://goo.gl/5z75RP.

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1. EXECUTIVE SUMMARY

In 2010, 53% of Minnesota 6th graders were bullied at least once a month; 4.5% were bullied daily. Bullying has acute and chronic impacts on the health and wellbeing of all students involved, including the bully, victim, and bystanders. These outcomes in school carry into adulthood, leading to increased risk of poverty, poor social relationships, worse physical and mental health, and engagement in risky or illegal behaviors (see sidebar).

The Safe and Supportive Minnesota Schools Act (HF826/SF783) would replace the current 37-word school bullying law with one that would:

- clearly define bullying and the scope of situations to which a school's policy would apply, including cyberbullying.
- require school districts to implement policies that include teacher training; best practices for identifying, preventing, and responding to incidents; prompt investigation of reports of bullying; and encourages programming for students.
- identify 18 characteristics that may be targeted by bullies, including race, religion, gender identify, and physical appearance.
- establish a School Climate Center to serve as a resource to schools, and a School Climate Council would seek the guidance of various stakeholders.

This bill would offer moderate improvements over the Minnesota School Board Association's model policy, currently implemented in 75% of schools. However, even modest reductions in bullying would have a large impact on the health of students. To further increase the impact this bill can have, competitive grants should be available to support schools who wish to implement prevention programs that engage with students to prevent bullying. Significant challenges remain, such as helping teachers distinguish between bullying (victimization) and conflict. Decision makers should continue to engage with parents, teachers, school administrators, researchers, and most importantly, students.

RECOMMENDATIONS

- 1. Offer schools a competitive grant to implement programs that engage students to prevent bullying.
- 2. Pass the Safe and Supportive Minnesota Schools Act.
- 3. Avoid future policies and guidelines that criminalize bullying, but recognize that it is much more than just "kids being kids."

By the age of 25, students involved in bullying have significantly worse health compared to their peers.

Compared to noninvolved students, **bullies** have...

the risk of being involved in a violent relationship;

over **TWICE** the risk of a **felony conviction.**

Victims have...

the risk of having an anxiety disorder;

and **TWICE** the risk of living in **poverty** or having **low job security**.

And bully-victims have the worst outcomes of all:

6x the odds of smoking or having a serious illness;

three times as likely to not graduate from high school;

and **14.5 times** the odds of having a panic disorder.

2. Introduction and Background

This report will assess the prevalence and severity of bullying, identify the health impacts on students involved, and consider the potential impact on health of the proposed legislation, the Safe and Supportive Minnesota Schools Act (HF826/SF783). Finally, recommendations are made for both the bill's language, passage, and implementation.

2.1 Rapid Health Impact Assessment

A Health Impact Assessment (HIA) is a tool for analyzing policies through a health perspective. Through its systematic methodology, an HIA uses multiple types of sources, including research, policy briefs, stories, interviews, and cost-benefit analysis to examine the mechanisms through which a policy can influence health when those linkages are not readily apparent. While an HIA can be used for advocacy purposes, it can also be used as an objective research tool. Here I have adopted the latter approach, as I believe an objective process ensures an objective conclusion.

An HIA can take many forms, from comprehensive HIAs with community advisory boards to rapid or mini HIAs that can be completed with fewer resources. In this case, a rapid HIA was identified as most appropriate given the limited time between legislative sessions. At its core are six steps: screening, scoping, assessment, recommendations, reporting, and monitoring/evaluation. The first step, screening, establishes whether an HIA is feasible and will contribute meaningfully to the decision-making process. This HIA adds value to the present discussion by broadening the scope of health outcomes impacted by bullying and outlining challenges and opportunities to the implementation of the bill. Newly available data from the 2013 Minnesota Student Survey and the first longitudinal cohort study greatly improved the feasibility.

2.2 The Safe and Supportive Minnesota Schools Act

The Safe and Supportive Minnesota Schools Act (HF826/SF783, or Safe Schools Act) would replace Minnesota's current school anti-bullying law. At just thirty-seven words, the current law has been identified as one of the weakest in the country, failing to define bullying, the scope of a school's responsibility, or provide evidence-based resources:

121A.0695 SCHOOL BOARD POLICY; PROHIBITING INTIMIDATION AND BULLYING. Each school board shall adopt a written policy prohibiting intimidation and bullying of any student. The policy shall address intimidation and bullying in all forms, including, but not limited to, electronic forms and forms involving Internet use.

2.3 Definition of Bullying

Most research literature identifies three key components of bullying. First, bullying is aggressive or intended to harm another individual. This component is intentionally broad in order to include physical aggression, verbal harassment (e.g. teasing or spreading rumors), and social exclusion. These behaviors can occur in-person or online, known as cyberbullying. Second, bullying behaviors are carried out repeatedly or with the threat of reoccurrence over time, meaning that bullying is both acute and chronic. Finally, bullying can be differentiated from conflict (or more colloquially, drama) by the presence of a power differential between the bully and victim.







The Safe and Supportive Minnesota Schools Act defines bullying as:

- "...intimidating, threatening, abusive, or harming conduct that is objectively offensive and:
 - there is an actual or perceived imbalance of power between the student engaging in prohibited conduct and the target of the behavior and the conduct is repeated or forms a pattern; or
 - (2) materially and substantially interferes with a student's educational opportunities or performance or ability to participate in school functions or activities or receive school benefits, services, or privileges," (Sec. 2, Subd. 2 (e)).

"Intimidating, threatening, abusive, or harming conduct may involve, but is not limited to, conduct that causes physical harm to a student or a student's property or causes a student to be in reasonable fear of harm to person or property; under Minnesota common law, violates a student's reasonable expectation of privacy, defames a student, or constitutes intentional infliction of emotional distress against a student..." (Sec. 2, Subd. 2 (g)).

This definition is largely in-line with that of research. The requirement of repeated conduct and the formation of a pattern is debated in research literature, with more recent definitions including the *threat* of repeated behavior. This nuance recognizes that the harms of bullying are not just from physical acts but from the stress and fear of those acts. However, the definition under (2) allows for single incidents to be considered bullying. The bill also defines and includes cyberbullying in its definition of prohibited conduct. The central challenge concerning the definition of bullying is to help school teachers and administrators correctly identify what bullying looks like and how it is differentiated from conflict.

2.4 Historical & Political Context

Many of the conversations surrounding bullying focus on its role in teen suicide. The first link can be traced back to 1897 when Durkheim, the father of sociological research, hypothesized that suicide rates are inversely correlated with social inclusion [1]. While it is true that bullying and suicide share many risk factors, such as depression, internalizing problems, and social isolation [2], Dr. Phyllis Brashler of the Minnesota Department of Health emphasizes that a causal link has not been proven [3]. For example, one longitudinal study of Finnish adolescents found an association between bullying and suicide, but it was largely explained by

^{*} This and all subsequent comics: Watterson, Bill. The Complete Calvin and Hobbes. Vol. 1. Andrews McMeel Publishing, 2005.

depression and conduct disorders; only in frequently victimized females did the association remain after adjustment, although the small sample size precludes generalizations [4]. Such an oversimplification of an extremely complex problem can be problematic in its own right, establishing a perceived normative behavior for those who are bullied. This is not to suggest that bullying is harmless; saying bullying is not causally related to suicide should not diminish the tragedy of teen suicide (43 of them in Minnesota in 2011 [5]) or the important role that bullying can play. Bullying can contribute to suicidal ideation [3], [4], and its prevention may play a key role in reducing teen suicides.

Despite these numerous heart-breaking stories of teen suicide (see [6]), some people argue that these events are extreme and rare outcomes of an otherwise benign issue. In 2006, Minnesota representative Michele Bachmann told the state legislature,

"I think for all of us, our experience in public schools is there have always been bullies. ... Always have been, always will be," [7].

Inherent in the viewpoint that bullying is a right of passage lies the implication that only those students who we see in the evening news are affected. Still others demand that school districts take bullying more seriously:

"Schools are saying there isn't an issue and [bullying] doesn't exist. It is time for school systems to admit there is an issue." [8]

"Today, I brought my daughter home from school AGAIN because the anxiety that is so overwhelming that she becomes physically ill. She is being bullied by a 14 year old girl who we have a harassment order issued against. This girl has threatened my daughter in front of school officials and a police officer. Twice my daughter has been assaulted by friends of this girl, on her direction. My heart breaks to watch my daughter turn her cheek, follow through on the legal process and school procedures only to be bullied more for not being tough, being a snitch and a host of truly vitriol names/words that we wouldn't even have known when I was her age. How do I keep telling her to do the right thing, not be scared and go to school when we, as adults, can not take action to make sure laws are passed to protect all kids..." -Trish, MPR News commenter [9].

3. SCOPING

This step examines the groups affected by bullying, the range of health outcomes they experience, and the pathways through which bullying affects health.

3.1 Who is affected?

Bullying is a social and relational issue. While the aggression occurs between two principle individuals, the bullying act must be understood in a social environment with multiple actors. In the US, approximately 30% of students are directly involved in bullying [10]. It is also important to note that these roles can be highly unstable. Rates of victimization can vary depending on one's relative age within a school and transitions to different schools. Additionally, 6% of victims become bullies three years later, and 9% of bullies become victims [11]. This instability points to the importance of the dynamic social context.

Bully

The bully is the main aggressor. Traditionally bullies were thought to lack social skills, but evidence suggests that instead they lack empathy [10]. In fact, many forms of bullying require sophisticated social skills and an understanding of complex social dynamics. It is important to many bullies to be visible, influential, and admired [11]. To them, bullying is a strategy to gain and maintain a dominant position within their group. Among 6th to 10th graders in the US, 13% of students were bullies [10]. In Minnesota, 6-9% of 6th graders bully other students at least once a week [12].



Victim

In contrast with the social skills of bullies, victims are often described as insecure and lacking confidence in social interactions. If bullies are motivated by social hierarchies, they must choose victims outside their peer group who will be less likely to be defended. Any individual condition or characteristic that marginalizes a youth's social status increases their risk of being bullied. Four of the most common examples include obesity, off-time pubertal maturation, disabilities, and LGBT status [11]. In Minnesota, 9% of 8th graders are bullied at least once a month for their actual or perceived sexual orientation; 27% are bullied monthly for their weight or physical appearance, including 9% of students who are bullied weekly or daily [12]. More diverse schools prevent a particular group from dominating, instead sharing the power among multiple groups and reducing the incidence of bullying [11]. Adolescents with depression have difficulty forming friendships, increasing their risk of being bullied. Conversely, even having a single friend can protect against being bullied. Seventeen to 19 percent of Minnesota 6th graders are bullied at least weekly [12], but the prevalence among marginalized students may be three times higher [13].

Student Story: Lee [52]

"I've almost lost one of my best friends yesterday. Because he tried to commit suicide at school. All because he was targeted on the cheer team for being gay. He was picked on so much even though he was one of the most sweetiest kids I've ever met in my life. It's crossed the line because I don't see anyone trying to do something..... [sic]"

Bully-victim

Just as bullies often operate at the top of a social hierarchy [11], victims wishing to reestablish their social position may bully other students. The most extreme and frightening example of this bully-victim behavior is school shootings, where 71% of perpetrators were victims of bullying [10]. The mental processes of students contemplating school shootings are complex

and beyond the scope of this report; just as with suicide, there is no causal link between bullying and school shootings. However it is worth noting the important role of power imbalances in both bullying and the threat of a firearm. Bully-victims typically have the worst health and social outcomes and appear to be at the highest risk for suicide-related behaviors [11]. About 6% of students in the US are bully-victims [10].

Bystander

The effects of bullying go beyond the bully and the victim. Observers of the aggression alter their behavior in order to not become a victim themselves. Olweus described the various roles bystanders can take using the "Bullying Circle" (Figure 1). Bystanders who support and defend the victim may use group psychology to actively stop bullying. These students have high resistance to victimization and perceive their peers to look favorably on defender behavior [10] [14]. Disengaged onlookers may actively avoid bullying situations or deny their existence, or at least their personal responsibility to intervene [14]. Finally, followers and supporters ally themselves with bullies either as passive followers or active reinforcers of aggression [15].

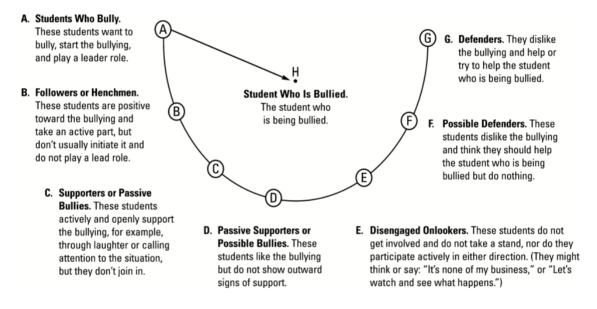


Figure 1 Olweus (2010) described bystanders through what he called the "Bullying Circle." Such attention to the various roles bystanders can play emphasizes the impact that bullying can have on an entire student body, as well as the opportunities to work through bystanders to prevent bullying incidents.

3.2 Forms of Bullying

Bullying can be classified as either direct or indirect. Direct forms of bullying include physical aggression, threats, and name-calling in order to belittle, humiliate, or intimidate someone. Indirect forms include spreading rumors, social exclusion, and other forms of relational manipulation in order to damage one's social status [11]. Boys are more likely to engage in direct forms of bullying, but both sexes are equally likely to engage in indirect forms. Overt physical aggression becomes less socially acceptable with age, leading older adolescents to almost exclusively engage in indirect forms of bullying [11].

Student Story: Katie P. [53]

"It started at the end of 8th grade when I was on facebook and I started receiving threats from a girl who I had no idea was and she kept saying that she was going to come to my house and beat me up and all these horrible things. She didn' even go to my school bu was still afraid she would show u to my school. I blocked her... then two of her friends started threatening me... They said that if I told my parents they would get their "gang" to come teach me a lesson, and of course that scared me even more... Not only could I not tell my parents but if I told any of my friends what happened they would make fun of me and call me weak. Then one day I was at the park and three girls came walking my way. At this point I knew who they were and what was going to happen. I started walking another direction but they caught up to me. I was helpless.... She pulled me by my hair and slammed my head into the ground an after tha happene jus let her d whatever sh wanted. was bruised, sprained, and concussed. And you want to know the worst part? It was all on video.... It was recorded and everyone just watched. It was found on youtube and many people at my school laughed at me because of it. It was the most painful thing I have ever experienced and I am not talking about the physical abuse I was s hurt insid that no on did a thing." [sic]

Cyberbullying occurs through electronic communication, including text messaging and online in forums, social networking sites, and instant messaging. Just as with traditional bullying, cyberbullying can take both direct and indirect forms. However, there are key differences that make cyberbullying especially harmful. First, students who bully in-person receive visual feedback through body language and facial expressions about the harm they are doing to the victim. These cues may invoke feelings of empathy in contrast with the positive feedback received from the bully's peer group. This cognitive dissonance may encourage a bully to reconsider their actions. Online, this instant visual feedback is absent. Instead, a bully is only left with the satisfaction of committing the act without having to consider the consequences. Second, cyberbullying can occur anonymously, reducing the social risks. Third, cyberbullying is constant. Victims of traditional bullying can return home to a safe place, but today's adolescents are constantly connected by cell phones, social networking sites, and instant messaging. Most 6th graders in Minnesota spend at least an hour a day online (62-74%) or talking or texting on the phone (58-74%) [12]. Online communities can offer support (see "It Gets Better" campaign), but they also provide bullies with the opportunity to victimize students constantly, even if the victim moves or changes schools. Fourth, cyberbullying spreads quickly to many individuals and can be difficult if not impossible to remove.

3.3 Health Outcomes

The harm to children's health comes not just from the act of being pushed around on the playground, but by the *threat* of being bullied. This stress can be both chronic and acute and deleteriously affects many aspects of an individual's life for years to come.

Student Story: Jacklyn [51]

I tried to smile through the pain and go on with my life but over time it took a serious toll on me. I began feeling sick and anxious a the thought of going to school. lost interest in everything. felt so ugly, worthless, hopeless, and sad. Wha should have bee fun, happy years of my life, were tainted by viciou kids.

This bullying affected EVERYTHING. From doing poorly on my SAT's and not gaining admittance to college post high school, to paranoia-anxiety disorder, to poor relationship and friendship choices . . . the list goes on. I allowed myself to be their victim, I let them win.

At the age of 28 I took a stand for myself to fight back. After reflecting on my early 20's and taking stock of my choices in life, I realized that I was STILL allowing people to use me, abuse me, and take me for granted.

Eating Disorders

Sixty-three percent of overweight adolescent girls report being teased about their weight compared to 21% of average weight girls [16]. It is important to note that both these numbers are high, reflecting the significant risk of disordered eating faced by all adolescents and especially females. One study showed that males who are bullied about their weight are more likely to binge eat with a loss of control or engage in other unhealthy weight-control behaviors. Females who were teased about their weight were more likely to become frequent dieters [17]. This association is bi-directional, meaning that bullying can contribute to eating disorders, but having an eating disorder can also lead to being bullied. In Minnesota, 27% of all 8th graders are bullied at least once a month because of their weight or physical appearance [12].

Data from the First Prospective Longitudinal Cohort

The best evidence we have on the long-term impact of bullying comes from a recently published study that followed 1,420 children in North Carolina aged 9, 11, and 13 until the age of 25 [18][19]. The researchers assessed the children each year until the age of 16 for direct involvement with bullying. During the follow-up in young adulthood, they looked at the students' health, wealth, social relationships, engagement in risky or illegal behaviors, and psychiatric consequences (see tables 1.1-1.3):

Anxiety & Mental Health

After accounting for childhood psychiatric disorders and family hardship[†], victims of bullying are 3 to 4 times more likely to have anxiety disorders compared to those not directly involved in bullying. Bullies are 4 times more likely to have antisocial personality disorder, and bully-victims are almost 5 times more likely to have depressive disorders and 14.5 times as likely to

[†] For subsequent health outcomes, the unadjusted values are reported. If, for example, a student has a conduct disorder, does that influence the child to bully, influence the child's smoking status as an adult, or both? Alternatively, is it the environment, not the individuals involved, that influences bullying? Because the answer is unclear, adjusting for it may mask the actual effect. Here, unadjusted values (except for *Anxiety & Mental Health*) are reported because even if it is the case that the conduct disorder influences smoking status, bullying is still an important marker that can help school staff identify children that require support. After adjusting, the previously cited study found that the outcomes for bullies were no longer significant, victims still had worse health, wealth, and social outcomes, and bully-victims still had worse health, wealth, social outcomes and engaged in risky or illegal behavior.

have panic disorders. Male bully-victims had 18.5 times the odds for suicidality, and females had 26.7 times the odds for agoraphobia (fear of crowded or enclosed spaces).

Another study found that some former victims of bullying displayed post-traumatic stress disorder-like symptoms. For example, 26% of former victims of homophobic bullying continue to be distressed by recollections of being bullied, and 9% reported experiencing flashbacks [14]. Other commonly reported physical manifestations of stress from bullying include headaches, colds, sleep disturbances, abdominal pain, and fatigue [20].

Table 1.1 Health impacts on bullies [19,20]				
		Strength of		
Health Determinant	Magnitude	Evidence		
Health				
Regular smoking	2.16	••00		
Non-substance psychiatric disorder	2.28	••00		
Wealth				
No college education	2.12	••00		
Dismissal from a job	2.49	••00		
Quitting multiple jobs	3.51	••00		
Failure to honor financial obligations	3.66	••00		
Risky Behaviors				
Official felony charge	2.63			
Breaking into a home, office, or property	4.28			
Frequently drunk	3.57	••00		
Marijuana use	3.64	••00		
Other illicit drug use	3.86	••00		
One-night stand with stranger	2.54	••00		
Social Relations				
Problems making or keeping friends	6.79	••00		
Violent relationships	4.48	••00		
Psychiatric				
Antisocial personality disorder	4.1			

Table 1.2 Health impacts on victims [19,20]				
		Strength of		
Health Determinant	Magnitude	Evidence		
Health				
Regular smoking	1.89	•••0		
Non-substance psychiatric disorder	3.11			
Self-reported illness contagion	1.70			
Wealth				
Poverty	1.91	••••		
Dismissal from a job	1.99	••••		
Quitting multiple jobs	2.33	••••		
Poor financial management	2.39	••••		
Risky Behaviors				
(No associations)				
Social Relations				
Problems making or keeping friends	3.08	••••		
Poor relationships with parents	2.12	••••		
Psychiatric				
Anxiety disorders	4.3			
Generalized anxiety disorders	2.7			
Panic disorders	3.1	•••0		
Agoraphobia	4.6	•••0		

Table 1.1-1.3 Magnitude is the risk that a bully-victim has for the given outcome compared to someone who is not directly involved in bullying. e.g. A bully is 2.16 times more likely to smoke compared to a non-involved student. Strength of the evidence is assigned as follows: One circle for multiple cross-sectional studies; two circles for a longitudinal cohort study; three circles for a longitudinal study where the association remains even after adjusting for childhood family hardships and childhood psychiatric problems (including diagnosed anxiety disorder, depressive disorders, disruptive behavior disorders, attention-deficit/hyperactivity disorder, and substance-use disorder); up to one additional circle is given if an association is found to be consistent by a review of the literature, a dose-response is demonstrated, or a theory-driven biological mechanism is proposed.

Crime

Bullies are over four times as likely to break into a home, business, or property by the time they are young adults compared to those not involved in bullying. Bully-victims are six times as likely. Bullies and bully-victims are two to three times more likely to be charged with a felony. This is consistent with a review of 28 studies which found bullies are 2.5 times more likely than non-involved students to offend up to 11 years later [21].

Smoking & Substance Abuse

Children involved in bullying are much more likely to be regular smokers by young adulthood. Bullies and victims are twice as likely while bully-victims are six and a half times more likely to smoke at least one cigarette a day compared to those not involved in bullying. In addition, bullies are nearly four times as likely to be frequently drunk, smoke marijuana, or use other illicit drugs.

Serious Illness & Poor Health

Bully-victims are six times more likely to have a serious illness and three times more likely to report having poor health by the time they are young adults compared to those not involved in bullying.

Academic achievement, absenteeism

Compared to those not involved in bullying, bully-victims are three times more likely to not receive their high school diploma. This is consistent with another study that found peer victimization can account for up to a 1.5 letter grade decrease in a subject over three years of middle school [22]. In young adulthood, bullies and bully-victims are two to five times more likely to be dismissed from a job, quit multiple jobs, and fail to honor financial obligations when compared to those not involved in bullying. Bullies, victims, and bully-victims alike are two to five times more likely to be dismissed from a job or quit multiple jobs.

Table 1.3 Health impacts on bully-victims [19,20]				
		Strength of		
Health Determinant	Magnitude	Evidence		
Health				
Serious illness	6.02	•••0		
Non-substance	6.62			
psychiatric disorder				
Regular smoking	6.52			
Self-reported poor	3.28	•••0		
health	3.28			
Self-reported illness	3.42	•••0		
contagion				
Self-reported slow	6.03			
recovery from illness				
Wealth				
Poverty	2.76	••••		
No high school diploma	3.05	••••		
No college education	3.11	••••		
Dismissal from a job	2.43	••••		
Quitting multiple jobs	5.44	••••		
Failure to honor	4.65	••••		
financial obligations				
Risky Behaviors				
Official felony charge	3.48	•••0		
Breaking into a home, office, or property	6.03			
Social Relations				
Problems making or keeping friends	3.90	••••		
Poor relationship with parents	6.10	••••		
Lack of best friend or confident	2.77	••••		
Psychiatric				
Depressive disorders	4.8	•••0		
Suicidality	M: 18.5	•••0		
Panic disorder	14.5	•••0		
Agoraphobia	F: 26.7	•••0		

Social Relationships

Bullies are almost seven times more likely to have difficulty making or keeping friends. Victims and bully-victims have almost as much difficulty in this regard (three to four times as likely as

those not involved in bullying). By young adulthood, bullies are also four and a half times more likely to be involved in a violent relationship.









Bystanders

Note that the strength of these associations is in comparison to those not involved in bullying. However, as defined by this study, bystanders would be considered to not be involved in bullying. Thus, the strength of these associations is likely attenuated by the inclusion of bystanders who are also affected by bullying even if they are not directly involved. Research has shown that compared to those with no experience with bullying behaviors, bystanders:

- show symptoms similar to those seen in post-traumatic stress disorder;
- are more likely to abuse drugs and alcohol, possibly as a coping mechanism;
- those who try to remove themselves from bullying situations entirely can end up socially isolating themselves, making them more susceptible to victimization themselves; and
- internalize self-loathing for desiring to intervene but failing to act [14].

3.4 Cyclical Nature

The associations between health determinants and bullying are often very strong, but it is difficult to disentangle these associations in order to show a clear causal relationship. Are childhood psychiatric disorders causal to, or caused by, bullying? This chicken-or-the-egg question can have drastic implications for how to address bullying, but teasing out an answer is difficult. The best evidence suggests that both directions are involved [23] [24]. In other words, bullying contributes to psychiatric disorders, and those with psychiatric disorders are more likely to be bullied. The result is a positive feedback cycle that perpetuates and reinforces bullying. Moreover, victims are more likely to be bullied again; in some cases, victims perpetuate the cycle themselves by bullying others.

Researchers have suggested there are more positive feedback loops. Children who are exposed to domestic violence in the home are more likely to bully other students [10], and those who bully as children may be more likely to be aggressive or violent with partners later in life, again exposing children to domestic violence [25]. In this example, the perpetual cycle of bullying occurs across generations.

This question of causality is important but may be of more significance to research than practice. Bills such as the Safe Schools Act are designed to identify students who are in need of help and connect them with appropriate resources. Even in situations where the bullying

was caused by a preexisting psychiatric disorder, the bullying incident still serves as a marker to identify students with unmet needs.

3.5 Proposed Mechanisms

One way to determine if bullying is truly the cause of these negative health consequences is to identify a plausible mechanism through which it acts. If bullying really causes smoking, how does it do that? Researchers have recently looked at telomere erosion to answer this question. Telomeres are the regions on the end of chromosomes in our DNA that help protect them, much like the plastic end of one's shoe laces prevents the laces from fraying and becoming unraveled. The length of one's telomeres shows the wear and tear of a cell and can be a marker for stress. In a longitudinal study that followed 236 children from age 5 to age 10, those who were bullied had shorter telomeres which are associated with smoking, obesity, psychiatric disorders, and psychological stress [26].

Another proposed mechanism involves our stress response and the hormone cortisol. One study found that victims of bullying had an elevated cortisol level following a stress test compared to their non-victimized peers [27]. Cortisol increases blood sugar levels in the short term but chronically high level can diminish immune system functioning.

Other researchers found that social exclusion among adolescents activates regions of the brain associated with affective processing, suggesting that adolescents have difficulty processing the negative emotions they experience when excluded. These same adolescents had increased depression one year later [11].

4. ASSESSMENT

This step examines the link between the policy components and the health outcomes described above. Generally, policy alternatives often have pros and cons that need to be weighed, i.e. Alternative A may greatly affect a small group while Alternative B has a small impact on a larger population. With bullying, the health outcomes are largely tied together through similar pathways, thus it is not feasible to assess how the Safe Schools Act will affect eating disorders independent of other outcomes. Instead, it is more helpful to look at how the Safe Schools Act will affect the prevalence of bullying and provide support for those involved.

4.1 Key Components of the Safe and Supportive Minnesota Schools Act

This report assumes a basic knowledge of the Safe Schools Act. Briefly, this bill includes the following components, among others:

- Defines bullying and the scope of situations to which this policy would apply, including
 on school grounds, busses, school events, and the use of technology if it disrupts student
 learning or the school environment.
- Requires professional development and training for school teachers and staff relating to the research on bullying and best practices to prevent, identify, and respond to incidents.
- Requires schools to designate a primary contact person to receive reports and guide implementation of bullying policy.
- Encourages **programming for students** to help identify, prevent, and reduce bullying.

- Requires procedures for the **reporting** of and **response** to bullying incidents.
- Allows schools to create their own policy or adopt the state model policy.
- Establishes a **School Climate Center** and a **School Climate Council**.

4.2 Current policies

In 2011, 370 out of 492 school districts in Minnesota[‡] adopted the Minnesota School Board Association's (MSBA) model policy on bullying [28]. Twenty-nine others did not use the term bullying, instead relying on harassment policies, and 152 districts did not include a definition of cyber bullying. The weaknesses of the current state law are largely masked by a fairly strong MSBA model policy based off recommendations by the Department of Education [see 29].

The Safe Schools Act makes several important improvements over the MSBA model policy. First, it applies to all public schools and school districts, including charter schools. Second, it creates the School Climate Center and School Climate Council to serve as a central resource to assist schools with evidence-based strategies. Third, it requires school districts to engage parents and communities. Fourth, it requires that school employees who witness or are knowledgable of a bullying incident to make reasonable efforts to intervene, rather than simply report the incident. Finally, it enumerates 18 classes of students not identified in the MSBA policy. This last point has proven to be contentious and warrants a closer look at its impact on health.

Enumeration

This bill specifically enumerates students who are bullied based on actual or perceived race, ethnicity, color, creed, religion, national origin, immigration status, sex, age, marital status, familial status, socioeconomic status, physical appearance, sexual orientation, gender identity and expression, academic status, disability, or status with regard to public assistance. This enumeration, particularly for LGBT students, has come under scrutiny by several groups including the Minnesota Catholic Conference and the Child Protection League. They argue that this enumeration of students based on sexual orientation and gender identity and expression is an attempt to use the school systems to normalize a new definition of marriage following the

recent passage of the same-sex marriage law in the state [30][31][32]. They also argue that these "special protections" favor those enumerated students over other students, although language in the bill identifies this list as non-exclusive. Research literature has consistently identified these students at being at increased risk of being bullied. For example, 8 out of 10 LGBT students reported experiencing bullying while at school [33]. In Minnesota, 8% of all 9th graders reported being bullied because of their perceived sexual orientation [12].

Enumerations

- Race
- Ethnicity
- Color
- Creed
- Religion
- National origin
- Immigration status
- Sex
- Age

- Marital status
- Familial status
- Socioeconomic status
- Physical appearance
- Sexual orientation
- Gender identity and expression
- Academic status
- Disability
- Public assistance status

[‡] 19 of the 492 districts could not be reached by the time the cited article was written.

From a health perspective, these enumerations are important for effective policy that creates a healthy and supportive environment for LGBT students [34]. In schools with policies that explicitly include sexual orientation and gender identity or expression in bullying policies, students are less likely to report serious harassment problems (33% compared to 44%), have teachers more likely to intervene (25% compared to 16%), feel "very safe" (54% compared to 36%), and are less likely to skip class because they feel unsafe (5% compared to 16%). Students in schools with non-enumerated policies are just as likely to hear hateful homophobic remarks as students with no policy at all [35]. If the goal is to reduce bullying, enumeration is clearly an effective strategy.

4.3 Model Programs

Much of what we know about how to prevent bullying comes from the Norwegian Olweus Bully Prevention Program (OBPP) [15]. The OBPP is an effective evidence-based school-wide program to reduce bullying and achieve better peer relations among students. In the US, Pennsylvania implemented the OBPP state-wide as part of its anti-bullying efforts in 2009. Since then, bullying has steadily declined and feelings of safety at school have risen [36]. This comprehensive program includes components aimed at schools, classrooms, individuals, and communities.

The Safe and Supportive Minnesota Schools Act shares many core principles with the Olweus Bullying Prevention Program (OBPP), an evidence-based model school program to reduce bullying. However, there are several key differences. First, the OBPP emphasizes engagement with students to enhance the capacity of bystanders to intervene in bullying incidents. Second, it more deliberately introduces the policies to students through a kick-off event. Third, it works to improve the system of supervision at a school. Fourth, it offers specific and substantial ways to engage parents and communities. Finally, it explicitly requires that investigations into bullying include individual meetings with the students involved [15].

4.4 Potential Reach of Policy

This bill would apply to the approximately 88% of students who attend public or charter schools but would not apply to private schools or homeschooled students [37]. Data from two national student surveys showed that only about one-third of secondary students who had been bullied ever notified a teacher or other adult [29] [38]. Cyberbullying poses an even greater challenge, since it is rare that an educator can witness the bullying without it being first reported by a student. Teachers and school officials simply cannot investigate incidents that they do not know about. If the school districts choose not to implement programs that actively engage with students, the reach of this policy will be severely limited to approximately one third of all victimized students. However, empowering students, teaching empathy and resiliency, and encouraging bystander intervention has the potential to prevent bullying as well as encourage reporting of incidents not seen by teachers and staff.

4.5 Potential Significance and Magnitude of Impact

The significance of the impact of the Safe Schools Act is directly proportional to the impact bullying has on health. As discussed in section 3.3, bullying imposes significant long-term risks to students' wellbeing and health. In general, bullies are more likely to smoke, have a psychiatric disorder, engage in risky or illegal behavior, have less financial security, and have

violent relationships. Victims are more likely to smoke, have a psychiatric disorder, have less financial security, and have few or poor relationships. Bully-victims faired the worst - they are more likely to have poor health, have a psychiatric disorder, smoke, engage in risky or illegal behaviors, not graduate from high school, have low job security, be in poverty, and have poor or few relationships. It is important to note that these are just markers of wellbeing - not an exhaustive list of the experiences of those involved in bullying.

While certainly not a complete measurement of wellbeing, an economic analysis estimated the effect bullying has on human capital and earnings potential [39]. They found that the effect of bullying on academic achievement outweighs the effect of class size. In other words, for two classrooms that are identical except one has a larger class size and the other has proportionately§ more bullying, the students in the second classroom will take fewer honors courses and earn less income as adults compared to their peers. Interestingly, being a bully at age 16 is associated with a higher probability of taking no honors courses compared to victims. While the effects of class size diminish by the age of 23, the effects of being bullied can still be seen up to age 42 in a clear dose-response pattern.** Not only does bullying affect the academic achievements of students, bullying also affects the earning potential of victims in adulthood. According to their model, in the first year in the job market an individual who was bullied frequently at age 11 will earn approximately \$68 less per month compared to someone who was not bullied. This earnings gap peaks at \$190 per month after 17 years in the labor market. Importantly, these results also dispel the myth that bullies today become tomorrow's successful business leaders; being a bully at age 16 did not increase the wages earned as an adult.

This is not to say that all students who are bullied will earn less income. Given the observational nature of these studies, a causal link cannot be claimed. Within any group of students who are bullied, some will be more resilient to the lasting impact of bullying. However, the inclusion of these students in research studies only attenuates the effect size for the overall group.

The magnitude of the impact of the Safe Schools Act is the degree to which bullying or its effects are reduced. US schools that implement the full Olweus Bullying Prevention Program (OBPP) have seen a 16% decrease in bullying after just seven months and a 45% reduction after four years [15]. On average, schools see a 20-70% decline in bullying depending on the fidelity of implementation. The proposed Minnesota law shares many components with the OBPP but crucially it only encourages - not requires - schools to implement programs that engage students on how to intervene, prevent, and report bullying incidents. Added to this is the likely variation in compliance with the law, resulting in a wide range of overall effects. It is also difficult to compare a state law with a local school program such as OBPP.

Researchers in Iowa are looking at the number of bullying incidents before and after the state passed a similar bullying law in 2008 [40]. The same year that the bill was implemented, the risk of being bullied *increased* 28%, but this is likely due to the improved reporting procedures

[§] One standard deviation increase in class size or bullying.

^{**} i.e. The more one is bullied, the greater the observed effect on income.

and awareness of the issue. Two years later in 2010, the risk of being bullied dropped back to pre-law levels, suggesting the bill may have led to a 25% decline in bullying after two years [41].

Another mechanism through which the Safe Schools Act could impact health would be by reducing the harm caused by bullying. By offering support to students in the form of counseling and healthy coping strategies, students may be more resilient to the harmful effects of bullying. However, not all healthy coping strategies may be beneficial to all students within the context of their social network. Boys and girls have different normative expectations for how to cope with stress, and deviations may reduce their social standing and the support of their peers. For example, seeking social support is associated with low peer performance for victimized boys but buffered victimized girls from social problems. Other coping strategies, such as problem-solving, may be detrimental and lead to *greater* risk of peer rejection. Remember, victimized children lack power and social standing and thus have little influence on peer relationships. Problem-solving strategies may be perceived as provoking conflict and garner less sympathy and support from peers [42]. While harm reduction strategies may be beneficial, the extent to which they mediate the short and long-term effects of bullying is unclear.

4.6 Financial & Opportunity Costs

The Safe Schools Act is projected to cost the state \$19 million per year [43], although advocates claim that methodological shortcomings inflated this estimate substantially [44]. The Safe School Levy funds were also increased by \$5 per pupil with \$100 million set aside for staff development [45]. The question raised by many is whether the return on investment justifies these costs.

Establishing clear protocols for dealing with bullying may help school districts avoid litigation in certain circumstances. *Davis v. Monroe County Board of Education* set precedent that schools receiving federal funding can be held liable in extreme cases of bullying where the school was "deliberately indifferent" to it [29].

Other savings include the longterm health care costs. Worldwide, depression is the single most burdensome illness during middle years of life [46], costing tens of billions of dollars a year in the US alone in both personal costs (morbidity, mortality, quality of life, disability) and societal costs (healthcare, lost productivity). These costs are so high (over twice that of the next most burdensome disease) due to the early onset, chronicity, high prevalence, and adverse effects on academic and professional attainment. Similarly high healthcare costs are associated with smoking and the other outcomes previously described.

In Pennsylvania, a cost-benefit analysis of implementing the Olweus Bullying Prevention Program concluded that the one-time implementation costs for the state would be \$23.09 per student. However, after three years it would *save* the state \$12 per student after accounting for reduced health care utilization. When considering the high cost of students dropping out of school or needing alternative placements, the entire school district's program would be covered if two students were prevented from leaving school. The report further estimates that if bullying were prevented, the cost benefit to society would be \$1.4 million per individual over a lifetime, reflecting savings from health care, public assistance programs, and involvement with the justice system, among others [47].

4.7 Potential Externalities

At least one study has found that bullying prevention programs *increased* the number of bullying incidents [48]. This finding could be an artifact of evaluation as previously discussed. Another hypothesis suggests that the programs inadvertently teach students how to bully and how to get away with it. Even if these results are well-grounded, it points to the need for more comprehensive programs that focus on systemic change rather than quick fixes.

Above all else, bullies are students who need guidance and support, not handcuffs. Antibullying policies carry the risk of funneling students into the criminal justice system, fortifying the school to prison pipeline. It is critical that schools seek restorative practices instead of criminalizing students through zero tolerance policies. It is easy to lay blame at the feet of bullies who victimize their peers, but it is naive to think them unscathed by their actions.

In the evaluation of the lowa bullying bill discussed above, the researchers also found that the odds of teacher intervention decreased from 3.2 (2005, pre-law) to 2.6 (2010, two years post-law). This may point to teachers believing that establishing a primary contact person for bullying incidents alleviates them of their individual responsibility, although more research is warranted [41].

5. MONITOR & EVALUATION

It is vitally important to ensure that policies are working as advertised. This section highlights the ways in which the Safe Schools Act could be evaluated should it be passed. It is also important to evaluate the process through which a policy is analyzed so that future analysis can be improved and trusted.

5.1 Minnesota Student Survey

The state health and education departments administer the Minnesota Student Survey every three years to districts across the state. Basic questions about bullying were included since 2007, but the questions were expanded in 2013 to provide more detailed information such as bullying based on race, religion, sexual orientation, gender, disabilities, and weight or physical appearance. This survey will be instrumental in the evaluation and monitoring of bullying in Minnesota. As noted previously, improved reporting procedures and increased awareness of bullying may artificially inflate the reported incidents of bullying upon implementing the legislation.

5.2 Evaluation Research

Little research has been done to determine if state bullying laws are effective at decreasing bullying. These efforts are critical to determine if school districts are compliant, how well and what types of programs are being implemented, and identifying strategies that have a measurable effect on bullying. Unfortunately, many state laws on bullying are criticized as toothless efforts to placate cries for action. The expanded Minnesota Student Survey is a valuable foundation to build from, but more rigorous research is needed to determine if this law (if passed) accomplishes its goals.

5.3 HIA Evaluation

As part of this author's culminating experience in his masters of public health program, the process and outcomes of this HIA will be informally evaluated based on self-reflection and comments from the public, peers, stakeholders, and academic advisors.

6. RECOMMENDATIONS FOR BILL LANGUAGE

6.1 Establish Grants for Schools to Implement Student-Based Prevention Programs

Evaluation research has shown that teacher and administration buy-in is critical to the effectiveness of a school bullying intervention program [11]. Requiring all schools to implement student-based prevention programs may create financial burdens or result in poorlyimplemented programs with negative impacts on bullying. Instead, the legislature should establish a competitive grant program through the School Climate Center to fund schools who wish to implement a program that engages students to prevent and discourage bullying (described in section 2, subdivision 5). This approach has several advantages. First, it requires a minimal financial investment by the state in schools that have a demonstrated capacity to carry out the work. Second, it supports schools - and their students - who are motivated to prevent bullying in their schools through character and skill building as opposed to the threat of punishment. Third, it allows the state to require evaluation measures to establish the efficacy of various approaches, including the return on investment. Fourth, it gives the School Climate Center oversight to ensure that schools used evidence-based practices that will not further harm students (such as zero-tolerance policies, see below). However, it is also possible that the schools who would benefit most from this support are those who have less capacity to apply for competitive grants. Therefore, a future expansion of the funding for implementation of tested programs should be considered.

6.2 Require School Climate Council to Include One OBPP-Trained Member

At least one member of the School Climate Council should be trained in the Olweus Bully Prevention Program (OBPP) or similar evidence-based program. This would aid the council in advancing best practices by building off previous work.

7. RECOMMENDATIONS FOR IMPLEMENTATION OF BILL

Common to many policies, the specific details of how the bill will be implemented are not specified in the bill and are instead left to the Commissioner of Education upon its passage. This section makes specific recommendations to ensure the bill has the greatest impact if it is passed.

7.1 Evaluation of the Safe Schools Act

Previous versions of this bill required schools to report incidences of bullying to the commissioner of education, who would then issue a school performance report card. In lieu of restoring these reporting procedures, the School Climate Center should be charged with conducting both a process and outcome evaluation of the Safe Schools Act, with funds appropriated if necessary. Data from the Minnesota Student Survey can be compared on a district level to understand how variations in school policies affect the incidence of bullying.

These data could be supplemented with focus groups of the primary contact persons for reports of bullying and students. For more, see section 5.3, above.

7.2 Supplemental Policies

Several supplemental policies and guidelines would aid schools in creating a safe and supportive environment. First, continue to fund Achievement and Integration Aid (MINN. STAT. 124D.861, 2013) to support increased diversity in our classrooms. As was previously discussed, diversity more equitably shares the power among groups, reducing bullying [11]. Second, in some cases it can be unclear to teachers and other school staff how existing policies and rules apply to certain students. For example, which restrooms, locker rooms, and sports should be available to transgender or gender non-conforming students, and to which dress code should they be held? How does the dress code apply to religious or cultural garb? Creating specific guidelines would help teachers navigate these questions in culturally supportive ways.

Studies have shown that bullying is not limited to children in school but can also be found among teens and adults in workplaces. In 2011 the Healthy Workplace Bill (HF1701 & SF1352) was introduced, but not passed. Legislative action to address workplace bullying could strengthen our labor force by creating healthy workplace environments.

Student Story: Taylor Z., Minnesota [6]

During gym class three boys attempted to corner her and lift up her shirt. Taylor got away and told her math teacher, but after talking to the boys, the teacher let them off with a warning ("they were just playing around") and discouraged Taylor from telling her parents or other school administrators. The school had failed to recognize that this was bullying and take appropriate actions. Instead, Taylor was subjected to physical violence as the boys retaliated by hitting her i the head with floor hockey sticks during gym. Instead of having someone at the school who she could trust and work with her, Taylor was put in a position of enduring the bullying or risk suspension for retaliating against the bullies.

How this bill would help: This bill would require each school to designate a primary contact person to receive reports on bullying and promptly investigate such reports.

What else could be done? The teacher failed to recognize the power imbalance that differentiates conflict from bullying. School policies must clearly differentiate between the two and train teachers to recognize the difference.

7.3 Counterproductive Policies

First, specifically identify policies that are ineffective and harmful in the context of bullying. For example, mediation between a victim and their bully can induce severe psychological stress on the victim and subject them to retaliation. Remember, bullying is not conflict, it's victimization.

Second, zero-tolerance for violence policies remove the context surrounding an incident. This social context is crucial to identifying whether the incident was a case of bullying or not. In cases where bullying takes place, zero-tolerance policies can reduce a victim's ability to defend themselves out of fear of getting in trouble (see *Student Story: Taylor Z.*, above). States such as Mississippi and Texas go so far as to specifically allow students to engage in reasonable self-defense [49], but at a minimum zero-tolerance policies should not be

encouraged. Additionally, they have not been shown to be effective at deterring misbehavior. Studies have shown, however, that suspensions and expulsions may reinforce negative behavior by precluding the opportunity for positive socialization in schools [50]. Such harsh punishments have the effect of criminalizing bullies and reinforcing the schools to prison pipeline.

7.4 Focus on Mental Health Resources

The Safe Schools Act requires local policies to "provide information about available community resources to affected individuals as appropriate" (Section 3, Subd. 4(a)). While this may include mental health resources, it could be strengthened by requiring the provision of or referral to necessary mental health services such as individual counseling.

8. CONCLUSION

8.1 Bullying Is Complex, Harmful, and a Public Health Problem

Bullies are not the enemy - it's indifference that must be addressed. Bullies are troubled children who will grow up to be troubled adults unless schools, parents, and communities are willing to help them, not criminalize them. All students involved in bullying, whether as the bully, the victim, or the bystander, are deeply affected, even as adults. The human, social, and fiscal costs of bullying are too great not to act.

Bullying is a pervasive problem, but effective interventions and programs exist to reduce the human suffering and long-term health impacts on children. While this bill does have limitations, passage of the Safe and Supportive Minnesota Schools Act would take an important step in this direction, but it would only be the first step. The implementation of the bill, both by the Department of Education and the local school districts, has serious implications for this bill's efficacy at stopping bullying and supporting affected students.

Safe and Supportive Minnesota Schools Act

- + Enumerates 18 classes of students.
- + Improves upon MSBA model policy to engage parents and communities and require staff intervention.
- + Creates a School Climate Center and a School Climate Council to serve as a centralized resource for schools.
- Offers no financial support to schools.
- Does not require schools to engage with students.
- Actual gains may be minimal for most school districts.

8.2 Recommended Actions

Pass the Safe and Supportive Minnesota Schools Act as is.

BETTER

Pass the Safe Schools Act and evaluate its impact.

Find out what works and what doesn't to identify future opportunities for action.

Pass the Safe Schools Act with a competitive grant program. Provide financial support to schools who want to do more.

BEST

Pass the Safe Schools Act with recommendations, including a competitive grant program. Evaluate its impact & look for the next step. This will extend the greatest protections to the most students, improving the likelihood that this bill will have a meaningful impact on the health of Minnesota students.

8.3 Limitations

There are many ways to conduct a health impact assessment. It would be a fair critique to suggest that the discussion present in this work would be strengthened by collaboration with community members, organizations, and other stakeholders. This report only claims to represent the voice of its author, with no affiliations that would threaten the objectivity of the analysis or conclusions. However, this report cannot stand alone; instead of capturing the voices of community members, students, teachers, and policy makers, this report was created with the hope that it can be used as a tool in the evolving discussion among these stakeholders.





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