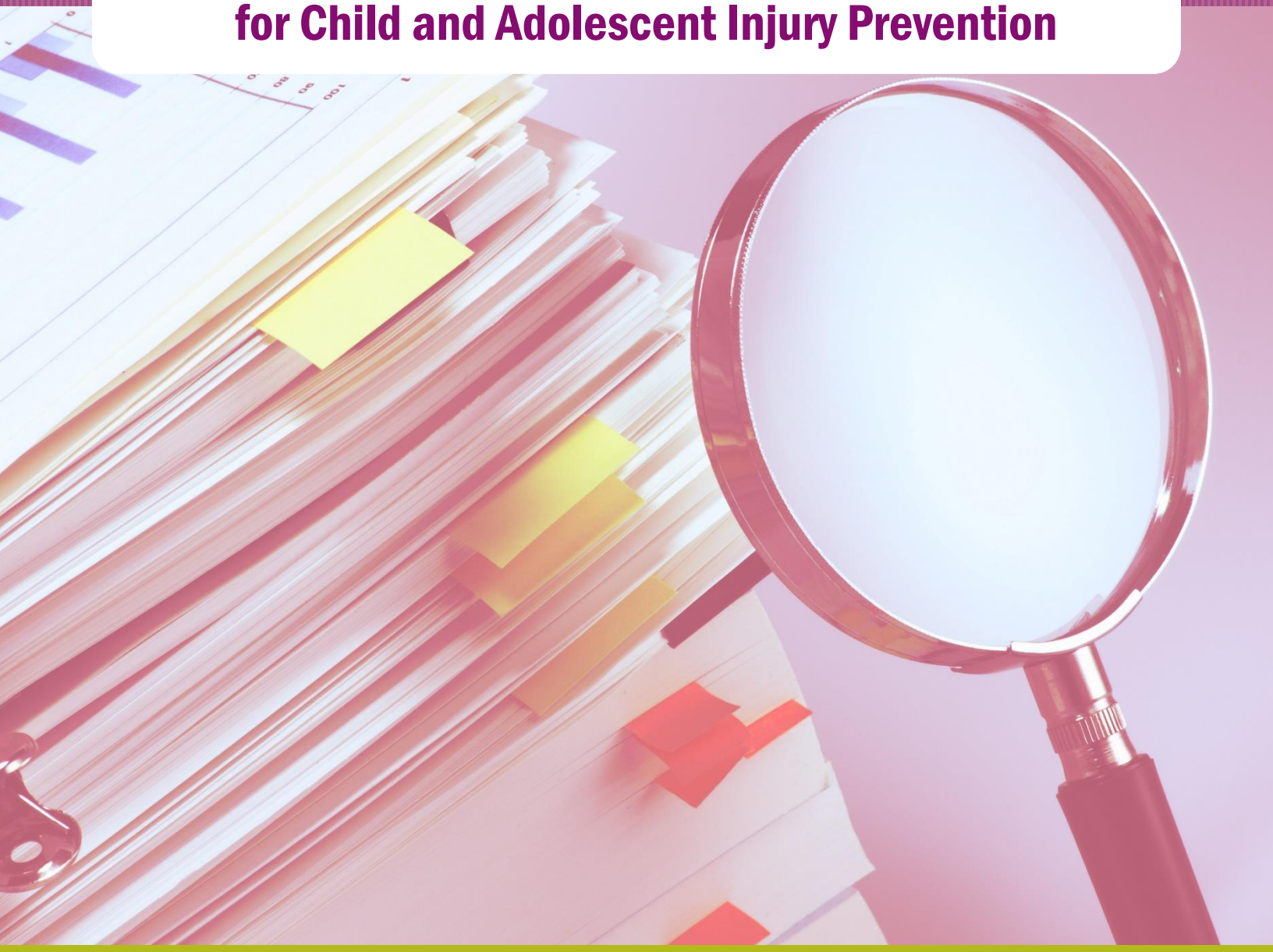
CSN Children's Safety Network

CSNA Children's Safety Now Alliance

Evidence-based and Evidence-informed Strategies for Child and Adolescent Injury Prevention



This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under the Child and Adolescent Injury and Violence Prevention Resource Centers Cooperative Agreement (U49MC28422) for $5,000,000 with 0 percent financed with non-governmental sources. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.

May 2019

EDC Education Development Center

Table of Contents

Executive Summary

Introduction

Injuries and violence are leading causes of morbidity and mortality among U.S. children and adolescents. These injuries are preventable. Researchers have identified many strategies that are effective in preventing injuries in this population.

This paper synthesizes findings from recent systematic reviews conducted or disseminated by five organizations that specialize in evidence-based public health:

- Guide to Community Preventive Services (Community Guide), United States
- Cochrane Collaboration, international consortium
- Campbell Collaboration, Europe-based international collaboration
- Evidence for Practice and Policy Information Centre (EPPI), United Kingdom
- Centre for Reviews and Dissemination (CRD), United Kingdom

Strategies with Evidence of Effectiveness

A number of child and adolescent injury prevention strategies have shown evidence of effectiveness in increasing the use of safety practices and/or reducing injury rates. Table 1 lists identified interventions by type of injury. Overall findings are discussed next.

Table 1. Strategies Identified in the Systematic Reviews as Having Evidence of Effectiveness

Area	Type of Injury	Strategies Identified as Effective
Overall Injury Prevention	Various	• Home visitation • Person-to-person education of caregivers in various settings • School-based programs addressing multiple risk behaviors
Unintentional Injuries	Various	• Education of caregivers about home safety practices, particularly when delivered as part of a home visitation program and combined with the provision of safety equipment
	Poisoning	• Education of caregivers about poisoning prevention, particularly when conducted in the home and combined with the provision of safety equipment
	Falls	• Home safety education • Education combined with distribution of safety equipment • Equipment- and structure-based design of playgrounds based on safety standards • Education and training to prevent sports-related injuries, particularly combined with the use of safety equipment
	Drowning	• Pool fencing, particularly when it encloses only the pool and not the entire property
	Infant suffocation	• Evidence-based guidance on safe sleep provided by the American Academy of Pediatrics

Area	Type of Injury	Strategies Identified as Effective
	Motor vehicle-related for child passengers	• Laws mandating use of child safety seats and booster seats • Community-wide information and enhanced enforcement campaigns • Education combined with distribution of free seats
	Motor vehicle-related for teen drivers	• Graduated driver licensing (GDL) laws and enforcement • Minimum legal drinking age (MLDA) laws and enforcement • Lower blood alcohol concentration (BAC) limit for young drivers • Universal school-based instructional programs for reducing riding with drinking drivers
	Bicycle-related	• Laws mandating use of helmets • Community- and school-based education, particularly combined with distribution of free helmets
	Child pedestrian-related	• Education on safety practices, particularly individualized or small group training sessions
	Firearm-related	• Laws requiring safe storage of firearms
Substance Abuse	Underage alcohol use	• Family-based psychosocial and educational programs • School-based prevention programs • Enhanced enforcement of MLDA laws
	Illegal drug use	• School-based drug prevention programs
Violence and Self-Harm	Child maltreatment	• Early childhood home visitation programs • School-based child sexual abuse prevention programs
	Youth violence	• Universal school-based programs • School-based programs for youth identified as aggressive or at risk of being aggressive • Mentoring programs for youth at risk for exhibiting delinquent behavior
	Bullying	• Universal school-based programs
	Dating violence	• School- and community-based educational programs
	Suicide	• Universal school-based programs

Overall injury prevention. Findings from the included reviews suggest that providing education and training to parents and other caregivers can be effective in improving a variety of child health outcomes, including injury prevention. School-based programs addressing multiple risk behaviors were also found to be effective in improving some health outcomes among children and adolescents.

Unintentional injuries. A number of reviews focused on interventions for promoting safety and preventing various types of unintentional injuries among children and adolescents. Findings suggest that the strategy with the most evidence of effectiveness across a range of unintentional injury topics is parental and caregiver education—provided through a home safety education program or as part of a broader multi-component home visitation program. These interventions were effective not only in increasing the use of safety practices, but also in reducing injury rates. The reviews also found

evidence that these educational programs are more likely to be effective when combined with the distribution of free or subsidized safety equipment.

Substance abuse. Findings from the included reviews suggest that school-based education and skill-building programs can be effective strategies for addressing both underage drinking and illegal drug use. These programs, which may include a family component, generally focus not only on increasing knowledge but also developing skills (e.g., problem solving, conflict resolution, refusal skills), and addressing risk and protective factors for substance misuse and related behaviors.

Violence and self-harm. Most of the included reviews focused on interventions for preventing or reducing violence directed at others, rather than self-harm. Strategies identified as effective for preventing violence and aggression included home visitation for infants and small children, and school-based programs for children and adolescents. Among older children and adolescents, school-based programs were effective for both children and adolescents in general and for at-risk groups. Although few reviews assessed the effectiveness of suicide/self-harm prevention programs for children and adolescents, a number of school-based programs have been found to be effective in reducing suicidal thoughts and/or attempts in this population.

Conclusions

Many interventions that are effective in preventing and reducing child and adolescent injuries and violence were identified through this synthesis of reviews. The included reviews are not a comprehensive list of recent reviews of these topics—only of reviews retrieved from databases maintained by the organizations mentioned above, which specialize in evidence-based public health.

Findings from the identified reviews can inform the efforts of injury prevention program planners, policymakers, funders, and others in expanding the use of effective strategies and discontinuing the use of approaches that may be ineffective or harmful. These findings also suggest areas where more research may be needed.

Introduction and Overview

Injuries and violence are the leading causes of death among infants, children, and adolescents in the United States, causing almost 14,000 deaths in 2017 alone (Centers for Disease Control and Prevention, 2019a). A recent analysis by the Centers for Disease Control and Prevention (CDC) found that the death rate from injuries among young people ages 10 to 19 increased 12 percent from 2013 to 2016 (Curtin, Heron, Minino, & Warner, 2018). In addition to the thousands of children and adolescents who die every year as a result of these injuries, millions more face persistent, long-lasting challenges, including chronic pain, disability, and the loss of years of productive life. In 2014, children and adolescents accounted for over 200,000 injury-related hospitalizations and almost 8.2 million emergency department (ED) visits (Agency for Healthcare Research and Quality, 2014). The medical, work loss, and quality of life loss cost of child and adolescent injury is approximately $550 billion (Lawrence & Miller, 2011).

Child and adolescent injuries are preventable. Researchers have identified many strategies that are effective in increasing the adoption of safety practices and/or reducing injury rates. Many of these strategies fall within three areas: education and training (e.g., through home visitation programs), enforcement of laws and policies (e.g., seat belt laws), and engineering and environmental solutions (e.g., tamper-proof packaging of medications) (Centers for Disease Control and Prevention, 2012).

Although several websites, registries, and other online databases provide information on evidence-based strategies and programs, locating and reviewing these findings can be a daunting task. To help program planners understand and apply the latest evidence regarding child and adolescent injury prevention, this paper presents a brief synthesis of major findings from systematic reviews conducted by organizations that specialize in evidence-based public health. These organizations have developed rigorous methods for carrying out reviews that systematically identify studies that meet established criteria, assess study quality, and reach a conclusion regarding intervention effectiveness.

The sections that follow present the major findings from these reviews, organized by type of injury (i.e., unintentional injuries, substance

Three E's of Injury Prevention

Education
Injury prevention education seeks to increase knowledge and change attitudes and behaviors to promote safe practices and reduce risk-taking behaviors that are likely to result in injury. Sample strategies include communication campaigns, dissemination of written materials, educational programs, and one-on-one counseling.

Enforcement
Legislation and policies that encourage safe behaviors and discourage risky behaviors are important components of injury prevention. Examples include Graduated Driver Licensing laws, a school requirement that coaches receive training on the prevention and proper management of concussions, and local laws prohibiting stores and restaurants from selling alcohol and tobacco to minors.

Engineering/Environmental
Changing the design of products or of the physical environment is often the most direct way to prevent injuries. Examples include placing barriers on bridges to prevent suicide, and safe storage of medications in the home to prevent the misuse of prescription drugs.

abuse, violence or self-harm). In particular, the discussion emphasizes findings from systematic reviews conducted by three groups that specialize in evidence synthesis:

- **Guide to Community Preventive Services** (Appendix 1): The U.S.-based Community Guide conducts systematic reviews of public health interventions for the Community Preventive Services Task Force, an independent panel established by the U.S. Department of Health and Human Services to provide guidance on community-based health promotion and disease prevention.
- **Cochrane Collaboration** (Appendix 2): Founded in 1993, Cochrane is an international not-for-profit and independent organization dedicated to making up-to-date, accurate information about the effects of healthcare readily available worldwide. Research groups worldwide apply Cochrane methods to produce systematic reviews addressing healthcare and public health.
- **Campbell Collaboration** (Appendix 3): Like Cochrane, Campbell is an international organization dedicated to systematic reviews. With a national center in the United Kingdom and Ireland, and a Nordic center in Denmark, Campbell conducts systematic reviews and other evidence syntheses of social interventions in education, crime and justice, social welfare, and other areas.

To supplement these findings, we also searched the online databases of systematic reviews maintained by two other organizations that specialize in evidence synthesis (Appendix 4):

- **Evidence for Practice and Policy Information (EPPI) Centre Database of Promoting Health Effectiveness Reviews (DoPHER)**; and the
- **Centre for Reviews and Dissemination (CRD) Database of Abstracts of Reviews of Effects (DARE).**[1]

These searches were limited to the last 11 years (2008-2019).

The reviews discussed in this paper and listed in the appendix were identified via website and database searches conducted in May 2018 and updated on March 1, 2019, and limited to systematic reviews published in English, in the past 21 years, addressing the prevention (not treatment or management) of injuries among infants, children, and adolescents. Search terms included: child, adolescent, injury; safe sleep, SUID, SIDS; motor vehicle, traffic, passenger; maltreatment, home visit, falls (children), drowning, fires/burns; poisoning, substance/drug/alcohol abuse, substance/medication/drug misuse, drinking; and violence, aggression, bullying, suicide, and self-harm.

Identified reviews are listed in the Appendices. Other reviews conducted or catalogued by other sources may also provide insights useful to child and adolescent injury prevention. However, reviews—much like individual studies—can vary in methods and quality of execution. For the majority of the reviews contained in this white paper, we limited the searches to these five sources, seeking to ensure that the identified reviews—while not a comprehensive list of recent reviews—were

[1] Due to lack of funding, in April 2015 CRD stopped adding bibliographic records to its Database of Abstracts of Reviews of Effects (DARE) but plans to maintain the database until 2021.

conducted in a systematic and rigorous way. For selected topics, we chose to broaden the sources. These topics are infant safe sleep, concussion, prescription drug misuse, and safe storage of firearms.

In many cases, the reviews concluded that more research is needed. For example, the review may have found few studies that met inclusion criteria and/or the identified studies had limitations (e.g., weak study design, poor description of study population and/or intervention components, problems with how outcomes were measured, attrition, other potential for biases) that made it difficult to determine intervention effectiveness.

Some of the identified reviews found that the interventions were effective in changing short-term outcomes, such as knowledge, attitudes, the adoption of safety practices, but long-term effects on injury rates were unclear. Again, often this does not mean that the interventions are not effective in preventing or reducing injuries, but that the included studies did not measure these long-term outcomes—which is often difficult, and costly, to accomplish. Despite these limitations, findings from existing reviews can be useful in identifying the types of strategies that have been shown to work.

We hope the information presented in this paper will help to state and local injury prevention programs—and others interested in child and adolescent injury prevention—better understand the existing evidence and identify knowledge gaps. These insights can help program planners make the best use of limited resources and implement the types of efforts that have the best chance of making a difference in promoting the safety and well-being of all children and adolescents.

Overall Injury Prevention

A number of the reviews of interventions for promoting overall child and adolescent health include outcomes related to injury prevention. Findings from the identified reviews suggest that providing education and training to parents and other caregivers can be effective in improving various child health outcomes, including unintentional and intentional injuries. School-based programs were also found to reduce some risk behaviors among children and adolescents.

Overall Injury Prevention

Evidence-based strategies:

- Person-to-person education of parents and other caregivers, conducted in various settings—effective in reducing overall adolescent risk behaviors, including violence and drug use
- School-based programs addressing multiple risk behaviors—effective in preventing engagement in tobacco use, alcohol use, illicit drug use, and antisocial activity

Home visitation. Finding from two reviews (DoPHER database) suggest that home visitation may be an effective strategy for improving maternal and child health (e.g. maternal life course outcomes, child cognitive outcomes, and parent behaviors and skills). The first review, which included 51 studies, found that home visiting programs had small but significant effects on a number of outcomes related to maternal and child health (Filene, Kaminski, Valle, & Cachat, 2013). The second review included 39 studies of U.S.-based home visiting interventions in which at least 30% of participants were racial or ethnic minorities (Abbott & Elliott, 2017). It concluded that home visitation by nurses was an effective strategy for improving health and reducing disparities experienced by at-risk populations.

Person-to-person education of parents/caregivers. A systematic review conducted by the Community Guide concluded that person-to-person interventions for parents and other caregivers, conducted outside of a clinical setting, were effective in reducing risk behaviors among adolescents ages 13 to 16 years (Burrus et al., 2012). Based on findings from 12 studies (11 U.S.-based), the review found that programs conducted at home, in school, or in the community that increased caregiver knowledge and skills through person-to-person contact were effective in reducing overall adolescent risk behaviors, including violence and illegal drug use. All studies included an educational component, a discussion component, and an opportunity for caregivers to practice skills. Contents included information on communication strategies, parental monitoring, and general life skills development.

School-based interventions. Other reviews focused on school-based interventions. The most recent was a Cochrane review assessing the effects of interventions implemented up to age 18 for the primary or secondary prevention of multiple risk behaviors (MacArthur et al., 2018). Findings from 70 studies (79% U.S.-based) suggest that universal school-based interventions that target multiple risk behaviors may be effective in preventing engagement in tobacco use, alcohol use, illicit drug use, and antisocial activity.

An earlier Cochrane review assessed the effectiveness of school-based interventions that applied the World Health Organization (WHO) Health Promoting School (HPS) framework (Langford et al., 2014). Developed in the late 1980s, the framework reflects a holistic approach to school health promotion

that addresses the whole school environment. The review included 67 studies (27 U.S.-based) featuring three components: incorporating health education into the school curriculum, promoting health and well-being in the school's social and physical environment, and engaging families and/or the local community. The review found evidence that these programs can be effective in improving a number of health outcomes, including reductions in tobacco use and bullying behavior. However, it could not determine their effectiveness in addressing alcohol, drug use, or violence, as few studies included these outcomes.

Areas for future research

Home visitation postnatal visits. Other reviews focused on the characteristics of home visitation programs. A recent Cochrane review of home visitation schedules found that increasing the number of postnatal visits may lead to improved outcomes, such as reduced likelihood that babies will need emergency medical care, although more research is needed (Yonemoto, Dowswell, Nagai, & Mori, 2017).

Prevention of Unintentional Injuries

A subset of identified reviews focused on the prevention of unintentional injuries in general (rather than specific injuries). Findings suggest that parental and caregiver education—provided as part of a multi-component home visitation program or through a home safety education program—is an effective strategy for increasing the use of safety practices and reducing injury rates. The interventions were more likely to be effective when delivered in the home and combined with the distribution of free or subsidized safety equipment.

Prevention of Unintentional Injuries

Evidence-based strategy:

- Parental/caregiver education provided as part of a multi-component home visitation program or through a home safety education program—effective in increasing adoption of safety practices and reducing injury rates

Education of parents/caregivers. A Cochrane review examined the effectiveness of parenting interventions (programs combining parental education and training) in reducing unintentional injuries among children and adolescents ages 18 and younger and increasing caregiver use of safety equipment and safety practices (Kendrick et al., 2013). The review of 22 studies concluded that these interventions, most commonly delivered person-to-person in the home to improve a range of child and maternal health outcomes during the first two years of a child's life, were effective in reducing injuries among young children. This evidence came primarily from parenting interventions provided as part of a multi-component home visiting program aimed at improving a range of child and maternal outcomes. The review found fairly consistent evidence that the programs also improved home safety, particularly among families who were socio-economically disadvantaged, at risk of child abuse and neglect, or who may benefit from extra support (e.g., teen mothers).

Another Cochrane review focused specifically on home safety education—interventions conducted in various settings to educate parents or other caregivers about home safety (Kendrick et al., 2012).

Previous reviews had found that home safety education could be effective in increasing some safety practices but that their impact on injury rates was unclear. Based on a review of 98 studies (about half U.S.-based), the review found that home safety interventions—most commonly provided as one-to-one, face-to-face education—were effective in increasing a range of safety practices, including safe hot tap water temperatures, functional smoke alarms, a fire escape plan, safe storage of medicine, keeping cleaning products out of reach, having poison control center numbers accessible, having fitted stair gates, and having socket covers on unused sockets. Interventions providing free, low-cost, or discounted safety equipment appeared to be more effective in improving some safety practices than other interventions. The review also found evidence that home safety education may reduce injury rates, particularly when delivered in the home.

Areas for future research

Modifications to the home. Two reviews addressed modifications to the home. The first was a Cochrane review assessing the effectiveness of environmental modifications made to the home, such as stair gates, improved lighting, and the removal of trip hazards (Turner et al., 2011). The review found 29 studies targeting different groups, including children, older adults, and the general population. None of the studies focusing on children showed a reduction in injuries directly caused by the environmental modification to the home. The review concluded that larger and better designed studies that measure injury reduction were needed. The second review (DARE and DoPHER) assessed the effectiveness of programs that supplied and/or installed home safety equipment in reducing unintentional injuries among children and adolescents ages 15 and younger (Pearson, Garside, Moxham, & Anderson, 2011). Findings from the 19 included studies were mixed and varied by type of equipment (e.g., smoke alarms, safety gates, window locks) and additional program components, such as a home risk assessment, an educational component, or integration into a broader health program.

Safe Communities model. A Cochrane review assessed the effectiveness of the World Health Organization (WHO) Safe Communities model for preventing injuries in whole populations (Spinks, Turner, Nixon, & McClure, 2009). The review included evaluations from 21 communities in five countries—Austria, Sweden, Norway, Australia, and New Zealand. Although the review found some reductions in injuries, the diversity of approaches and limited documentation of how the model was implemented made it difficult to draw conclusions regarding effectiveness.

Poisoning

Injuries related to poisoning—most often caused by exposure to household chemicals—are common among children and adolescents. Prevention practices generally focus on removing access to potentially harmful substances via safe storage and disposal, and providing quick access to poison control center information. These types of practices were often included in the unintentional injury prevention programs discussed above.

Prevention of Poisoning Among Children

Evidence-based strategy:

- Education of caregivers regarding poisoning prevention, particularly when conducted at home and combined with the provision of safety equipment

Notes:

- Engineering and legislative solutions (e.g., requirements regarding tamper-proof medication) are also generally recommended

Education of parents/caregivers. A meta-analysis (DARE and DoPHER) of programs combining caregiver education and safety equipment provision found that the interventions were effective in increasing several safety practices, including safe storage of medicines, and having poison control center contact information easily accessible (Kendrick, Smith, et al., 2008). The 18 included studies were diverse and included interventions conducted in clinical settings by health professionals; multi-component community injury prevention programs; and programs that provided parents with educational materials, such as videos, print materials, and computer-generated advice. Effect sizes were greater when free or subsidized safety equipment was provided with education, and when interventions were delivered at home rather that in clinical settings.

Another more recent review (DoPHER) assessed the effectiveness of non-legislative interventions to reduce childhood poisonings in the home, with a particular focus on interventions that could be implemented in community settings (Wynn et al., 2016). The paper combined an overview of existing reviews, with a systematic review of 47 studies. The reviewed strategies addressed education, provision of cupboard/drawer locks, and dissemination of stickers with poison control center numbers. Like the earlier review, it found that educational interventions helped increase the use of safety practices but could not determine if poisoning rates were reduced.

Falls

Falls are a leading cause of injury among children and adolescents. A number of safety practices are recommended for preventing these injuries.

Prevention of Injuries Related to Falls

Evidence-based strategies:

- Home safety education—effective in increasing the adoption of fall-prevention strategies.
- Equipment- and structure-based design of playgrounds based on safety standards—effective in reducing risk factors for playground injuries.

Home safety education. Two reviews focused specifically on falls prevention. The first (DARE and DoPHER) included 21 studies of home safety interventions targeting childhood falls (Kendrick, Watson, et al., 2008). Findings suggested that home safety education and the provision of safety equipment improved some fall-related practices but impact on injury rates was unclear. The second review (DoPHER), which looked at findings from 13 reviews and 24 studies, had similar findings (Young, Wynn, He, & Kendrick, 2013). The review found that home safety education was effective in increasing the use of several fall-prevention practices (e.g., increased use of safety gates and furniture corner covers, decreased use of baby walkers).

Prevention of playground injuries. A recent review by Canadian researchers (DoPHER) assessed the effectiveness of interventions, programs, and policies for reducing playground-related injuries among children and adolescents ages 17 and younger (Richmond, Clemens, Pike, & Macpherson, 2018). The review identified the following as risk factors for playground injuries: absence of handrails and guardrails on playground equipment, non-impact absorbing surfacing, and critical fall heights. Effective interventions included modifying playground surfacing and reducing equipment height to less than 1.5 meters (about 5 feet).

Education and training to prevent sports-related injuries. A review referenced earlier, which assessed the effectiveness of interventions aimed at preventing unintentional injuries among adolescents, found 24 studies that focused on sports-related injuries (Salam, et al., 2016). The interventions—particularly those that included education/training and the use of safety equipment—were found to be effective in reducing the incidence of injuries.

Prevention of concussions. Concussions, a type of traumatic brain injury (TBI) that can result from a violent blow or jolt to the head or body, can have serious and long-lasting consequences. Although children and adolescents may sustain concussive injury in many activities, such as riding a bicycle, being involved in an altercation, being a passenger in a motor vehicle accident, or falling down stairs, concussions are particularly common among children and adolescents who play contact sports.

All 50 states have concussion legislation in place to ensure that school personnel, athletes, and parents are informed of risks and that possible concussions are evaluated and cleared before an athlete can return to practice or competition. Resources include the CDC's Heads Up website (https://www.cdc.gov/headsup/index.html), which provides information for parents, sports coaches, school professionals, and health care providers on how to recognize, respond to, and minimize the risk of concussion or other serious brain injury.

Areas for future research

Community-based interventions for the prevention of craniofacial injuries. A Community Guide review assessed the effectiveness of community-based interventions aimed at encouraging the use of helmets, facemasks, and mouthguards in contact sports, as a way to prevent craniofacial injuries—injuries to the skull, jaw, or face (Community Preventive Services Task Force, 2013). The review noted that there is substantial evidence that mouthguards and facemasks are effective in preventing craniofacial injuries in contact sports, and of the efficacy of helmets in non-contact sports such as cycling and skiing. However, the review did not find sufficient evidence that interventions promoting the use of these types of protective equipment were effective in preventing injuries, in part because studies were very diverse and few measured this outcome.

Drowning

Drowning is one of the top three leading causes of death from unintentional injuries among children and adolescents ages 19 and younger (Centers for Disease Control and Prevention, 2019a). Risk factors vary by age, with infants being more at risk for drowning in the home, young children in pools, and adolescents when swimming in large bodies of water.

Prevention of Drowning

Evidence-based strategy:

- Pool fencing that encloses the pool but not the entire property

Pool fencing. A review of three studies conducted by the Cochrane Collaboration found evidence that pool fencing was effective for slightly reducing the risk of drowning among children (Thompson & Rivara, 2000). Findings also suggested that isolation fencing (enclosing pool only) was superior to perimeter fencing (enclosing property and pool) because perimeter fencing allowed access to the pool area through the house. The review concluded that four-sided fencing, with a secure, self-latching gate, should be used to isolate the pool from the house, and recommended that legislation be passed requiring this type of fencing around all pools.

Areas for future research

Other strategies. Two other reviews that focused on other strategies for drowning prevention (e.g., education, use of barriers, supervision) could not reach a conclusion regarding effectiveness due to study limitations (Leavy et al., 2016; Wallis et al., 2015).

Infant Suffocation

Sudden Infant Death Syndrome (SIDS) and suffocation caused more than 2,400 infant deaths in 2017 alone (Centers for Disease Control and Prevention, 2019a).

Prevention of Infant Suffocation

Notes:

- Evidence-based practices for preventing infant suffocation are available from the American Academy of Pediatrics

Evidence-based guidance on preventing sleep-related deaths among infants is available from the American Academy of Pediatrics (Task Force on Sudden Infant Death Syndrome, 2016). This guidance recommends placing infants to sleep on their backs on a firm sleep surface, in the same room as the caregiver but not on the same surface; avoiding the use of soft bedding and removing any objects that could block the infant's airway; and preventing exposure to tobacco smoke and other harmful substances. A number of different strategies can be used to promote the adoption of these practices. They include awareness campaigns, caregiver education, training of health providers, and quality improvement programs at birthing hospitals.

Areas for future research

Pacifiers and cardiorespiratory monitors. Two identified reviews assessed the effectiveness of pacifiers (Psaila, Foster, Pulbrook, & Jeffery, 2017) and cardiorespiratory monitors (Strehle et al., 2012) for the prevention of sudden infant death syndrome (SIDS), but neither found sufficient evidence on which to base a conclusion.

Transportation-Related Injuries

Motor Vehicle-Related for Child Passengers

The use of child safety seats and booster seats are the recommended practices for preventing these injuries. The identified reviews indicate that several strategies can be effective for increasing the use of these safety devices.

Prevention of Motor Vehicle-Related Injuries for Child Passengers

Evidence-based strategies:

For promoting child safety seat use:

- Laws mandating use
- Community-wide information and enhanced enforcement campaigns
- Distribution and education
- Incentives and education

For promoting booster seat use:

- Incentives combined with education
- Distribution of free booster seats combined with education
- Education

Strategies for increasing child safety seat use. A Community Guide review of 72 studies found evidence that four types of strategies for increasing child safety seat use were effective in improving child passenger safety (Zaza, Sleet, Thompson, Sosin, & Bolen, 2001): laws mandating use, community-wide information and enhanced enforcement campaigns, distribution and education programs, and incentive and education programs.

Strategies for increasing booster seat use. A Cochrane review assessed the effectiveness of interventions promoting the use of booster seats among children

ages 4 to 8 years (Ehiri et al., 2006). Based on evidence from the five studies, the review found support for several interventions, including incentives combined with education, distribution of free booster seats combined with education, and education-only interventions.

A more recent review (DARE and DoPHER) focused specifically on passenger safety among American Indian/Alaska Native children and adolescents in the United States and aboriginal children and adolescents in Canada ages 19 and younger (Ishikawa, Oudie, Desapriya, Turcotte, & Pike, 2014). The review of 13 studies found evidence that multi-component interventions tailored to the community's needs and circumstances, which combined four strategies—distribution of child safety seats, installation of child safety seats, community-wide education campaigns, and child safety seat technician training—were effective in improving short-term outcomes.

Motor Vehicle-Related for Teen Drivers

Teen drivers are particularly at risk for crashes right after they begin to drive on their own. A recent NIH study found that teen drivers were eight times more likely to be involved in a collision or near miss in the first three months after getting a driver's license, compared to the previous three months (Gershon et al., 2018). They were also four times more likely to engage in risky behaviors, such as accelerating rapidly, breaking suddenly, and making hard turns. In contrast, those on a learner's permit drove more safely, with outcomes more similar than those of adult drivers. While the learner driving period was relatively safe for adolescents, the transition to independent driving was linked to a dramatic increase in risk.

Although the prevention of injuries related to motor vehicle crashes is a well-researched area, many existing studies and reviews have focused on motor vehicle safety among all drivers, rather than teens only. Findings from that research suggest that the most effective strategies are often legislative in nature (e.g., enforcement of laws addressing speed limits, alcohol use, use of seat belts and motorcycle helmets).

Prevention of Motor Vehicle-Related Injuries for Teen Drivers

Evidence-based strategies:

For reducing crash rates:

- Graduated driver licensing (GDL) laws and enforcement

For reducing alcohol-impaired driving:

- Maintaining minimum legal drinking age (MLDA) laws
- Lower blood alcohol concentration (BAC) laws for young or inexperienced drivers (both .08 BAC laws and "zero tolerance" laws that set a lower BAC limit for these drivers)

For reducing riding with drinking drivers:

- Universal school-based instructional programs (effective in reducing riding with drinking drivers)

Graduated Driver Licensing (GDL) laws and enforcement. A number of reviews found evidence that graduated driver licensing (GDL) is effective in reducing crash rates among young drivers. Among them is a Cochrane review that found that stronger GDL programs were associated with greater fatality reduction (Russell, Vandermeer, & Hartling, 2011). An earlier review (DARE) found positive results (usually crash reductions) of varying degrees in nearly all 21 included studies (Shope, 2007). Overall, GDL programs reduced the youngest drivers' crash risk by roughly 20 to 40 percent.

A review addressing the prevention of unintentional injuries among adolescents, referenced earlier, also found support for GDL as a strategy for reducing motor vehicle-related injuries among adolescents (Salam, et al., 2016). The review assessed the effectiveness of 11 studies aimed at preventing motor vehicle related injuries among adolescents. Findings from five studies that reported the impact of GDL on road accidents suggested that it significantly reduced accidents by 19 percent.

Alcohol-impaired driving laws and enforcement. Findings from several Community Guide reviews of motor vehicle safety are relevant to teen drivers. Among them is a review that assessed the effectiveness of strategies for reducing alcohol-impaired driving, including laws regarding the minimum legal drinking age (MLDA), currently set at 21 years in all states, and blood alcohol concentration (BAC) (Shults et al., 2001). The review found strong evidence that .08 BAC laws were effective in reducing alcohol-related crash fatalities and sufficient evidence that "zero tolerance" laws that reduce this limit (in many cases, to slightly above zero) for young or inexperienced drivers were effective in reducing alcohol-related crashes. The review also found strong evidence that MLDA laws, particularly those that set the legal drinking age at 21 years, were effective in preventing alcohol-related crashes and associated injuries.

School-based programs. Another Community Guide review assessed the effectiveness of school-based programs for reducing two outcomes: drinking and driving; and riding with drivers who have been drinking (Elder et al., 2005). The review of 19 studies found sufficient evidence that school-based instructional programs were effective in reducing riding with drinking drivers. The reviewed programs were universal in nature (not tailored to the needs of at-risk students) and delivered in sessions to high school juniors and seniors. In general, the programs provided comprehensive information regarding alcohol use and its consequences, sought to develop resistance skills, and were interactive in delivery.

Findings from a Cochrane review that focused on driver education programs conducted in schools and universities identified potential harms associated with these interventions (Ian & Irene, 2001). The review included three studies conducted in the United States, New Zealand, and Australia, which assessed the effectiveness of driver education programs in preventing traffic crashes. It concluded that education programs led to early licensing but did not reduce involvement in road crashes and could potentially lead to a small increase in the proportion of teens involved in crashes.

Bicycle-Related

Three Cochrane reviews found support for both legislative and non-legislative strategies aimed at preventing bicycle-related injuries.

Increasing helmet use. The first review assessed the effectiveness of helmets for preventing head and facial injuries in bicyclists (Thompson, Rivara, & Thompson, 2000). Based on a review of five well-conducted case control studies, the review found evidence that helmets reduced bicycle-related head and facial injuries for

Prevention of Bicycle-Related Injuries

Evidence-based strategies:

For increasing the ownership and use of bicycle helmets:

- Laws mandating use
- Community- and school-based education, particularly when combined with the distribution of free helmets

bicyclists of all ages involved in all types of crashes, including those involving motor vehicles.

The other two reviews found that both legislative and non-legislative strategies were effective in increasing bicycle helmet use among children. A review of six studies addressing legislation requiring children to wear bicycle helmets found evidence that this strategy was effective in increasing helmet use and decreasing head injury rates (Macpherson & Spinks, 2008). The second review found support for non-legislative interventions (Owen, Kendrick, Mulvaney, Coleman, & Royal, 2011). Based on evidence from 29 studies (18 U.S.-based), the review found that interventions conducted in community and school settings were effective in increasing helmet ownership and use. Findings suggested that the interventions may be more effective when provided to younger children.

Areas for future research

Bicycle skills training. The last review in this area (DARE and DoPHER) focused on bicycle skills training programs for children and adolescents under the age of 19 years (Richmond, Zhang, Stover, Howard, & Macarthur, 2014). Findings from 25 studies suggested that some training programs increase knowledge of cycling safety.

Child Pedestrian-Related

Education of children. Another review (DARE and DoPHER) focused on child pedestrian safety. Findings from 25 studies in eight countries (including the United States) suggested that educational interventions for young children were effective in increasing the use safety practices, both immediately after the training and at several months of follow-up (Schwebel et al., 2014). Interventions using individualized or small group training sessions were more likely to be effective than other approaches (e.g., computer-based, videos, peer-group activities).

Other Unintentional Injuries

Firearm-Related

Prevention of firearm injuries. A recent study of state-level child and adolescent access prevention (CAP) laws found that stronger laws requiring the safe storage of firearms were associated with greater reductions in pediatric firearm injuries than weaker laws (Hamilton, Miller, Cox, Lally, & Austin, 2018).

Areas for future research

Firearm laws. Two Community Guide reviews assessed the effectiveness of firearm laws—including zero tolerance laws in schools (Hahn et al., 2003) and child and adolescent access prevention (CAP) laws (Hahn et al., 2005). Both found insufficient evidence to reach a conclusion regarding effectiveness.

Prevention of Substance Abuse

Underage Alcohol Use

Underage drinking is linked with a wide range of serious and often long-lasting consequences for youth, increasing the risk for accidents, motor vehicle crashes, and violence. Research also suggests that heavy drinking can affect the structure and function of the adolescent brain (Squeglia, Jacobus, & Tapert, 2014).

Prevention of Underage Alcohol Use

Evidence-based strategies:

- Family-based psychosocial and educational programs
- School-based prevention programs (particularly for drunkenness and binge drinking); universal programs that are broad in focus more likely to be effective
- Enhanced enforcement of laws prohibiting alcohol sales to minors: effective in reducing these sales

All preventive strategies. A review in the DoPHER database assessed the effectiveness of universal (for all groups), selective (for selected subgroups), and indicated (for individuals at risk) interventions aimed at preventing underage drinking (Spoth, Greenberg, & Turrisi, 2008). The review included programs for children and adolescents ages 20 and younger. Only interventions focused specifically on alcohol outcomes or risk factors for problematic alcohol use were included.

The review found 41 studies that met its quality assessment criteria, with 12 being identified as having the most promising evidence of effectiveness and 29 as having mixed or emerging evidence of effectiveness. The authors concluded that a number of preventive interventions, particularly universal and selective ones, significantly reduced underage drinking and increased protective factors among children and adolescents. In the infant and preschool age group, these were often family-focused interventions that built skills and relationships, which were found to reduce aggressive behaviors (a risk factor for underage drinking). Although fewer family-focused interventions had been implemented with elementary and middle school students, these programs also showed promise in reducing risk factors for alcohol use. Among adolescents, school-based programs addressing skill building and social norms were found to reduce early initiation and progression in use. The review also found some evidence that environmental-level strategies, such as minimum drinking age and zero-tolerance laws (and their enforcement) were effective in reducing rates of underage drinking, car crashes, and deaths. It did not find any stand-alone media interventions with strong evidence of effectiveness for reducing underage drinking.

Family-based psychosocial and educational programs. A Cochrane review examined the effectiveness of 12 studies of universal family-based psychosocial and educational programs for preventing alcohol misuse among school age children and adolescents ages 18 and younger (Foxcroft & Tsertsvadze, 2011b). Conducted in family settings, the programs provided education about alcohol use among adolescents, and also addressed attitudes, self-esteem, peer resistance, and the development of social skills. Other components addressed the development of parental rules, monitoring and supervision, support, communication, and conflict resolution. Nine of the 12

studies showed small effects across a range of outcome measures for alcohol misuse prevention—both short-term and long-term.

School-based programs. A Cochrane review assessed the effectiveness of universal school-based prevention programs aimed at preventing alcohol misuse among students ages 18 and younger (Foxcroft & Tsertsvadze, 2011a). The purpose was to determine if psychosocial (i.e., aimed at developing psychological or social skills through modeling, norm-setting, and social skill practice) and educational (aimed at increasing knowledge of the potential dangers of drinking) prevention programs prevented alcohol misuse compared with standard school curriculum. The types of programs described in the 53 included studies fell into two major categories: programs that focused specifically on alcohol misuse, and programs that were broader in focus (e.g., prevention of alcohol, tobacco, and other drug use and/or violence). Findings from both types of studies were mixed, with some showing some effect and others showing none. The most commonly observed positive effects across all programs were for drunkenness and binge drinking. General prevention programs focused on psychological or developmental approaches (e.g., Life Skills Training Program, Good Behavior Game, and Unplugged—a European program that targets all substances of abuse) were more likely to report long-lasting positive effects than alcohol-specific programs.

Another review (DoPHER) examined findings from a meta-analysis published in 2011 and 12 more recent RCTs (6 from North America, 5 from Europe, and 1 from China) of programs delivered to students ages 10 to 19 years (Agabio et al., 2015). The 12 trials evaluated the effectiveness of different programs combining education and skills development. Although the earlier meta-analysis had not found evidence of effectiveness, in 7 of 12 recent trials (including three European trials that focused on the Unplugged program), adolescents who participated in the prevention program achieved better outcomes than those in the control groups.

A report (DoPHER) prepared by the United Kingdom's National Foundation for Educational Research reviewed the effectiveness of school-based life skills and alcohol education programs (Martin, Nelson, & Lynch, 2013). This review of 40 studies found substantial evidence that the programs increased knowledge and awareness of alcohol-related issues. Effects on other outcomes, such as attitudes, skills, and behaviors, were mixed.

Enforcement of minimum drinking age laws. As noted, all states have set 21 as the minimum age for legal drinking. A Community Guide review assessed the effectiveness of enhanced enforcement of laws prohibiting alcohol sales to minors in reducing sales and underage drinking (Elder et al., 2007). This strategy focused on increasing the frequency of retailer compliance checks conducted by "decoys" to find out if retailers will sell alcohol to minors. The review included eight programs in which compliance checks were implemented by or coordinated with local law enforcement or the local ABC agency and resulted in legal or administrative sanctions for violators. Enhanced enforcement programs were consistently associated with a substantially lower probability that retailers would provide alcohol to minors. However, these effects diminished quickly if enforcement was discontinued.

Multi-component programs. A Cochrane review focused on multi-component programs (Foxcroft & Tsertsvadze, 2011c). The review included 20 trials of universal multi-component prevention interventions (e.g., interventions combining a school-based program with parent education and/or a media campaign) for students ages 18 or younger. Although results were mixed, 12 of the 20 trials

showed some evidence of effectiveness when compared to a control or intervention group, with results lasting for up to three years. The review concluded that there was some evidence that the interventions could be effective.

Areas for future research

Family interventions. A review and meta-analysis (DARE and DoPHER) assessed the effectiveness of family interventions in reducing adolescent drinking (Smit, Verdurmen, Monshouwer, & Smit, 2008). The review included 18 studies of diverse programs for youth ages 16 and younger and caregivers, including home-based sessions, family meetings and follow-up telephone calls; video and print materials; clinician messages encouraging family communication and rule setting regarding alcohol and tobacco use; educational materials; and training in parenting skills. Although the review found a small but consistent effect on reducing adolescent drinking, measured outcomes and results varied across the included studies and study quality was not assessed.

Alcohol advertising. Another Cochrane review focused on restrictions on alcohol advertising as a strategy for reducing alcohol use among adolescents and adults (Siegfried et al., 2014). Only four studies met review criteria. One was a small trial in the Netherlands and the others were interrupted time series studies conducted in Canada in the 1970s and 1980s. Study findings did not indicate a clear effect for or against banning or restricting alcohol advertising.

Illegal Drug Use

Strategies for preventing illegal drug use among children and adolescents are similar to those used to prevent alcohol use, described above. Among them, school-based programs are the most researched intervention. In many cases, the programs focus on both alcohol and other drug use prevention, as well as the prevention of other related problems, such as violence.

Prevention of Drug Use

Evidence-based strategy:

- School-based drug prevention programs—particularly those that focus on social competence and social norms

School-based programs. A Cochrane review assessed the effectiveness of 51 school-based programs, 41 of which were U.S.-based (Faggiano, Minozzi, Versino, & Buscemi, 2014). The programs could be categorized as: (1) knowledge-focused curricula; (2) social competence curricula (focusing on social skills, resistance skills, problem solving, decision making, and other skills and competencies); (3) social norms approaches (e.g., correcting misperceptions about prevalence of drinking, helping to recognize high-risk situations, increasing awareness of peer and other influences, teaching and practicing refusal skills); or a combination of these approaches. Most of the included programs (n=28) used a social competence approach. These programs tended to reduce the use of substances and the intention to use but the results were seldom statistically significant. Programs based on social influence showed weak effects that were rarely significant. Programs that combined social competence and social norms approaches seemed effective in preventing drug use. The two programs that featured only a knowledge-based curriculum were found to increase knowledge but no other outcomes. Similar to the review of school-based programs addressing alcohol use, the review identified three specific programs—Life Skills Training (LST), Good Behavior Game (GBG), and Unplugged—as showing a consistent pattern of positive results.

Two other reviews, included in both the DARE and DoPHER databases, also focused on school-based interventions—with one focusing on programs for high school students and the other on programs facilitated by computers or the Internet. The first reviewed the effectiveness of high school-based programs for preventing alcohol, tobacco, and other drug use conducted from 2005 to 2012 (Sharma & Branscum, 2013). The review identified 12 studies (seven U.S.-based) that measured substance use behaviors. Seven of the evaluated programs found significant changes in substance use from before to after the intervention: Project Toward No Dug Abuse, Project SPORT, Teen Intervention Project – Cherokee, Motivational Interviewing, NARCONON™ drug education curriculum, Cognition-Motivation-Emotional Intelligence Resistance Skills, and the Adventure trial. The programs were diverse in duration, use of theory, and other characteristics.

The second review focused on school-based computer and Internet-based prevention programs (Champion, Newton, Barrett, & Teesson, 2013). The review identified 10 programs, conducted mostly in the United States and Australia with students ages 13 to 15 years, addressing the prevention of alcohol, tobacco, and/or marijuana use using the Internet or CD-ROMs. The programs were all universal and tended to focus on education, norms, and skill building (e.g., resistance skills). Of these seven programs that provided the data needed to calculate effect sizes, six found reductions in substance use immediately after the intervention and at follow-up. The review concluded that Internet-facilitated programs offer a promising delivery method for school-based alcohol and other drug prevention.

Areas for future research

Non-school settings. Findings from a Cochrane review of interventions conducted in non-school settings were less promising. The review found 17 studies that used four main strategies to prevent or reduce drug use among children, adolescents, and young adults ages 25 and younger: motivational interviewing or brief intervention, education or skills training, family interventions, and multi-component interventions (Gates, McCambridge, Smith, & Foxcroft, 2006). Due to diversity across studies and methodological limitations, the review could not reach a conclusion regarding effectiveness.

Media campaigns. Findings from a Cochrane review of media campaigns were less promising. The review focused on media campaigns aimed at preventing or reducing the use or intention to use illegal drugs among young people ages 26 or younger (Ferri, Allara, Bo, Gasparrini, & Faggiano, 2013). The review included 23 studies, almost all U.S.-based, using a variety of approaches—including national campaigns, PSAs, TV messages, videos, and Internet-based campaigns—addressing different drugs (e.g., marijuana, methamphetamines), and conducted in various settings. Findings regarding effectiveness were mixed and, in some cases, suggested possible harm (e.g., campaign exposure was linked to increased use of marijuana).

Prescription drug misuse. None of the identified reviewed assessed the effectiveness of strategies specifically aimed at preventing prescription drug misuse. However, this type of substance misuse can be addressed in programs aimed at preventing use of illegal drugs, discussed above.

Much of the recent literature on prescription drug abuse has focused on opioid pain medications. Proposed approaches for addressing the opioid epidemic combine multiple strategies, such as physician education on pain management, prescription drug monitoring programs (PMDPs), naloxone

distribution for overdose prevention, and statewide awareness campaigns. Although there is evidence that strategies such as the use of PMDPs, restrictions on pain clinics, and naloxone distribution can reduce overdose deaths, less is known about the effectiveness of primary prevention programs (Compton, Boyle, & Wargo, 2015).

Although existing evidence is limited, a recent review of three studies found that family-focused educational programs delivered in school and community settings can be effective in preventing misuse (Spoth et al., 2013). The programs for middle-schools students combined family and school-based sessions addressing general risk and protective factors for substance misuse. Although not focused specifically on prescription drug misuse, the programs were found to have long-term effectiveness in preventing the misuse of opioid pain medications and other prescription drugs among both low- and high-risk students.

Prevention of Violence and Self-Harm

Most of the identified reviews focused on interventions for preventing or reducing violence directed at others, rather than self-harm.

Child Maltreatment

Child maltreatment—including neglect, physical abuse, psychological maltreatment, and sexual abuse—is a serious problem that can have long-lasting negative consequences. Child maltreatment is linked to a wide range of serious problems, including injuries and other physical health problems, anxiety, depression, low academic achievement, substance abuse, heart disease, and violence (Zimmerman & Mercy, 2010). Findings from the Adverse Childhood Experiences Study (ACEs), an ongoing study of more than 17,000 adults enrolled in the Kaiser Permanente health care system, suggest early trauma may lead to a shorter life expectancy (Brown et al., 2009).

Prevention of Child Maltreatment

Evidence-based strategies:

- Early childhood home visitation programs—effective in reducing reported child maltreatment
- School-based child sexual abuse prevention programs—effective in increasing knowledge and protective behaviors among elementary school students

Interventions for preventing or reducing child maltreatment. A recent meta-analysis (DoPHER) focused on interventions aimed at preventing (preventive) and/or reducing (curative) child maltreatment (van der Put, Assink, Gubbels, & Boekhout van Solinge, 2018). A meta-analysis of 121 studies found that both types of interventions resulted in small positive effects. Cognitive behavioral therapy, home visitation, parent training, family-based/multisystemic, substance abuse, and combined interventions were effective in preventing and/or reducing child maltreatment. For preventive interventions, larger effect sizes were found for short-term interventions (0-6 months), interventions focusing on increasing self-confidence of parents, and interventions delivered by professionals only. Effect sizes increased as follow-up duration increased. For curative interventions, larger effect sizes were found for interventions focusing on improving parenting skills and interventions providing social and/or emotional support.

Home visitation. The most common and researched strategy for preventing child maltreatment is home visitation—a multi-component intervention that provides parents with support in multiple areas, such as managing stress, accessing government resources—along with specific information and skills related to parenting. A Community Guide review found strong evidence of the effectiveness of early childhood home visitation programs in reducing child maltreatment (Bilukha et al., 2005). The review identified 22 studies (21 in the United States and 1 in Canada) that assessed the effects of home visitation on subsequent maltreatment (abuse or neglect) of visited children. The programs generally served low-income families and other populations that can benefit from greater supports and services, such as teen mothers and single parents. Factors associated with greater effectiveness included the use of longer programs and delivery by professionally trained staff (i.e., nurses, mental health professionals), rather than paraprofessionals.

In a more recent review (DoPHER), programs aimed at reducing existing maltreatment were more likely to be effective than those aimed at primary prevention. (Euser, Alink, Stoltenborgh, Bakermans-Kranenburg, & van IJzendoorn, 2015). Additional characteristics linked to effectiveness included parental training over a moderate duration (6-12 months), and a moderate number of sessions (16-30).

School-based programs for preventing child sexual abuse. A Cochrane review assessed the effectiveness of school-based programs for preventing child sexual abuse (Walsh, Zwi, Woolfenden, & Shlonsky, 2015). The review noted that these programs, started in the 1980s, have been the most widely used primary prevention strategy for preventing child sexual abuse. The review included 24 studies conducted in the United States (16 studies), Canada, China, Germany, Spain, Taiwan, and Turkey. Of these, 23 were conducted in elementary schools and one in a special school for adolescents with intellectual disabilities. Commonly included elements included safety rules, body ownership, types of touches, secrecy, and whom to tell. All programs were delivered in person and were generally interactive (e.g., role plays, modeling, discussion). The included studies showed evidence of improvements in protective behaviors and knowledge among children and adolescents exposed to school-based programs.

Youth Violence

Overall Youth Violence

Strategies for preventing youth-perpetrated violence. One of the identified reviews (DARE) sought to synthesize the existing evidence regarding strategies aimed at preventing violence among children and adolescents ages 18 and younger (Fagan & Catalano, 2012). Based on a review of systematic reviews and individual studies, the researchers identified 17 strategies as producing a significant reduction in perpetrated physical or sexual violence. These strategies included: early childhood education programs for children from economically disadvantaged families, school-based programs, interventions combining a school-based curriculum with a family component, parent training/family therapy interventions, and community-based interventions.

School-based programs. The Community Guide recommends universal school-based programs for the prevention of violence and aggressive behavior on the basis of strong evidence of effectiveness. This recommendation is based on a systematic review of 53 studies (Hahn et al., 2007). The programs were found to be effective at all school levels, from kindergarten through high school, and across different populations. All school program intervention strategies (e.g., informational, cognitive/affective, and social skills building) were associated with a reduction in violent behavior. All areas of program focus (e.g., disruptive or antisocial behavior, bullying, dating violence) were associated with reduced violent behavior. The review concluded that "universal school-based violence prevention programs are an important means of reducing violent and aggressive behavior in our society" (p. 33(2S)).

Prevention of Youth Violence

Evidence-based strategies:

- Universal school-based programs—effective in preventing violence and aggressive behavior
- School-based programs for youth identified as aggressive or at risk of being aggressive, particularly programs delivered to younger children and that focus on relationship and social skills — effective in reducing aggressive behavior
- Mentoring programs for children and adolescents at risk for or exhibiting delinquent behavior, particularly programs that emphasize emotional support and advocacy

A similar Cochrane review assessed the effectiveness of school-based programs for preventing violence among a specific subset of children and adolescents—those identified as aggressive or at risk of being aggressive (Mytton, DiGuiseppi, Gough, Taylor, & Logan, 2006). Designed to reduce aggression, violence, bullying, conflict, or anger, the programs varied tremendously regarding the process for selecting participants and type of intervention—e.g., from a single 2-hour discussion group on conflict resolution to more than 53 hours spread over two years. The review found evidence that school-based programs are effective in reducing reported and observed aggressive behavior (e.g., aggression scale scores, referrals to the headteacher). Subgroup analyses suggest that programs designed to improve relationship or social skills (e.g., how to develop good relationships, listening skills, responding appropriately to feelings, working cooperatively with others, asserting oneself in a constructive manner) may be more effective than interventions designed to teach skills of non-response to provocative situations. The review also found that benefits were similar when the programs were delivered to children in primary versus secondary school.

Two other reviews (DoPHER) also assessed the effectiveness of school-based violence prevention programs. The first, a meta-analysis of 26 RCTs, did not find evidence that the school-based programs were effective in reducing aggression or violence among children in grades 1 to 11 (Park-Higgerson, Perumean-Chaney, Bartolucci, Grimley, & Singh, 2008). The other, a more recent review, focused on universal school-based violence prevention programs for students ages 11 to 18 years (Gavine, Donnelly, & Damien, 2016). The review included 21 studies of 16 programs conducted mainly in the United States. Findings were mixed, with some studies showing small beneficial effects. Programs that combined social development and social norms approaches appeared to be the most effective.

Mentoring. A Campbell review assessed the effectiveness of mentoring interventions in preventing and reducing juvenile delinquency and associated problems, including aggression and drug use, among youth at risk for delinquency (Tolan et al., 2013). The review identified four processes as central to mentoring: (1) identification of the recipient with the mentor; (2) provision of information or teaching that helps the recipient address challenges; (3) advocacy for the recipient in various systems and settings; and (4) emotional support to promote self-efficacy, confidence, and sense of mattering (p. 17). The studies focused only on children and adolescents currently showing delinquent behaviors or who had risk factors for delinquency. The review included seven studies that measured aggression and six studies that measured drug use. Findings indicated that mentoring had a significant although modest positive effect in reducing aggression and drug use. Although the studies often failed to provide a detailed description of the mentoring programs, those emphasizing emotional support and advocacy appeared to have stronger effects than the others. Effects were also larger when mentors were motivated to participate by interest in advancing their professional careers.

Potentially harmful strategies. A strategy that is not recommended is the enactment of laws and policies facilitating the transfer of juveniles from the juvenile justice system to the adult justice system for the purpose of reducing violence. A Community Guide review found that doing so generally increases, rather than decreases, rates of violence among transferred youth (McGowan et al., 2007).

Bullying

Prevention of Bullying

Evidence-based strategies:

- Universal school-based programs—effective in reducing bullying and being bullied
- Education of children and parents about cyber abuse—effective in increasing knowledge

School-based programs. A Campbell review assessed the effectiveness of school-based anti-bullying programs (Farrington & Ttofi, 2009). The review defined bullying as "physical, verbal, or psychological attack or intimidation that is intended to cause fear, distress, or harm to the victim; and an imbalance of power (psychological or physical), with a more power child (or children) oppressing less powerful ones; and repeated incidents between the same children and over a prolonged period (p. 9). Its meta-analysis of 44 programs conducted in worldwide (10 U.S.-based) showed that, overall, school-based bullying programs were effective in reducing bullying and being bullied. The most important program elements associated with a decrease in bullying were parent training/meetings, improved playground supervision, disciplinary methods, classroom management, teacher training, classroom rules, whole-school anti-bullying policy, school conferences, information for parents, and cooperative group work. In addition, the total number of elements and the duration and intensity of the program for teachers and children were significantly associated with a decrease in bullying.

Two other reviews of school-based bullying prevention programs also had mostly positive findings. The first (DARE and DoPHER) included 32 studies of 24 bullying interventions conducted from 2009 to 2013 (Evans, Fraser, & Cotter, 2014). Half of the 22 studies that examined bullying perpetration observed significant effects. Of the 27 that examined victimization, two-thirds reported significant

effects. In the second study (DOPHER), findings from a meta-analysis of 13 studies indicated that school-based anti-bullying programs had a small to moderate effect on victimization (Lee, Kim, & Kim, 2015).

A Campbell review that focused on cyber abuse found that educational interventions increased Internet safety knowledge, but not risk attitudes or behaviors (Mishna, Cook, Saini, Wu, & MacFadden, 2009). The review defined cyber abuse as "the abuse of children or adolescents in the form of bullying, sexual solicitation, stalking, or child pornography, or any other type of physical or emotional harm" enabled by the use of information and communication technologies (p. 11). Strategies for preventing cyber abuse have focused have focused on education of children and parents, and the use of technology to filter or block inappropriate or offensive content. Only three programs met inclusion criteria: the I-SAFE cyber safety curriculum (U.S.); the Missing Program cyber safety program, which includes an interactive computer game (Canada); and HAHASO school-based cyber bullying curriculum (Canada). Participation was linked to increases in Internet safety knowledge (e.g., managing online risk, identifying online predators) but not risky behaviors, such as disclosing one's name or e-mailing strangers.

Dating Violence

Dating violence can include a range of behaviors perpetrated by a current or former partner or spouse, including threats, verbal abuse, physical and/or sexual assault, rape, and murder.

Prevention of Dating Violence

Evidence-based strategy:

- Educational approaches—e.g., school-based and community-based programs—have been shown to have an impact on knowledge and attitudes

School-based programs. A Campbell review assessed the effectiveness of school-based interventions aimed at preventing or reducing dating violence among adolescents (Rue, Polanin, Espelage, & Pigott, 2014). The review included 23 studies (22 from the United States, 1 from Canada) of programs conducted with students in middle or high school (grades 6-12). In most studies (n=15), the educational curriculum was delivered by teachers, although others made use of adults and professionals from the community. The review found that the preventive programs had an impact on knowledge and attitudes—reducing the acceptance of rape myths and increasing awareness of appropriate approaches to conflict resolution. The review concluded that school-based programs show promise in increasing knowledge and awareness but that their impact on behaviors is still unclear. Future programs should more strongly support behavior change by incorporating skills-building components.

Bystander programs for sexual assault prevention. A recent Campbell review assessed the effectiveness of programs that encourage adolescents and college students to intervene when witnessing incidents or warning signs of sexual assault (Kettrey, Marx, & Tanner-Smith, 2019). Rather than focusing on how young people should change their behaviors to respect others' sexual boundaries or reduce the risk of becoming a victim, these programs foster knowledge and skills related to intervening on behalf of potential victims. Findings from 27 studies (25 U.S.-based) suggest that bystander programs increase the likelihood that young people will intervene when they witness these types of incidents or warning signs.

Areas for future research

Other education/skills building. Another review, conducted by Cochrane, assessed the effectiveness of educational and skills-based interventions for adolescents and young adults ages 12 to 25 years, conducted in schools, universities, and community settings (Fellmeth, Heffernan, Nurse, Habibula, & Sethi, 2013). The review included 37 studies conducted in the United States and 1 in the Republic of Korea. Thirty-five studies were done in educational settings (25 in universities, 10 in high schools), and 3 in community settings (health clinics, prison or courtroom, and community center). Most were universal in nature. The interventions were mainly educational in approach. Findings suggested a small increase in knowledge related attitudes, behaviors, and skills. The review noted that the studies were very diverse, and that further studies with longer follow-up are needed.

Another review (DoPHER), conducted by a team of international researchers, examined the effectiveness of interventions conducted in schools and/or communities to prevent adolescent intimate partner violence (De Koker, Mathews, Zuch, Bastien, & Mason-Jones, 2014). The review included six RCTs—four from the U.S., one from Canada, and one from South Africa. The effective studies combined individual-level curricula with community-based components. Half of the studies found positive effects on perpetration, and one found positive effects on victimization. The review concluded that the findings were promising, but more research is needed.

Suicide and Other Self-Harm

After unintentional injuries, suicide is the second leading cause of death among youth ages 10 to 19 years (Centers for Disease Control and Prevention, 2019a). In 2017 alone, more than 3,000 young people in that age group died by suicide. Although two well-known reviews have identified a number of strategies as being effective in preventing suicide in general—e.g., restricting access to lethal means (Mann et al., 2005; Zalsman et al., 2016)— less is known about strategies specific to youth.

Prevention of Suicide and Other Self-Harm

Evidence-based strategy:

- Universal school-based programs—limited evidence of effectiveness in reducing suicide ideation, attempts, and deliberate self-harm

School-based programs. Four identified reviews focused on school-based suicide prevention programs. The first review (DARE) that assessed the effectiveness of 16 programs (Katz et al., 2013). The review noted that although most programs measured only improvements in knowledge and attitudes toward suicide among students and school personnel, two programs—Signs of Suicide and the Good Behavior Game—found reductions in suicide attempts. Some programs also were found to reduce suicide ideation and improve general life skills. The review concluded that there were few randomized controlled trials and that further research was needed. The second review found that the evidence was limited but suggested that the most promising strategies appeared to be gatekeeper training and screening programs (Robinson et al., 2013).

Areas for future research

Pyschosocial interventions. One review (DoPHER) assessed the effectiveness of psychosocial interventions, which can be used for prevention or treatment (Calear et al., 2016). These programs, which typically use therapeutic approaches, such as cognitive behavior therapy (CBT), dialectical behavior therapy (DBT) and problem-solving therapy, can be delivered to youth in general or to at-risk groups. The review assessed the effectiveness of these interventions in preventing or reducing self-harm and suicide among adolescents and young adults ages 12 to 25 years. It included 28 trials—15 were conducted in a clinical setting, 10 in schools, and 7 in another community setting. The programs were delivered mainly face-to-face. Overall, just over half of the programs reported significant effects on suicidal ideation, suicide attempts, and deliberate self-harm. The review concluded that, although more research was needed, preliminary findings suggested that these types of programs can be effective.

Conclusions

This report synthesizes findings from systematic reviews of child injury prevention interventions conducted or disseminated by the Community Guide, Cochrane Collaboration, Campbell Collaboration, EPPI, and CRD. Full lists of reviews are provided in the Appendix.

Findings from the identified reviews suggest that many strategies may be effective in preventing child injuries and violence. Examples include home visiting programs that provide education and other supports to caregivers, school-based educational programs aimed at preventing various risk behaviors, and laws addressing road safety (e.g., minimum drinking age laws, booster seat laws).

The findings also suggest several areas where more research may be needed. An example is interventions for preventing various types of unintentional injuries among adolescents (e.g., drowning, falls). The only review that focused on unintentional injuries in this age group found only studies addressing injuries related to sports and motor vehicles (Salam, et al., 2016). Findings from this synthesis also suggest that more research is needed on effective strategies for preventing suicide and other self-harm among adolescents.

In some cases, the reviews only found limited evidence of effectiveness or could not reach a conclusion regarding intervention effectiveness. These types of findings often result when reviewers are unable to find sufficient high-quality studies, or when the identified studies are very diverse regarding included populations, components, and outcomes. These types of findings often suggest that more research is needed.

Child injury prevention is a broad field that encompasses different age groups and types of injuries. The reviews presented here do not represent a comprehensive list of recent reviews conducted in all of these areas. Findings from other existing reviews and studies may also be useful to program planners.

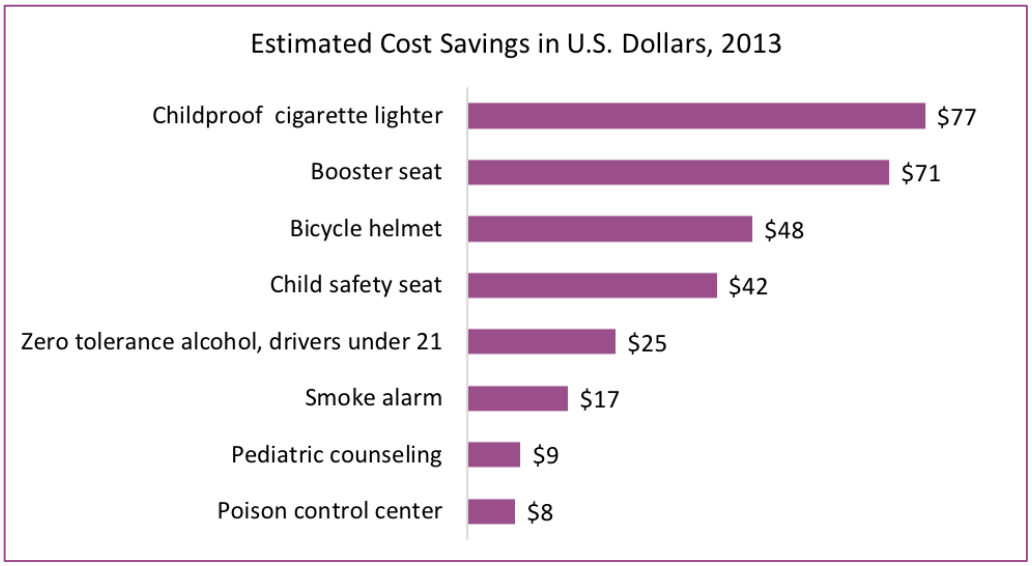
Strategy selection should be guided by research—not only on effectiveness but also regarding fit and appropriateness (e.g., the local problem, groups affected, risk and protective factors, needs and

resources, cultural characteristics and preferences). In many cases, a combination of strategies may be needed.

Considerations

The burden of child and adolescent injuries is borne not only by children and adolescents themselves, but also by families, communities, and society as a whole. The information on injury prevention strategies in this paper may guide national and local efforts to reduce injury and violence among children and adolescents. When selecting a best practice to implement in your community, consider evidence-based strategies that have shown to be cost-effective. Cost-effective strategies can help raise awareness of the injury burden; help identify priority strategies and programs for injury and violence prevention; and communicate the importance of strategy implementation to key stakeholders and decision-makers. Cost-effective strategies also help allocate limited health resources.

One valuable resource developed by the Children's Safety Network (CSN) is, "Injury Prevention: What Works? A Summary of Cost-outcome Analysis for Injury Prevention Programs" (2014). This document (available at www.childrenssafetynetwork.org) presents the estimated cost savings associated with various injury prevention interventions. For example, every dollar spent on childproof cigarette lighters saves society $77. For every dollar invested in booster seats, $71 are saved by preventing an injury resulting from not having a booster seat or from improper use of a booster seat.



Source: Children's Safety Network. (October 2014). Injury prevention: What works? A summary of cost-outcome analysis for injury prevention programs (2014 update).

This paper highlighted many strategies that are effective in preventing child and adolescent injuries and violence and noted areas for future research. In selecting evidence-based strategies, it is helpful to keep in mind that a single strategy may not be enough. Prevention efforts are often more likely to succeed when they combine several strategies that work together to achieve the greatest results (e.g., a law requiring graduated driver licensing for teen drivers combined with a communication campaign disseminating information about the law). The most appropriate and effective mix of

strategies will vary by type of injury, groups affected, risk and protective factors, and other contextual factors.

It is worth noting that injury disparities exist across diverse populations, in terms of sex, race/ethnicity, geography, disability, sexual orientation and gender identity, health literacy and socioeconomic status (Children's Safety Network, 2017). Consistent with the findings above, research shows that multilevel and hybrid approaches that align best practices and community models are essential to address disparities (Horowitz & Lawlor, 2008). For example, Communities that Care is a coalition-based community prevention program that aims to prevent youth problem behaviors including underage drinking, tobacco use, violence, delinquency, school dropout, and substance abuse. The program costs approximately $602 per participant and generates $2,982 in benefits to society. In other words, every dollar spend on this program saves society about $5.

CSN encourages community partners in public health researchers, government, local agencies, schools, faith organizations, and businesses to work together to reduce injury disparities. CSN's resource, "Partnerships for Child and Adolescent Injury Prevention" describes potential partners and funding sources from the public and private sectors, as well as examples of child and adolescent injury prevention efforts implemented by diverse partnerships. Collaborators and partners can help implement prevention strategies more broadly and potentially make a greater impact in reducing child and adolescent injury and violence.

References

Abbott, L. S., & Elliott, L. T. (2017). Eliminating health disparities through action on the social determinants of health: A systematic review of home visiting in the United States, 2005-2015. *Public Health Nursing, 34*(1), 2-30. doi: 10.1111/phn.12268.

Agabio, R., Trincas, G., Floris, F., Mura, G., Sancassiani, F., & Angermeyer, M. C. (2015). A systematic review of school-based acohol and other drug prevention programs. *Clinical Practice and Epidemiology in Mental Health, 11*(Suppl 1 M6), 102-112. doi: 10.2174/1745017901511010102.

Agency for Healthcare Research and Quality. (2014). Healthcare Cost and Utilization Project databases. https://www.hcup-us.ahrq.gov/databases.jsp.

Barlow, J., & Parsons, J. (2005). Group-based parent-training programmes for improving emotional and behavioural adjustment in 0- to 3-year-old children. *Campbell Collaboration, 1*. Retrieved from https://campbellcollaboration.org/library/group-parent-training-emotional-behavioural-adjustment-children-0-3.html.

Barlow, J., Smailagic, N., Bennett, C., Huband, N., Jones, H., & Coren, E. (2011). Individual and group based parenting programmes for improving psychosocial outcomes for teenage parents and their children. *Cochrane Database of Systematic Reviews*(3), CD002964. doi: 10.1002/14651858.CD002964.pub2.

Bilukha, O., Hahn, R. A., Crosby, A., Fullilove, M. T., Liberman, A., Moscicki, E., . . . Briss, P. A. (2005). The effectiveness of early childhood home visitation in preventing violence: A systematic review. *American Journal of Preventive Medicine, 28*(2 Suppl 1), 11-39. doi: 10.1016/j.amepre.2004.10.004.

Brown, D. W., Anda, R. F., Tiemeier, H., Felitti, V. J., Edwards, V. J., Croft, J. B., & Giles, W. H. (2009). Adverse childhood experiences and the risk of premature mortality. *American Journal of Preventive Medicine, 37*(5), 389-396. doi: 10.1016/j.amepre.2009.06.021.

Burrus, B., Leeks, K. D., Sipe, T. A., Dolina, S., Soler, R., Elder, R., . . . Dittus, P. (2012). Person-to-person interventions targeted to parents and other caregivers to improve adolescent health: a community guide systematic review. *American Journal of Preventive Medicine, 42*(3), 316-326. doi: 10.1016/j.amepre.2011.12.001.

Calear, A. L., Christensen, H., Freeman, A., Fenton, K., Busby Grant, J., van Spijker, B., & Donker, T. (2016). A systematic review of psychosocial suicide prevention interventions for youth. *European Child & Adolescent Psychiatry, 25*(5), 467-482. doi: 10.1007/s00787-015-0783-4.

Centers for Disease Control and Prevention. (2012). National action plan for child injury prevention. Retrieved from https://www.cdc.gov/safechild/pdf/National_Action_Plan_for_Child_Injury_Prevention.pdf.

Centers for Disease Control and Prevention. (2019a). Leading Causes of Death Reports, 2017. Web-based Injury Statistics Query and Reporting System (WISQARS). Retrieved from https://webappa.cdc.gov/sasweb/ncipc/leadcause.html.

Champion, K. E., Newton, N. C., Barrett, E. L., & Teesson, M. (2013). A systematic review of school-based alcohol and other drug prevention programs facilitated by computers or the internet. *Drug and Alcohol Review, 32*(2), 115-123. doi: 10.1111/j.1465-3362.2012.00517.x

Children's Safety Network. (2017). Understanding disparities in child and adolescent injury: A review of the research. Retrieved from https://www.childrenssafetynetwork.org/sites/childrenssafetynetwork.org/files/CSN-NCCSI%20Injury%20Disparities%20White%20Paper.pdf.

Community Preventive Services Task Force. (2013). Oral health: Preventing craniofacial injuries, community-based interventions to encourage use of helmets, facemasks, and mouthguards in contact sports. Retrieved from https://www.thecommunityguide.org/sites/default/files/assets/Oral-Health-Injuries-

Sports-Interventions.pdf.

Compton, W. M., Boyle, M., & Wargo, E. (2015). Prescription opioid abuse: Problems and responses. *Preventive Medicine, 80*, 5-9. doi: 10.1016/j.ypmed.2015.04.003.

Curtin, S. C., Heron, M., Minino, A. M., & Warner, M. (2018). Recent increases in injury mortality among children and adolescents aged 10-19 years in the United States: 1999-2016. *National Vital Statistics Reports, 67*(4), 1-16.

Cusimano, M. D., & Sameem, M. (2011). The effectiveness of middle and high school-based suicide prevention programmes for adolescents: a systematic review. *Injury Prevention, 17*(1), 43-49. doi: 10.1136/ip.2009.025502.

De Koker, P., Mathews, C., Zuch, M., Bastien, S., & Mason-Jones, A. J. (2014). A systematic review of interventions for preventing adolescent intimate partner violence. *Journal of Adolescent Health, 54*(1), 3-13. doi: 10.1016/j.jadohealth.2013.08.008.

Ehiri, J. E., Ejere, H. O., Magnussen, L., Emusu, D., King, W., & Osberg, J. S. (2006). Interventions for promoting booster seat use in four to eight year olds traveling in motor vehicles. *Cochrane Database of Systematic Reviews, 1*, CD004334. doi: 10.1002/14651858.CD004334.pub2.

Elder, R. W., Lawrence, B., Janes, G., Brewer, R. D., Toomey, T. L., Hingson, R. W., . . . Fielding, J. (2007). Enhanced enforcement of laws prohibiting sale of alcohol to minors: Systematic review of effectiveness for reducing sales and underage drinking. Transportation safety and alcohol regulation: A symposium (pp. 181-188). Irvine, CA: Transportation Research Board of the National Academies. Retrieved from http://onlinepubs.trb.org/onlinepubs/circulars/ec123.pdf.

Elder, R. W., Nichols, J. L., Shults, R. A., Sleet, D. A., Barrios, L. C., & Compton, R. (2005). Effectiveness of school-based programs for reducing drinking and driving and riding with drinking drivers: a systematic review. *American Journal of Preventive Medicine, 28*(5 Suppl), 288-304. doi: 10.1016/j.amepre.2005.02.015.

Euser, S., Alink, L. R., Stoltenborgh, M., Bakermans-Kranenburg, M. J., & van IJzendoorn, M. H. (2015). A gloomy picture: a meta-analysis of randomized controlled trials reveals disappointing effectiveness of programs aiming at preventing child maltreatment. *BMC Public Health, 15*, 1068. doi: 10.1186/s12889-015-2387-9.

Evans, C. B. R., Fraser, M. W., & Cotter, K. L. (2014). The effectiveness of school-based bullying prevention programs: A systematic review. *Aggression and Violent Behavior, 19*(5), 532-544. Retrieved from https://doi.org/10.1016/j.avb.2014.07.004.

Fagan, A. A., & Catalano, R. F. (2012). What works in youth violence prevention: A review of the literature. *Research on Social Work Practice, 23*(2), 141-156. doi: 10.1177/1049731512465899.

Faggiano, F., Minozzi, S., Versino, E., & Buscemi, D. (2014). Universal school-based prevention for illicit drug use. *Cochrane Database of Systematic Reviews, 12*, CD003020. doi: 10.1002/14651858.CD003020.pub3.

Farrington, D. P., & Ttofi, M. M. (2009). School-based programs to reduce bullying and victimization. *Campbell Systematic Reviews*. Retrieved from https://campbellcollaboration.org/library/school-based-programmes-to-reduce-bullying-victimisation.html.

Fellmeth, G. L., Heffernan, C., Nurse, J., Habibula, S., & Sethi, D. (2013). Educational and skills-based interventions for preventing relationship and dating violence in adolescents and young adults. *Cochrane Database of Systematic Reviews*(6), CD004534. doi: 10.1002/14651858.CD004534.pub3.

Ferri, M., Allara, E., Bo, A., Gasparrini, A., & Faggiano, F. (2013). Media campaigns for the prevention of illicit drug use in young people. *Cochrane Database Syst Rev., 6*, CD009287. doi: 10.1002/14651858.CD009287.pub2.

Filene, J. H., Kaminski, J. W., Valle, L. A., & Cachat, P. (2013). Components associated with home visiting program outcomes: A meta-analysis. *132*(0 2), S100-109. doi: 10.1542/peds.2013-1021H.

Fowler, K. A., Dahlberg, L. L., Haileyesus, T., Gutierrez, C., & Bacon, S. (2017). Childhood firearm injuries in the United States. *Pediatrics, 140(1).*(pii), 2016-3486. doi: 10.1542/peds.2016-3486.

Foxcroft, D. R., & Tsertsvadze, A. (2011a). Universal school-based prevention programs for alcohol misuse in young people. *Cochrane Database of Systematic Reviews, 5*, CD009113. doi: 10.1002/14651858.CD009113.

Foxcroft, D. R., & Tsertsvadze, A. (2011b). Universal family-based prevention programs for alcohol misuse in young people. *Cochrane Database of Systematic Reviews, 9*, CD009308. doi: 10.1002/14651858.CD009308.

Foxcroft, D. R., & Tsertsvadze, A. (2011c). Universal multi-component prevention programs for alcohol misuse in young people. *Cochrane Database of Systematic Reviews, 9*, CD009307. doi: 10.1002/14651858.CD009307.

Gates, S., McCambridge, J., Smith, L. A., & Foxcroft, D. R. (2006). Interventions for prevention of drug use by young people delivered in non-school settings. *Cochrane Database of Systematic Reviews, 1*, CD005030. doi: 10.1002/14651858.CD005030.pub2.

Gavine, A. J., Donnelly, P. D., & Damien, J. W. (2016). Effectiveness of universal school-based programs for prevention of violence in adolescents. *Psychology of Violence, 6*(3), 390-399. Retreived from http://dx.doi.org/10.1037/vio0000052.

Gershon, P., Ehsani, J. P., Zhu, C., Sita, K. R., Klauer, S., Dingus, T., & Simons-Morton, B. (2018). Crash risk and risky driving behavior among adolescents during learner and independent driving periods. *Journal of Adolescent Health, 5*(18), 30189-30187. Retrieved from: https://doi.org/10.1016/j.jadohealth.2018.04.012.

Glenton, C., Colvin, C. J., Carlsen, B., Swartz, A., Lewin, S., Noyes, J., & Rashidian, A. (2013). Barriers and facilitators to the implementation of lay health worker programmes to improve access to maternal and child health: qualitative evidence synthesis. *Cochrane Database of Systematic Reviews, 10*, CD010414. doi: 10.1002/14651858.CD010414.pub2.

Hahn, R., Fuqua-Whitley, D., Wethington, H., Lowy, J., Crosby, A., Fullilove, M., . . . Dahlberg, L. (2007). Effectiveness of universal school-based programs to prevent violent and aggressive behavior: a systematic review. *American Journal of Preventive Medicine, 33*(2 Suppl), S114-129. doi: 10.1016/j.amepre.2007.04.012.

Hahn, R. A., Bilukha, O., Crosby, A., Fullilove, M. T., Liberman, A., Moscicki, E., . . . Briss, P. A. (2005). Firearms laws and the reduction of violence: a systematic review. *American Journal of Preventive Medicine, 28*(2 Suppl 1), 40-71. doi: 10.1016/j.amepre.2004.10.005.

Hahn, R. A., Bilukha, O. O., Crosby, A., Fullilove, M. T., Liberman, A., Moscicki, E. K., . . . Briss, P. (2003). First reports evaluating the effectiveness of strategies for preventing violence: firearms laws. Findings from the Task Force on Community Preventive Services. *MMWR Recommendations and Reports, 52*(RR-14), 11-20.

Hamilton, E. C., Miller, C. C., 3rd, Cox, C. S., Jr., Lally, K. P., & Austin, M. T. (2018). Variability of child access prevention laws and pediatric firearm injuries. *Journal of Trauma and Acute Care Surgery, 84*(4), 613-619. doi: 10.1097/TA.0000000000001786.

Horowitz, C., & Lawlor, E. F. (2008). Community Approaches to Addressing Health Disparities. Institute of Medicine Roundtable on Health Disparities. Challenges and Successes in Reducing Health Disparities: Workshop Summary. Washington (DC): National Academies Press.

Ian, R., & Irene, K. (2001). School based driver education for the prevention of traffic crashes. *Cochrane Database of Systematic Reviews, 3*, CD003201. doi: 10.1002/14651858.CD003201.

Ishikawa, T., Oudie, E., Desapriya, E., Turcotte, K., & Pike, I. (2014). A systematic review of community interventions to improve aboriginal child passenger safety. *American Journal of Public Health, 104*(Suppl 3), e1-8. doi: 10.2105/AJPH.2013.301683.

Katz, C., Bolton, S. L., Katz, L. Y., Isaak, C., Tilston-Jones, T., & Sareen, J. (2013). A systematic review of school-based suicide prevention programs. *Depression and Anxiety, 30*(10), 1030-1045. doi: 10.1002/da.22114.

Kendrick, D., Ablewhite, J., Achana, F., Benford, P., Clacy, R., Coffey, F., . . . Zou, K. (2017). Keeping Children Safe: a multicentre programme of research to increase the evidence base for preventing unintentional injuries in the home in the under-fives. Retrieved from https://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0096927/.

Kendrick, D., Mulvaney, C. A., Ye, L., Stevens, T., Mytton, J. A., & Stewart-Brown, S. (2013). Parenting interventions for the prevention of unintentional injuries in childhood. *Cochrane Database of Systematic Reviews*(3), CD006020. doi: 10.1002/14651858.CD006020.pub3.

Kendrick, D., Smith, S., Sutton, A., Watson, M., Coupland, C., Mulvaney, C., & Mason-Jones, A. (2008). Effect of education and safety equipment on poisoning-prevention practices and poisoning: systematic review, meta-analysis and meta-regression. *Archives of Disease in Childhood, 93*(7), 599-608. doi: 10.1136/adc.2007.133686.

Kendrick, D., Watson, M. C., Mulvaney, C. A., Smith, S. J., Sutton, A. J., Coupland, C. A., & Mason-Jones, A. J. (2008). Preventing childhood falls at home: meta-analysis and meta-regression. *American Journal of Preventive Medicine, 35*(4), 370-379. doi: 10.1016/j.amepre.2008.06.038.

Kendrick, D., Young, B., Mason-Jones, A. J., Ilyas, N., Achana, F. A., Cooper, N. J., . . . Coupland, C. (2012). Home safety education and provision of safety equipment for injury prevention. *Cochrane Database of Systematic Reviews, 9*, CD005014. doi: 10.1002/14651858.CD005014.pub3.

Kettrey, H. H., Marx, R. A., & Tanner-Smith, E. E. (2019). Effects of bystander programs on the prevention of sexual assault among adolescents and college students: A systematic review. *Campbell Systematic Reviews,* (1). Retrieved from https://campbellcollaboration.org/library/bystander-programs-sexual-assault-adolescents-college-students.html.

Langford, R., Bonell, C. P., Jones, H. E., Pouliou, T., Murphy, S. M., Waters, E., . . . Campbell, R. (2014). The WHO Health Promoting School framework for improving the health and well-being of students and their academic achievement. *Cochrane Database of Systematic Reviews, 4*, CD008958. doi: 10.1002/14651858.CD008958.pub2.

Lawrence, B. A., Bhattacharya, S., Zaloshnja, E., Jones, P., Miller, T. R., Corso, P. S., & Steiner, C. A. (2011). Medical and Work Loss Cost Estimation Methods for the WISQARS Cost of Injury Module. Retrieved from https://www.cdc.gov/injury/wisqars/pdf/wisqars_cost_methods-a.pdf.

Leavy, J. E., Crawford, G., Leaversuch, F., Nimmo, L., McCausland, K., & Jancey, J. (2016). A review of drowning prevention Iinterventions for children and young people in hgh, low and mddle income countries. *Journal of Community Health, 41*(2), 424-441. doi: 10.1007/s10900-015-0105-2.

Lee, S., Kim, C. J., & Kim, D. H. (2015). A meta-analysis of the effect of school-based anti-bullying programs. *Journal of Child Health Care, 19*(2), 136-153. doi: 10.1177/1367493513503581.

Leonardo, J. B., Spicer, R. S., Katradis, M., Allison, J., & Thomas, R. (2018). Building the Child Safety Collaborative Innovation and Improvement Network: How does it work and what is it achieving? *Injury Prevention, 24*(Suppl 1), i46-i51. doi: 10.1136/injuryprev-2017-042367.

Lewin, S., Munabi-Babigumira, S., Glenton, C., Daniels, K., Bosch-Capblanch, X., van Wyk, B. E., . . . Scheel, I. B. (2010). Lay health workers in primary and community health care for maternal and child health and the management of infectious diseases. *Cochrane Database of Systematic Reviews, 3*, CD004015. doi: 10.1002/14651858.CD004015.pub3.

MacArthur, G., Caldwell, D. M., Redmore, J., Watkins, S. H., Kipping, R., White, J., . . . Campbell, R. (2018).

Individual-, family-, and school-level interventions targeting multiple risk behaviours in young people. *Cochrane Database of Systematic Reviews, 10:CD009927.* doi: 10.1002/14651858.CD009927.pub2.

Macpherson, A., & Spinks, A. (2008). Bicycle helmet legislation for the uptake of helmet use and prevention of head injuries. *Cochrane Database of Systematic Reviews, 3*, CD005401. doi: 10.1002/14651858.CD005401.pub3.

Mann, J. J., Apter, A., Bertolote, J., Beautrais, A., Currier, D., Haas, A., . . . Hendin, H. (2005). Suicide prevention strategies: a systematic review. *Journal of the American Medical Association, 294*(16), 2064-2074. doi: 10.1001/jama.294.16.2064.

Martin, K., Nelson, J., & Lynch, S. (2013). Effectiveness of school-based life-skills and alcohol education programmes: A review of the literature. Retrieved from https://www.nfer.ac.uk/publications/AETT01/AETT01.pdf.

McGowan, A., Hahn, R., Liberman, A., Crosby, A., Fullilove, M., Johnson, R., . . . Stone, G. (2007). Effects on violence of laws and policies facilitating the transfer of juveniles from the juvenile justice system to the adult justice system: A systematic review. *American Journal of Preventive Medicine, 32*(4 Suppl), S7-28. doi: 10.1016/j.amepre.2006.12.003.

Miller, D. N., Eckert, T. L., & Mazza, J. J. (2009). Suicide prevention programs in the schools: A review and public health perspective. *School Psychology Review, 38*(2), 168-188.

Miller, S., Maguire, L. K., & Macdonald, G. (2012). Home-based child development interventions for pre-school children from socially-disadvantaged families. *Campbell Systematic Reviews, 8*. Retrieved from https://campbellcollaboration.org/library/home-based-pre-school-children-disadvantaged-families.html.

Mishna, F., Cook, C., Saini, M., Wu, M.-J., & MacFadden, R. (2009). Interventions for children, youth, and parents to prevent and reduce cyber abuse. *Campbell Systematic Reviews*. Retrieved from https://campbellcollaboration.org/library/interventions-for-children-and-parents-to-prevent-reduce-cyber-abuse.html. doi:10.4073/csr.2009.2.

Mytton, J., DiGuiseppi, C., Gough, D., Taylor, R., & Logan, S. (2006). School-based secondary prevention programmes for preventing violence. *Cochrane Database of Systematic Reviews, 3*, CD004606. doi: 10.1002/14651858.CD004606.pub2.

Nauta, J., van Mechelen, W., Otten, R. H., & Verhagen, E. A. (2014). A systematic review on the effectiveness of school and community-based injury prevention programmes on risk behaviour and injury risk in 8-12 year old children. *Journal of Science and Medicine in Sport, 17*(2), 165-172. doi: 10.1016/j.jsams.2013.07.011.

Orton, E., Whitehead, J., Mhizha-Murira, J., Clarkson, M., Watson, M. C., Mulvaney, C. A., . . . Kendrick, D. (2016). School-based education programmes for the prevention of unintentional injuries in children and young people. *Cochrane Database of Systematic Reviews, 12*, CD010246. doi: 10.1002/14651858.CD010246.pub2.

Owen, R., Kendrick, D., Mulvaney, C., Coleman, T., & Royal, S. (2011). Non-legislative interventions for the promotion of cycle helmet wearing by children. *Cochrane Database of Systematic Reviews, 11*, CD003985. doi: 10.1002/14651858.CD003985.pub3.

Park-Higgerson, H. K., Perumean-Chaney, S. E., Bartolucci, A. A., Grimley, D. M., & Singh, K. P. (2008). The evaluation of school-based violence prevention programs: a meta-analysis. *Journal of School Health, 78*(9), 465-479; quiz 518-420. doi: 10.1111/j.1746-1561.2008.00332.x.

Pearson, M., Garside, R., Moxham, T., & Anderson, R. (2011). Preventing unintentional injuries to children in the home: a systematic review of the effectiveness of programmes supplying and/or installing home safety equipment. *Health Promotion International 26*(3), 376-392. doi: 10.1093/heapro/daq074.

Pearson, M., Hunt, H., Garside, R., Moxham, T., Peters, J., & Anderson, R. (2012). Preventing unintentional

injuries to children under 15 years in the outdoors: A systematic review of the effectiveness of educational programs. *Injury prevention : journal of the International Society for Child and Adolescent Injury Prevention, 18*(2), 113-123. doi: 10.1136/injuryprev-2011-040043.

Psaila, K., Foster, J. P., Pulbrook, N., & Jeffery, H. E. (2017). Infant pacifiers for reduction in risk of sudden infant death syndrome. *Cochrane Database of Systematic Reviews, 4:CD011147.* doi: 10.1002/14651858.CD011147.pub2.

Richmond, S. A., Clemens, T., Pike, I., & Macpherson, A. (2018). A systematic review of the risk factors and interventions for the prevention of playground injuries. *Canadian Journal of Public Health, 109*(1), 134-149. doi: 10.17269/s41997-018-0035-8

Richmond, S. A., Zhang, Y. J., Stover, A., Howard, A., & Macarthur, C. (2014). Prevention of bicycle-related injuries in children and youth: a systematic review of bicycle skills training interventions. *Injury Prevention, 20*(3), 191-195. doi: 10.1136/injuryprev-2013-040933.

Robinson, J., Cox, G., Malone, A., Williamson, M., Baldwin, G., Fletcher, K., & O'Brien, M. (2013). A systematic review of school-based interventions aimed at preventing, treating, and responding to suicide- related behavior in young people. *Crisis, 34*(3), 164-182. doi: 10.1027/0227-5910/a000168.

Rue, L. D. L., Polanin, J., Espelage, D., & Pigott, T. (2014). School-based interventions to reduce dating and sexual violence: A systematic review. *Campbell Systematic Reviews*. Retrieved from https://campbellcollaboration.org/library/school-based-interventions-dating-and-sexual-violence.html.

Russell, K. F., Vandermeer, B., & Hartling, L. (2011). Graduated driver licensing for reducing motor vehicle crashes among young drivers. *Cochrane Database of Systematic Reviews*(10), CD003300. doi: 10.1002/14651858.CD003300.pub3.

Salam, R. A., Arshad, A., Das, J. K., Khan, M. N., Mahmood, W., Freedman, S. B., & Bhutta, Z. A. (2016). Interventions to prevent unintentional injuries among adolescents: A systematic review and meta-analysis. *Journal of Adolescent Health, 59*(4S), S76-S87. doi: 10.1016/j.jadohealth.2016.07.024.

Sancassiani, F., Pintus, E., Holte, A., Paulus, P., Moro, M. F., Cossu, G., . . . Lindert, J. (2015). Enhancing the emotional and social Skills of the youth to promote their wellbeing and positive development: A systematic review of universal school-based randomized controlled trials. *Clinical Practice and Epidemiology in Mental Health, 11*(Suppl 1 M2), 21-40. doi: 10.2174/1745017901511010021.

Schwebel, D. C., Barton, B. K., Shen, J., Wells, H. L., Bogar, A., Heath, G., & McCullough, D. (2014). Systematic review and meta-analysis of behavioral interventions to improve child pedestrian safety. *Journal of Pediatric Psychology, 39*(8), 826-845. doi: 10.1093/jpepsy/jsu024.

Sharma, M., & Branscum, P. (2013). School-based drug abuse prevention programs in high school students. *Journal of Alcohol & Drug Education, 57*(3), 51-65.

Shope, J. T. (2007). Graduated driver licensing: review of evaluation results since 2002. *Journal of Safety Research, 38*(2), 165-175. doi: 10.1016/j.jsr.2007.02.004.

Shults, R. A., Elder, R. W., Sleet, D. A., Nichols, J. L., Alao, M. O., Carande-Kulis, V. G., . . . Thompson, R. S. (2001). Reviews of evidence regarding interventions to reduce alcohol-impaired driving. *American Journal of Preventive Medicine, 21*(4 Suppl), 66-88. Retrieved from https://doi.org/10.1016/S0749-3797(01)00381-6.

Siegfried, N., Pienaar, D. C., Ataguba, J. E., Volmink, J., Kredo, T., Jere, M., & Parry, C. D. (2014). Restricting or banning alcohol advertising to reduce alcohol consumption in adults and adolescents. *Cochrane Database of Systematic Reviews, 11*, CD010704. doi: 10.1002/14651858.CD010704.pub2.

Smit, E., Verdurmen, J., Monshouwer, K., & Smit, F. (2008). Family interventions and their effect on adolescent alcohol use in general populations; a meta-analysis of randomized controlled trials. *Drug and Alcohol Dependence, 97*(3), 195-206. doi: 10.1016/j.drugalcdep.2008.03.032.

Spinks, A., Turner, C., Nixon, J., & McClure, R. J. (2009). The 'WHO Safe Communities' model for the prevention

of injury in whole populations. *Cochrane Database of Systematic Reviews, 3*, CD004445. doi: 10.1002/14651858.CD004445.pub3.

Spoth, R., Greenberg, M., & Turrisi, R. (2008). Preventive interventions addressing underage drinking: state of the evidence and steps toward public health impact. *Pediatrics, 121 Suppl 4*, S311-336. doi: 10.1542/peds.2007-2243E.

Spoth, R., Trudeau, L., Shin, C., Ralston, E., Redmond, C., Greenberg, M., & Feinberg, M. (2013). Longitudinal effects of universal preventive intervention on prescription drug misuse: Three randomized controlled trials with late adolescents and young adults. *American Journal of Public Health, 103*(4), 665-672. doi: 10.2105/AJPH.2012.301209

Squeglia, L. M., Jacobus, J., & Tapert, S. F. (2014). The effect of alcohol use on human adolescent brain structures and systems. *Handbook of Clinical Neurology, 125*, 501-510. doi: 10.1016/B978-0-444-62619-6.00028-8.

Strehle, E. M., Gray, W. K., Gopisetti, S., Richardson, J., McGuire, J., & Malone, S. (2012). Can home monitoring reduce mortality in infants at increased risk of sudden infant death syndrome? A systematic review. *Acta Paediatrica, 101*(1), 8-13. doi: 10.1111/j.1651-2227.2011.02464.x.

Task Force on Sudden Infant Death Syndrome. (2016). SIDS and Other Sleep-Related Infant Deaths: Updated 2016 Recommendations for a Safe Infant Sleeping Environment. *Pediatrics, 138*(5), 2016-2938. doi: 10.1542/peds.2016-2938.

Thompson, D. C., & Rivara, F. P. (2000). Pool fencing for preventing drowning in children. *Cochrane Database of Systematic Reviews, 2*, CD001047. doi: 10.1002/14651858.CD001047.

Thompson, D. C., Rivara, F. P., & Thompson, R. (2000). Helmets for preventing head and facial injuries in bicyclists. *Cochrane Database of Systematic Reviews, 2*, CD001855. doi: 10.1002/14651858.CD001855.

Tolan, P., Henry, D., Schoeny, M., Bass, A., Lovegrove, P., & Nichols, E. (2013). Mentoring interventions to affect juvenile delinquency and associated problems: A systematic review. *Campbell Systematic Reviews*. Retrieved from https://campbellcollaboration.org/library/mentoring-juvenile-delinquency-and-associated-problems.html. doi: 10.4073/csr.2013.10.

Turner, S., Arthur, G., Lyons, R. A., Weightman, A. L., Mann, M. K., Jones, S. J., . . . Lannon, S. (2011). Modification of the home environment for the reduction of injuries. *Cochrane Database of Systematic Reviews, 2*, CD003600. doi: 10.1002/14651858.CD003600.pub3.

van der Put, C. E., Assink, M., Gubbels, J., & Boekhout van Solinge, N. F. (2018). Identifying effective components of child maltreatment interventions: A meta-analysis. *Clinical Child and Family Psychology Review, 21*(2), 171-202. doi: 10.1007/s10567-017-0250-5.

Wallis, B. A., Watt, K., Franklin, R. C., Taylor, M., Nixon, J. W., & Kimble, R. M. (2015). Interventions associated with drowning prevention in children and adolescents: systematic literature review. *Injury Prevention, 21*(3), 195-204. doi: 10.1136/injuryprev-2014-041216.

Walsh, K., Zwi, K., Woolfenden, S., & Shlonsky, A. (2015). School-based education programmes for the prevention of child sexual abuse. *Cochrane Database of Systematic Reviews, 4*, CD004380. doi: 10.1002/14651858.CD004380.pub3.

Wasserman, D., Hoven, C. W., Wasserman, C., Wall, M., Eisenberg, R., Hadlaczky, G., . . . Carli, V. (2015). School-based suicide prevention programmes: the SEYLE cluster-randomised, controlled trial. *Lancet, 385*(9977), 1536-1544. doi: 10.1016/S0140-6736(14)61213-7.

World Health Organization. (2017). Preventing drowning: An implementation guide. Retrieved from http://www.who.int/violence_injury_prevention/drowning/drowning_prevention_guide/en/.

Wynn, P. M., Zou, K., Young, B., Majsak-Newman, G., Hawkins, A., Kay, B., . . . Kendrick, D. (2016). Prevention of childhood poisoning in the home: overview of systematic reviews and a systematic review of primary

studies. *International Journal of Injury Control and Safety Prevention, 23*(1), 3-28. doi: 10.1080/17457300.2015.1032978.

Yonemoto, N., Dowswell, T., Nagai, S., & Mori, R. (2017). Schedules for home visits in the early postpartum period. *Cochrane Database of Systematic Reviews, 8*, CD009326. doi: 10.1002/14651858.CD009326.pub3.

Young, B., Wynn, P. M., He, Z., & Kendrick, D. (2013). Preventing childhood falls within the home: overview of systematic reviews and a systematic review of primary studies. *Accident; Analysis and Prevention, 60*(doi), 158-171. doi: 10.1016/j.aap.2013.08.001.

Zalsman, G., Hawton, K., Wasserman, D., van Heeringen, K., Arensman, E., Sarchiapone, M., . . . Zohar, J. (2016). Suicide prevention strategies revisited: 10-year systematic review. *Lancet Psychiatry, 3*(7), 646-659. doi: 10.1016/S2215-0366(16)30030-X.

Zaza, S., Sleet, D. A., Thompson, R. S., Sosin, D. M., & Bolen, J. C. (2001). Reviews of evidence regarding interventions to increase use of child safety seats. *American Journal of Preventive Medicine, 21*(4 Suppl), 31-47.

Zimmerman, F., & Mercy, J. A. (2010). A better start: Child maltreatment prevention is a public health priority. *Zero to Three, 30*(5), 4-10.

Appendix 1: Guide to Community Preventive Services

The Guide to Community Preventive Services (The Community Guide) is a collection of evidence-based findings of the Community Preventive Services Task Force aimed at helping public health programs select interventions to improve health and prevent disease. The Task Force was established by the U.S. Department of Health and Human Services in 1996 to develop guidance on which community-based health promotion and disease prevention intervention approaches work and which do not work, based on available scientific evidence. The Centers for Disease Control and Prevention (CDC) provides the Task Force with technical and administrative support.

Website: https://www.thecommunityguide.org/

Topic	Intervention	Task Force Recommendation	Date Completed	Paper
Overall health promotion	Person-to-person interventions to improve caregivers' parenting skills	Recommended	October 2007	Burrus, 2012 PMID: 22341170
Child passenger safety	Child safety seats: Community-wide information and enhanced enforcement campaigns	Recommended	June 1998	Zaza, 2001 PMID: 11691560
	Child safety seats: Distribution and education programs	Recommended		
	Child safety seats: Incentive and education programs	Recommended		
	Child safety seats: Laws mandating use	Recommended		
	Child safety seats: Education programs when used alone	Limited evidence		
Teen driver safety*	Alcohol-impaired driving: Maintaining current minimum legal drinking age (MLDA) laws	Recommended	August 2000	Shults, 2001 PMID: 11691562
	Alcohol-impaired driving: Lower BAC laws for young or inexperienced drivers	Recommended	June 2000	
	Alcohol-impaired driving: School-based programs – Instructional programs	Recommended	October 2003	Elder, 2005 PMID: 15894162
	Alcohol-impaired driving: School-based programs – Peer organizations	Limited evidence		
	Alcohol-impaired driving: School-based programs – Social norming campaigns	Limited evidence		

Topic	Intervention	Task Force Recommendation	Date Completed	Paper
Firearm injuries	Zero tolerance of firearms in schools	Limited evidence	October 2001	Hahn, 2003 PMID: 14566221
	Child access prevention (CAP) laws for firearms	Limited evidence	April 2002	Hahn, 2005 PMID: 15698747
Craniofacial injuries	Craniofacial injuries: Community-based interventions to encourage use of helmets, facemasks, and mouthguards in contact sports	Limited evidence	October 2013	Task Force Finding and Rationale (update of 2000 review, PMID: 11770576)
Underage alcohol use*	Enhanced enforcement of laws prohibiting sales to minors	Recommended	February 2006	Elder, 2007 Symposium Report
Child maltreatment	Early childhood home visitation to prevent child maltreatment	Recommended	February 2002	Bilukha, 2005 PMID: 15698746
Intimate partner violence	Early childhood home visitation to prevent intimate partner violence	Limited evidence		
Violence by parents	Early childhood home visitation to prevent violence by parents (other than child maltreatment or intimate partner violence)	Limited evidence		
Youth violence	Early childhood home visitation to prevent violence by children	Limited evidence		
	Universal school-based programs	Recommended	June 2005	Hahn, 2007 PMID: 17687245
	Primary prevention interventions that aim to prevent or reduce intimate partner violence and sexual violence among youth	Recommended	(July 2018)	Not published yet
Juvenile delinquency	Policies facilitating the transfer of juveniles to adult justice system	Not Recommended	April 2003	McGowan, 2007 PMID: 17386331

*The Community Guide also has other reviews and recommendations on these topics, but not specific to children or adolescents.

Appendix 2: Cochrane Collaboration

Founded in 1993, Cochrane is an international not-for-profit and independent organization dedicated to making up-to-date, accurate information about the effects of healthcare readily available worldwide. The organization produces and disseminates systematic reviews of healthcare and public health interventions.

Website: http://us.cochrane.org/

Cochrane Database of Systematic Reviews: http://www.cochranelibrary.com/

Topic	Review	Conclusion	Paper
Overall health promotion	Schedules for home visits in the early postpartum period	Increasing the number of postnatal home visits may promote infant health and maternal satisfaction and more individualized care may improve outcomes for women.	Yonemoto, 2017 PMID: 28770973
	Barriers and facilitators to the implementation of lay health worker programs to improve access to maternal and child health: qualitative evidence synthesis	Rather than being seen as a lesser trained health worker, lay health workers may represent a different and sometimes preferred type of health worker. Barriers and facilitators were mainly tied to program acceptability, appropriateness and credibility; and health system constraints.	Glenton, 2013 PMID: 24101553
	Lay health workers (LHW) in primary and community health care for maternal and child health and the management of infectious diseases	LHWs provide promising benefits in promoting immunization uptake and breastfeeding, improving tuberculosis treatment outcomes, and reducing child morbidity and mortality when compared to usual care.	Lewin, 2010 PMID: 20238326
	Individual-, family-, and school-level interventions targeting multiple risk behaviors in young people	Evidence is strongest for universal school-based interventions that target multiple risk behaviors, showing that they may be effective in preventing engagement in tobacco use, alcohol use, illicit drug use, and antisocial activity.	MacArthur, 2018 PMID: 30288738
	The WHO Health Promoting School (HPS) framework for improving the health and well-being of students and their academic achievement	The results of this review provide evidence for the effectiveness of some interventions based on the HPS framework for improving certain health outcomes but not others.	Langford, 2014 PMID: 24737131
Unintentional injury prevention	Parenting interventions for the prevention of unintentional injuries in childhood	Parenting interventions, most commonly provided within the home using multi-faceted interventions, are effective in reducing child injury. Fairly consistent evidence suggests that they also improve home safety.	Kendrick, 2013 PMID: 23543542

Topic	Review	Conclusion	Paper
	Home safety education and provision of safety equipment for injury prevention	Evidence of effectiveness in increasing a range of safety practices. Some evidence that may reduce injury rates.	Kendrick, 2012 PMID: 22972081
	Modification of the home environment for the reduction of injuries	Limited evidence to determine whether interventions focused on modifying environmental home hazards reduce injuries.	Turner, 2011 PMID: 21328262
	School-based education programmes for the prevention of unintentional injuries in children and young people	Limited evidence to determine whether school-based educational programs can prevent unintentional injuries.	Orton, 2016 PMID: 28026877
	The 'WHO Safe Communities' model for the prevention of injury in whole populations	Limited evidence that the frequency of injury in communities reduce following their designation as a WHO Safe Community.	Spinks, 2009 PMID: 19588359
Drowning	Pool fencing for preventing drowning of children	Evidence of effectiveness in reducing risk of drowning.	Thompson, 2000 PMID: 10796742
Infant suffocation	Infant pacifiers for reduction in risk of sudden infant death syndrome	Limited evidence on which to support the use of pacifiers for the prevention of SIDS.	Psaila, 2017 PMID: 28378502
Child passenger safety	Interventions for promoting booster seat use in four to eight year olds travelling in motor vehicles	Evidence of effectiveness. Combining incentives (booster seat discount coupons or gift certificates) or distribution of free booster seats with education demonstrated marked beneficial outcomes for acquisition and use of booster seats.	Ehiri, 2006 PMID: 16437484
Teen driver safety	Graduated driver licensing (GD)for reducing motor vehicle crashes among young drivers	GDL is effective in reducing crash rates among young drivers, although the magnitude of the effect varies. Stronger GDL programs (i.e. more restrictions or higher quality based on IIHS classification) appear to result in greater fatality reduction.	Russell, 2011 PMID: 21975738
	School-based driver education for the prevention of traffic crashes	Driver education leads to early licensing. No evidence that driver education reduces road crash involvement and suggest that it may lead to a modest but potentially important increase in the proportion of teenagers involved in traffic crashes.	Ian, 2001 PMID: 11687049
Bicycle-related injuries	Helmets for preventing head and facial injuries in bicyclists	Helmets reduce bicycle-related head and facial injuries for bicyclists of all ages involved in all types of crashes, including those involving motor vehicles.	Thompson, 2000 PMID: 10796827

Topic	Review	Conclusion	Paper
	Bicycle helmet legislation for the uptake of helmet use and prevention of head injuries	Effective in increasing helmet use and decreasing head injury rates.	Macpherson, 2008 PMID: 18646128
	Non-legislative interventions for the promotion of cycle helmet wearing by children	Effective, particularly community-based interventions and those providing free helmets.	Owen, 2011 PMID: 22071810
Other unintentional injuries	Community-based interventions for the prevention of burns and scalds in children	Limited evidence	Turner, 2004 PMID: 15266531
	Interventions for promoting smoke alarm ownership and function	Modest beneficial effects on smoke alarm ownership and function, and no demonstrated beneficial effect on fires and fire-related injuries.	DiGuiseppi, 2001 PMID: 11406039
	Education of children and adolescents for the prevention of dog bite injuries	Limited evidence that educational programs can reduce dog bite rates in children and adolescents.	Duperrex, 2009 PMID: 19370606
	Interventions for preventing injuries in the agricultural industry	No evidence that educational interventions are effective for decreasing injury rates among workers (Note: 2 of 8 studies focused on educational interventions aimed at children).	Rautiainen, 2008 PMID: 18254102
Underage alcohol use	Universal school-based prevention programs for alcohol misuse in young people	Some prevention programs can be effective and could be considered as policy and practice options (e.g., Life Skills Training Program, Unplugged program, Good Behavior Game).	Foxcroft, 2011 PMID: 21563171
	Universal family-based prevention programs for alcohol misuse in young people	The effects of family-based prevention interventions are small but generally consistent and also persistent into the medium- to longer-term.	Foxcroft, 2011 PMID: 21901733
	Universal multi-component prevention programs for alcohol misuse in young people	Some evidence that multi-component interventions for alcohol misuse prevention in young people can be effective. Little evidence that interventions with multiple components are more effective than interventions with single components.	Foxcroft, 2011 PMID: 21901732
	Restricting or banning alcohol advertising to reduce alcohol consumption in adults and adolescents	Limited evidence to support implementation of alcohol advertising restrictions.	Siegfried, 2014 PMID: 25369459
Drug use	Universal school-based prevention for illicit drug use	Small but consistent protective effects in preventing drug use.	Faggiano, 2014 PMID: 25435250

Topic	Review	Conclusion	Paper
	Interventions for prevention of drug use by young people delivered in non-school settings	Limited evidence of effectiveness of the interventions. Motivational interviewing and some family interventions may have some benefit.	Gates, 2006 PMID: 16437511
	Media campaigns for the prevention of illicit drug use in young people	Overall the available evidence does not allow conclusions about the effect of media campaigns on illicit drug use among young people.	Ferri, 2013 PMID: 23740538
Child maltreatment	School-based education programmes for the prevention of child sexual abuse	The studies included in this review show evidence of improvements in protective behaviors and knowledge among children exposed to school-based programs, regardless of the type of program.	Walsh, 2015 PMID: 25876919
Youth violence	School-based secondary prevention programmes for preventing violence	Evidence of effectiveness in reducing aggressive behavior. Benefits can be achieved in both primary and secondary school age groups and in both mixed sex groups and boys-only groups.	Mytton, 2006 PMID: 16856051
Dating violence	Educational and skills-based interventions for preventing relationship and dating violence in adolescents and young adults	No evidence of effectiveness of interventions on behavior. Small increase in knowledge.	Fellmeth, 2013 PMID: 23780745

Appendix 3: Campbell Collaboration

The Campbell Collaboration is an international collaboration founded based on the principle that systematic reviews of the effects of interventions will inform and help improve policy and services. With a national center in the UK and Ireland, and a Nordic center in Denmark, Campbell conducts systematic reviews and other evidence syntheses of social interventions in areas including education, crime and justice, and social welfare.

Website: https://campbellcollaboration.org/

Library: https://campbellcollaboration.org/library.html

Topic	Review	Results/Conclusion	First Author, Year
Overall health promotion	Home-based child development interventions for pre-school children from socially-disadvantaged families	Limited evidence of the effectiveness of home-based interventions that are specifically targeted at improving developmental outcomes for preschool children from socially disadvantaged families.	Miller, 2012
	Individual and group-based parenting for improving psychosocial outcomes for teenage parents and their children	Some benefits, particularly related to improving parent-infant interaction	Barlow, 2011
	Group-based parent-training programs for improving emotional and behavioral adjustment in 0- to 3-year-old children	Some support for the use of group-based parenting programs to improve the emotional and behavioral adjustment of children under the age of 3 years.	Barlow, 2005
	Youth empowerment programs for improving self-efficacy and self-esteem of adolescents	Limited evidence of effectiveness to substantiate the expectation that YEPs have an impact on developmental assets such as self-efficacy and self-esteem.	Morton, 2011
Child maltreatment	School-based education programmes for the prevention of child sexual abuse (also published by Cochrane)	Evidence of improvements in protective behaviors and knowledge among children exposed to school-based programs.	Walsh, 2015
Bullying	School-based programs to reduce bullying and victimization	School-based anti-bullying programs are effective in reducing bullying and victimization (being bullied).	Farrington, 2009

Topic	Review	Results/Conclusion	First Author, Year
	Interventions for children, youth and parents to prevent and reduce cyber abuse	Evidence that participation in psychoeducational Internet safety interventions is associated with an increase in Internet safety knowledge but is not significantly associated with a change in risky online behavior.	Mishna, 2009
Dating violence	School-based interventions to reduce dating and sexual violence	Prevention programs improve young people's knowledge about, and attitudes towards, dating violence.	De La Rue, 2014
	Effects of bystander programs on the prevention of sexual assault among adolescents and college students	Bystander programs encourage young people to intervene when witnessing incidents or warning signs of sexual assault have a beneficial effect on bystander intervention behavior. Limited evidence that these programs have an effect on participants' rate of sexual assault perpetration.	Kettrey, 2019
Youth violence	Mentoring interventions to affect juvenile delinquency and associated problems	Mentoring for high-risk youth has a modest positive effect for delinquency and academic functioning, with trends suggesting similar benefits for aggression and drug use.	Tolan, 2013

Appendix 4: Other Systematic Reviews

The systematic reviews below were retrieved from databases maintained by these two organizations (Note: Searches were limited to 2008-2018):

- **Evidence for Practice and Policy Information (EPPI) Centre** (https://eppi.ioe.ac.uk/cms/): Located in the UK, this is a specialist center for developing methods for systematic reviewing and synthesis of research evidence; and developing methods for the study of the use research. Its **Database of Promoting Health Effectiveness Reviews** (DoPHER, https://eppi.ioe.ac.uk/webdatabases4/Intro.aspx?ID=9) includes more than 5,100 reviews of health promotion and public health effectiveness conduted by the EPPI-Centre and external sources.
- **Centre for Reviews and Dissemination** (CRD, https://www.york.ac.uk/crd/): A part of the National Institute for Health Research and a department of the University of York, CRD is an international center engaged exclusively in evidence synthesis in the health field. From 1994 to March 2015 (due to lack of funding, records are no longer being added but will be maintained until 2021), CRD systematically searched the international literature to identify and describe systematic reviews, appraise their quality, and highlight strengths and weaknesses. Reviews that met its quality criteria are included in its **Database of Abstracts of Reviews of Effects** (DARE): https://www.crd.york.ac.uk/CRDWeb/.

Topic	Review and Source	Conclusion	First Author, Date
Overall health promotion	Components associated with home visiting program outcomes: A meta-analysis DoPHER	Home visiting programs demonstrate small but significant overall effects on public health outcomes (birth outcomes, parenting behavior and skills, maternal life course, child cognitive outcomes, child physical health, and child maltreatment).	Filene, 2013 PMID: 24187111
	Eliminating health disparities through action on the social determinants of health: A systematic review of home visiting in the United States, 2005-2015 DoPHER	Community and home visitation interventions by nurses provide an effective means for mitigating social determinants of health by empowering people at risk for health disparities to avoid injury, maintain health, and prevent and manage existing disease.	Abbott, 2017 PMID: 27145717
	Interventions that enhance health services for parents and infants to improve child development and social and emotional well-being in high-income countries: a systematic review DoPHER	Limited evidence of effectiveness in improving child development (motor, cognitive and language development, and social-emotional well-being) by enhancing parental contact with health services.	Hurt, 2018 PMID: 29439064

Topic	Review and Source	Conclusion	First Author, Date
	Enhancing the emotional and social skills of the youth to promote their wellbeing and positive development: A systematic review of universal school-based randomized controlled trials DoPHER	Promising outcomes on emotional and social skills that are relatively far-reaching for children and youth wellbeing and therefore are important in the real world.	Sancassiani, 2015 PMID: 25834626
Unintentional injury prevention	Interventions to prevent unintentional injuries among adolescents: A systematic review and meta-analysis DoPHER	Evidence that training/education and the use of safety equipment reduces the incidence of injuries.	Salam, 2016 PMID: 27664598
	Preventing unintentional injuries to children in the home: A systematic review of the effectiveness of programs supplying and/or installing home safety equipment DARE and DoPHER	Limited evidence that distribution of smoke alarms alone improves installation rates. Evidence of effectiveness on installation rates for other home safety equipment was mixed.	Pearson, 2011 PMID: 21131627
	Preventing unintentional injuries to children under 15 years in the outdoors: A systematic review of the effectiveness of educational programs DoPHER	Some evidence that extensive educational programs, such as health fairs and media campaigns, increase the use of protective equipment.	Pearson, 2012 PMID: 21890579
	A systematic review on the effectiveness of school and community-based injury prevention programmes on risk behaviour and injury risk in 8-12 year old children DARE and DoPHER	Short-term effects for school- and community-based interventions using safety devices promising but sustainability of effects was unclear.	Nauta, 2014 PMID: 23962868
	Interventions to reduce accidents in childhood: A systematic review DoPHER	Evidence of effectiveness in increasing parental knowledge and decreased risk factors for child injury.	Barcelos, 2018 PMID: 29291398
Poisoning	Effect of education and safety equipment on poisoning-prevention practices and poisoning: systematic review, meta-analysis and meta-regression DARE and DoPHER	Home safety education and the provision of safety equipment effective in improving poison-prevention practices, but the impact on poisoning rates is unclear.	Kendrick, 2008 PMID: 18337279

Topic	Review and Source	Conclusion	First Author, Date
	Prevention of childhood poisoning in the home: overview of systematic reviews and a systematic review of primary studies DoPHER	Evidence that interventions improve poison prevention practices but limited evidence that interventions impact poisoning rates.	Wynn, 2016 PMID: 26401890
Falls	Preventing childhood falls at home: Meta-analysis and meta-regression DARE and DoPHER	Home-safety education and the provision of safety equipment improve some fall-prevention practices, but the impact on fall-injury rates is unclear.	Kendrick, 2008 PMID: 18779031
	Preventing childhood falls within the home: Overview of systematic reviews and a systematic review of primary studies DoPHER	Most interventions to prevent childhood falls at home not evaluated in terms of their effect on reducing falls.	Young, 2013 PMID: 24080473
	A systematic review of the risk factors and interventions for the prevention of playground injuries DoPHER	Effective interventions include modifying playground surfacing and reducing equipment height to less than 1.5 meters (about 5 feet).	Richmond, 2018 PMID: 29981068
Drowning	Interventions associated with drowning prevention in children and adolescents: Systematic literature review DARE	Limited evidence to assess the impact of interventions designed to reduce drowning.	Wallis, 2015 PMID: 25189166
	A review of drowning prevention interventions for children and young people in high, low and middle income countries DoPHER	Evidence for comprehensive multi-strategy approaches.	Leavy, 2016 PMID: 26499822
Infant suffocation	Can home monitoring reduce mortality in infants at increased risk of sudden infant death syndrome? DARE	Limited evidence that home monitoring effective in preventing SIDS.	Strehle, 2012 PMID: 21910748
Child passenger safety	A systematic review of community interventions to improve aboriginal child passenger safety DARE and DoPHER	Strong evidence that multicomponent interventions tailored to each community improve child passenger safety.	Ishikawa, 2014 PMID: 24754652
Teen driver safety	Graduated driver licensing: Review of evaluation results since 2002 DARE	GDL programs effective in reducing young drivers' crash risk.	Shope, 2007 PMID: 17478187

Topic	Review and Source	Conclusion	First Author, Date
Bicycle-related injuries	Prevention of bicycle-related injuries in children and youth: A systematic review of bicycle skills training interventions DARE and DoPHER	Some evidence that educational and skills training bicycling programs increase knowledge of cycling safety.	Richmond, 2014 PMID: 24263707
Child pedestrian	Systematic review and meta-analysis of behavioral interventions to improve child pedestrian safety DARE and DoPHER	Behaviorally-based interventions effective in improving children's pedestrian safety.	Schewebel, 2014 PMID: 24864275
Underage alcohol use	A systematic review of school-based alcohol and other drug prevention programs DoPHER	Unplugged appears to be the prevention project with the best evidence of effectiveness in European studies.	Agabio, 2015 PMID: 25834630
	Effectiveness of school-based life-skills and alcohol education programmes: A review of the literature DoPHER	Mixed evidence of the effectiveness of alcohol education and life-skills programs. Evidence of enhancing knowledge and understanding of alcohol-related issues.	Martin, 2013 Report
	Does integrated academic and health education prevent substance use? Systematic review and meta-analyses	Some evidence of effectiveness in reducing substance use.	Melendez-Torres, 2018 PMID: 29446116
	Family interventions and their effect on adolescent alcohol use in general populations: A meta-analysis of randomized controlled trials DARE and DoPHER	Some evidence of effectiveness of family interventions on adolescent alcohol use.	Smit, 2008 PMID: 18485621
	Preventive interventions addressing underage drinking: State of the evidence and steps toward public health impact DoPHER	Evidence that some interventions are promising.	Spoth, 2008 PMID: 18381496
	Adolescent and young adult substance use in Australian Indigenous communities: a systematic review of demand control program outcomes DoPHER	Lack of evidence of effectiveness in reducing demand (rather than supply or harm reduction) by providing early intervention, alternatives, education and persuasion, treatment, diversion to treatment, and ongoing care.	Geia, 2018 PMID: 29697886

Topic	Review and Source	Conclusion	First Author, Date
Drug use	School-based drug abuse prevention programs in high school students DARE and DoPHER	Evidence programs include are Project Toward No Dug Abuse, Project SPORT, Teen Intervention Project – Cherokee, Motivational Interviewing, NARCONON™ drug education curriculum, Cognition-Motivation-Emotional Intelligence Resistance Skills, and the Adventure trial.	Sharma, 2013 Abstract
	A systematic review of school-based alcohol and other drug prevention programs facilitated by computers or the Internet DARE and DoPHER	Existing computer- and Internet-based prevention programs in schools have the potential to reduce alcohol and other drug use as well as intentions to use substances in the future.	Champion, 2013 PMID: 23039085
Child maltreatment	A gloomy picture: A meta-analysis of randomized controlled trials reveals disappointing effectiveness of programs aiming at preventing child maltreatment DoPHER	Programs appear to reduce but not prevent child maltreatment.	Euser, 2015 PMID: 26476980
	Identifying effective components of child maltreatment interventions: A meta-analysis	Some evidence of effectiveness of Findings suggest that cognitive behavioral therapy, home visitation, parent training, family-based/multisystemic, substance abuse, and combined interventions in preventing and/or reducing child maltreatment.	van der Put, 2018 PMID: 29204796
Violence: General	What works in youth violence prevention: A review of the literature DARE	Effective strategies targeting a variety of risk and protective factors using diverse mechanisms.	Fagan, 2012 Paper
Youth violence: School-based programs	The effects of Positive Youth Development interventions on substance use, violence and inequalities: Systematic review of theories of change, processes and outcomes DoPHER	Small, statistically significant, short-term effects for an omnibus measure of substance use and for violence.	Bonell, 2016 PMID: 27253003
	Effectiveness of universal school-based programs for prevention of violence in adolescents DoPHER	Limited evidence of the effectiveness of universal school-based programs in the primary prevention of violence in 11- to 18-year-olds. Those that combine social development and social norms approaches appear to be the most effective.	Gavine, 2016 Abstract

Topic	Review and Source	Conclusion	First Author, Date
	The evaluation of school-based violence prevention programs: A meta-analysis. DoPHER	Programs that use non-theory-based interventions, focused on at-risk and older children, and employ intervention specialists effective in reducing aggression and violence.	Park-Higgerson, 2008 PMID: 18786039
Bullying	A meta-analysis of the effect of school-based anti-bullying programs DoPHER	Small to moderate effect on victimization. Effective school-based anti-bullying programs include training in emotional control, peer counseling, and the establishment of a school policy on bullying.	Lee, 2015 PMID: 24092871
	The effectiveness of school-based bullying prevention programs: A systematic review DARE and DoPHER	Programs implemented outside of the United States with homogeneous samples are more successful than programs implemented in the United States, where samples tend to be more heterogeneous.	Evans, 2014 Abstract
	Results from interventions addressing social skills to reduce school bullying: A systematic review with meta-analysis	Limited evidence that school-based interventions addressing social skills, alone, reduce bullying and victimization.	Silva, 2018 Paper
Dating violence	A systematic review of interventions for preventing adolescent intimate partner violence DoPHER	Interventions targeting perpetration and victimization of IPV among adolescents can be effective. Those interventions are more likely to be based in multiple settings and focus on key people in the adolescents' environment.	De Koker, 2014 PMID: 24125727
Suicide	A systematic review of psychosocial suicide prevention interventions for youth DoPHER	Some school, community and healthcare programs effective in reducing suicidal ideation, suicide attempts, or deliberate self-harm.	Calear, 2016 PMID: 26472117
	A systematic review of school-based interventions aimed at preventing, treating, and responding to suicide- related behavior in young people DARE	Promising interventions for schools appear to be gatekeeper training and screening programs.	Robinson, 2013 PMID: 23195455
	A systematic review of school-based suicide prevention programs DARE	Some school-based suicide prevention programs more evidence than others.	Katz, 2013 PMID: 23650186
	The effectiveness of middle and high school-based suicide prevention programmes for adolescents: a systematic review DoPHER	Evidence exists that school-based programs improve knowledge, attitudes, and help-seeking behaviors, no evidence yet exists that these prevention programs reduce suicide rates.	Cusimano, 2011 PMID: 21059602

Topic	Review and Source	Conclusion	First Author, Date
	Suicide prevention programs in the schools: A review and public health perspective DARE	The scientific foundation regarding school-based suicide prevention programs is limited.	Miller, 2009 DARE Abstract
	Suicide prevention e-learning modules designed for gatekeepers DARE	Limited effectiveness of online modules.	Ghoncheh, 2014 PMID: 24901058
	Web-based and mobile suicide prevention interventions for young people: A systematic review DoPHER	Limited evidence for online and mobile interventions for suicide prevention in youth.	Perry, 2016 PMID: 27274742
	A systematic review of evaluated suicide prevention programs targeting indigenous youth DARE	Limited evidence for effective culturally appropriate content on indigenous youth suicide prevention.	Harlow, 2014 PMID: 25115489

Appendix 5: Additional Resources

Association of State and Territorial Health Officials (ASTHO)

- Preventing injuries and violence: An updated guide for state and territorial health officials, 2016. http://www.astho.org/Prevention/IVP-Guide-2016/

Centers for Disease Control and Prevention (CDC)

- National Action Plan for Child Injury Prevention: An agenda to prevent injuries and promote the safety of children and adolescents in the United States, 2012. https://www.cdc.gov/safechild/nap/index.html
- Technical packages for violence prevention: https://www.cdc.gov/violenceprevention/pub/technical-packages.html

Children's Safety Network

- Evidence-based strategies and readings in five injury topics. https://www.childrenssafetynetwork.org/resources/evidence-based-strategies-readings-five-injury-topics
- Injury prevention: What works? A summary of cost-outcome analysis for injury prevention programs, 2014. https://www.childrenssafetynetwork.org/publications/whatworks2014

National Association for City and County Health Officials (NACCHO)

- Database of model practices in local public health agencies: A searchable database of local health agency model practices, divided into community, environmental, and public health categories. www.naccho.org

National Institute for Health and Care Excellence Guidelines (NICE), UK

- Database of evidence-based guidelines (includes guidelines on the prevention of injuries and violence among children and adolescents, including unintentional injuries, motor vehicle injuries, drug misuse and prevention, alcohol-use disorder, and school-based underage drinking prevention): https://www.nice.org.uk/guidance/published?type=csg,cg,mpg,ph,sg,sc

Substance Abuse and Mental Health Services Administration (SAMHSA)

- Evidence-Based Practices Resource Center: https://www.samhsa.gov/ebp-resource-center