## TABLE OF CONTENTS

- Injury and Violence Prevention Guide 2021 ................................................................. 3
- Data and Surveillance ........................................................................................................... 9
- Overdose Prevention ........................................................................................................... 15
- Motor Vehicle Safety ......................................................................................................... 19
- Safe Kids – Child Injury Prevention .................................................................................... 22
- Traumatic Brain Injury Prevention ....................................................................................... 26
- Falls Prevention .................................................................................................................... 29
- Suicide Prevention ............................................................................................................... 32
- Firearm Violence Prevention ............................................................................................... 35
- Sexual Violence Prevention ................................................................................................. 39
- Intimate Partner Violence and Child Abuse Prevention ....................................................... 42
- Endnotes ............................................................................................................................... 43

For more information, visit our website:
Injury and Violence Prevention Section
Washington State Department of Health
INJURY AND VIOLENCE PREVENTION GUIDE 2021

The Washington State Department of Health’s (DOH) Injury and Violence Prevention (IVP) Program is founded on a basic principle: **injuries and violence are preventable public health priorities.**

Over the past decade, more than 43,000 Washingtonians died from injury and violence (unintentional, suicide, and homicide).1 Historically, injury and violence-related deaths have been the leading cause of death for Washington residents ages one to 44 years old (1,069 unintentional, 558 suicide, and 149 homicide in 2019). The state also experienced a shift in injury focus when, in 2010, suicide surpassed deaths related to motor vehicle traffic (MVT) and became the leading cause of deaths in those ages 15–24 years old.

Deaths from violence and injury cost Washington an average of $5.8 billion yearly in medical costs and lost productivity. Between 2016 and 2018, hospitalizations because of injury and violence cost Washington an average of $3.1 billion in medical costs and lost productivity.2 The cost of care for those with lifelong injury, and the grief among families, friends, and communities, is incalculable.

In accord with public health science, DOH works to build data-driven, evidence-based programs to prevent injuries and violence from occurring in the first place. DOH and its partners have made great strides in recent years. Some achievements include:

- Strengthened, diversified, and more timely injury and death data collection and analyses
- Expanded comprehensive suicide prevention programs and collaborations statewide
- Funded opioid/overdose prevention and response at the local level across the state
- Reshaped Older Adult Falls program infrastructure

This guide, and the companion topic-specific injury and violence prevention plans linked below, update the 2016 Injury and Violence Prevention Guide and map the IVP program’s future direction.

About the Injury and Violence Prevention Program

**IVP oversees and implements a wide range of injury and violence prevention work.** Currently, its focus areas include:

<table>
<thead>
<tr>
<th>Overdose Prevention</th>
<th>Suicide Prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor Vehicle Safety</td>
<td>Firearm Violence Prevention</td>
</tr>
<tr>
<td>Safe Kids – Child Injury Prevention</td>
<td>Sexual Violence Prevention</td>
</tr>
<tr>
<td><strong>Traumatic Brain Injury Prevention</strong></td>
<td>Intimate Partner Violence and Child Abuse Prevention</td>
</tr>
<tr>
<td>Falls Prevention</td>
<td></td>
</tr>
</tbody>
</table>

In public health practice, **injury** is damage or harm to the body resulting in impairment or destruction of health. **Violence** is intentional injury — the use of power or force against oneself or another person. Outcomes of injury and violence can be lifelong disability, death, and **trauma**, which is defined as physical, emotional, or psychological effects that can have long-lasting impacts on an individual’s and community’s well-being.
IVP coordinates with many partners across Washington State to build capacity to prevent injuries and violence. This joint work includes:

- Identifying and focusing on populations and communities most affected by each type of injury and violence
- Supporting local and community programs that directly address injury and violence prevention
- Collecting, analyzing, interpreting, and sharing injury and violence data
- Researching, evaluating, and funding evidence-informed policies and best practices
- Developing public health messaging and supporting trainings for local, regional, state, and community-based prevention programs

IVP monitors continuously for emerging public health issues. IVP has heightened awareness of the global increase in injury and violence risk factors presented by the Covid-19 pandemic, such as economic instability and impacts to mental health well-being. IVP is intensifying data surveillance, particularly related to violence and substance use, and promoting strategies focused on resilience, connection and resources.

IVP is increasingly concerned about elder abuse, which includes self-neglect and mistreatment by others. It is estimated that one in 10 adults over 60 years old in America has experienced abuse such as financial exploitation, neglect, and physical and sexual abuse; yet, most incidents go unreported.

Another topic currently under consideration by IVP is the intersection of injury and violence and economic and social factors (including poverty, education, built environment, and access to physical and mental health care). The link between the social determinants of health and health outcomes is broadly recognized in public health literature and practice but an increased understanding of the link between social determinants and specific injury and violence areas of focus will result in improved health policies and programs.

IVP builds partnerships across multi-layered disciplines and public health programs to better identify strategies and leverage resources to meet emerging public health threats.

The Path Forward (2021 and beyond)

The IVP program is committed to four broad-based actions to reduce injury and violence in our communities:

- Implementing the strategies described in this guide, including the injury and violence prevention plans for each topic area.
- Adopting a shared risk and protective factors (SRPF) approach to address different, but overlapping, types of injury and violence (see page 6).
- Supporting data-driven public health and evidence-based/informed injury and violence prevention measures with strengthened and evolving data systems (e.g., emergency department data) and robust analyses.
- Examining data, programs, and policies through a health equity lens, including scrutiny of values and assumptions and consideration of what data may be missing or which stakeholders are underrepresented in decision-making processes.

IVP integrates recently developed best practices and initiatives from the Centers for Disease Control (CDC) to help shape the direction of the program. For example, the CDC supports IVP through a Core State Violence and Injury Prevention Program (Core SVIPP) cooperative agreement intended to decrease injury- and violence-related morbidity and mortality and increase sustainability of injury prevention programs and practices.

The Core SVIPP grant’s holistic focus helps states build infrastructure around injury and violence prevention by strengthening:
- **Data and Surveillance.** Epidemiologists and data managers track, analyze, and share injury and violence patterns with partners and the general public.

- **Partnerships.** Strong and sustained tribal, local, regional, and state partners form the backbone of injury and violence prevention.

- **Policy and Communication.** Leadership and policy-makers advance essential legislation and policy change to address and reduce the burden of injury and violence.

- **Accountability and Evaluation.** Prevention approaches are tracked for progress, use, sustainability, and non-duplication. They are evaluated for relevance and effectiveness and modified as needed.

However, significant hurdles remain:

- **Funding.** Funding is insufficient for several IVP priorities including suicide, traumatic brain injury (TBI), intimate partner violence (IPV), and child abuse prevention. Effective prevention requires adequate and sustained funding to build programs and data systems, provide education, and deliver resources to accomplish the goal of reducing injury and violence in communities.

- **Priority and Funding Alignment.** Available funding often aligns with shifting national priorities, which may or may not sync with the injury and violence priorities identified by communities in Washington state. Flexible opportunities to align funding with the state’s specific priorities would increase the likelihood of successful outcomes.

- **Staffing.** Primary public health prevention is perennially understaffed. Increased staffing support would better enable IVP to meet the demands for technical assistance, community awareness and prevention education, program development and evaluation, and epidemiologic support.

- **COVID-19.** Budget shortfalls and redirection of funds and staff to address the immediate effects of the pandemic have reduced available resources. The rapid shift to remote work and limited in-person contact have impacted partnerships, program delivery, and delayed projects. Public health professionals and the prevention community are experiencing compassion fatigue and burnout as the stress of the pandemic and response continues and face difficult decisions about work to prioritize — and to cut — as they seek to keep workloads manageable.

### Comprehensive Approaches: Partnerships and Interrelated Efforts

Injury and violence are often the result of complex, multifactor causes. Prevention requires comprehensive, multidisciplinary and holistic strategies.

**IVP AND EXTERNAL PARTNERSHIPS**

Injury and violence prevention overlap with several areas of public health and public safety. Environmental health, maternal and child health, behavioral health and transportation are a few. IVP frequently partners with state and local agencies, universities, advisory boards and prevention coalitions to collectively address various aspects of a single public health problem.

Often, IVP is not the leader, but a convener or contributor among many. Programs addressing intimate partner violence, motor vehicle crashes, older adult falls, sexual violence, drug overdose, and suicide necessarily involve multiple partners from different fields of practice, sectors of the economy, and levels of government. These partnerships expand IVP’s capacity to effectively address complex public health issues. Furthermore, partnerships allow IVP to keep a steady eye on data, surveillance, and primary (upstream) prevention while other groups implement programs and deliver direct services.

One example of IVP’s partnership work is the Regional Network Coordination Organization (RNCO). With Core SVIPP funding, IVP convenes the [Western Pacific Injury Prevention Network (WIPPN)](http://www.wippn.org) to provide structured...
assistance to designated states. The goals of WPIPN are to increase connections between state IVP programs, share resources and programmatic best practices, and build state injury and violence prevention capacity.

Going forward, IVP will continue its unqualified commitment to fostering and maintaining effective, diverse, and inclusive partnerships.

ADDRESSING RELATED INJURIES AND VIOLENCE WITHIN IVP

The intersection of public health problems also exists within the field of injury and violence prevention itself. An example is the overlap of firearm violence and suicide: in 2019, firearms were used in half of all suicides in Washington state (637 out of 1262), and 76 percent of all firearm deaths were suicides (637 out of 842). These trends have remained steady for the past 10 years. To prevent and reduce firearm suicide, IVP works with a wide constellation of partners to provide lethal means education and crisis counseling. (See the “Suicide Prevention” chapter in this guide).

Another intersection is older adult falls and opioid misuse. Use of opioid medication is a major risk factor for falls among older adults. Health professionals and those working to prevent older adult falls must consider the role of opioid use in such incidents. At the same time, those working to prevent opioid misuse must also recognize older adults as a priority population. IVP’s Older Adult Falls and Overdose Prevention programs collaborate to educate health care providers on the correlation between opioid use and falls.

Identifying areas of overlap helps IVP move towards more rigorous upstream prevention of the most prevalent causes of injury and violence. It also helps pinpoint common factors contributing to these deaths and injuries.

Table 1: Areas of overlap between some of IVP’s topic areas

<table>
<thead>
<tr>
<th>IVP TOPIC AREAS</th>
<th>OPIOIDS/OVERDOSE</th>
<th>OLDER ADULT FALLS</th>
<th>MOTOR VEHICLE SAFETY</th>
<th>TBI</th>
<th>SUICIDE</th>
<th>SV/IPV</th>
<th>CHILD ABUSE &amp; NEGLECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opioids/Overdose</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Older Adult Falls</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>MVS</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TBI</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suicide</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SV/IPV</td>
<td>X</td>
<td></td>
<td>O</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAN</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend

- X: Indicates topic areas which have a known overlap based on available data, existing research on shared risk and protective factors, professional experience, or a combination of all three
- O: Indicates topic areas where a potential overlap requires further exploration

Shared Risk and Protective Factors:
A New Paradigm for Washington State’s IVP

Risk factors are characteristics or situations that increase the likelihood of a person experiencing injury or violence. Risk factors can vary from specific factors, such as failure to wear a helmet when riding a bicycle, to broader factors, such as social isolation, substance misuse, or exposure to traumatic stressors in early life.
Protective factors decrease the likelihood of a person experiencing injury or violence. Protective factors — skills and characteristics that lessen the impact of risk — do not necessarily eliminate risk factors. Instead, they may give a person the ability to avoid injury or violence, or the resilience to survive injury or violence with their health and wellness intact. Protective factors, like risk factors, range from specific factors, such as using seatbelts, to broader societal elements such as strong community support, access to mental health care, or economic stability.

Reducing death and harm from injuries and violence requires an understanding of the factors that put people at risk in the first place. Simultaneously, it is important to institute preventative programs and policies to shield people from experiencing or perpetrating injury and violence — and help those injured or harmed recover more quickly and fully from exposure.

A shared risk and protective factors (SRPF) approach to injury and violence prevention requires assessing the risk and protective factors that are shared by different types of injury and violence. This allows IVP to address multiple areas of injury and violence at the same time. For example, the Home Visit program uses shared risk and protective factors to address intimate partner violence and child abuse simultaneously. (For more information, see the “Intimate Partner Violence and Child Abuse” chapter in this guide.)

IVP is intentionally shifting toward a SRPF approach in order to work toward the prevention of multiple forms of injury and violence at the same time, leverage resources and partnerships more effectively, and consider a wider variety of prevention strategies. In 2020, IVP with the assistance of expert partners underwent a readiness assessment and will use the results and recommendations to guide the strategic direction of implementation.

**Adverse Childhood Experiences (ACEs)**

The CDC has developed Connecting the Dots, a resource that lists points of overlap between different forms of violence. One area of focus is Adverse Childhood Experiences (ACEs), which are traumatic stressors such as childhood abuse, neglect, the incarceration or death of a parent, or other trauma that people are exposed to in their youth. ACEs contribute to stress during childhood and put individuals at higher risk for outcomes such as heart disease, depression, illicit drug use, suicide attempts, and involvement with multiple forms of violence in later life. The impact of ACEs is cumulative. The more ACEs a person is exposed to, the higher the chance they will experience poor outcomes in later life.

Interventions that promote protective factors and target root causes of violence may help people recover more quickly and fully from exposure to violence and reduce the likelihood of being involved in a violent event in the first place.

Public health programs designed to create safer environments for children and families are pivotal to reducing ACEs. Many programs within IVP address ACEs. For example, the opioid/overdose program supports providers with strategies to identify and address ACEs among clients.

“There are experiences, particularly early in childhood, that make it extremely predictable that individuals are at substantially higher risk for involvement with violence, be it interpersonal, youth violence, intimate partner violence, dating violence, or child abuse.”

– Howard Spivak, M.D., Director, Division of Violence Prevention, CDC; Connecting the Dots brief (page 3)
who work with pregnant and parenting women with substance use disorder. This population faces bias and discrimination and may avoid seeking a variety of services (such as housing, food assistance, or insurance) out of fear of losing custody of their children. By focusing on this population, the opioid/overdose program is working to create a more stable environment for children, which may reduce the number of ACEs these children are exposed to in their early lives.

Health Equity

Health equity exists when all people, regardless of their social, economic, demographic or geographic context, have the opportunity to achieve the same physical and mental health potential.

A health disparity refers to a difference in health that is closely linked with social, economic, and/or environmental disadvantage. Advancing health equity and reducing health disparities requires unwavering attention to the communities that are most effected.

DOH is committed to helping all Washingtonians achieve their full health potential. To this end, IVP seeks to:

- Use data and emerging research to understand specific issues facing populations and communities across Washington State. For example, the suicide prevention program seeks to better understand the specific issues faced by agricultural communities and has an initiative focused on improving behavioral health and preventing suicide within these communities.

- Address the root causes of injury and violence. When developing or collaborating on new initiatives, IVP considers the social determinants of health (nonmedical factors such as income, discrimination, housing, and education that influence health) and their impacts on the health and safety of communities.

- Support local communities in developing prevention programs tailored to their specific population. For example, the Older Adult Falls program is partnering with the Northwest Regional Council and collaborating tribes to develop culturally relevant falls prevention programs for tribal elders.

For More Information

<table>
<thead>
<tr>
<th>DOH IVP website</th>
<th><a href="https://www.doh.wa.gov/YouandYourFamily/InjuryandViolencePrevention">https://www.doh.wa.gov/YouandYourFamily/InjuryandViolencePrevention</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>CDC Core SVIPP page</td>
<td><a href="https://www.cdc.gov/injury/stateprograms/index.html">https://www.cdc.gov/injury/stateprograms/index.html</a></td>
</tr>
<tr>
<td>DOH Health Equity page</td>
<td><a href="https://www.doh.wa.gov/CommunityandEnvironment/HealthEquity">https://www.doh.wa.gov/CommunityandEnvironment/HealthEquity</a></td>
</tr>
</tbody>
</table>
DATA AND SURVEILLANCE

DOH is committed to developing evidence-based, data-driven public health strategies through injury surveillance. In the public health context, “Injury surveillance” refers to the systematic collection, analysis, interpretation, and sharing of data regarding an injury- or violence-related event for use in public health practice.6

IVP considers data to be the backbone of public health practice. It closely examines data to better understand the factors that contribute to injury and death. Robust and accurate data help pave the way to effective interventions, improved health, and reduced morbidity and mortality.

Data Sources

DOH is continually expanding its data sources. For example, in 2016, the Washington state legislature mandated that all emergency departments report relevant data to DOH. These data have begun to shed new light on circumstances surrounding nonfatal intentional and unintentional injuries.

Table 2: Most frequently used data sources for injury and violence prevention programs

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>MORE INFO</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioral Risk Factor Surveillance System (BRFSS)</td>
<td></td>
<td>BRFSS data are collected via an annual phone or mail survey in partnership with the CDC. Survey questions address health and health behaviors, including topics related to common causes of injury. The information helps inform public health programs, measures the extent of health changes, and evaluates public health policies and programs across WA.</td>
</tr>
<tr>
<td>DOH BRFSS page</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comprehensive Hospital Abstract Reporting System (CHARS)</td>
<td></td>
<td>CHARS is a DOH system that collects record-level information on inpatient and observation patient community hospital stays. CHARS data are used to identify hospitalization trends and provide information on health care access and quality, as well as cost containment issues.</td>
</tr>
<tr>
<td>DOH CHARS page</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Death Certificate Data</td>
<td></td>
<td>Death Certificate Data are collected and managed by the DOH Center for Health Statistics. Cause of death information is provided by a certifying physician, medical examiner, or coroner. The causes of death are then classified using the International Classification of Diseases – 10th revision (often referred to as ICD-10 codes).</td>
</tr>
<tr>
<td>DOH CHS page</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency Department (ED) Data</td>
<td></td>
<td>ED data in Washington state are collected and managed by the Rapid Health Information Network (RHINO) program. These syndromic data are used to track outbreaks and emerging conditions, monitor illness and injury trends, and evaluate the effectiveness of population health interventions. Washington shares ED data with the CDC’s National Syndromic Surveillance Program (NSSP) to contribute to the national picture of public health.</td>
</tr>
<tr>
<td>DOH RHINO page</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthy Youth Survey (HYS)</td>
<td></td>
<td>HYS is a collaborative effort of the Office of Superintendent of Public Instruction (OSPI), DOH, Department of Social and Health Services (DSHS), and the Liquor and Cannabis Board (LCB). Students in grades six, eight, 10, and 12 complete surveys in even-numbered years on topics including safety and violence, physical activity and diet, alcohol, tobacco and other drug use, and related risk and protective factors.</td>
</tr>
<tr>
<td>DOH HYS page</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOURCE</td>
<td>MORE INFO</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>--------</td>
<td>------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Pregnancy Risk Assessment Monitoring System (PRAMS)</td>
<td><strong>DOH PRAMS</strong></td>
<td>PRAMS is a survey of new mothers conducted by DOH and the CDC. PRAMS gathers information from mothers about their experiences before, during, and after their most recent pregnancy. This information is used by local and state agencies to plan maternal and infant health programs and policies that help pregnant women.</td>
</tr>
<tr>
<td>Prescription Monitoring Program (PMP)</td>
<td><strong>DOH PMP page</strong></td>
<td>PMP collects dispensing records for Schedule II, III, IV, and V drugs and makes the information available to medical providers and pharmacists as a patient care tool. These data can also be used to educate prescribing providers after fatal or nonfatal overdose.</td>
</tr>
<tr>
<td>State Unintentional Drug Overdose Reporting System (SUDORS)</td>
<td><strong>DOH Opioid Overdose Prevention Page</strong></td>
<td>SUDORS collects detailed overdose death information and captures more than 1,500 variables. These data are used to better understand circumstances surrounding the incident, including the type and origin of drugs involved. Originally this system tracked only opioid overdose deaths but was expanded to include all drugs as of September 1, 2019.</td>
</tr>
<tr>
<td>Washington Emergency Medical Service Information System (WEMSIS)</td>
<td><strong>DOH WEMSIS page</strong></td>
<td>WEMSIS is Washington’s prehospital data repository for electronic patient care records. Services, counties, and regions use EMS data to identify best practices and improve EMS response and patient outcomes.</td>
</tr>
<tr>
<td>Washington State Violent Death Reporting System (WA-VDRS)</td>
<td><strong>DOH WA-VDRS page</strong></td>
<td>WA-VDRS data cover all types of violent deaths, including homicides, suicides, and unintentional firearm deaths. It also includes cases where cause of death is undetermined. It pools more than 600 unique data elements from death certificates, medical examiner and coroner reports, law enforcement incident reports, and toxicology reports. These data help determine the magnitude of trends for specific causes of death, identify risk factors associated with deaths, and guide violence prevention programming.</td>
</tr>
<tr>
<td>Washington Traffic Safety Commission (WTSC) Research and Data Division (RADD)</td>
<td><strong>WTSC RADD page</strong></td>
<td>Traffic safety data, including fatal crash information.</td>
</tr>
</tbody>
</table>
Sharing Injury and Violence Death Data

IVP disseminates data through state agencies, local health jurisdictions, prevention partners, academic researchers, legislature, media, and online dashboards and data sharing systems such as the publicly available Washington Tracking Network. Additionally, IVP staff regularly presents data at meetings, workgroup sessions, and at professional conferences in Washington state and nationally.

General Injury Data

DOH offers online dashboards for quick access to injury and violence data, both statewide and at the county level.

A screenshot of the public injury and violence data dashboard. Available at: https://www.doh.wa.gov/DataandStatisticalReports/HealthDataVisualization/MortalityDashboards/InjuryDeathsDashboard

Filters include injury intent, injury mechanism, year, age, gender, and race. Data based on other filters are available upon request.

IVP has also builds and updates injury tables that show leading causes of injury and violence death broken out in various ways. These data are frequently requested by partners and stakeholders.

---

Sexual Violence Data Source Inventory

In January 2019, IVP released the Sexual Violence Data Source Inventory. This resource was developed primarily for those involved in rape prevention and education programming but can be used by anyone interested in sexual violence data.

The inventory is intended to offer readers viable sources of aggregated sexual violence indicator data. Information in the inventory is summarized so that practitioners may quickly identify the data that are most useful to their work.
Overdose Data

Overdose deaths, particularly those involving opioids, have been a public health priority focus over the past few years due to the opioid epidemic. DOH offers online dashboards and reports to partners and stakeholders for quick access to overdose death and hospital discharge data, at the statewide, regional, and county level. Filters include drug type, year(s) (at 1-, 3-, and 5-year groupings), quarterly data, and trend data. Data based on other filters are available upon request.

![Washington State Drug Overdose: Monthly Updates](https://www.doh.wa.gov/Portals/1/Documents/8300/wa_lhj_quarterly_report_18_1_2_pub.html)

An example of an Online Overdose Report. Available at: [https://www.doh.wa.gov/Portals/1/Documents/8300/wa_lhj_quarterly_report_18_1_2_pub.html](https://www.doh.wa.gov/Portals/1/Documents/8300/wa_lhj_quarterly_report_18_1_2_pub.html)
Nonfatal Injury and Violence Data

Data on injury and violence that do not result in fatalities are necessary to conduct comprehensive prevention work. Washington state provides publicly available hospital discharge (nonfatal) data online through the Washington Tracking Network (WTN). Data are available from 2000 to 2018 (as of the writing of this document) through WTN. WTN does not provide 2015 data, due to a change in hospital coding in late 2015.

DOH’s Rapid Health Information Network (RHINO) offers syndromic surveillance data submitted from emergency departments and accessible through the National Syndromic Surveillance Program (NSSP) ESSENCE platform. Email syndromic.surveillance@doh.wa.gov with any questions about the database, or injury.data@doh.wa.gov for any injury data requests.

Washington Emergency Medical Services Information System (WEMSIS) is Washington state’s repository for prehospital (EMS) data. Currently, regional opioid overdose reports are available on WEMSIS’ web site. For more information about WEMSIS, contact the WEMSIS administrator, wemsis@doh.wa.gov, or injury.data@doh.wa.gov for data requests.

DOH provides nonfatal injury and injury-related death data to public health professionals, including local health jurisdiction staff, through the Community Health Assessment Tool (CHAT).

National Violent Death Reporting System

The CDC’s National Violent Death Reporting System (NVDRS) collects, analyzes, and reports out critical details surrounding violent deaths that occur across the United States — dates, locations, characteristics of people involved, and the circumstances of the death. Washington state (WA-VDRS) joined NVDRS in 2014 and began collecting violent death data from nine counties in 2015. WA-VDRS expanded yearly from 2015 to 2018 and now collects data on all violent deaths reported statewide (1,673 in 2018).

NVDRS relies on information from sources including coroner/medical examiner reports, law enforcement reports, death certificates, and toxicology reports. NVDRS collects the following types of data:

- Injury characteristics, such as how the victim died
- Demographics
- Circumstances that preceded or were related to a death
- Mental health diagnoses
- Toxicology, which lists drugs or poisons in the decedent’s system
- More than 600 incident characteristics
- Narratives that summarize the incident based on law enforcement and coroner/medical examiner reports

<table>
<thead>
<tr>
<th>WA Violent Deaths</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suicide</td>
<td>1,140</td>
<td>1,143</td>
<td>1,302</td>
<td>1,268</td>
</tr>
<tr>
<td>Homicide</td>
<td>240</td>
<td>232</td>
<td>268</td>
<td>274</td>
</tr>
<tr>
<td>Unintentional Firearm</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Legal Intervention/War</td>
<td>15</td>
<td>19</td>
<td>32</td>
<td>27</td>
</tr>
<tr>
<td>Undetermined</td>
<td>104</td>
<td>97</td>
<td>94</td>
<td>94</td>
</tr>
<tr>
<td>Total Violent Deaths</td>
<td>1,501</td>
<td>1,493</td>
<td>1,702</td>
<td>1,673</td>
</tr>
</tbody>
</table>
Washington’s participation in NVDRS will lead to further understanding of the root cause of violent deaths at the state and national levels. This will help form the evidence base upon which to build effective and strategic violence prevention programs and policies.
OVERDOSE PREVENTION

Washington, along with the rest of the United States, is experiencing a complex and evolving opioid overdose epidemic. In 2019, 1,259 Washington state residents died from drug overdose. About 66 percent (828) of these deaths involved opioids.

Historically, overdose prevention work within IVP has focused on opioids. The focus is now expanding to overdoses of all types. This includes methamphetamine overdoses, which have continued to rise in Washington over the past decade. In 2019, 543 of the 1,259 overdose deaths involved psychostimulants with abuse potential (predominantly methamphetamine but includes others such as MDMA) either alone or in combination with another drug.\(^7\)

There is a strong need for an interdisciplinary, comprehensive, and data-driven public health response to the issue of substance misuse and overdose, and IVP’s work is just one piece of a much larger picture. Washington has developed a State Opioid Response Plan that involves many state agencies, local health jurisdictions, community partners, and other stakeholders. The CDC has prioritized the opioid epidemic and since 2016 IVP has managed a portfolio of grants and cooperative agreements focusing on this issue. The Washington state legislature has also passed laws addressing the epidemic in consecutive sessions.

Data

The graph below illustrates opioid overdose deaths in Washington state over time.

Source: DOH death certificates, Data as of: 22 Feb 2021
The chart below illustrates the increase of fentanyl overdose deaths in recent years. While data for 2020 have not been finalized, the preliminary number of reported fentanyl deaths has been higher in 2020 than in previous years.

![Quarterly overdose deaths by drug type](source: WA DOH death certificates.)

*2020 data preliminary: Date: 17 May 2021

**Fentanyl**: Drug overdose with “fentanyl or specific fentanyl analogs” mentioned in textual cause of death.

*2020 numbers are not finalized. 2017, 2018, 2019 numbers are finalized.

**Source**: DOH death certificates, Data as of: 22 Feb 2021

---

**Major Issues**

Among the contributing factors to overdose risk are lack of awareness and education among health care providers and the general public around safe prescribing, use, storage, and disposal of opioids.⁸⁻⁹ In 2017-18, Washington state developed and implemented new rules for prescribing opioids and monitoring opioid prescriptions, with the goal of curbing opioid misuse. The education and training of providers and medical and nursing students is ongoing.

Access to appropriate, evidence-based treatment can be challenging for people with substance use disorder in Washington state. Systems that provide care to people at highest risk of overdose are still being established, and people can fall through gaps created by logistical challenges, and insurance or billing difficulties. An insufficient health provider workforce and inconsistencies in adherence to prescribing rules, attitudes, and understanding of best practices lead to geographic inequities in the availability of treatment and support.

Stigma can deter people who use drugs from seeking treatment in their communities, or interacting with health care systems, leading to poor health outcomes.¹⁰ Health care providers may lack education, training, and appropriate licensure to treat people with substance use disorder. Individuals may lack critical information to assist them in making decisions about their care.

Fentanyl overdose deaths have been rising since 2017, which is when DOH began tracking fentanyl as a cause of death. In 2019, 321 (25.5 percent) of 1,259 overdose deaths in Washington state involved fentanyl, compared to 120 out of 1,163 (10.3 percent) in 2017. Preliminary 2020 numbers from DOH’s Center for Health Statistics indicate that fentanyl deaths are continuing to increase.

Polysubstance use is a growing problem in Washington state, as overdose deaths frequently involve multiple drugs. In 2019, over two-thirds of Washington overdose deaths involved more than one drug type. About 54
percent of heroin deaths involved methamphetamine; 26 percent of prescription opioid deaths involved a sedative; and 35 percent of methamphetamine deaths involved heroin.¹¹

**Risk and Protective Factors**

Risk and protective factors for overdose and substance misuse vary widely depending on the substance or population being considered. This table shows some of the most common risk and protective factors for overdose.

<table>
<thead>
<tr>
<th>Risk Factors</th>
<th>Protective Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social isolation</td>
<td>Strong community relationships</td>
</tr>
<tr>
<td>Substance availability</td>
<td>Improved opioid prescribing practices</td>
</tr>
<tr>
<td>Past or current substance misuse</td>
<td>Strong and positive family bonds</td>
</tr>
<tr>
<td>Age (younger ages at higher risk)</td>
<td>Adoption of conventional norms about drug use</td>
</tr>
<tr>
<td>Recent release from a correctional facility</td>
<td>Increase access to mental health services</td>
</tr>
<tr>
<td>Homelessness or under-housed</td>
<td>Alternatives to use of law enforcement for punishment</td>
</tr>
<tr>
<td>Inappropriate prescribing</td>
<td>Syringe exchange and wrap around services</td>
</tr>
<tr>
<td></td>
<td>Accessible medication-assisted treatment</td>
</tr>
</tbody>
</table>

**Strategies to Address Overdoses and Other Substance Use**

In 2019, DOH was awarded CDC Overdose Data to Action (OD2A) funding to continue progress made by IVP with previous CDC opioid-specific funding and expand the focus to all overdoses. IVP will continue to improve data surveillance systems to better understand nonfatal and fatal drug overdoses and use the data to support evidence-based prevention and response efforts. Some funded activities include:

**Support for Prevention Activities Across Local Health Jurisdictions (LHJs) and Tribal Health Authority** | Nearly 50 percent of OD2A funds are passed through DOH to Local Health Jurisdictions (LHJs) and Tribal Health Authorities. American Indian/Alaska Native populations in Washington state experience overdose deaths at more than three times the state rate (56 versus 14.7 per 100,000).¹² LHJs and Tribal Health Authorities are positioned to understand the unique needs of local communities and implement evidence-based strategies likely to garner the community support needed for success.

**Support for Syringe Services Programs (SSPs) Across the State** | SSPs are community-based public health programs that provide critical services in nonjudgmental environments. Services include sterile injecting supplies and safe disposal, and access to healthcare, treatment, and support. OD2A funds support linkages to care and additional services at SSPs in multiple counties across Washington state.

**Support for Prescribing Providers** | OD2A funds will support education and training for providers who prescribe opioids for chronic pain patients. IVP is also collaborating on or funding several initiatives focused on providing resources and training to providers who work with pregnant and parenting women who use drugs. This population faces increased stigma from friends, family, and health care providers when seeking treatment and support.

**Support for DOH Surveillance Programs** | OD2A funds will support improvement of syndromic surveillance, new and existing data linkage projects, and the Prescription Monitoring Program (PMP). (For more information, see the “Data and Surveillance” chapter of this guide.)
# For More Information

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DOH opioid webpage</td>
<td><a href="https://www.doh.wa.gov/CommunityandEnvironment/Opioids">https://www.doh.wa.gov/CommunityandEnvironment/Opioids</a></td>
</tr>
<tr>
<td>SUDORS infographic</td>
<td><a href="https://www.doh.wa.gov/Portals/1/Documents/Pubs/971-036-SUDORSposter.pdf">https://www.doh.wa.gov/Portals/1/Documents/Pubs/971-036-SUDORSposter.pdf</a></td>
</tr>
</tbody>
</table>
MOTOR VEHICLE SAFETY

The Target Zero Initiative, led by the Washington Traffic Safety Commission (WTSC), convenes a broad coalition of Washington state partners working together on traffic safety. Target Zero evaluates many different types of behaviors, crash types, and at-risk users in its mission to reduce the number of traffic fatalities and serious injuries to zero in Washington state. IVP participates in this partnership, focusing particularly on young drivers.

While young drivers ages 16–25 make up just 13.5 percent of the driving population, they were involved in 31 percent of all fatalities and 34 percent of all serious injuries from motor vehicle crashes in 2015–17. In 2019, motor vehicle crashes were the second-leading cause of unintentional injury death for people ages 16–25 years old in Washington state. (The leading cause is unintentional poisoning, which includes drug overdoses.) Reducing risky young driver behavior will improve motor vehicle safety for all road users, regardless of age.

Data

<table>
<thead>
<tr>
<th>Young Drivers</th>
<th>16–17</th>
<th>18–20</th>
<th>21–25</th>
<th>26–69</th>
<th>70+</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015-2017</td>
<td>5.5</td>
<td>7.5</td>
<td>6.7</td>
<td>3.8</td>
<td>4.4</td>
</tr>
</tbody>
</table>


Major Issues

As identified in Target Zero, there are two major issues when trying to reduce crash risk among young drivers: inexperience and immaturity, and missing the Graduated Driver License (GDL) window. Young drivers face an increased crash risk due to both their inexperience and immaturity. These drivers lack the skills and experience necessary to recognize and respond to risk appropriately. Additionally, their age-related immaturity and willingness to take risks, which is associated with adolescent brain development, are key factors in dangerous decision-making on the road. Further research on adolescent development suggests key areas of the brain — especially in the prefrontal cortex, the brain center for judgment, decision-making, and deferring immediate reward — are not fully developed until about age 25.

Furthermore, many teenage drivers bypass the Graduated Driver License (GDL) window for drivers ages 16–17 by applying for a license at ages 18 or 19. The GDL helps young drivers gain valuable driving experience under controlled conditions. It carries restrictions around nighttime driving, passengers, and phone use. Young drivers can lose their driving privileges for certain violations and, after a third violation, the license is suspended until age 18.
Additionally, there are best practices for GDLs in the 2019 Target Zero Plan that Washington state has not yet legislatively adopted:

- Nighttime driving restrictions between 10 p.m. and 5 a.m. until age 18
- No more than one teenage passenger until age 18
- Learners permit period that starts at age 16 (NHTSA) and intermediate license at 17
- Minimum holding period of intermediate license for all new drivers under 21 for 12 months

### Risk and Protective Factors

<table>
<thead>
<tr>
<th>Risk Factors</th>
<th>Protective Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inexperience</td>
<td>Supportive adult figure(s)</td>
</tr>
<tr>
<td>Impairment or substance use</td>
<td>Positive peer network</td>
</tr>
<tr>
<td>Distractions</td>
<td>Access to driver education courses</td>
</tr>
<tr>
<td>Income level (lower income level is higher risk)</td>
<td></td>
</tr>
</tbody>
</table>

### Strategies to Address Motor Vehicle Crashes

**Support Legislation to Strengthen the Graduated Driver License** | The Department of Licensing (DOL) is planning to put forward legislation to implement new best practices for the state’s GDL. Potential changes to the law include:

- Extending the nighttime driving restrictions to start at 9 p.m. or 10 p.m. instead of 1 a.m.
- Strengthening teen passenger restrictions
- Increasing the number of required practice hours from 50 to 100

IVP will provide education and build awareness surrounding this legislation.

**Support Efforts to Empower Parents** | Parental involvement is a protective factor for young drivers. In partnership with the Washington Traffic Safety Commission (WTSC), IVP has created a library of parent/young driver graphics that is available to all traffic safety partners. IVP will continue to support CDC’s "Parents Are the Key" curriculum in Washington state, including resources on safe teen riding and driving behaviors and teen/parent driving agreements.

**Promote Teen Driver Education** | IVP is working with the Washington Traffic Safety Commission (WTSC) and other state partners to spread teen driver education programs like Impact Teen Drivers and Alive at 25 to local high schools across the state. In addition, a multistate peer learning collaborative supported through the Children’s Safety Network develops strategies and shares evidence-based teen driving safety curricula across member states. These programs partner with local schools to supplement Department of Licensing curricula by engaging both parents and teens. The curriculum is free to students who will soon be driving, or just started driving, and covers topics such as distraction-free driving and driving free of substances or high emotions.

IVP also collaborates with teen substance abuse prevention coalitions to address driving under the influence and participates in Teen Driving Safety Week to build awareness.
## For More Information

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents are the Key to Safe Teen Drivers</td>
<td><a href="https://www.cdc.gov/parentsarethekey/index.html">https://www.cdc.gov/parentsarethekey/index.html</a></td>
</tr>
<tr>
<td>Department of Licensing teen license page</td>
<td><a href="https://www.dol.wa.gov/driverslicense/teens.html">https://www.dol.wa.gov/driverslicense/teens.html</a></td>
</tr>
<tr>
<td>Department of Licensing teen driver safety page</td>
<td><a href="https://www.dol.wa.gov/driverslicense/teensafety.html">https://www.dol.wa.gov/driverslicense/teensafety.html</a></td>
</tr>
<tr>
<td>Safe Kids Worldwide</td>
<td><a href="https://www.safekids.org/blog/teen-driver-safety">https://www.safekids.org/blog/teen-driver-safety</a></td>
</tr>
</tbody>
</table>
SAFE KIDS – CHILD INJURY PREVENTION

Unintentional injuries are a leading cause of death for children and youth ages 1–19. To reduce injuries and injury-related deaths for children in Washington state, IVP provides staff support to Safe Kids Washington. This network of 13 local community coalitions serves more than 80 percent of Washington’s residents ages 0–19 years old. Coalitions are led by local injury prevention coordinators living and working in the communities they serve. Safe Kids Washington is a member of Safe Kids worldwide, a global network for 400+ coalitions in more than 20 countries focused on preventing unintentional childhood injury.

Statewide efforts focus on:

- Child and teen passenger safety
- Recreation and sports safety
- Medication safety
- Pedestrian and bike safety
- Water safety
- Fire and burn safety
- Home safety
- Safe firearm storage
- Infant safe sleep

Each community coalition assesses local needs and prioritizes their focus on two or more high-risk areas.
Data

Although Washington state is below the national average for fatal injuries among children, there are disproportionate numbers of deaths for older children due to unintentional injury — more than twice that of younger children.

Source: WA-CHAT, CDC WONDER

Hospitalizations for serious injuries not resulting in death are also important to address. Serious injuries can have an ongoing and deep impact on families and communities due to long-term disabilities and extended cost of care or rehabilitation.

Source: WA-CHAT
Major Issues

Motor vehicle injuries continue to be a leading cause of death and serious injury for Washington state children, especially for teens. Thirty-three teens died from motor vehicle crashes in 2019. The data strongly point to a need to address teen riders and drivers. This shift in focus will require new resources and learning of best practices. (For more information, see the “Motor Vehicle Safety” chapter in this guide.)

Firearm and suicide deaths are also on the rise among youth in Washington state. The firearm death rate and suicide rate in youth 10–19 years old have nearly doubled in the last 10 years.1 Nearly half of suicides among teens are related to firearms. Although these are not traditionally topics that Safe Kids has addressed, the rising numbers in these injury areas require committed focus and stronger collaboration with suicide prevention programs.


Risk and Protective Factors

Washington state communities experience varied unintentional and intentional injuries. Safe Kids coalitions rely on local community funding to do their work; many operate in communities of high need, with minimal resources. Safe Kids coalitions focus on enhancing community connectedness in the geographic areas in which they work, as connectedness is a known protective factor that spans many youth injury areas.15 Adopting a cross-community, collaborative approach to identify additional shared risk and protective factors could deliver a wider and more sustainable impact on injury prevention.

Strategies to Address Safe Kids – Child Injury

Motor Vehicle/Road Safety | To improve child passenger safety, communities hold regular child safety seat check events, maintain certified Child Passenger Safety Technicians, and participate in Child Passenger Safety Week to build awareness via available media toolkits. Resources on the safe use of car seats, heatstroke awareness, and other child passenger safety topics are available. (For strategies specific to teen passenger safety, see the “Motor Vehicle Safety” chapter in this guide.)

Pedestrian Safety | To improve child pedestrian safety, communities partner with local schools to hold Walk to School Day Events, participate in Safe Routes to Schools, and engage with available resources on safe walking practices such as the School Zone Safety Toolkit. Developed by Safe Kids Worldwide, this resource focuses on fixing school zones that are unsafe for pedestrians and cyclists.

Recreation Safety | To improve recreation safety, communities provide helmet fittings for wheeled and snow sports, hold community bike rodeos, and partner with local schools to hold Bike to School Day events. Communities participate in the Drowning Prevention Network, establish and maintain life jacket loaner programs at lakes and rivers, and promote water safety and swimming lessons. Also available are resources and education for coaches, parents, and child athletes on proper hydration, prevention of overuse injuries, and concussion guidelines. (For more information on concussion and traumatic brain injury, see the “Traumatic Brain Injury” chapter of this guide.)

Safe Sleep | To improve infant sleep safety, communities encourage local birthing hospitals to become Safe Sleep Certified; provide cribs, bassinets, or playpens through partners such as Cribs for Kids; and provide community resources on the Safe to Sleep campaign from the National Institute for Child Health and Development.
Poison Prevention | To prevent incidents of child poisoning, communities provide education in partnership with the Washington Poison Center, provide Mr. Yuk boxes for classroom education, and collaborate with teen substance abuse coalitions to address unintentional poisoning from substance misuse. Communities collaborate with teen suicide prevention coalitions or mental health workgroups to address upstream factors related to teen poisoning.

Home Safety | To improve safety in the home, resources are available for communities on window falls prevention; fire, burn, and scald prevention; television and furniture tip-over prevention; and toy safety and recalls. Resources and education relating to firearm safety and safe storage in homes with children are made available through Safe Kids Worldwide, Safer Homes Coalition, Seattle Children’s Hospital, and local businesses and organizations.

IVP will continue working with Safe Kids coalitions across the state to prevent child injury and death.

For More Information

Safe Kids Worldwide | [https://www.safekids.org/](https://www.safekids.org/)
TRAUMATIC BRAIN INJURY PREVENTION

Traumatic brain injury (TBI) is caused by a bump, blow, jolt, or penetration to the head that disrupts the normal function of the brain. It can affect:

- **Thinking**: memory and reasoning
- **Sensation**: balance, sight
- **Language**: communication, understanding, expressing
- **Emotion**: depression, anxiety, personality changes, aggression, and other side effects

Data

Over 90 percent of nonfatal TBI hospitalizations were related to unintentional injury in 2018. Roughly half of TBI deaths were from unintentional injury in 2018.

Sources: Washington State Department of Health, Center for Health Statistics, Death Certificate Data, WA Hospital Discharge Data, Comprehensive Hospitalization Abstract Reporting System (CHARS).
Falls were the most common cause of TBI hospitalizations in 2018. Firearms were the most common cause of TBI death in 2018.

**TBI hospitalization and death by external cause**

WA, 2018

Source(s): Washington State Department of Health, Center for Health Statistics, Death Certificate Data, WA Hospital Discharge Data, Comprehensive Hospitalization Abstract Reporting System (CHARS).

**Major Issues**

Returning to work or school after a TBI may be a slow process. Even TBI cases that have been diagnosed as mild may have side effects that last for weeks or months. Every state has passed “return to play” laws addressing TBI in school athletics with the intention of educating parents and caregivers, and preventing secondary injury. However, many TBIs occur at home or in the community, and these injuries are not covered under these laws. The development and standardization of protocols that go beyond school athletics is needed.

TBI disproportionately impacts certain populations. Nationally, Native American and Alaska Natives have a higher incidence of TBI than any other group, and African Americans have the highest death rate from TBI. In Washington state, the highest numbers of TBI deaths are among persons ages 85 and older. Prevention strategies tailored to these distinct groups are necessary.

**Risk and Protective Factors**

TBIs may be caused by a variety of injuries and violence, such as child injuries, suicide attempts, older adult falls, intimate partner and child abuse, and motor vehicle crashes. People with TBIs are also at risk for harming themselves or others. IVP is addressing the relationships between these types of injuries in its work to reduce TBIs in Washington state.
Strategies to Address TBI

IVP has adopted several strategies to increase awareness and develop strategies to prevent TBI.

**Participation in the TBI Council** | The TBI Council for Washington state, of which IVP staff is an agency-appointed member, develops and updates a state strategic plan for submission to the Washington state legislature every two years. The current plan focuses on access to care, community living, reintegration with awareness, support services, and prevention across all stages of life.

**HEADS UP Campaign** | IVP supports the CDC’s HEADS UP campaign, which includes free tools for health care providers, school administrators, nurses, teachers, coaches, and parents to help recognize and respond to a TBI.

**Partnerships** | IVP works with a variety of partners to address TBI, including Safe Kids coalitions that focus on related injury topics and the Brain Injury Alliance of Washington, which focuses on providing training and resources for school athletic programs, teachers, and parents. IVP partners with the Harborview Injury Prevention Research Center, with which it has since 2016 jointly convened a TBI National Peer Learning Team comprised of researchers, physicians, and public health professionals from nearly every state. This team shares innovative practices in TBI prevention and care and develops effective practices for TBI prevention and response.

**For More Information**

<table>
<thead>
<tr>
<th>Source</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDC Traumatic Brain Injury and Concussion</td>
<td><a href="http://www.cdc.gov/traumaticbraininjury">www.cdc.gov/traumaticbraininjury</a></td>
</tr>
<tr>
<td>CDC HEADS UP Campaign for Children and Youth</td>
<td><a href="https://www.cdc.gov/headsup/index.html">https://www.cdc.gov/headsup/index.html</a></td>
</tr>
<tr>
<td>TBI resources</td>
<td><a href="https://www.dshs.wa.gov/altsa/traumatic-brain-injury/tbi-information">https://www.dshs.wa.gov/altsa/traumatic-brain-injury/tbi-information</a></td>
</tr>
</tbody>
</table>
FALLS PREVENTION

In Washington state, falls were the leading cause of fatal and nonfatal injuries for adults ages 65 and older from 2000 to 2019. In 2019, 76 percent of injury-related deaths in adults ages 85 and older were from falls. Since 2011, Washington state has had a higher rate of self-reported falls compared to the national rate.

While many factors increase the risk of falls for older adults, falls are not a normal part of the aging process — and most are preventable. Solutions for preventing falls are complex, requiring collaboration with older adults, their families, and many types of elder care and health care providers. Improving the health of Washingtonians includes helping older adults balance independence with safety and mobility.

Data


US: Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2018 on CDC WONDER Online Database, released in 2020. Data are from the Multiple Cause of Death Files, 1999-2018, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program.
Major Issues

Access to screenings for falls risk is a major issue, as most older adults are not receiving the CDC-recommended screenings from their primary care provider. Limited access to evidence-based falls prevention programs is also a major barrier, as these programs are not available in all communities.

The link between dementia and falls is being explored through research and public health interventions. This is a growing area of focus for falls prevention in Washington state.

Risk and Protective Factors

<table>
<thead>
<tr>
<th>Risk Factors</th>
<th>Protective Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Lower body weakness</td>
<td>▪ Family support</td>
</tr>
<tr>
<td>▪ Advanced age</td>
<td>▪ Access to health care</td>
</tr>
<tr>
<td>▪ Balance difficulties</td>
<td>▪ Opportunities to participate in evidence-based programs</td>
</tr>
<tr>
<td>▪ Cognitive changes</td>
<td>▪ Increased awareness of healthy behaviors</td>
</tr>
</tbody>
</table>
Strategies to Address Falls Prevention

**Strong and Effective Community Partnerships** | Build robust partnerships and connect organizations to improve communities’ ability to provide older adults with falls prevention programs.

**Public Awareness and Education** | Raise community awareness that falls are not a normal part of aging and can be prevented.

**Prevention Across the Continuum of Care** | Educate health care providers who work closely with older adults on evidence-based tools for falls risk screening and intervention.

**Expanded Reach and Access to Evidence-Based Programs and Community Screenings** | Expand availability of, and access to, evidence-based programs and community screenings to reduce falls. This will empower older adults to learn about and take responsibility for their fall risks.

**Effective Interventions for High-Risk and Underserved Older Adults** | Improve health equity with strategies and programs directed at older adults who are at high risk of falls and who have been excluded from previous falls prevention efforts.

**Improved Safety in Homes and Communities** | Connect resources and develop tools to address environmental hazards in homes and communities that increase the risk of falls for older adults.

---

For More Information


- [https://www.doh.wa.gov/YouandYourFamily/InjuryandViolencePrevention/OlderAdultFalls/FindingOurBalance](https://www.doh.wa.gov/YouandYourFamily/InjuryandViolencePrevention/OlderAdultFalls/FindingOurBalance)

My Mobility Planning Tool

- [https://www.cdc.gov/motorvehiclesafety/older_adult_drivers/mymobility/index.html](https://www.cdc.gov/motorvehiclesafety/older_adult_drivers/mymobility/index.html)

National Council on Aging Falls Free Initiative

SUICIDE PREVENTION

Suicide is a major and growing public health problem in Washington state and across the country. An average of three people die by suicide each day in Washington.¹

In 2019, 1,263 Washington residents died by suicide. Washington state survey data from 2018 show 3.7 percent of adults and 23 percent of tenth graders reported that they seriously considered suicide in the past year.²

Data

Washington state’s suicide rate consistently exceeds the national rate. The age-adjusted suicide rate in 2019 in Washington was 16.1 per 100,000 people, compared to the national rate of 14.5 per 100,000. From 2000 to 2018, the suicide rate among Washington residents increased on average 1.7 percent per year.

![Suicide rate by age group](chart)


Major Issues

According to the CDC, “Suicide is a serious public health problem that can have lasting harmful effects on individuals, families, and communities. While its causes are complex and determined by multiple factors, the goal of suicide prevention is to reduce factors that increase risk and increase factors that promote resilience.” Achieving this goal requires educating the public on how to recognize suicide risk and referrals, providing easy access to affordable care, reducing access to lethal means during a crisis, and creating supportive networks to help people after a suicide attempt or loss.

One obstacle in suicide prevention is the stigma attached to suicide. Many people have negative or uncomfortable attitudes toward suicide and those who have personal experience with suicide. Discomfort with suicide stems from cultural and religious traditions; fear of worsening the problem by discussing it; and the shame, guilt, and isolation felt by many who have experienced suicide loss or risk.
As suicide rates increase in Washington state, so does the impact it has on people and communities that have experienced a suicide attempt, particularly people who have lost someone to suicide — these people are at higher risk for suicide. Furthermore, first responders and medical professionals who are frequently exposed to suicides and suicide attempts might experience secondary trauma.

### Risk and Protective Factors

<table>
<thead>
<tr>
<th>Risk Factors</th>
<th>Protective Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previous attempt(s)</td>
<td>Skills in problem-solving, conflict resolution, and nonviolent handling of disputes</td>
</tr>
<tr>
<td>History of mental disorders, particularly clinical depression</td>
<td>Strong connections to family and community</td>
</tr>
<tr>
<td>History of alcohol and substance abuse</td>
<td>Effective clinical care for mental, physical, and substance-use disorders</td>
</tr>
<tr>
<td>Loss (relational, social, work, or financial)</td>
<td>Restricted access to highly lethal means of suicide</td>
</tr>
<tr>
<td>Illness and disability, including loss of physical or mental functioning</td>
<td>Appropriate media reporting compliant with best practices</td>
</tr>
<tr>
<td>Family history of suicide</td>
<td></td>
</tr>
<tr>
<td>Barriers to accessing mental health treatment</td>
<td></td>
</tr>
<tr>
<td>Easy access to lethal means support</td>
<td></td>
</tr>
</tbody>
</table>

For a more comprehensive list of factors, please review the [Washington State Suicide Prevention Plan](#).

### Strategies to Address Suicide Prevention

The Washington State Suicide Prevention Plan is the state’s first legislatively mandated plan to address suicide prevention across the lifespan. It follows the structure of the National Strategy for Suicide Prevention and includes Washington-specific goals and recommendations to establish a comprehensive suicide prevention system. It is implemented by the Action Alliance for Suicide Prevention, chaired by the Washington State Secretary of Health, and operates on the basic premise that everyone plays a role in suicide prevention. Strategies include:

- **Healthy and Empowered Individuals, Families, and Communities** | Creating cultural change, identifying and intervening in early indicators of suicide risk, and promoting connectedness can make a difference. In healthy and empowered communities, everyone understands they play a role in suicide prevention. Solutions require public involvement, shifts in how the culture thinks and talks about behavioral health, and policies and programs promoting a healthy and fair Washington.

- **Clinical and Community Preventive Services** | Comprehensive suicide prevention embeds education and awareness across communities and across systems. It trains those who can most help identify people at risk and keep them safe.
Treatment and Support Services | Clinical care and support services provide treatment for people experiencing behavioral health disorders and suicide risk. These systems improve the accessibility, appropriateness, and continuity of care. They also provide support that can be put in place after a suicide loss.

Suicide Surveillance, Research, and Evaluation | Washington’s agencies, health systems, suicide prevention programs, and researchers examine data and information about the number of lives lost to suicide, as well as the causes and effects of suicide loss and suicidal behavior.

IVP tracks suicide prevention activity and progress on State Suicide Prevention Plan goals in its annual Firearm Fatality and Suicide Prevention Report (link below). IVP is also implementing a legislatively mandated pilot program focused on improving behavioral health and suicide prevention in Washington state’s agricultural industry. Legislative reports outline that work (see links below).

For More Information

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DOH suicide prevention website</td>
<td><a href="https://www.doh.wa.gov/YouandYourFamily/InjuryandViolencePrevention/SuicidePrevention">https://www.doh.wa.gov/YouandYourFamily/InjuryandViolencePrevention/SuicidePrevention</a></td>
</tr>
<tr>
<td>CDC Veto Violence</td>
<td><a href="https://vetoviolence.cdc.gov/tools-trainings">https://vetoviolence.cdc.gov/tools-trainings</a></td>
</tr>
<tr>
<td>Suicide Prevention Resources for Journalists</td>
<td><a href="https://www.doh.wa.gov/YouandYourFamily/InjuryandViolencePrevention/SuicidePrevention/JournalismResources">https://www.doh.wa.gov/YouandYourFamily/InjuryandViolencePrevention/SuicidePrevention/JournalismResources</a></td>
</tr>
</tbody>
</table>
FIREARM VIOLENCE PREVENTION

Examination of all forms of firearm violence and its impact on communities and diverse populations, is growing at the national, state, and local level.

The CDC has set a strategic priority for 2020-2024 to increase understanding of the causes of firearm-related injuries and deaths, and effective prevention, through research. In 2020, it committed $7.8 million to fund 16 firearm violence research awards, including to the University of Washington.

In 2016, Gov. Jay Inslee released Executive Order 16-02 (EO 16-02), which addresses the need for a public health approach in reducing firearm fatalities and suicides.

Data

In 2019, firearms were the dominant method used in homicides and suicides in Washington and nationally.

Firearms are used most frequently in suicides by people of all races, except Asian/Pacific Islander-NH.

**Suicide by mean and race/ethnicity**

WA, 2015–2019


**Major Issues**

In Washington state, between 2015 and 2019, 75 percent of all firearm deaths were suicides (2,921 deaths). Nearly 50 percent of all deaths by suicide involved a firearm. Firearms are the most common method of suicide across all ages except for youth under 18 years old.

The lethality of firearms greatly increases the risk that someone will die during a suicide attempt. Proactively reducing access to lethal means, such as firearms, is critical because many people attempt suicide during a crisis. Seventy percent of suicide attempts are made within one hour of an individual’s decision to make the attempt. An estimated 90 percent of people who survive a suicide attempt ultimately go on to die under conditions that are not suicidal. If a person can survive an initial attempt at suicide, they are highly likely not to die by suicide.

Men are far more likely to die of suicide by firearm than women. From 2015 to 2019, 2,229 men in Washington state died by firearm suicide, compared with 392 women. Men ages 70 years and older had the highest rate of firearm suicide (32.6 deaths per 100,000). Research suggests that along with access to a firearm, cultural opinions about masculinity and suicide by firearm also contribute to this disparity. Many people who die by firearm suicide use their personal firearm, pointing to the importance of crisis intervention efforts to protect firearm owners.

Veterans — people who are currently serving or formerly served in the armed forces — are disproportionately represented among suicides: 20 percent of Washington residents who died by suicide were veterans, even though veterans comprise only seven percent of the state’s population. In 2019, about 70 percent of veterans who died by suicide used a firearm compared to about 46 percent of the civilian population. In at least 27 percent of firearm suicides by veterans, the individual owned the firearm. However, firearm ownership is unknown in many cases (WA-VDRS data 2015-2018).

Rural and small-town areas also demonstrate higher rates of firearm suicide in Washington, with a suicide rate of 12.9 per 100,000 people in 2018, compared to 7.8 per 100,000 in urban and suburban areas.
Risk and Protective Factors

See “Suicide Prevention” chapter.

Strategies to Address Firearm Violence

Because firearm suicides historically account for almost 75 percent of Washington’s firearms deaths, IVP’s firearm violence prevention strategies to date largely focus on suicide prevention, increasing statewide crisis services capacity and reducing access to lethal means to prevent suicide.

National Violent Death Reporting System (NVDRS) | EO 16-02 directed state agencies to gather data on firearm-related deaths and hospitalizations. IVP houses the National Violent Death Reporting System (see page 13), currently under statewide implementation. As of 2019, the reporting system is collecting violent death data from all counties to better understand the circumstances surrounding violent deaths that occur in the state including homicide, suicide, intimate partner violence, and other deaths.

Analytics are underway to support evidence-based firearm violence prevention measures. IVP tracks the progress of EO 16-02 and issues an annual report (see resources below).

Suicide Prevention Plan | Washington state’s Suicide Prevention Plan outlines several strategic goals. Among them are the following:

1) Individuals, families, and institutions understand that they have a role in improving community behavioral health and preventing suicide.

2) Screening for and limiting access to lethal means is conducted to reduce suicide risk for people in crisis.

A key step toward achieving these goals is educating health professionals to ask patients and clients about suicidal thinking and to encourage safe storage of firearms. Starting in 2014, the Washington State Legislature has passed successive laws requiring health professionals to take suicide prevention training, which includes a safe storage component. The state legislature has passed recent temporary firearm transfer laws and laws calling for firearm safety measures.

In 2018, the Bree Collaborative, established by the state legislature, convened experts and issued recommendations for the primary care field to address lethal means safety as part of its screening process of all patients over 13 years old. Recommendations are applicable to in- and out-patient care settings, behavioral health providers and clinics, and specialty care (e.g., oncology).

Safe storage of firearms is estimated to reduce the risk of suicide by 50 to 75 percent. Safe storage includes putting a firearm in locked storage, storing ammunition and firearms separately, and installing a trigger lock on a firearm to prevent others from using it. The Harborview Injury Prevention Research Center also recently created a map of 59 temporary safe storage sites in Washington.

For firearm suicide prevention, there is special focus on collaboration and partnership to educate firearm retailers and work toward improved firearm safety training. Entities come from all sectors and jurisdictions: state, local, tribes, schools, universities, veterans’ groups, community coalitions, firearm and sporting retailers, health care professionals, individuals, and industry. IVP coordinates with a wide swath of partners such as The Safer Homes Coalition, Seattle Children’s Hospital, the Lock-It-Up campaign, Harborview Injury Prevention and Research Center, and other groups dedicated to educating firearm owners on safe storage options and raising awareness of the perils of easy firearms access.
## For More Information

<table>
<thead>
<tr>
<th>Resource</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Order 16-02</td>
<td><a href="https://www.governor.wa.gov/sites/default/files/exe_order/eo_16-02.pdf">https://www.governor.wa.gov/sites/default/files/exe_order/eo_16-02.pdf</a></td>
</tr>
<tr>
<td>HIPRC Firearm Injury &amp; Policy Research Program</td>
<td><a href="https://hiprc.org/firearm-about/">https://hiprc.org/firearm-about/</a></td>
</tr>
</tbody>
</table>
SEXUAL VIOLENCE PREVENTION

Sexual violence (SV) is a serious, preventable public health problem that affects every community in Washington. Sexual violence includes rape, attempted rape, being made to penetrate someone else, sexual coercion, unwanted sexual contact, and noncontact unwanted sexual experiences, such as harassment and flashing.

Sexual violence is harmful to everyone including survivors, families, and communities. The effects can be long lasting and negatively affect a person’s quality of life physically, psychologically, and socially. Sexual violence may lead to ongoing health conditions such as chronic pain, high blood pressure, or risk behaviors such as smoking, which may cause further harm or slow recovery.

IVP seeks to prevent sexual violence before it occurs.

Data

Over a three-year period (fiscal years 2017-2019), 45,610 people obtained sexual assault services statewide to aid with the aftermath of sexual assault, according to the Office of Crime Victims Advocacy. These figures do not convey the whole story, as sexual violence in all its forms is significantly underreported. National data suggest that one in every five women (18.3 percent) will be raped in their lifetime.

The most recent Centers for Disease Control and Prevention data for Washington state show that both women and men in Washington report contact sexual violence at higher rates than the national average. Several factors may contribute to these numbers. Reporting tends to increase with increased awareness of sexual violence, and with increased community norms that support survivors. Reporting may also increase when community-based programs are known to deliver high quality, trauma-informed, accessible, and confidential survivor services.

According to FBI data, in 2018, Washington reported 45.3 cases of rape for every 100,000 people\textsuperscript{24} based on the 2013 revised definition for rape. In 2015, the Washington Crime Victim’s Compensation (CVC) program processed 3,692 claims for emergency sexual assault exams. These figures don’t convey the whole story, as sexual violence in all its forms is underreported.

Every two years, youth in Washington participate in the Healthy Youth Survey. According to results from the 2018 survey, 18.9 percent of 10th graders in Washington reported that they had been made to engage in unwanted kissing, sexual touch, or intercourse.
Major Issues

National, state, and county-level data for sexual violence are inconsistently collected and often infrequent. Most data that do exist tend to capture information on the victim, not the perpetrator, and rely heavily on law enforcement/crime rates. Access to timely and local data continues to be a challenge. In addressing the prevention of perpetration, data focused on perpetration may be valuable.

Historically, prevention efforts have focused on the individuals. To build a more comprehensive approach to SV prevention, and aim for population-level impacts, it is critical to expand primary prevention efforts and build capacity at the community level.

State and national data show that certain groups are more vulnerable to sexual violence:

- LGBTQ
- American Indian/Alaskan Natives
- People with Intellectual and Developmental Disabilities (IADD)
- Communities of color
- Rural communities

Risk and Protective Factors

**Risk Factors for Perpetrators of Sexual Violence**

**Individual risk factors**
- Alcohol and drug use
- Early sexual initiation
- Prior sexual victimization or perpetration

**Relationship factors**
- Emotionally unsupportive family environment
- Childhood history of physical, sexual, or emotional abuse

**Community factors**
- Poverty
- Lack of institutional support from police and judicial system

**Societal factors**
- Weak laws and policies related to sexual violence and gender equity

**Protective Factors for Perpetrators of Sexual Violence**

These factors can exist at individual, relational, community, and societal levels:

- Parental use of reasoning to resolve family conflict
- Emotional health and connectedness
- Academic achievement
- Empathy and concern for how one’s actions affect others

For a more comprehensive list of factors, please review Washington State’s Sexual Violence Prevention Plan.
Strategies to Address Sexual Violence

IVP prioritizes community-driven strategies to address the root cause of sexual violence. This approach emphasizes culturally and linguistically relevant methods and empowers communities to cooperatively prevent sexual assault before it occurs. Continuing to promote community-level strategies is a major goal for the program.

Washington state has historically focused on two approaches to address the root causes of sexual violence and to shift the culture of perpetration: changing social norms and building skills to engage in effective prevention efforts. Both approaches guide strategy implementation at the local level and align with CDC’s STOP SV: A Technical Package to Prevent Sexual Violence.

In 2017, the Rape Prevention Program developed a State Action Plan to link state and federal goals for sexual violence prevention. The following approaches were adopted to guide future work:

**Focus Area: Promoting Social Norms That Protect Against Violence**

- **Approach #1:** Increase gender equity and decrease toxic masculinity
- **Approach #2:** Advance media storytelling around sexual violence

**Focus Area: Creating Protective Environments**

- **Approach #1:** Promote equitable policies and practices that reduce SV and harassment in a workplace or organization (policies and practices could be applicable to both employees and clients of the organization)
- **Approach #2:** Develop and implement anti-oppression and anti-racism policies and practices that address the root causes of gender-based violence

For More Information

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DOH’s Sexual and Domestic Violence Prevention page</td>
<td><a href="https://www.doh.wa.gov/YouandYourFamily/InjuryandViolencePrevention/SexualandDomesticViolence">https://www.doh.wa.gov/YouandYourFamily/InjuryandViolencePrevention/SexualandDomesticViolence</a></td>
</tr>
<tr>
<td></td>
<td><a href="https://vetoviolence.cdc.gov/apps/main/home">https://vetoviolence.cdc.gov/apps/main/home</a></td>
</tr>
</tbody>
</table>
INJURY AND VIOLENCE PREVENTION GUIDE 2021

INTIMATE PARTNER VIOLENCE AND CHILD ABUSE PREVENTION

Intimate partner violence (IPV) is any type of physical, sexual, or psychological harm done by a current or former partner or spouse (both heterosexual and same-sex). It also includes stalking and loss of reproductive control, such as refusal to use a condom. IPV includes abusive behavior, also referred to as domestic violence.

According to the CDC, child maltreatment includes all types of abuse and neglect of a child under the age of 18 by a parent, caregiver, or another person in a custodial role (e.g., clergy, coach, teacher) that results in harm, potential for harm, or threat of harm to a child. Four common types of child maltreatment include: neglect, emotional abuse, physical abuse, and sexual abuse.

The Home Visiting Program

IVP is using a shared risk and protective factor approach to address the prevention of intimate partner violence and child maltreatment through home visiting programs. The Home Visiting (HV) program, begun in 2010, is a partnership among multiple state agencies and non-profits. The program matches trained professionals with eligible families before a child’s birth or in the first few years of the child’s life. Home visitors provide information and support services to families. The programs are intended to improve health and relationship outcomes for families and children. The program covers prenatal care, infant care, child development, and parenting skills.

By addressing the shared risk and protective factors of financial hardship, relationship issues and isolation, and bolstering protective factors such as social support and resource coordination, the Home Visiting program is able to leverage a wide range of outcomes such as:

- Stronger parent-child bond
- Healthier moms and babies
- Lower rates of child abuse and neglect
- Increased positive parenting practices
- Earlier development of language and literacy skills
- Improved economic self-sufficiency

Major Issues

A significant challenge in Washington state revolves around the disruptive nature and impact of mandatory reporting and the lack of alternative supports for non-abusive caregivers. One study conducted by the National LGBTQ DV Capacity Building Learning Center found that mandatory reporting can impact a domestic violence survivor’s willingness to seek help. The majority of survey participants said that mandatory reporting either worsened their situation or had no impact at all. Survey participants who were warned about a mandatory reporter’s obligation to report said they chose to hold back important details, minimized their experiences, and/or stopped reaching out for help. Feelings of isolation, a lack of trusting relationships, and the inability to have confidential conversations with caring professionals further limit social supports and connections — both of which are critical protective factors for domestic violence survivors.

While mandatory reporting can be a critical component to the protection of children in Washington state, it should not be the only recourse available, as it may disproportionately have an impact on vulnerable and marginalized populations. Non-offending caregivers need options that support their social and emotional well-being as well as their ability to parent and provide basic needs, including economic and housing support.

IVP has limited funds to address this issue and has partnered with the Washington State Coalition Against Domestic Violence (WSCADV) in its efforts while looking for additional funding and partnerships to elevate this critical work. IVP is consulting with a graduate studies program on a policy analysis regarding this issue in the hopes of providing new and relevant information to advance WSCADV’s efforts.
Risk and Protective Factors

**Risk Factors**
- Economic stress
- Poor parent-child relationships
- Family conflict
- Social isolation and lack of social support

**Protective Factors**
- Coordination of resources
- Social supports and connectedness

Strategies to Address Intimate Partner Violence and Child Abuse

IVP addresses Intimate Partner Violence and Child Maltreatment with three primary strategies:

**Collaborative Partnerships** | The lead domestic violence prevention organization, Washington State Coalition Against Domestic Violence (WSCADV), works proactively to initiate relationship building between home visiting programs and domestic violence and sexual assault advocacy programs. This work strengthens community-specific partnerships and decreases barriers to accessing services.

**Training Opportunities** | WSCADV has trained over 1,000 home visitors on assessment, referral, and safety planning with their families. Training programs include Domestic Violence Assessment and Response and Safety Planning with Families. WSCADV has carried out this work in partnership with the Washington State Department of Children, Youth, & Families, THRIVE Washington, and IVP. IVP provides funding to support their efforts, helps connect them to other resources and organizations, and elevates their work to the CDC and other national organizations.

**Resource Development and Dissemination** | Resources for distribution include The Family Calendar, Home Visitor Family Calendar/Calendario Familiar de los Visitadores del Hogar, and a Friends and Family Guide available in English and Spanish. The Family Calendar is a resource developed in Spanish that supports the bilingual bicultural home visitor in talking about relationships while diminishing isolation. It also offers options for bilingual, bicultural, Spanish-speaking survivors of abuse participating in home visiting programs. This Family Calendar can be left in the home to support parents’ efforts to talk about healthy relationships with their children — or anyone else in their lives.

Home visitors in Washington state use the Friends and Family Guide in their conversations with families and have requested a Spanish translation of the guide to use with Spanish-speaking families. CDC provided funds for translation of the guide into relevant Spanish guided by bilingual, bicultural home visitors and advocates.

For More Information

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Visiting for Families</td>
<td><a href="https://www.dcyf.wa.gov/services/child-development-">https://www.dcyf.wa.gov/services/child-development-</a></td>
</tr>
<tr>
<td></td>
<td>supports/home-visiting</td>
</tr>
</tbody>
</table>
ENDNOTES

1 Washington State Department of Health, Death Certificate Data

2 Pacific Institute for Research and Evaluation (PIRE), Calverton, MD


8 Centers for Disease Control and Prevention, “Prescription Opioids.” August 29, 2017, available online at: https://www.cdc.gov/drugoverdose/opioids/prescribed.html


16 Centers for Disease Control, “Recovery From Concussion.” February 12, 2018, available online at: https://www.cdc.gov/headsup/basics/concussion_recovery.html


